TENDER NUMBER: TNPA/2023/02/0009/22520/RFP

DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN,

SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL

ENGINEERING WORKS AT THE PORT OF NGOURA FOR A PERIOD OF FIVE (5) MONTHS



### **Transnet National Ports Authority**

an Operating Division TRANSNET SOC LTD

[Registration Number 1990/000900/30]

### REQUEST FOR PROPOSAL (RFP) TNPA/2023/02/0009/22520/RFP

ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

RFP NUMBER : TNPA/2023/02/0009/22520/RFP

ISSUE DATE : 13 March 2023 COMPULSORY BRIEFING (PORT OF NGQURA) : 22 March 2023 CLOSING DATE : 11 April 2023

CLOSING TIME : 16:00

TENDER VALIDITY PERIOD : 12 Weeks after closing date

DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE EMENDI BUILDING INCLUDING DESIGN

SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL

ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS



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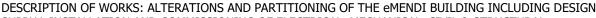
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SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL

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XHOE0006-1-300-A-LA-0001-01 - First Floor Layout

XHOE0006-1-400-A-LA-0001-01 - Second Floor layout

XHOE0006-1-500-A-LA-0001-01 - Third Floor Layout

XHOE0006-1-600-A-LA-0001-01 - Fourth Floor Layout

XHOE0006-1-700-A-LA-0001-01 - Recreation Building Alterations

XHOE0006-1-900-A-LA-0001-01 - Office Furniture (open plan) Cabinet Design

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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	ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING		
	INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF		
	ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING		
	WORKS AT THE PORT OF NGQURA		
	This Tender may be downloaded directly from the National		
TENDER DOWNLOADING	Treasury eTender Publication Portal at <u>www.etenders.gov.za</u>		
	and the Transnet website at		
	https://transnetetenders.azurewebsites.net (please use		
	Google Chrome to access Transnet link).		

	A Compulsory Tender Clarification Meeting will be conducted at eLwandle		
	Boardroom, Ground Floor, Admin Building (eMendi), N2 Neptune Road		
	Off Klub Road, Port of Ngqura, Port Elizabeth on 22 March 2023 at		
COMPULSORY	10:00am.		
TENDER	Tenders who wish to attend are to send their email address to:		
CLARIFICATION	Mpho.Mohapi@transnet.net / Azola.Gxamza@transnet.net.		
MEETING AND SITE	ripho. Honapi@cranshec.net / Azola. Oxamza@cranshec.net.		
VISIT	The Compulsory Tender Clarification Meeting will start punctually, and information will not be repeated for the benefit of Tenderers arriving late.		

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	A Site visit/walk will take place, tenderers are to note:			
	Tenderers are required to wear high visibility vests.			
	Tenderers and their employees, visitors, clients, and customers			
	entering Transnet Offices, Depots, Workshops and Stores will have			
	to undergo breathalyser testing.			
	All forms of firearms are prohibited on Transnet properties and premises.			
	The relevant persons attending the meeting must ensure that their			
	identity documents, passports or drivers licences are on their			
	possession for inspection at the access control gates.			
	Certificate of Attendance in the form set out in the <b>Returnable</b>			
	Schedule T2.2-01 hereto must be completed and submitted with your			
	Tender as proof of attendance is required for a <b>compulsory</b> site meeting and/or tender briefing.			
	Tenderers are required to bring the Returnable Schedule T2.2-			
	01 to the Compulsory Tender Clarification Meeting to be signed			
	by the <i>Employer's</i> Representative.			
	Tenderers failing to attend the compulsory tender briefing will			
	be disqualified.			
	16:00 on 11 April 2023			
	Tenderers must ensure that tenders are uploaded timeously onto the			
CLOSING DATE	system. If a tender is late, it will not be accepted for			
	consideration.			

**CPM 2020 Rev05** Part T1: Tendering procedures Page 2 of 5 T 1.1: Tender Notice and Invitation TRANSNET NATIONAL PORTS AUTHORITY
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DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN,
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#### 2. TENDER SUBMISSION

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

- a) The Transnet e-Tender Submission Portal can be accessed as follows:
  - Log on to the Transnet eTenders management platform website (https://transnetetenders.azurewebsites.net);
  - Click on "ADVERTISED TENDERS" to view advertised tenders;
  - Click on "SIGN IN/REGISTER for bidder to register their information (must fill in all mandatory information);
  - Click on "SIGN IN/REGISTER" to sign in if already registered;
  - Toggle (click to switch) the "Log an Intent" button to submit a bid;
  - Submit bid documents by uploading them into the system against each tender selected.
  - Tenderers are required to ensure that electronic bid submissions are done at least a day before the closing date to prevent issues which they may encounter due to their internet speed, bandwidth or the size of the number of uploads they are submitting. Transnet will not be held liable for any challenges experienced by bidders as a result of the technical challenges. Please do not wait for the last hour to submit. A Tenderer can upload 30mb per upload and multiple uploads are permitted.
- b) The tender offers to this tender will be opened as soon as possible after the closing date and time. Transnet shall not, at the opening of tenders, disclose to any other company any confidential details pertaining to the Tender Offers / information received, i.e. pricing, delivery, etc. The names and locations of the Tenderers will be divulged to other Tenderers upon request.
- c) Submissions must not contain documents relating to any Tender other than that shown on the submission.

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#### 3. CONFIDENTIALITY

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

### 4. DISCLAIMERS

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

- 4.1. Award the business to the highest scoring Tenderer/s unless objective criteria justify the award to another tenderer.
- 4.2. Not necessarily accept the lowest priced tender or an alternative Tender;
- 4.3. Go to the open market if the quoted rates (for award of work) are deemed unreasonable;
- 4.4. Should the Tenderers be awarded business on strength of information furnished by the Tenderer, which after conclusion of the contract is proved to have been incorrect, Transnet reserves the right to terminate the contract;
- 4.5. Request audited financial statements or other documentation for the purposes of a due diligence exercise;
- 4.6. Not accept any changes or purported changes by the Tenderer to the tender rates after the closing date;
- 4.7. Verify any information supplied by a Tenderer by submitting a tender, the Tenderer/s hereby irrevocably grant the necessary consent to the Transnet to do so;
- 4.8. Conduct the evaluation process in parallel. The evaluation of Tenderers at any given stage must therefore not be interpreted to mean that Tenderers have necessarily passed any previous stage(s);

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4.9. Unless otherwise expressly stated, each tender lodged in response to the invitation to tender shall be deemed to be an offer by the Tenderer. The Employer has the right in its sole and unfettered discretion not to accept any offer.

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- 4.10. Not be held liable if tenderers do not provide the correct contact details during the clarification session and do not receive the latest information regarding this RFP with the possible consequence of being disadvantaged or disqualified as a result thereof.
- 4.11. Transnet reserves the right to exclude any Tenderers from the tender process who has been convicted of a serious breach of law during the preceding 5 [five] years including but not limited to breaches of the Competition Act 89 of 1998, as amended. Tenderers are required to indicate in tender returnable [clause 12 on T2.2-19], [Breach of Law] whether or not they have been found guilty of a serious breach of law during the past 5 [five] years.
- 4.12. Transnet reserves the right to perform a risk analysis on the preferred tenderer to ascertain if any of the following might present an unacceptable commercial risk to the employer:
  - unduly high or unduly low tendered rates or amounts in the tender offer;
  - contract data of contract provided by the tenderer; or
  - the contents of the tender returnables which are to be included in the contract.
- **5.** Transnet will not reimburse any Tenderer for any preparatory costs or other work performed in connection with this Tender, whether or not the Tenderer is awarded a contract.

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

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

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### **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 Emp	ployer 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) C1.3 Form of Securities
	Part C2: Pricing data	C2.1 Pricing instructions



C2.2 Activity Schedule

Part C3: Scope of work C3.1 Works Information

Part C4: Site information C4.1 Site information

C.1.4 The Employer's agent is: Procurement Officer

Name: Mpho Mohapi/Azola Gxamza

Address: N2 Neptune Road

TNPA Admin Building

Port of Ngqura

Tel No. 011 351 9094

E – mail Mpho.Mohapi@transnet.net/

Azola.Gxamza@transnet.net

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

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

Certificate of attendance at Compulsory Tender Clarification Meeting

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

### 2. Stage Two as per CIDB: Eligibility Criteria Schedule - CIDB Registration

- 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 **6GB** 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 **5GB** of class of construction work; and
  - 3. the combined Contractor grading designation calculated in accordance with

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the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **6GB** 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.

### 3. Stage Three - Functionality:

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

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

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

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

> Tenderers are also required to bring their RFP document to the briefing session and have their returnable document T2.2-01 certificate of attendance signed off by the Employer's authorised representative.

- C.2.12No alternative tender offers will be considered.
- C.2.13.3 Each tender offer shall be in the **English Language.**
- C.2.13.5 The Employer's details and identification details that are to be shown on each tender C2.15.1 offer are as follows:

Identification details: The tender documents must be uploaded with:

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•	Name of Tenderer:
•	(insert company name) Contact person and details:
	(insert details)

- The Tender Number: TNPA/2023/02/0009/22520/RFP
- The Tender Description: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

Documents must be marked for the attention of:

Employer's Agent: Mpho Mohapi

- C.2.13.9 Telephonic, telegraphic, facsimile or e-mailed tender offers will not be accepted.
- C.2.15 The closing time for submission of tender offers is:

Time: 16:00 on the 11 April 2023

Location: The Transnet e-Tender Submission Portal:

(https://transnetetenders.azurewebsites.net):

#### **NO LATE TENDERS WILL BE ACCEPTED**

- C.2.16 The tender offer validity period is **12 weeks** after the closing date. Tenderers are to note that they may be requested to extend the validity period of their tender, on the same terms and conditions, if Transnet's internal evaluation and governance approval processes has not been finalised within the validity period.
- C.2.23 The tenderer is required to submit with his tender:
  - A valid Tax Clearance Certificate issued by the South African Revenue Services.
     <u>Tenderers also to provide Transnet with a TCS PIN to verify Tenderers compliance status</u>.
  - A valid B-BBEE Certificate from a Verification Agency accredited by the South African Accreditation System [SANAS], or a sworn affidavit confirming annual turnover and level of black ownership in case of all EMEs and QSEs with 51% black ownership or more together with the tender;
  - A valid CIDB certificate in the correct designated grading;

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- 4. Proof of registration on the Central Supplier Database;
- 5. Letter of Good Standing with the Workmen's compensation fund by the tendering entity or separate Letters of Good Standing from all members of a newly constituted JV.

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

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

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

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

### **Functionality Criteria**

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

### (Please see CIDB Compiler guidance note T1.2 – Tender Data).

Functionality criteria	Sub-criteria	Sub- criteria points	Maximum number of points
T2.2-03 Previous Experience	List of Office (new/ refurbishment) projects undertaken in the Past 5	2	15
	<ol> <li>Office Alteration and Interior /Architecture and Interior Finishes Including soundproof partitioning, Electrical, Mechanical works Projects</li> <li>Civil and Structural Projects</li> <li>Design and Coordination of Mechanical, Electrical and Plumbing (MEP) installations with space layout.</li> <li>Building Management System (BMS) and Instrumentation</li> <li>Previous experience in fit-out of recording/ broadcast studios.</li> </ol> Experience Variety and Variability of		
	Partitioning, Mechanical, Electrical and Plumbing (MEP), Building		

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	refurbishment and Interior finishes types of Projects as detailed in the Scope of Service:		
	Tenders to submit detail portfolio of projects demonstrating competency in the key area of speciality as mentioned in the scope of service for:	7	
	<ul> <li>Design</li> <li>Site Supervision</li> <li>Building Refurbishment</li> <li>Material and Equipment Testing</li> <li>Hand-over and Close-out</li> </ul>		
	This will be assessed as a number of services counted as per the key area/s mentioned.		
	References from Clients (or Clients' Representative/s) of Previously Completed Similar Projects.		
	Written References to be submitted from clients (or Clients' Representative/s) of previously completed projects.	6	
	The portfolio of completed work comprise of a formal written appraisal of the tenderer's performance on the project in a client's letter head (with contact details) confirming the implementation, sites where previous similar work/projects were implemented.	·	
T2.2-04	Submit the following documents as a minimum with your tender		
Organogram and CV's for Management & Key Persons	document.  Organogram:	2	
REY FEISUIIS	<ul> <li>(1) An organisation chart showing onsite and off-site management including:</li> <li>The key people you have identified in the Contract Data Part two and,</li> <li>Identify the required legal appointments.</li> </ul>		

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<ul> <li>(2) Details of the location (and functions) of offices from which the works will be managed.</li> <li>(3) Details of the experience of the staff who will be working on the works with respect to: <ul> <li>Working with the NEC3 Engineering and Construction Contract Option chosen for this contract. If staff experience of these matters is limited, an indication of relevant training that they have attended would be helpful.</li> </ul> </li> <li>Key personnel should include at least, amongst others:</li> </ul>		30
Project Manager should have a qualification in the built environment with extensive 7 to 8 years' experience in similar projects and New Engineering Contract (NEC3) knowledge.  Capability and capacity of the Key Personnel to support the execution of the works based on their detailed CV's on the previous similar project experience. All personnel to be in employ of the bidder, proof submitted in the form of payslip or appointment letter or employment contract. A letter of intent for personnel outside the employ of the bidder to be included with CV.	10	

Part 1: Tendering Procedures T1.2: Tender Data



Construction Manager	5
Bidder submit valid qualification NQF 6 qualification from a recognised Higher learning institute with at least 5 year's experience in similar projects.	
Capability and capacity of the Key Personnel to support the execution of the works based on their detailed CV's on the previous similar project experience. All personnel to be in employ of the bidder, proof submitted in the form of payslip or appointment letter or employment contract. A letter of intent for personnel outside the employ of the bidder to be included with CV.	
Civil /Structural Engineer (Professional Engineer (Pr Eng) or Professional Engineering Technologist (Pr Eng Tech)	4
Pr Eng Civil/Pr Eng Tech registered with Engineering Council of South Africa (ECSA) with a minimum of 5 years' experience in relevant similar projects.	
Capability and capacity of the Key proposed personnel to support the design, execution and commissioning of the works based on their detailed CVs on the previous similar projects experience. Should the tenderer not have this resource in the company, the tenderer is required to provide a letter of intent from the professional personnel outside the employ of the tenderer confirming that, the engineer will be part of the project as per the scope of works, this letter of	

Part 1: Tendering Procedures



Electrical Engineer (Professional Engineer (Pr Eng) or Professional Engineering Technologist (Pr Eng Tech)	5	
Pr Eng Electrical /Pr Eng Tech registered with ECSA with a minimum of 5 years' experience in relevant similar projects.		
Capability and capacity of the Key proposed Personnel to support the design, execution and commissioning of the works based on their detailed CVs on the previous similar projects experience. Should the tenderer not have this resource in the company, the tenderer is required to provide a letter of intent from the professional personnel outside the employ of the tenderer confirming that, the engineer will be part of the project as per the scope of works, this letter of intent to be included with the proposed personnel CV.		
Mechanical Engineer (Professional Engineer (Pr Eng) or Professional Engineering Technologist (Pr Eng	5	
<b>Tech)</b> Pr Eng Mechanical/Pr Eng Tech registered with ECSA with a minimum of 5 years' experience in relevant similar projects.		
Capability and capacity of the Key proposed Personnel to support the design, execution and commissioning of the works based on their detailed CVs on the previous similar projects experience. Should the tenderer not have this resource in the company, the tenderer is required to provide a letter of intent from		
the professional personnel outside the employ of the tenderer confirming that, the engineer will be part of the project as per the scope of works, this letter of		

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	intent to be included with the proposed		
	personnel CV.		
	Installation Electrician	4	
	Registered Installation Electrician with		
	Wireman's Licence and with 5 years'		
	experience		
	Capability and capacity of the Key		
	Personnel to support the execution of the		
	works based on their detailed CV's on the		
	previous similar project experience. All		
	personnel to be in employ of the bidder,		
	proof submitted in the form of payslip or		
	appointment letter or employment		
	contract. A letter of intent for personnel		
	outside the employ of the bidder to be		
	included with CV.	<u> </u>	
T2.2-05 Method	Tenderers are to submit a project spec		
Statement	Statement highlighting the categories	s below:	
	A detailed technical method statement is		
	required covering the construction		
	method and sequence of all aspects of the works to enable the Employer to assess		
	the impact of the Contractor's methods	5	20
	with regard to constructability,	3	20
	practicality, quality, health, safety, risk		
	and the environment (including extension		
	of the recreational facility building).		
	A detailed technical method statem	ent should	
	include:		
	Demolition and Protection of existing	4	
	building components including protection		
	of curtain walls, floors, etc works		
	Partitioning Installations	2	
	Manufacturing and Installation of	2	
	aluminium Shopfronts Installations		
	Electrical, Mechanical, Civil & Structural		
	design, construction/ installation, and	7	
	commissioning procedure.		
T2.2-06	The following information is requ		
Programme	programme submitted for evaluation:	1	
	A Level 3 Primavera P6 or MS Project (pdf	2	10
	copy is acceptable) detailed Programme,		

Part 1: Tendering Procedures



	TOF NGQURA FOR A FERIOD OF FIVE (5) INC		
	compatible with the Bills of Quantities or		
	price schedule.		
	Listing of all construction activities		
	(including not limited to subcontracted	2	
	works; procurement: indicate ordering of		
	long lead items, SHERQ submission, Time		
	allowance for Employer's Review and		
	approval activities, Time risk allowance		
	(TRA), Engineering activities,		
	Construction and Project Close Out		
	activities).		
	All activities should be linked with no		
	open-end activities, Critical Path Method	1	
	to be used.		
	The programme should use one unit of	1	
	measure for duration (days or weeks).		
	The columns that should reflected per	1	
	activity are; Start date, Finish date,		
	Duration, Float, Predecessors, Successors		
	and Calendar.		
	The calendar on the programme should		
	reflect South African holidays e.g.	_	
	weekends and December and/or Builders	1	
	break as non-working periods.		
	The Tenderer to clearly indicate the key	_	
	milestones for all the activities e.g. Project	1	
	Start date, Site Access date, Design		
	approval date, Material delivery date,		
	Sectional handover (if applicable).	4	
	Schedule narrative which explains the schedule development.	1	
T2.2-07 Quality	-	plete and	
Management	comprehensive Quality Plan that de	-	
Management	the following:	inonstraces	
	_		
	Project Quality Plan for the contract	_	
	SHALL cover project scope and be aligned	1	5
	to QAL-STD-0001 General Quality		
	Requirements for Contractors and		
	Suppliers.		
	Quality Manual that is aligned to ISO		
	9001:2015 QMS requirements.	1	
	Project Specific Quality Data Book Index		
		1	
	Quality Officer with ISO 9001:2015		
	(Quality Understanding and	1	

Part 1: Tendering Procedures T1.2: Tender Data



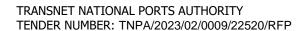
	Implementation Certificate) with a minimum of 3 years' experience in similar projects.		
	Quality Control Plan MUST cover all Engineering disciplines and clearly identify all inspection, test, verification requirements to meet contractual obligations, specification and drawings as required by the project scope.	1	
T2.2-08	Submit the following documents with	your	
Environmental	tender:		
	The tenderer must provide their environmental management policy, signed by Top Management, which as a minimum:	1	5
	<ul> <li>Is appropriate given the purpose and context of the tenderer's business;</li> <li>Includes a commitment to fulfil the tenderer's environmental compliance (legal) obligations;</li> <li>Includes a commitment to the protection of the environment, including prevention of pollution;</li> <li>Provides framework for setting environmental objectives; and</li> <li>Includes a commitment to continual improvement of their EMS;</li> </ul>		
	The tenderer must submit a Project Environmental Management Plan (EMP). The EMP must comply with the requirements of section 7 of the CEMP where applicable and must demonstrate how the tenderer will ensure that the requirements of the CEMP are implemented.	1	
	The tenderer must include organisational charts and the CV of the Safety Environmental Officer (to be a shared resource between environmental and safety) that is on Site on a daily basis. The CV must show that the Environmental Officer has sufficient experience and/or	1	

Part 1: Tendering Procedures T1.2: Tender Data



	qualifications in environmental management.		
	The tenderer must demonstrate the required level of expertise and experience for the overall management of the construction environmental management process. A minimum of three examples of construction projects within environmentally sensitive areas must be provided with a brief synapsis of the environmental management measures implemented and the success of these	1	
	measures.  The tenderer is to sign the declaration of understanding (refer to T2.2–38) acknowledging understanding thereof and the budget provision for the implementation of environmental management requirements.	1	
T2.2-09 Health	Submit the following documents	with your	
and Safety	tender:	-	
	Policy (State points allocated)	1	10
	<ul> <li>Commitment to Safety, prevention of pollution,</li> <li>Continual improvement,</li> <li>Compliance to legal requirements, appropriate to the nature of contractor's activities,</li> <li>Hold management accountable for development of the safety systems,</li> <li>Include objectives and targets.</li> </ul>		
	Roles & Responsibilities	2	
	<ul> <li>S16.2 Chief Executive Officer (CEO)</li> <li>8.1 Construction Manager – South African Council for Project and</li> </ul>		

Part 1: Tendering Procedures





 ···		
<ul> <li>8.5 SACPCMP Registered Construction Health, Safety and Environmental Officer,</li> <li>Health and Safety Manager – registered with SACPCMP</li> <li>8.7 Construction Supervisor,</li> <li>9.1 Risk Assessor,</li> <li>GSR 3(4) First Aider,</li> <li>17.1 SHE Rep as per the Occupational Health and Safety Act 85 of 1993 and</li> <li>COVID-19 Compliance Officer</li> <li>Proof of registration with SACPCMP and CV for Construction Manager, HS Manager and Safety Health Environmental (SHE) Officer</li> <li>Training Matrix</li> </ul>	1	
List of job categories for project and competencies required per category and develop a training matrix for all employees who will be working on the project. This matrix must include Management, key persons/legal appointees and highlight training planned dates.	•	
Overview of the project specific baseline risk assessment  Indicate major activities of the project.	1	
Safety Questionnaire Complete and return with tender documentation the Contractor Health and Safety Questionnaire included to this Evaluation Schedule as a returnable, attach all required supporting documents and complete your company three-year synopsis of SHE incidents, description, type and action taken to prevent reoccurrence.	4	

Part 1: Tendering Procedures

TRANSNET

DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

	Cost Breakdown Sheet. Evidence that the Principal Contractor have made adequate provisions for the cost of Health & Safety "Activity Schedule": CR 3(5) (b)(iii) read with CR 5(1)(g)	1	
Maximum possible score for Functionality			100

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

- T2.2-03 Previous Experience
- T2.2-04 Project Organogram, Management & CV's
- T2.2-05 Method Statement
- T2.2-06 Programme
- T2.2-07 Quality Management
- T2.2-08 Environment
- T2.2-09 Health and Safety

Each evaluation criteria will be assessed in terms of scores of 0, 20, 40, 60, 80 or 100 (linear scale, more suitable for NEC3, ECC (construction related procurement))

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 <u>not</u> 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 4

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

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#### Should the B-BBEE rating not be provided, tenderers with no claimed. 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.3.13Tender offers will only be accepted if:

- 1. The tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector;
- 2. the tenderer does not appear on Transnet's list for restricted tenderers and National Treasury's list of Tender Defaulters;
- 3. the tenderer has fully and properly completed the Compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process and persons in the employ of the state.
- 4. Transnet reserves the right to award the tender to the tenderer who scores the highest number of points overall, unless there are **objective criteria** which will justify the award of the tender to another tenderer. Objective criteria include but are not limited to the outcome of a due diligence exercise to be conducted. The due diligence exercise may take the following factors into account inter alia;

### the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement,
- b) 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,

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### TRANSNET NATIONAL PORTS AUTHORITY TENDER NUMBER: TNPA/2023/02/0009/22520/RFP



DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

` '

- 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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Part 1: Tendering Procedures T1.2: Tender Data



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

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

- T2.2-01 **Stage One: Eligibility Criteria Schedule -** Certificate of attendance at Compulsory Tender Clarification Meeting
- T2.2-02 **Stage Two as per CIDB: Eligibility Criteria Schedule -** CIDB Registration

### 2.1.2 Stage Three as per CIDB: these schedules will be utilised for evaluation purposes:

- T2.2-03 **Evaluation Schedule:** Previous experience
- T2.2-04 **Evaluation Schedule:** Management & CV's
- T2.2-05 **Evaluation Schedule:** Method Statement
- T2.2-06 **Evaluation Schedule:** Programme
- T2.2-07 **Evaluation Schedule:** Quality Management
- T2.2-08 **Evaluation Schedule:** Environment
- T2.2-09a **Evaluation Schedule:** Health and Safety
- T2.2-09b **Questionnaire Schedule:** Health and Safety
- T2.2-09c **Health and Safety:** Cost Breakdown

### 2.1.3 Returnable Schedules:

### **General:**

- T2.2-10 Authority to submit tender
- T2.2-11 Record of addenda to tender documents
- T2.2-12 Letter of Good Standing
- T2.2-13 Risk Elements
- T2.2-14 Availability of equipment and other resources
- T2.2-15 Schedule of proposed Subcontractors

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

- T2.2-16 Compulsory Enterprise Questionnaire
- T2.2-17 Non-Disclosure Agreement
- T2.2-18 RFP Declaration Form
- T2.2-19 RFP Breach of Law
- T2.2-20 Certificate of Acquaintance with Tender Document
- T2.2-21 Service Provider Integrity Pact
- T2.2-22 Supplier Code of Conduct

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

- T2.2-23 Insurance provided by the Contractor
- T2.2-24 Forecast Rate of Invoicing
- T2.2-35 Three (3) years audited financial statements for the past three (3) financial years.
- T2.2-26 Agreement in terms of Protection of Personal Information Act, 4 of 2013 ("POPIA")
- 2.2 C1.1 Offer portion of Form of Offer & Acceptance
- 2.3 C1.2 Contract Data
- 2.4 C1.3 Forms of Securities
- 2.5 C2.1 Pricing Instructions
- 2.6 C2.2 Price Schedule



### **T2.2-01: Eligibility Criteria Schedule:**

### **Certificate of Attendance at Tender Clarification Meeting**

This is to certify	that		
			(Company Name)
Represented by:			(Name and Surname)
Was represented	d at the compulsory tender clarificat	ion meeting	
Held at:			
On (date)		Starting time:	
Name		Signature	
Name Capacity		Signature	
Attendance of	the above company at the mee	ting was confirmed:	
Name		Signature	
	For and on Behalf of the <i>Employers Agent.</i>	Date	



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

### Note to tenderers:

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

CRS Number	Status	Grading	Expiry Date

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

### 2. Joint Venture (JV)

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

- 1. every member of the joint venture is registered with the CIDB;
- 2. the lead partner has a contractor grading designation of not lower than one level below the required grading designation in the class of construction works under consideration and possesses the required recognition status (**5GB**); and
- 3. the combined Contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a Contractor grading designation determined in accordance with the sum tendered for a **6GB** or higher class of construction work or a value determined in accordance with Regulation 25(1B) or 25(7A) of the Construction Industry Development Regulations
- 4. the Contractor shall provide the employer with a certified copy of its signed joint venture agreement;
- 5. and in the event that the joint venture is an 'Incorporated Joint Venture' the Memorandum of Incorporation to be provided within 4 (four) weeks of the Contract Date.



### **T2.2-03 Previous experience**

### Note to tenderers:

Tenderers to demonstrate their overall experience in the delivery of similar works. The tenderer must demonstrate their relevant experience with regards

The table below indicate the method of scoring that will be followed to evaluate the previous experience submitted by the Tenderer:

	List of Office (new/ refurbishment) projects undertaken in the Past 5 years, with contract values	Experience Variety and Variability of Partitioning, Mechanical, Electrical and Plumbing (MEP), Building refurbishment and Interior finishes types of Projects as detailed in the Scope of Service:	Representative/s) of Previously Completed
Criteria	2	7	6
	Bidder must show value of previously	Tenders to submit detail portfolio of projects	Written References to be submitted from clients (or
	completed similar projects undertaken in	demonstrating competency in the Key area of	Clients' Representative/s) of previously completed
	the Past 5 Years.	speciality as mentioned in the scope of service	projects.
	All tenderers to submit detail portfolio of	for:	
	projects detailing the value of project.	Design	The portfolio of completed work comprise of a
		Site Supervision	formal written appraisal of the tenderer's

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Part T2: Returnable Documents T2.2: Returnable Schedules



	Bidder must show value of previously completed similar projects undertaken in the Past 5 Years for the following:  1. Office Alteration and Interior /Architecture and Interior Finishes Including soundproof partitioning, Electrical, Mechanical works Projects  2. Civil and Structural Projects  3. Design and Coordination of Mechanical, Electrical and Plumbing (MEP) installations with space layout.  4. Building Management System (BMS) and Instrumentation  5. Previous experience in fit-out of recording/ broadcast studios.	<ul> <li>Building Refurbishment</li> <li>Material and Equipment Testing</li> <li>Hand-over and Close-out</li> <li>This will be assessed as a number of services counted as per the key area/s mentioned.</li> <li>1. Office Alteration and Interior /Architecture and Interior Finishes Including soundproof partitioning, Electrical, Mechanical works Projects</li> <li>2. Civil and Structural Projects</li> <li>3. Design and Coordination of MEP installations with space layout</li> <li>4. Building Management System and Instrumentation</li> <li>5. Previous experience in fit-out of recording/broadcast studios.</li> </ul>	performance on the project in a client's letter head (with contact details) confirming the implementation, sites where previous similar work/projects were implemented.  The Employer reserve the right to verify the submitted references and or letters and also visit the sites if deemed necessary.
Score 0	No response	No response	No response
Score 20	One (1) project cover 3 or more service	Covers 1 service	1 reference letter and/or contracts and/or letters of appointment (with good reviews) submitted
Score 40	Two (2) projects cover 3 or more service	Covers 2 services	2 reference letters and/or contracts and/or letters of appointment (with good reviews) submitted

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Score 60	Three (3) projects cover 3 or more service	Covers 3 services	3 reference letters and/or contracts and/or letters of	
			appointment (with good reviews) submitted	
Score 80	Four (4) projects cover 3 or more service	Covers 4 services	4 reference letters and/or contracts and/or letters of appointment (with good reviews) submitted	
Score 100	Five (5) projects cover 3 or more service	Covers All 5 or more services	5 or more reference letters and/or contracts and/or letters of appointment (with good reviews) submitted	

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		<u>-</u>
Index of documentation attached to this	s schedule:	
The undersigned, who warrants that he / she is personal knowledge and are to the best of my	is duly authorised to do so on behalf of the enterprise, confirms to belief both true and correct.	nat the contents of this schedule are within my
Signed	Date	
Name	Position	

Tenderer



# T2.2-04: Evaluation Schedule: Organogram and CV's for Management & Key Persons

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

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

- 1. Organizational structure to include a clear indication of roles and responsibilities and specific function of each team member.
- 2. The experience of assigned key persons in relation to the scope of work will be evaluated from two different points of view, namely:
  - a. Relevant experience.
  - The education, training, and skills. (Proof of education and training must be attached. Copies of all qualifications must be certified by a Commissioner of Oaths).
  - c. Key personnel should include at least, amongst others but not limited to:
    - Project Manager
    - Construction Manager
    - Civil /Structural Engineer (Pr Eng or Pr Eng Tech)
    - Electrical Engineer (Pr Eng or Pr Eng Tech)
    - Mechanical Engineer (Pr Eng or Pr Eng Tech)
    - Installation Electrician

No.	Key Persons	Name and Surname	CV attached (Yes/No)	Registered (Yes/No)
1.	Project Manager (Architectural Technologist)			
2.	Construction Manager			
3.	Civil /Structural Engineer (PR Eng or PR Eng Tech)			
4.	Electrical Engineer (Pr. Eng or Pr. Eng Tech)			
5.	Mechanical Engineer (Pr. Eng or Pr. Eng Tech)			
6.	Installation Electrician			

Note: CV's and profiles should show experience, background and track record in similar types of projects



The table below will be used as guidelines for scoring / evaluating the management and CV's of key persons submitted by the Tenderer:

i ne table i	table below will be used as guidelines for scoring / evaluating the management and CV's of key persons submitted by the Tenderer:							
	Organogram	Project Manager	Construction	Civil /Structural	Electrical	Mechanical	Installation	
		(Full-time on-site	Manager	Engineer (PR	Engineer (Pr. Eng	Engineer (Pr.	Electrician	
		resource for the duration of the project)	(Full-time on-site resource for the duration of the project)	Eng or PR Eng Tech)  (Responsible for the design and commissioning of Civil & Structural works – not required to be full time on site – refer to works clause 1.3.4)	or Pr. Eng Tech)  (Responsible for the design and commissioning of Electrical works – not required to be full time on site – refer to works information clause 1.3.6)	Eng or Pr. Eng Tech)  (Responsible for the design and commissioning of Mechanical works — not required to be full time on site — refer to works information clause 1.3.5.2)	(Full-time on-site resource for the duration of the project)	
35	2	10	5	4	5	5	4	
Criteria	An organisation chart showing on-site and offsite management including:  The key people you have identified in	Capability and capacity of the Key Personnel to support the execution of the works based on their detailed CV's on the previous similar project experience.  All personnel to be in	Capability and capacity of the Key Personnel to support the execution of the works based on their detailed CV's on the previous similar project	Capability and capacity of the Key Personnel to support the execution of the works based on their detailed CV's on the previous similar project experience.  All personnel to be in	Capability and capacity of the Key Personnel to support the execution of the works based on their detailed CV's on the previous similar project experience. All personnel to be in employ of the bidder,	Capability and capacity of the Key Personnel to support the execution of the works based on their detailed CV's on the previous similar project experience.  All personnel to be in	Capability and capacity of the Key Personnel to support the execution of the works based on their detailed CV's on the previous similar project experience.  All personnel to be in	

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	the Combined	employ of the	experience. All	employ of the bidder,	proof submitted in the	employ of the bidder,	employ of the bidder,
	the Contract		•	. ,	•	, ,	, ,
	Data Part	bidder, proof	personnel to be in	proof submitted in	form of payslip or	proof submitted in	proof submitted in
	two and,	submitted in the	employ of the	the form of payslip or	appointment letter or	the form of payslip or	the form of payslip or
•	racinally the	form of payslip or	bidder, proof	appointment letter or	employment contract.	appointment letter or	appointment letter or
	required legal	appointment letter	submitted in the	employment	A letter of intent for	employment	employment
	appointments.  (1) Details of the	or employment	form of payslip or	contract. A letter of	personnel outside the	contract. A letter of	contract. A letter of
	location (and	contract. A letter of	appointment letter	intent for personnel	employ of the bidder	intent for personnel	intent for personnel
	functions) of	intent for personnel	or employment	outside the employ	to be included with CV.	outside the employ of	outside the employ
	offices from	outside the employ	contract. A letter of	of the bidder to be		the bidder to be	of the bidder to be
	which the	of the bidder to be	intent for personnel	included with CV.	Electrical Engineer PR	included with CV.	included with CV.
	works will be	included with CV.	outside the employ		Eng or PR Tech ECSA		
	managed. (2) Details of the		of the bidder to be	Civil/Structural	registration with	Mechanical Engineer	Registered
		During Manager	included with CV.	•		3	_
	experience of	Project Manager		Engineer PR Eng or	experience in similar	PR Eng or PR Tech	Installation
	the staff who	should have a		PR Tech ECSA	projects	ECSA registration	Electrician with
	will be	qualification in the	Bidder submit valid	registration with		with experience in	Wireman's Licence
	working on	built environment	qualification NQF 6	experience in similar		similar projects	and with 5 years'
	the works	with extensive 7 to 8	qualification from a	projects			experience
	with respect	years' experience in	recognised Higher				
	to:	similar projects and	learning institute				
	Working with the	New Engineering	with at least 5 years'				
	NEC3	Contract (NEC3)	experience in similar				
	Engineering and	knowledge.	projects				
	3 3						
	Construction						



	Contract Option						
	chosen for this						
	contract. If staff						
	experience of						
	these matters is						
	limited, an						
	indication of						
	relevant training						
	that they have						
	attended would						
	be helpful.						
Score 0	No response	No response	No response	No Pr.Eng Civil	No Pr.Eng Electrical	No Pr.Eng	No wireman licence /
				/Pr.Tech Tech / no	/Pr.Eng Tech / no	Mechanical/Pr.Eng	no response
				response	response	Tech / no response	
Score	An organisation	Project Manager	No NQF 6 certfiicate	Pr.Eng Civi /Pr.Eng	Pr.Eng Electrical	Pr.Eng	Registered
20	chart submitted not	with less than 5	in Built Environment	Tech with 1 to 2	/Pr.Eng Tech with 1 to	Mechanical/Pr.Eng	Electrician with less
	showing the required	years' experience in	from a recognized	years' experience in	2 years' experience in	Tech with 1 to 2	than 1 to 2 years'
	information such as	relevant similar	Higher Learning	relevant similar	relevant similar	years' experience in	experience in
	on/ off site	projects	Institute with 1 to 2	projects	projects	relevant similar	relevant similar
	personnel, legal		years' experience as			projects	projects
	appointments,		a Construction				



	experience of key		Manager on similar				
	personnel.		projects				
Score	An organisation	Project Manager	NQF 6 certfiicate in	Pr.Eng Civil/Pr.Eng	Pr.Eng Electrical	Pr.Eng	Registered
40	chart showing on-	with 5 to 6 years'	Built Environment	Tech with 3 to 4	/Pr.Eng Tech with 3 to	Mechanical/Pr.Eng	Electrician with 4 to 4
	site and off-site	experience in	from a recognized	years' experience in	4 years' experience in	Tech with 3 to 4	years' experience in
	management	relevant similar	Higher Learning	relevant similar	relevant similar	years' experience in	relevant similar
	including:	projects	Institute with 3-4	projects	projects	relevant similar	projects
	• The key		years' experience as			projects	
	people you have		a Construction				
	identified in the		Manager on similar				
	Contract Data Part		projects				
	two.						
Score	An organisation	Project Manager	NQF 6 certificate in	Pr.Eng Civil/Pr.Eng	Pr.Eng Eectrical	Pr.Eng	Registered
60	chart showing on-	with 7 to 8 years'	Built Environment	Tech with with 5	/Pr.Eng Tech with 5	Mechanical/Pr.Eng	Electrician with 5
	site and off-site	experience in	from a recognized	years' experience in	years' experience in	Tech with 5 years'	years' experience in
	management	relevant similar	Higher Learning	relevant similar	relevant similar	experience in	relevant similar
	including:	projects	Institute with 5	projects	projects	relevant similar	projects
	The key		years' experience as			projects	
	people you have		a Construction				
	identified in the		Manager on similar				
	Contract Data Part		projects				
	two and,						



	T		Т	Т	T	T	
	Identify the						
	required legal						
	appointments.						
Score	An organisation	Project Manager	NQF 6 qualification	Pr.Eng Civil/Pr.Eng	Pr.Eng Electrical	Pr.Eng	Registered
80	chart showing on-	with 9 to 10 years'	in Built Environment	Tech with 6 to 7	/Pr.Eng Tech with 6 to	Mechanical/Pr.Eng	Electrician with 6 to 7
	site and off-site	experience in	from a recognized	years' experience in	7 years' experience in	Tech with 6 to 7	years' experience in
	management	relevant similar	Higher Learning	relevant similar	relevant similar	years' experience in	relevant similar
	including:	projects	Institute with 6 to 7	projects	projects	relevant similar	projects
	• The key		years' experience as			projects	
	people you have		a Construction				
	identified in the		Manager on similar				
	Contract Data Part		projects				
	two and,						
	Identify the						
	required legal						
	appointments.						
	(2) Details of						
	the location (and						
	functions) of offices						
	from which the						
	works will be						
	managed.						



Score	An organisation	Project Manager	NQF 7 certificate in	Pr.Eng Civil/Pr.Eng	Pr.Eng Electrical	Pr.Eng	Registered
Score	An organisation	_	_	_			
100	chart showing on-	with more than 10	Built Environment	Tech with greater	/Pr.Eng Tech with	Mechanical/Pr.Eng	Electrician with
	site and off-site	years' experience in	from a recognized	than 8 years'	greater than 8 years'	Tech with greater	greater than 8 years'
	management	relevant similar	Higher Learning	experience in	experience in relevant	than 8 years'	experience in
	including:	projects	Institute with over 8	relevant similar	similar projects	experience in	relevant similar
	• The key		years as a	projects		relevant similar	projects
	people you have		Construction			projects	
	identified in the		Manager on similar				
	Contract Data Part		projects				
	two and,						
	Identify the						
	required legal						
	appointments.						
	(2) Details of						
	the location (and						
	functions) of offices						
	from which the						
	works will be						
	managed.						
	(3) Details of						
	the experience of the						
	staff who will be						
	working on the						



DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

works with respect			
to:			
Working			
with the NEC3			
Engineering and			
Construction			
Contract Option			
chosen for this			
contract. If staff			
experience of these			
matters is limited, an			
indication of relevant			
training that they			
have attended would			
be helpful.			

Note: CV's and profiles should show experience, background and track record in similar types of projects



Attached submissions to this schedule:					
The undersigned, who warrants that he / she is duly authorised to do so on behal personal knowledge and are to the best of my belief both true and correct.	f of the enterprise, confirms that the contents of this schedule are within my				
Signed	Date				
Name	Position				
Tenderer					

DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL

ENGINEERING WORKS AT THE PORT OF NGQURA

#### T2.2-05: Method Statement

#### Note to tenderers:

<u>Method statement</u> - In addition to general methodology for the project, the tenderer must provide specific information for the following:

A detailed method statement is required covering the construction method and sequence of all
aspects of the works to enable the employer to assess the impact of the Contractor's methods
with regard to constructability, practicality, quality, health, safety, risk and the environment.

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

- A detailed technical method statement is required covering the construction method and sequence
  of all aspects of the works to enable the Employer to assess the impact of the Contractor's methods
  with regard to constructability, practicality, quality, health, safety, risk and the environment
  (including extension of the recreational facility building).
- 2. Demolition and Protection of existing building components including protection of curtain walls, floors, etc works
- 3. Partitioning Installations
- 4. Manufacturing and Installation of aluminium Shopfronts Installations
- 5. Electrical, Mechanical, Civil & Structural design, construction/ installation, and commissioning procedure.

The table below indicate the method of scoring that will be followed to evaluate the method statement submitted by the Tenderer:

Score 0	No response (or None of the items covered)		
Score 20	A detailed technical method statement is required covering the construction method and sequence of all aspects of the works to enable the Employer to assess the impact of the Contractor's methods with regard to constructability, practicality, quality, health, safety, risk and the environment (including extension of the recreational facility building).  Demolition and Protection of existing building components including protection of curtain walls, floors, etc works  Partitioning Installations  Manufacturing and Installation of aluminium Shopfronts Installations  Electrical, Mechanical, Civil & Structural design, construction/ installation, and commissioning procedure.		
Score 40	A technical method statement is submitted covering the construction method and sequence of all aspects of the works is generic ad does not cover Constructability, Practicality, Quality, health, safety, risk and the environment.  Demolition and Protection of existing building components including protection of curtain walls, floors, etc works		

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Score 60	A detailed technical method statement is required covering the construction method and sequence of all aspects of the works to enable the Employer to assess the impact of the Contractor's methods with regard to constructability, practicality, quality, health, safety, risk and the environment (including extension of the recreational facility building).  Demolition and Protection of existing building components including protection of curtain walls, floors, etc works  Partitioning Installations  Manufacturing and Installation of aluminium Shopfronts Installations  Electrical, Mechanical, Civil & Structural design, construction/ installation, and commissioning procedure.
Score 80	A detailed technical method statement submitted covered all aspects of construction an included in the works information and sequence of all aspects of the works to enable the Employer to assess the impact of the Contractor's methods with regard to constructability, practicality, quality, health, safety, risk and the environment (including extension of the recreational facility building).  Demolition and Protection of existing building components including protection of curtain walls, floors, etc works  Partitioning Installations  Manufacturing and Installation of aluminium Shopfronts Installations  Electrical, Mechanical, Civil & Structural design, construction/ installation, and commissioning procedure.
Score 100	A detailed technical method statement submitted exceed the technical requirements covered in the scope works and sequence of all aspects of the works to enable the Employer to assess the impact of the Contractor's methods with regard to constructability, practicality, quality, health, safety, risk and the environment (including extension of the recreational facility building).  Demolition and Protection of existing building components including protection of curtain walls, floors, etc works  Partitioning Installations  Manufacturing and Installation of aluminium Shopfronts Installations  Electrical, Mechanical, Civil & Structural design, construction/ installation, and commissioning procedure.

DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL

ENGINEERING WORKS AT THE PORT OF NGQURA

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

Signed	Date	
Name	Position	
Tenderer		

DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL

ENGINEERING WORKS AT THE PORT OF NGOURA

#### T2.2-06: Evaluation Schedule: Programme

Work Plan or Schedule or Programme:

#### The Tenderer details the programme for evaluation and attaches it to this schedule.

The tender must provide a Programme which provides the detail that would indicate the order and timing of activities to carry out the services in terms of the *Employer's* requirements and within the stipulated timeframes. The Tenderer shall produce a level 3 detailed schedule according to the Employer's objectives as per requirements listed in the **NEC3 ECC clause 31** 

The tenderer shall provide the proposed programme, at a minimum **Level 3** detailed showing but not limited to the following:

- 1. A Level 3 Primavera P6 or MS Project (pdf copy is acceptable) detailed Programme, compatible with the Bills of Quantities or price schedule.
- 2. Listing of all construction activities (including not limited to subcontracted works; procurement: indicate ordering of long lead items, SHERQ submission, Time allowance for *Employer's* Review and approval activities, Time risk allowance (TRA), Engineering activities, Construction and Project Close Out activities).
- 3. All activities should be linked with no open-end activities, Critical Path Method to be used.
- 4. The programme should reflect one unit of measure for duration (days or weeks).
- 5. The columns that should reflected per activity are; Start date, Finish date, Duration, Float, Predecessors, Successors and Calendar.
- 6. The calendar on the programme should reflect South African holidays e.g. weekends and December and/or Builders break as non-working periods.
- 7. The Tenderer to clearly indicate the key milestones for all the activities e.g. Project Start date, Site Access date, Design approval date, Material delivery date, Sectional handover (if applicable).
- 8. Schedule narrative which explains the schedule development.

The table below indicate the method of scoring that will be followed to evaluate the programme submitted by the Tenderer:

Score 0	Tenderer has not submitted the required information. Submitted information cannot be rated. E.g. excel or word document.
Score 20	Tenderer has submitted insufficient information. The schedule is vague and the plan is weak in important areas and key dates

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Tenderer shows limited suitability and capacity to meet the project requirements; programme does not show order and timing. Programme duration not realistic.
Contract period not as per contract data.  Tenderer has demonstrated reasonable knowledge of the development of:  • Ability to execute the works in terms of the Employer's requirements, indicating the order and timing of the construction activities that will take place in order to provide the works.  • Schedule showing durations of activities, Major Milestone, Start Date, Planned Completion Date, and Completion Date  • All activities are logically tied using critical path method (CPM).  • Primavera P6 or MS Project programme.  • Estimated Project Duration: Five (5) months
<ul> <li>Tenderer has demonstrated good knowledge in scheduling:         <ul> <li>Ability to execute the works in terms of the Employer's requirements, indicating the order and timing of the construction activities that will take place in order to provide the works.</li> <li>Schedule showing durations of activities, Major Milestone, Start Date, Completion Date &amp; Planned Completion Date</li> <li>Logical sequencing and interrelationship of activities, taking cognisance of planned construction execution, as defined in Works Information and Corresponding to Construction Methodology.</li> <li>Requirements listed in the NEC3 ECC clause 31.</li> <li>Primavera P6 or MS Project programme.</li> </ul> </li> <li>Estimated Project Duration: Five (4) months</li> </ul>
<ul> <li>Tenderers has demonstrated exceptional knowledge in scheduling:</li> <li>Ability to execute the works in terms of the Employer's requirements, indicating the order and timing of the construction activities that will take place in order to provide the works.</li> <li>Schedule showing durations of activities, Major Milestone, Start Date, Completion Date &amp; Planned Completion Date</li> <li>All activities to be logically tied using critical path method (CPM).</li> <li>Level 3 detailed schedule that is Cost and Resources loaded.</li> <li>Logical sequencing and interrelationship of activities, taking cognisance of planned construction execution, as defined in Works Information and Corresponding to Construction Methodology.</li> <li>Requirements listed in the NEC3 ECC clause 31.</li> <li>Primavera P6 or MS Project programme.</li> <li>Schedule narrative which explains the schedule development.</li> <li>Estimated Project Duration: Five (3) months or less.</li> </ul>

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

Signed	Date	
Name	Position	
Tenderer		

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#### T2.2-07: Quality Management

Due consideration must be given to the deliverables required to execute and complete the contract as per the Quality Management Standard QAL-STD-0001 - General Quality Requirements for Contractors and Suppliers and ISO 9001:2015 QMS requirements and should include but not be limited to:

- 1. Project Quality Plan for the contract SHALL cover project scope and be aligned to QAL-STD-0001 General Quality Requirements for Contractors and Suppliers.
- 2. Quality Manual that is aligned to ISO 9001:2015 QMS requirements.
- 3. Project Specific Quality Data Book Index
- 4. Quality Officer with ISO 9001:2015 (Quality Understanding and Implementation Certificate) with a minimum of 3 years' experience in similar projects.
- 5. Quality Control Plan MUST cover all Engineering disciplines and clearly identify all inspection, test, verification requirements to meet contractual obligations, specification and drawings as required by the project scope.

Score 0	Bidder has not submitted the required information/ cannot be rated
Score 20	One aspect of the quality management plan have been covered
Score 40	Two aspects of the quality management plan have been covered
Score 60	Three aspects of the quality management plan have been covered
Score 80	Four aspects of the quality management plan have been covered
Score 100	All five aspects of the quality management plan have been covered

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

Signed	Date	
Name	Position	
Tenderer		

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#### T2.2-08: Evaluation Schedule: Environmental Management

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

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

Where applicable, the following may also apply:

- Environmental Approvals (e.g. Environmental Authorisation, Licences and Permits etc.)
- Environmental Management Programme (EMPr) as approved by the Competent Authority (in instances where this applies it will supersede the Minimum Standards for Construction Environmental Management)
- Any other operational/maintenance environmental plans or specifications
- 1. The tenderer must provide their environmental management 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;
- 2. The tenderer must submit a Project Environmental Management Plan (EMP). The EMP must comply with the requirements of section 7 of the CEMP where applicable and must demonstrate how the tenderer will ensure that the requirements of the CEMP are implemented.
- 3. The tenderer must include organisational charts and the CV of the Safety Environmental Officer (to be a shared resource between environmental and safety) that is on Site on a daily basis. The CV must show that the Environmental Officer has sufficient experience and/or qualifications in environmental management.
- 4. The tenderer must demonstrate the required level of expertise and experience for the overall management of the construction environmental management process. A minimum of three examples

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of construction projects within environmentally sensitive areas must be provided with a brief synapsis of the environmental management measures implemented and the success of these measures.

5. The tenderer is to sign the declaration of understanding (refer to T2.2–38) acknowledging understanding thereof and the budget provision for the implementation of environmental management requirements.

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

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

Score 0	Bidder has not submitted the required information
Score 20	One (1) to Two (2) aspect/s of the environmental management criteria have been covered
Score 40	Three (2) aspects of the environmental management criteria have been covered
Score 60	Four (3) aspects of the environmental management criteria have been covered
Score 80	Five (4) aspects of the environmental management criteria have been covered
Score 100	All Six (5) aspects of the environmental management criteria have been covered

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

Signed	Date	
Name	Position	on
Tenderer		

TRANSNET

TRANSNET NATIONAL PORTS AUTHORITY
TENDER NUMBER: TNPA/2023/02/0009/22520/RFP

DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL

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#### **DECLARATION OF UNDERSTANDING**

PROJECT NAME:	DOCUMENT NO:	
PROJECT NO:	DATE:	
CONTRACTOR:	CONTRACT NO:	
T		
I,		
(Name)	(Designation)	
(Representing)		
Plan (ENV-STD-001) and associate	rstood the contents of the Construction ed documents for the above-mentioned my responsibilities in terms of enfone aforementioned Contract.	l Project and Contract.
Signed	Signature	Date
Place		
Witness 1:	Signature	Date
Witness 2:		

APPOINTMENT OF CONTRACTOR ENVIRONMENTAL OFFICER & DECLARATION OF UNDERSTANDING



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL

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		ENVIRONME UNDERSTAN	NTAL OFFICER AND DING	REFERENCE				
We,(Contractor), hereby confirm that								
	has been appointed as Environmental Officer for the duration of Contract							
	, the so	cope of which e	ntails					
				(Desc	iption of	scope of works)		
I,			(Appointed Enviror	nmental Officer)	declare	that I have read and		
understand the contents of:								
<ul> <li>The Transnet Group Capital (SES), documentation issue</li> </ul>						onmental Specification		
I, (Appointed Environmenta						g and implementing the		
requirements of the Constr	ruction Environ	mental Manage	ment Plan, Standard Env	vironmental Spe	cification	(SES) and any Project		
Environmental Specifications	s (PES) that ma	y be relevant or	required for this project.					
Environmental Officer CV attached	Y	N	Environmental O Job Description a		Y	N		
<b>Signed</b> (Contractors Environmental Officer)	Signa	ature	Date					
Received By (TGC Environmental Officer)	Signa	ature	Date					

#### **CONTENTS FOR CONTRACTOR'S ENVIRONMENTAL FILE**

TRANSNET

TRANSNET NATIONAL PORTS AUTHORITY
TENDER NUMBER: TNPA/2023/02/0009/22520/RFP

DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL

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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	

DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL

ENGINEERING WORKS AT THE PORT OF NGQURA

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	

TGC Environmental Induction

Contractor's Environmental Management File Handover

Site Closure Inspection Form

Site Closure Certificate

Application for Exemption

TGC Environmental Induction

ENV-FAT-0020

ENV-FAT-0021

ENV-FAT-0021

ENV-FAT-0034

#### T2.2-09a: Evaluation Schedule: Health and Safety Requirements

Submit the following documents with your tender:

- 1. Safety, Health & Environmental Policy signed by the Chief Executive Officer. List the five elements -
  - Commitment to Safety, prevention of pollution,
  - Continual improvement,
  - Compliance to legal requirements, appropriate to the nature of contractor's activities,
  - Hold management accountable for development of the safety systems
  - Include objectives and targets.
- 2. Roles & Responsibilities, such as S16.2 CEO, CR8.1 Construction Manager, Health and Safety Manager, CR8.5 Health, Safety and Environmental Officer, CR8.7 Construction Supervisor, CR9.1 Risk Assessor, 17.1 SHE Reps, GSR 3(4) First Aider etc. as per the Occupational health and safety Act 85 of 1993 and COVID -19 Compliance Officer. Proof of registration with SACPCMP and CV for Construction Manger, HS Manager and SHE Officer
- 3. List of job categories for project and competencies required per category and develop a training Matrix for all employees who will be working on the project. This matrix must include Management, key persons/legal appointees and highlight training planned dates.
- 4. Overview of the project specific Baseline Risk Assessment (RA), indicating major activities of the project.
- Complete and return with tender documentation the Contractor Safety Questionnaire included to this Evaluation Schedule as a returnable, attach all required supporting documents and complete your company three year synopsis of SHE incidents, description, type and action taken to prevent reoccurrence.
- 6. Evidence that the Principal Contractor have made adequate provisions for the cost of Health & Safety "Activity Schedule": CR 3(5) (b)(iii) read with CR 5(1)(g)

Attached submissions to this schedule:

Part T2: Returnable Schedules T2.2-06: Evaluation Schedule: Health and Safety



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

Points	1	2	1	1	4	1
(10)						
	Policy (State points	Roles &	Training Matrix	Overview of the project	Safety Questionnaire	Cost Breakdown Sheet.
	allocated)  1) Commitment to Safety, prevention of pollution, 2) Continual improvement, 3) Compliance to legal requirements, appropriate to the nature of contractor's activities, 4) Hold management accountable for development of the safety systems,	Responsibilities  1) S16.2 CEO  2) 8.1 Construction Manager -SACPCMP registration as Pr. Construction Manager, 3) 8.5 SACPCMP Registered Construction Health, Safety and Environmental Officer, 4) Health and Safety Manager – registered with SACPCMP 5) 8.7 Construction Supervisor, 6) 9.1 Risk Assessor,	List of job categories for project and competencies required per category and develop a training matrix for all employees who will be working on the project. This matrix must include Management, key persons/legal appointees and highlight training planned dates.	specific baseline risk assessment Indicate major activities of the project.	Complete and return with tender documentation the Contractor Health and Safety Questionnaire included to this Evaluation Schedule as a returnable, attach all required supporting documents and complete your company three year synopsis of SHE incidents, description, type and action taken to prevent re-occurrence.	Evidence that the Principal Contractor have made adequate provisions for the cost of Health & Safety "Activity Schedule": CR 3(5) (b)(iii) read with CR 5(1)(g) .



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	5) Include objectives	7) GSR 3(4) First Aider,				
	and targets.	8) 17.1 SHE Rep as per				
		the Occupational Health				
		and Safety Act 85 of				
		1993 and				
		9) COVID-19 Compliance				
		Officer				
		10) Proof of registration				
		with SACPCMP and CV for				
		Construction Manager,				
		HS Manager and SHE				
		Officer				
Score 0	The Tenderer has submi	tted no information to detern	nine a score.			
Score	1 of the 5 key policy	≤2 of the 9 Roles and	Key responsible persons	Information supplied is	Information supplied is totally	Health and safety Budget
20	components are	responsibilities are in	are not included on	inadequate to achieve the	insignificant / inadequate to	submitted is totally
	recognized and meet	compliance as per the	training matrix as per	required standard of	achieve the required standard	insignificant / inadequate to
	the <i>Employer's</i>	Works Information and	proposed organogram	service and total score of	of service and total score of	achieve the required
	requirement and it is	meet the Occupational	structure.	submitted baseline risk	supporting documents.	standard of service, 0,1% to
	signed by the Chief	health and safety Act as		assessment specific to the		1% of the tendered value.
	Executive Officer.	per construction		project.		



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		regulations and TNPA				
		health and safety				
		specification.				
Score	2 of the 5 key policy	2 ≤ 4 of the Roles and	Not all key responsible	Poor response / answer /	Poor response / answer /	Health and safety Budget
40	components are	responsibilities are in	persons are included in the	solution lacks convincing	solution lacks convincing	submitted is insignificant /
	recognized and meet	compliance as per the	training matrix. Trainings	evidence, medium risk that	evidence, medium risk that	inadequate / answer /
	the <i>Employer's</i>	Works Information and	matrix submitted does not	stated <i>employer's</i>	stated Employer's requirements	solution to the returnable,
	requirement and it is	meet the Occupational	cover all SHE training	requirements will not be	will not be met and total score	Employer's health and safety
	signed by the Chief	health and safety Act as	listed on Health and Safety	met and total score of	of supporting documents.	requirements will not be
	Executive Officer.	per construction	specification. Training	submitted baseline risk		met, 1% – 2% of the
		regulations and TNPA	matrix not signed by	assessment specific to the		tendered value.
		health and safety	responsible personnel.	project.		
		specification.				



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

Score	3 of the 5 key policy	5 of the 9 Roles and	Satisfactory response on	Satisfactory response /	Satisfactory response / answer	Health and safety Budget
60	components are	responsibilities are in	the list of job categories	answer / solution to the	/ solution to the particular	submitted is Satisfactory
	recognized and meet	compliance as per the	and trainings as per	particular aspect of the	aspect of the requirement	response / answer / solution
	the <i>Employer's</i>	Works Information and	proposed project	requirement, evidence	evidence given that the stated	to the returnable, Employer's
	requirements and it is	meet the Occupational	organogram structure.	given that the stated	Employer's requirements will	health and safety
	signed by the Chief	health and safety Act as	Training matrix covers	Employer's requirements	be met and total score of	requirements will be met,
	Executive Officer.	per construction	most of the trainings listed	will be met and total score	supporting documents.	2% – 3% of the tendered
		regulations and TNPA	on TNPA Health and safety	of submitted baseline risk		value.
		health and safety	specification.	assessment specific to the		
		specification.		project.		
Score	4 of the 5 key policy	7 of the 9 Roles and	Most of key persons listed	Good response / answer /	Good response / answer /	Health and safety Budget
80	components are	responsibilities are in	on the training matrix as	solution which	solution which demonstrates	submitted is Good response /
	recognized and meets	compliance as per the	per proposed project	demonstrates real	real understanding and	answer /solution to the
	the <i>Employer's</i>	Works Information and	organogram structure.	understanding and	evidence of ability to meet	returnable, Employer's health
	requirements and it is	meet the Occupational	Trainings specified on the	evidence of ability to meet	stated Employer's requirements	and safety requirements will
	signed by the Chief	health and safety Act as	matrix are in line with	stated <i>Employer's</i>	and total score of supporting	be met, 3% – 4% of the
	Executive Officer .	per construction	TNPA health and safety	requirements and total	documents.	tendered value.
		regulations and TNPA	specification.	score of submitted		
		health and safety		baseline risk assessment		
		specification.		specific to the project.		

#### TRANSNET NATIONAL PORTS AUTHORITY

TENDER NUMBER: TNPA/2023/02/0009/22520/RFP



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

Score	All 5 key policy	All 9 Roles and	Training matrix include	Very good response /	Very good response / answer /	Health and safety Budget
100	components are	responsibilities are in	Management and all	answer / solution gives	solution gives real confidence	submitted is very good
	recognized and meets	compliance as per the	employees / personnel in	real confidence that the	that the tenderer is most likely	response / answer / solution
	the <i>Employer's</i>	Works Information and	the project. Training	tenderer is most likely to	to ensure compliance with	to the returnable, Employer's
	requirements and it is	meet the Occupational	matrix had been signed by	ensure compliance with	stated Employer's requirements	health and safety
	signed by the Chief	health and safety Act as	responsible personnel.	stated Employer's	and total score of supporting	requirements will be met,
	Executive Officer.	per construction		requirements and total	documents.	above 4% - above of the
		regulations and TNPA		score of all required		tendered value.
		health and safety		baseline risk assessment		
		specification.		specific to the project.		



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#### **T2.2-09b: Health and Safety Questionnaire**

1.	5	Safe Work Performance				
1A	Inju	ury Experience / Historical Performan	ice			
	Use	the previous three years injury and	illness records to complete	e the following:		
	Yea	ır				
	Nur	mber of medical treatment cases				
	Nur	mber of restricted workday cases				
	Nur	mber of lost time injury cases				
	Nur	mber of fatal injuries				
	Tota	al recordable frequency				
	Los	t time injury frequency				
	Nur	mber of worker manhours				
		ion taken to prevent re-occurrence				
	1	Medical Treatment Case		or illness requiring treatme rovided under the direction		
	2	Restricted Workday Case	Any occupational injury of any of his/her craft juriso	or illness that prevents a w diction duties	orker from perfo	orming



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

	3	Lost Time injury Cas	ses	Any occupational injury that prevents the worker from performing any work for at least one day  Total number of Medical Treatment, Restricted Work and Lost Time Injury						work	
	4	Total Recordable Fro	equency			Treatment, Restriction 000 then divided b			Γime Inj	ury	
	5	Lost Time Injury Fre			nber of Lost Tii nanhours	me Injury cases mu	ıltiplied b	y 200,000 t	hen divi	de	
1B		kers' Compensation E	·	السموم سمو	anda ta camanla	es the fallowing (if	اطحدناسمه	۵\۰			
	use	the previous three ye	ears injury and i	nd illness records to complete the following (if applicable):							
	Ind	ustry Code:			Industry Class	sification:					
	Year										
	Ind	ustry Rate									
	Con	tractor Rate									
	% [	Discount or Surcharge	!								
	Is y	our Workers' Compen	sation account	in good st	anding?		Yes	No			
	(Ple	ase provide letter of o	confirmation)								
2.	Cita	ntions									
2A	Env	your company been of ironmental Legislation	·	-	ted under Heal	th, Safety and/or	Yes	No			
	If y	es, provide details:									
2B		your company been on their Country, Region	, ,	or prosecu	ted under the a	above Legislation	Yes	No			
	If y	es, provide details:									



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

3.	Citations						
	Does your company have a	a Certificate o	of Recognit	tion?	Yes	No	
	If yes, what is the   Certif	icate No:		Issue Date:	-		
4.	Safety Program						
4A	Submit your company writ	ten health an	nd safety p	lan?			
	Submit for provide a copy for review						
4C	3 · · · · · · · · · · · · · · · · · · ·					-	
		Yes	No		Yes		No
	Health and Safety Policy			Competence, Training and Awareness			
	Incident Management, reporting and Investigation	n		Emergency Preparedness/Response			
	Recordkeeping & Statistics	•		Hazard Assessment and Risk Management and training			
	Reference to Legislation			Permit to Work			
	Site Establishment and Rehabilitation			Safe Work Procedures and Safe operating procedures			
	Roles and Responsibilities			Workplace Inspections			
	Alcohol, Drugs and Other Intoxicating Substances			Occupational Hygiene and Covid19			
	Personal Protective Equipment			Measuring and Monitoring			
	Waste Management			Communication, Participation and Consultation			
	Work Program or look ahe plan	ad		Signs and Notices			
	· · · · · · · · · · · · · · · · · · ·			· · · · · · · · · · · · · · · · · · ·			



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

4C	Submit your company pocket sa					
5.	Training Program					
5A	Attach orientation program for n	ew hire em	ployees?			
	include a course outline. Does it	include any	of the follo	owing:		
		Yes	No		Yes	No
	General Rules & Regulations			Confined Space Entry		
	Emergency Reporting			Trenching & Excavation		
	Injury Reporting			Signs & Barricades		
	Legislation			Dangerous Holes & Openings		
	Right to Refuse Work			Rigging & Cranes		
	Personal Protective Equipment			Mobile Vehicles		
	Emergency Procedures			Preventative Maintenance		
	Project Safety Committee			Hand & Power Tools		
	Housekeeping			Fire Prevention & Protection		
	Ladders & Scaffolds			Electrical Safety		
	Fall Arrest Standards			Compressed Gas Cylinders		
	Aerial Work Platforms			Weather Extremes		
5B	Submit a program for training no	•		•		
	Tenderer must submit an outline			nclude instruction on the follo		
		Yes	No		Yes	No
	Employer Responsibilities			Safety Communication		



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	Employee Responsibilities		First Aid/Me Procedures				
	Due Diligence		New Worke	er Training			
	Safety Leadership		Environmer Requiremen				
	Work Refusals		Hazard Ass	essment			
	Inspection Processes	rocesses		ety Instructi	on		
	Emergency Procedures		Drug & Alco	Drug & Alcohol Policy			
	Incident Investigation		Progressive Policy	Progressive Disciplinary Policy			
	Safe Work Procedures		Safe Work Practices				
	Safety Meetings		Notification	Notification Requirements			
6.	Safety Activities						
6A	Do you conduct safety inspection	ns?	Yes	No	Weekly	Monthly	Quar terly
	Describe your safety inspection distribution)	process (include parti	cipation, docui	mentation re	quirements,	follow-up, report	
	Who follows up on inspection ac	tion items?					
6B	Do you hold site safety meetings If Yes, how often?	s for field employees?	Yes	No	Daily	Weekly	Biwe ekly
6C	Do you hold site meetings where with management and field supe	-	Yes	No	Weekly	Biweekly	Mont hly



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6D	Is pre-job safety instruction provided before to each ne	w task?			Yes		No	
	Is the process documented?				Yes		No	
	Who leads the discussion?							
6E	Do you have a hazard assessment process?				Yes		No	
	Are hazard assessments documented?				Yes		No	
	If yes, how are hazard assessments communicated and implemented on each project?							
	Who is responsible for leading the hazard assessment process?							
6F	Submit your company policies and procedures for envir and recycling as part of the Health & Safety Program?	onmental pro	tection, spil	l clean-u	p, rep	orting, w	aste di	sposal,
6G	How does your company measure its H&S success? Att	ach separate	sheet to ex	plain				
7.	Safety Stewardship							
7A	Are incident reports and report summaries sent to the following and how often?	Yes	No	Month	nly	Quarte	erly	Annu ally
	Project/Site Manager							
	Vice President/Managing Director							
	Safety Director/Manager							
	President/Chief Executive Officer							
7B	President/Chief Executive Officer  How are incident records and summaries kept? How often are they reported internally?	Yes	No	Month	nly	Quarte	erly	Annu ally
7B	How are incident records and summaries kept? How	Yes	No	Month	nly	Quarte	erly	
7B	How are incident records and summaries kept? How often are they reported internally?	Yes	No	Month	nly	Quarte	erly	



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

	Subtotaled by foreman						
7C	How are the costs of individual incoften are they reported internally	-	Yes	No	Monthly	Quarterly	Annu ally
	Costs totaled for the entire compa	iny					
	Costs totaled by project						
	Subtotaled by superintendent						
	Subtotaled by foreman/general fo	reman					
7D	Does your company track non-inju	ury incidents?	Yes	No	Monthly	Quarterly	Annu ally
	Near Miss						
	Property Damage						
	Fire						
	Security						
	Environmental						
8.	Personnel						
List k	ey health and safety officers planno	ed for this project. At	tach resume	(CV and	qualification).		
	Name	Position	/ Title		D€	esignation	
					Category	SACPCMP N	umber
9.	References						
	he last three company's your form pational Health & Safety program	nas worked for that co	ould verify th	e quality	and managemer	nt commitment to	your
	Name and Company	Addr	ess		Telephone Number		



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	IONS AND ADDITIONAL TO EMENDI BUIL LECTRICAL, MECHNANICAL, CIVIL & STRU	•

#### **T2.2-09c: Health and Safety Cost Breakdown**

# The Health and Safety Cost Breakdown must be added on the Activity Schedule.

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

#	Cost element	Unit Cost (R)	# of Units	Total Cost (R)
1.	Human Resources			
2.	Systems Documentation			
3.	Meetings & Administration			
4.	H&S Training			
5.	PPE & Safety Equipment			
6.	Signage & Barricading			
7.	Workplace Facilities			
8.	Emergency & Rescue Measures			
9.	Hygiene Surveys & Monitoring			
10.	Medical Surveillance			



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11.	Safe Transport of Workers		
12.	HazMat Management (e.g. asbestos /silica)		
13.	Substance Abuse Testing		
14.	H&S Reward & Recognition		
15.			
16.			

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



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#### T2.2-10: Authority to submit a Tender

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

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

A. Certificate for Company		
I,	chairpersor	n of the board of directors
	, hereby co	nfirm that by resolution of the board taken on _
(date), Mr/Ms		, acting in the capacity of
, wa	s authorised t	to sign all documents in connection with this
tender offer and any contract resulting fro	m it on behalf	of the company.
Signed	Date	
Name	Position	Chairman of the Board of Directors



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	hereby authorise Mr/Ms		acting in the cap		
f	, to sign	all documents in connection	with the tender		
or Contract	and any	and any contract resulting from it on our behalf.			
Name	Address	Signature	Date		
	e is to be completed and signed be the additional pages if more space		necessary to cor		
	are submitting this tender offer	in Joint Venture and hereby	authorise Mr/Ms		
	, an authorised s	·			
		the capacity of lead partner,			



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

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

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

#### **D.** Certificate for Sole Proprietor

I,	, hereby con	firm that I am the sole	owner of the business
trading as			_•
Signed	Date		
Name	Position	Sole Proprietor	



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### **T2.2-11: Record of Addenda to Tender Documents**

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

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

Attach additional pages if more space is required.



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# T2.2-12 Letter/s of Good Standing with the Workmen's Compensation Fund

Attached to this schedule is the Letter/s of Good Standing.
1.
2.
3.
4.
Name of Company/Members of Joint Venture:



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#### T2.2-13: Risk Elements

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.

If No Risks are identified "No Risks" must be stated on this schedule.

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

l		
l		
l		
l		
l		
l		

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



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

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### T2.2-14: Availability of Equipment and Other Resources

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

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



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### T2.2-15: Schedule of Proposed Subcontractors

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

#### Note to tenderers:

- In terms of PPPFA Regulation 6 (5), A tenderer may not be awarded points for B-BBEE status level of contributor if the tender documents indicate that the tenderer intends subcontracting more than 25% of the value of the contract to any other person not qualifying for at least the points that the tenderer qualifies for, unless the intended subcontractor is an EME that has the capability to execute the subcontract.
- In terms of PPPFA Regulation 12 (3), A person awarded a contract may not subcontract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBBEE status level of contributor that the person concerned, unless the contract is subcontracted to an EME that has the capability and ability to execute the contract.
- 2) Tenderer to note that after award, any deviations from this list of proposed subcontractors will be subject to acceptance by the *Project Manager* in terms of the Conditions of Contract.

Provide information of the Sub-contractors below:

	of Propose ontractor		Address		ss Nature of work		Amount of Worked		centage work
% Black Owned	ЕМЕ	QSE	Youth	Wome	en	Disabilities	Rural/ Underdeve areas/ Townsh	-	Military Veterans

3)

	Name of Proposed Subcontractor			Address		ature of work	Amount of Worked		centage work
% Black Owned	EME	QSE	Youth	Wome	en	Disabilities	Rural/ Underdeve areas/ Townsh	•	Military Veterans



ATION AND C			ng including design, si Tural engineering wor	-
	 	 	<del></del>	

### **T2.2-16: ANNEX G Compulsory Enterprise Questionnaire**

The following particulars hereunder must be furnished.

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

1. Section	<b>1</b> :	Name of enterprise:					
2. Section	12:	VAT registration number, if any:					
3. Section	า 3:	CIDB registration number, if any:					
4. Section	ı 4:	CSD number	<u></u>				
5. Section	ı 5:	Particulars of	of sole proprietors and partners in	partnerships			
Name			Identity number	Personal income tax number			
* Complete	e only	y if sole propi	ietor or partnership and attach sep	arate page if more than 3			
6. Section	ı 6:	Particulars of	of companies and close corporation	ns			
Company r	egist	ration numbe	r				
Close corporation number							
Tax reference number:							
Section 7: The attached SBD4 must be completed for each tender and be attached as a tender requirement.							

attached as a requirement.

Section 8: The attached SBD 6 must be completed for each tender and be





DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

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		



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**SBD 6.1** 

#### PREFERENCE POINTS CLAIM FORM

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

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

#### 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included).
  - The value of this bid is estimated to not exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable. Despite the stipulated preference point system, Transnet shall use the lowest acceptable bid to determine the applicable preference point system in a situation where all received acceptable bids are received outside the stated preference point system.
- 1.2 Preference points for this bid shall be awarded for:
  - (a) Price; and
  - (b) B-BBEE Status Level of Contribution.
- 1.3 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



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

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

#### 2. **DEFINITIONS**

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



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2003);

(k) "rand value" means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties.

#### 3. POINTS AWARDED FOR PRICE

#### 3.1 THE 80/20 PREFERENCE POINT SYSTEMS

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

80/20

$$Ps = 80 \left( 1 - \frac{Pt - P\min}{P\min} \right)$$

Where

Ps = Points scored for comparative price of bid under consideration

Pt = Comparative price of bid under consideration

Pmin = Comparative price of lowest acceptable bid

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

4.1 preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

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



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

Enterprise	B-BBEE Certificate & Sworn Affidavit
Large	Certificate issued by SANAS accredited verification agency
QSE	Certificate issued by SANAS accredited verification agency  Sworn Affidavit signed by the authorised QSE representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership (only black-owned QSEs - 51% to 100% Black owned)
	[Sworn affidavits must substantially comply with the format that can be obtained on the DTIC's website at <a href="https://www.thedtic.gov.za/economic_empowerment/bee_codes.jsp">www.thedtic.gov.za/economic_empowerment/bee_codes.jsp</a> .]
EME <sup>1</sup>	Sworn Affidavit signed by the authorised EME representative and attested by a Commissioner of Oaths confirming annual turnover and black ownership
	Certificate issued by CIPC (formerly CIPRO) confirming annual turnover and black ownership
	Certificate issued by SANAS accredited verification agency only if the EME is being measured on the QSE scorecard

- 4.3 A trust, consortium or joint venture (including unincorporated consortia and joint ventures) must submit a consolidated B-BBEE Status Level verification certificate for every separate bid.
- 4.4 Tertiary Institutions and Public Entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- 4.5 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any

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<sup>&</sup>lt;sup>1</sup> In terms of the Implementation Guide: Preferential Procurement Regulations, 2017, Version 2, paragraph 11.11 provides that in the Transport Sector, EMEs can provide a letter from accounting officer or get verified and be issued with a B-BBEE certificate by SANAS accredited professional or agency as the Transport Sector Code has not been aligned to the generic Codes. EMEs in the Transport Sector are not allowed to provide a sworn affidavit as the generic codes are not applicable to them.



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other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub-contractor is an EME that has the capability and ability to execute the sub-contract.

- 4.6 A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.
- 4.7 Bidders are to note that the rules pertaining to B-BBEE verification and other B-BBEE requirements may be changed from time to time by regulatory bodies such as National Treasury or the DTIC. It is the Bidder's responsibility to ensure that his/her bid complies fully with all B-BBEE requirements at the time of the submission of the bid.

#### 5. BID DECLARATION

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

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

6.1 B-BBEE Status Level of Contribution: . = .......(maximum of 20 points)

(Points claimed in respect of paragraph 6.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

#### 7. SUB-CONTRACTING

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

(Tick applicable box)



#### 7.1.1 If yes, indicate:

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



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iv) Whether the sub-contractor is an EME or QSE. *(Tick applicable box)* 

	_		
YES		NO	

8.	DECLARATION WITH REGARD TO COMPANY/FIRM
8.1	Name of company/firm:
8.2	VAT registration number:
8.3	Company registration number:
8.4	TYPE OF COMPANY/ FIRM
	□ Partnership/Joint Venture / Consortium
	☐ One person business/sole propriety



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	□ Close corporation
	□ Company
	□ (Pty) Limited
	[TICK APPLICABLE BOX]
8.5	DESCRIBE PRINCIPAL BUSINESS ACTIVITIES
8.6	COMPANY CLASSIFICATION
	□ Manufacturer
	□ Supplier
	□ Professional Contractor
	Other Contractor, e.g. transporter, etc.
	[ TICK APPLICABLE BOX]
8.7	Total number of years the company/firm has been in business:
8.8	I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contribution indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:
	i) The information furnished is true and correct;
	ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
	<ul> <li>iii) In the event of a contract being awarded as a result of points claimed as shown in paragraph</li> <li>1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;</li> </ul>
	iv) If a bidder submitted false information regarding its B-BBEE status level of contributor,, which will affect or has affected the evaluation of a bid, or where a bidder has failed to declare any subcontracting arrangements or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have



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- (a) disqualify the person from the bidding process;
- (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
- (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
- (d) if the successful bidder subcontracted a portion of the bid to another person without disclosing it, Transnet reserves the right to penalise the bidder up to 10 percent of the value of the contract;
- (e) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the audi alteram partem (hear the other side) rule has been applied; and
- (f) forward the matter for criminal prosecution.

WITNESSES	
1	SIGNATURE(S) OF BIDDERS(S)
2	DATE:



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#### **BIDDER'S DISCLOSURE**

#### 1. PURPOSE OF THE FORM

Any person (natural or juristic) may make an offer or offers in terms of this invitation to bid. In line with the principles of transparency, accountability, impartiality, and ethics as enshrined in the Constitution of the Republic of South Africa and further expressed in various pieces of legislation, it is required for the bidder to make this declaration in respect of the details required hereunder.

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

#### 2. Bidder's declaration

2.1 Is the bidder, or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest2 in the enterprise,

employed by the state?

YES/NO

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

Full Name	Identity Number	Name of Stat institution	te

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

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

2.2.1	If so, furnish particulars:
2.3	Does the bidder or any of its directors / trustees / shareholders / members / partners or any person having a controlling interest in the enterprise have any interest in any other related enterprise whether or not the are bidding for this contract?  YES/NO
2.3.1	If so, furnish particulars:

#### **3 DECLARATION**

- I, the undersigned, (name)...... in submitting the accompanying bid, do hereby make the following statements that I certify to be true and complete in every respect:
- 3.1 I have read and I understand the contents of this disclosure;
- 3.2 I understand that the accompanying bid will be disqualified if this disclosure is found not to be true and complete in every respect;
- 3.3 The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium3 will not be construed as collusive bidding.

<sup>&</sup>lt;sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.



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- 3.4 In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications, prices, including methods, factors or formulas used to calculate prices, market allocation, the intention or decision to submit or not to submit the bid, bidding with the intention not to win the bid and conditions or delivery particulars of the products or services to which this bid invitation relates.
- 3.4 The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
- 3.5 There have been no consultations, communications, agreements or arrangements made by the bidder with any official of the procuring institution in relation to this procurement process prior to and during the bidding process except to provide clarification on the bid submitted where so required by the institution; and the bidder was not involved in the drafting of the specifications or terms of reference for this bid.
- I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

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

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

Signature	Date
Position	Name of bidder



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### T2.2-17: NON-DISCLOSURE AGREEMENT [2020]

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

#### **WHEREAS**

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

#### **IT IS HEREBY AGREED**

#### 1. INTERPRETATION

In this Agreement:

- 1.1 Agents mean directors, officers, employees, agents, professional advisers, contractors or sub-contractors, or any Group member;
- 1.2 **Bid** or **Bid Document** (hereinafter Tender) means Transnet's Request for Information [**RFI**] Request for Proposal [**RFP**] or Request for Quotation [**RFQ**], as the case may be;

**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** 



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**Party**] or its Agents by the Disclosing Party or its Agents or recorded in agreed minutes following oral disclosure and any other information otherwise made available by the Disclosing Party or its Agents to the Receiving Party or its Agents, whether before, on or after the date of this Agreement, and whether in writing or otherwise,

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

#### 2. CONFIDENTIAL INFORMATION

- 2.1 All Confidential Information given by one party to this Agreement [the **Disclosing Party**] to the other party [the **Receiving Party**] will be treated by the Receiving Party as secret and confidential and will not, without the Disclosing Party's written consent, directly or indirectly communicate or disclose [whether in writing or orally or in any other manner] Confidential Information to any other person other than in accordance with the terms of this Agreement.
- 2.2 The Receiving Party will only use the Confidential Information for the sole purpose of technical and commercial discussions between the parties in relation to the Tender or for the subsequent performance of any contract between the parties in relation to the Tender.
- 2.3 Notwithstanding clause 2.1 above, the Receiving Party may disclose Confidential Information:
- 2.3.1 to those of its Agents who strictly need to know the Confidential Information for the sole purpose set out in clause2.2 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



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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 below.
- 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.
- 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.

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#### 5 **DURATION**

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

#### 6 **PRINCIPAL**

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

#### 7 **ADEQUACY OF DAMAGES**

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

#### 8 PRIVACY AND DATA PROTECTION

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

#### 9 **GENERAL**

- 9.1 Neither party may assign the benefit of this Agreement, or any interest hereunder, except with the prior written consent of the other, save that Transnet may assign this Agreement at any time to any member of the Transnet Group.
- 9.2 No failure or delay in exercising any right, power or privilege under this Agreement will operate as a waiver of it, nor will any single or partial exercise of it preclude any further exercise or the exercise of any right, power or privilege under this Agreement or otherwise.
- 9.3 The provisions of this Agreement shall be severable in the event that any of its provisions are held by a court of competent jurisdiction or other applicable authority to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law.



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- 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	



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### **T2.2-18: RFP DECLARATION FORM**

E OF COMPANY:		
do hereby certify that:		
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;		
we have received all information we deemed necessary for the completion of this Tender;		
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 Transformatics on tact(s) as nominated in the tender documents;		
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 this tender have been conducted in a fair and transparent manner; and		
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:		



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

We declare, to the extent that we are aware or become aware of any relationship between ourselves and Transnet (other than any existing and appropriate business relationship with

Transnet) which could unfairly advantage our company in the forthcoming adjudication process, we shall notify Transnet immediately in writing of such circumstances.

- 6. We accept that any dispute pertaining to this tender will be resolved through the Ombudsman process and will be subject to the Terms of Reference of the Ombudsman. The Ombudsman process must first be exhausted before judicial review of a decision is sought. (Refer "Important Notice to respondents" below).
- 7. We further accept that Transnet reserves the right to reverse a tender award or decision based on the recommendations of the Ombudsman without having to follow a formal court process to have such award or decision set aside.
- 8. We have acquainted ourselves and agree with the content of T2.2-26 "Service Provider Integrity Pact".

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



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#### **IMPORTANT NOTICE TO TENDERERS**

Transnet has appointed a Procurement Ombudsman to investigate any <u>material complaint</u> 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 <a href="https://www.transnet.net">www.transnet.net</a>.

An official complaint form may be downloaded from this website and submitted, together with any supporting documentation, within the prescribed period, to <a href="mailto:procurement.ombud@transnet.net">procurement.ombud@transnet.net</a>

- 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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T2.2-19: REQUEST FOR PROPOSAL – BREACH OF LAW	
NAME OF COMPANY:	
I / We do  I/we have/have not been found guilty during the preceding 5 (five) years of a law, including but not limited to a breach of the Competition Act, 89 of 1998, by a	
or other administrative body. The type of breach that the Tenderer is required to d 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 from the tendering process, should that person or company have been found guilty of law, tribunal or regulatory obligation.	
Signed on this day of 20	
SIGNATURE OF TENDER	
TENDER Part T2: Returnal	ble Schedules

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### **T2.2-20 Certificate of Acquaintance with Tender Documents**

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

 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.



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- 6. In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement, or arrangement with any competitor regarding:
  - a) prices;
  - b) geographical area where Services will be rendered [market allocation]
  - c) methods, factors or formulas used to calculate prices;
  - d) the intention or decision to submit or not to submit, a Tender;
  - e) the submission of a tender which does not meet the specifications and conditions of the tender; or
  - f) Tendering with the intention not winning the tender.
- 7. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the Services to which this tender relates.
- 8. The terms of the accompanying tender have not been, and will not be, disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official tender opening or of the awarding of the contract.



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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	TENDE	RFR		

TRANSNET NATIONAL PORTS AUTHORITY



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### T2.2-21 Service Provider Integrity Pact

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

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

#### **INTEGRITY PACT**

Between

#### TRANSNET SOC LTD

Registration Number: 1990/000900/30

("Transnet")

and

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

#### **PREAMBLE**

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

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

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

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



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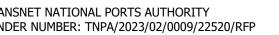
#### 1 OBJECTIVES

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

#### 2 COMMITMENTS OF TRANSNET

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

2.1 Transnet hereby undertakes that no employee of Transnet connected directly or indirectly with the sourcing event and ensuing contract, will demand, take a promise for or accept directly or through intermediaries any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the Tenderer, either for themselves or for any person, organisation or third party related to the contract in exchange for an advantage in the tendering process, Tender evaluation, contracting or implementation process related to any contract.





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

#### 3 **OBLIGATIONS OF THE TENDERER / SERVICE PROVIDER**

- 3.1 Transnet has a 'Zero Gifts' Policy. No employee is allowed to accept gifts, favours or benefits.
  - a) Transnet officials and employees **shall not** solicit, give or accept, or from agreeing to solicit, give, accept or receive directly or indirectly, any gift, gratuity, favour, entertainment, loan, or anything of monetary value, from any person or juridical entities in the course of official duties or in connection with any operation being managed by, or any transaction which may be affected by the functions of their office.
  - b) Transnet officials and employees shall not solicit or accept gifts of any kind, from vendors, suppliers, customers, potential employees, potential vendors, and suppliers, or any other individual or organisation irrespective of the value.
  - c) Under **no circumstances** should gifts, business courtesies or hospitality packages be accepted from or given to prospective suppliers participating in a tender process at the respective employee's Operating Division, regardless of retail value.
  - d) Gratuities, bribes or kickbacks of any kind must never be solicited, accepted or offered, either directly or indirectly. This includes money, loans, equity, special privileges, personal favours, benefit or services. Such favours will be considered to constitute corruption.



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

- a) The Tenderer/Service Provider/Contractor will not, directly or through any other person or firm, offer, promise or give to Transnet or to any of Transnet's employees involved in the tendering process or to any third person any material or other benefit or payment, in order to obtain in exchange an advantage during the tendering process; and
- b) The Tenderer/Service Provider/Contractor will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any employee of Transnet, connected directly or indirectly with the tendering process, or to any person, organisation or third party related to the contract in exchange for any advantage in the tendering, evaluation, contracting and implementation of the contract.
- 3.3 The Tenderer/Service Provider/Contractor will not collude with other parties interested in the contract to preclude a competitive Tender price, impair the transparency, fairness and progress of the tendering process, Tender evaluation, contracting and implementation of the contract. The Tenderer / Service Provider further commits itself to delivering against all agreed upon conditions as stipulated within the contract.
- 3.4 The Tenderer/Service Provider/Contractor will not enter into any illegal or dishonest agreement or understanding, whether formal or informal with other Tenderers/Service Providers/Contractors. This applies in particular to certifications, submissions or non-submission of documents or actions that are restrictive or to introduce cartels into the tendering process.
- 3.5 The Tenderer/Service Provider/Contractor will not commit any criminal offence under the relevant anti-corruption laws of South Africa or any other country. Furthermore, the Tenderer/Service Provider/Contractor will not use for illegitimate purposes or for restrictive purposes or personal gain, or pass on to others, any information provided by Transnet as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.



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



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### c) Environment

- Principle 7: Businesses should support a precautionary approach to environmental challenges;
- Principle 8: undertake initiatives to promote greater environmental responsibility; and
  - Principle 9: encourage the development and diffusion of environmentally friendly technologies.
  - d) Anti-Corruption
  - Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.

#### **4 INDEPENDENT TENDERING**

- 4.1 For the purposes of that Certificate in relation to any submitted Tender, the Tenderer declares to fully understand that the word "competitor" shall include any individual or organisation, other than the Tenderer, whether or not affiliated with the Tenderer, who:
- 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
- provides the same Goods and Services as the Tenderer and/or is in the same line of business as the Tenderer.
- 4.2 The Tenderer has arrived at his submitted Tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium will not be construed as collusive tendering.
- 4.3 In particular, without limiting the generality of paragraph 5 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - a) prices;
  - b) geographical area where Goods or Services will be rendered [market allocation];
  - c) methods, factors or formulas used to calculate prices;
  - d) the intention or decision to submit or not to submit, a Tender;



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

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

### 5 DISQUALIFICATION FROM TENDERING PROCESS

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



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

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

# **6 TRANSNET'S LIST OF EXCLUDED TENDERERS (BLACKLIST)**

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



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6.4 The decision to restrict is based on one of the grounds for restriction. The standard of proof to commence the restriction process is whether a "*prima facie*" (i.e. on the face of it) case has been established.

- 6.5 Depending on the seriousness of the misconduct and the strategic importance of the Goods/Services, in addition to restricting a company/person from future business, Transnet may decide to terminate some or all existing contracts with the company/person as well.
  - 6.6 A Service Provider or Contractor to Transnet may not subcontract any portion of the contract to a blacklisted company.
    - 6.7 Grounds for blacklisting include: If any person/Enterprise which has submitted a Tender, concluded a contract, or, in the capacity of agent or subcontractor, has been associated with such Tender or contract:
      - a) Has, in bad faith, withdrawn such Tender after the advertised closing date and time for the receipt of Tenders;
      - b) has, after being notified of the acceptance of his Tender, failed or refused to sign a contract when called upon to do so in terms of any condition forming part of the Tender documents; has carried out any contract resulting from such Tender in an unsatisfactory manner or has breached any condition of the contract;
      - c) has offered, promised or given a bribe in relation to the obtaining or execution of the contract;
      - d) 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;
      - e) 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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- f) caused Transnet damage, or to incur costs in order to meet the contractor's requirements and which could not be recovered from the contractor;
- g) has litigated against Transnet in bad faith.
- Grounds for blacklisting include a company/person recorded as being a company or person 6.8 prohibited from doing business with the public sector on National Treasury's database of Restricted Service Providers or Register of Tender Defaulters.
- 6.9 Companies associated with the person/s guilty of misconduct (i.e. entities owned, controlled or managed by such persons), any companies subsequently formed by the person(s) guilty of the misconduct and/or an existing company where such person(s) acquires a controlling stake may be considered for blacklisting. The decision to extend the blacklist to associated companies will be at the sole discretion of Transnet.

#### 7 **PREVIOUS TRANSGRESSIONS**

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

#### 8 SANCTIONS FOR VIOLATIONS

Transnet shall also take all or any one of the following actions, wherever required to:

- a) Immediately exclude the Tenderer/Service Provider/Contractor from the tendering process or call off the pre-contract negotiations without giving any compensation the Tenderer/Service Provider/Contractor. However, the proceedings with the other Tenderer/ Service Provider/Contractor may continue;
- b) Immediately cancel the contract, if already awarded or signed, without giving any compensation to the Tenderer/Service Provider/Contractor;



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

#### 9 CONFLICTS OF INTEREST

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

- a) A Transnet employee has a personal financial interest in a tendering / supplying entity; and
- b) A Transnet employee has private interests or personal considerations or has an affiliation or a relationship which affects, or may affect, or may be perceived to affect his / her judgment in action in the best interest of Transnet, or could affect the employee's motivations for acting in a particular manner, or which could result in, or be perceived as favouritism or nepotism.
- A Transnet employee uses his / her position, or privileges or information obtained while acting in the capacity as an employee for:
- a) Private gain or advancement; or
- 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.
- 9.1 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.
- 9.2 The Tenderer/Service Provider/Contractor shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any committee member or any person involved in the sourcing process, where this is done, Transnet shall be entitled forthwith to rescind the contract and all other contracts with the Tenderer/Service Provider/Contractor.



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#### 10 **DISPUTE RESOLUTION**

- 10.1 Transnet recognises that trust and good faith are pivotal to its relationship with its Tenderer / Service Provider / Contractor. When a dispute arises between Transnet and its Tenderer / Service Provider / Contractor, the parties should use their best endeavours to resolve the dispute in an amicable manner, whenever possible. Litigation in bad faith negates the principles of trust and good faith on which commercial relationships are based. Accordingly, following a blacklisting process as mentioned in paragraph 0 above, Transnet will not do business with a company that litigates against it in bad faith or is involved in any action that reflects bad faith on its part. Litigation in bad faith includes, but is not limited to the following instances:
- a) **Vexatious proceedings**: these are frivolous proceedings which have been instituted without proper grounds;
- b) **Perjury:** where a Tenderer / Service Provider / Contractor make a false statement either in giving evidence or on an affidavit;
- c) **Scurrilous allegations:** where a Tenderer / Service Provider / Contractor makes allegations regarding a senior Transnet employee which are without proper foundation, scandalous, abusive or defamatory; and
- d) Abuse of court process: when a Tenderer / Service Provider / Contractor abuses the court process in order to gain a competitive advantage during a Tender process.

#### 11 **GENERAL**

- 11.1 This Integrity Pact is governed by and interpreted in accordance with the laws of the Republic of South Africa.
- 11.2 The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the law relating to any civil or criminal proceedings.
  - 11.3 The validity of this Integrity Pact shall cover all the tendering processes and will be valid for an indefinite period unless cancelled by either Party.
  - 11.4 Should one or several provisions of this Integrity Pact turn out to be invalid the remainder of this Integrity Pact remains valid.
  - 11.5 Should a Tenderer/Service Provider/Contractor be confronted with dishonest, fraudulent or corruptive behaviour of one or more Transnet employees, Transnet expects its Tenderer/Service Provider/Contractor to report this behaviour directly to a senior Transnet



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official/employee or alternatively by using Transnet's "Tip-Off Anonymous" hotline number 0800 003 056, whereby your confidentiality is guaranteed.

The Parties hereby declare that each of them has read and understood the clauses of this Integrity Pact and shall abide by it. To the best of the Parties' knowledge and belief, the information provided in this Integrity Pact is true and correct.
duly authorised by the tendering entity, hereby certify that the tendering entity are <b>fully acquainted</b> with the contents of the Integrity Pact and further <b>agree</b> to <b>abide by it</b> in full.
Signature  Date



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# T2.2-22: Supplier Code of Conduct

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

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

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

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

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

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

- Transnet and its employees will follow the laws of this country and keep accurate business records that reflect actual transactions with, and payments to, our suppliers.
- Employees must not accept or request money or anything of value, directly or indirectly, from suppliers.



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- Employees may not receive anything that is calculated to:
  - Illegally influence their judgement or conduct or to ensure the desired outcome of a sourcing activity;
  - Win or retain business or to influence any act or decision of any person involved in sourcing decisions; or
  - Gain an improper advantage.
  - There may be times when a supplier is confronted with fraudulent or corrupt behaviour of Transnet employees. We expect our Suppliers to use our "Tip-offs Anonymous" Hot line to report these acts. (0800 003 056).

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

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

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

- Generally, suppliers have their own business standards and regulations. Although Transnet cannot control the actions of our suppliers, we will not tolerate any illegal activities. These include, but are not limited to:
  - Misrepresentation of their product (origin of manufacture, specifications, intellectual property rights, etc);
  - Collusion;
  - Failure to disclose accurate information required during the sourcing activity (ownership, financial situation, BBBEE status, etc.);



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- Corrupt activities listed above; and
- Harassment, intimidation or other aggressive actions towards Transnet employees.
- Suppliers must be evaluated and approved before any materials, components, products or services are purchased from them. Rigorous due diligence is conducted and the supplier is expected to participate in an honest and straight forward manner.
- Suppliers must record and report facts accurately, honestly and objectively. Financial records
  must be accurate in all material respects.



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### **Conflicts of Interest**

TNPA/2023/02/0009/22520/RFP

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

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

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

I,	of
(insert name of Director or as per Authority	(insert name of Company)
Resolution from Board of Directors)	
hereby acknowledge having read, understood an	d agree to the terms and conditions set out in the
"Transnet Supplier Code of Conduct."	
Signed this on day	at
Signature	
TENDER	Part T2: Returnable Schedules

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

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

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

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



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# T2.2-24: Forecast Rate of Invoicing

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

Index of documentation attached to this schedule:



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

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

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

NAME OF COMPANY/IES and INI	DEX OF ATTACHMENTS:	



DESCRIPTION OF THE WORKS: ALTERATIONS AND ADDITIONAL TO eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISINING OF ELECTRICAL, MECHNANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA

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

### 1. PREAMBLE AND INTRODUCTION

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

#### 2. PROTECTION OF PERSONAL INFORMATION

derived from these terms.

- 2.1. The following terms shall bear the same meaning as contemplated in Section 1 of the Protection of Person information act, No. of 2013 "(POPIA"): consent; data subject; electronic communication; information officer; operator; person; personal information; processing; record; Regulator; responsible party; special information; as well as any terms
- 2.2. The Operator will process all information by the Transnet in terms of the requirements contemplated in Section 4(1) of the POPIA:
  - Accountability; Processing limitation; Purpose specification; Further processing limitation; Information quality; Openness; Security safeguards and Data subject participation.



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- 2.4. Transnet reserves all the rights afforded to it by the POPIA in the processing of any of its information as contained in this Agreement and the Operator is required to comply with all prescripts as detailed in the POPIA relating to all information concerning Transnet.
- 2.5. In terms of this Agreement, the Operator acknowledges that it will obtain and have access to personal information of Transnet and the information of a third party and agrees that it shall only process the information disclosed by Transnet in terms of this Agreement and only for the purposes as detailed in this Agreement and in accordance with any applicable law.
- 2.6. Should there be a need for the Operator to process the personal information and the information of a third party in a way that is not agreed to in this Agreement, the Operator must request consent from Transnet to the processing of its personal information or and the information of a third party in a manner other than that it was collected for, which consent cannot be unreasonably withheld.
- 2.7. Furthermore, the Operator will not otherwise modify, amend or alter any personal information and the information of a third party submitted by Transnet or disclose or permit the disclosure of any personal information and the information of a third party to any third party without prior written consent from Transnet.
- 2.8. The Operator shall, at all times, ensure compliance with any applicable laws put in place and maintain sufficient measures, policies and systems to manage and secure against all forms of risks to any information that may be shared or accessed pursuant to the services offered to Transnet in terms of this Agreement (physically, through a computer or any other form of electronic communication).
- 2.9. The Operator shall notify Transnet in writing of any unauthorised access to personal information and the information of a third party , cybercrimes or suspected cybercrimes, in its knowledge and report such crimes or suspected crimes to the relevant authorities in accordance with applicable laws, after becoming aware of such crimes or suspected crime. The Operator must inform Transnet of the breach as soon as it has occurred to allow Transnet to take all necessary remedial steps to mitigate the extent of the loss or compromise of personal information and the information of a third party and to restore the integrity of the affected personal information as quickly as is possible.



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- 2.10. Transnet may, in writing, request the Operator to confirm and/or make available any personal information and the information of a third party in its possession in relation to Transnet and if such personal information has been accessed by third parties and the identity thereof in terms of the POPIA.
- 2.11. Transnet may further request that the Operator correct, delete, destroy, withdraw consent or object to the processing of any personal information and the information of a third party relating to the Transnet or a third party in the Operator's s possession in terms of the provision of the POPIA and utilizing Form 2 of the POPIA Regulations.
- 2.12. In signing this addendum that is in terms of the POPIA, the Operator hereby agrees that it has adequate measures in place to provide protection of the personal information and the information of a third party given to it by Transnet in line with the 8 conditions of the POPIA and that it will provide to Transnet satisfactory evidence of these measures whenever called upon to do so by Transnet.

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

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

- 2.13 Further, the Operator acknowledges that it will be held liable by Transnet should it fail to process personal information in line with the requirements of the POPIA. The Operator will be subject to any civil or criminal action, administrative fines or other penalty or loss that may arise as a result of the processing of any personal information that Transnet submitted to it.
- 2.14 Should a Tenderer have any complaints or objections to processing of its personal information, by Transnet, the Tenderer can submit a complaint to the Information Regulator on https://www.justice.gov.za/inforeg/, click on contact us, click on complaints.IR@justice.gov.za



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## **3 SOLE AGREEMENT**

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

Signed at	on this	day of	2021
Name:			
Title:			
Signature:			
	(Pty) Ltd		
(Operator)			
Authorised signatory for duly authorised to sign the			(Pty) Ltd who warrants that he/she is
AS WITNESSES:			
1. Name:		Signature:	
2. Name:		Signature:	



DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

# 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:

ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA.

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.
or	examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

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	



DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

For the tenderer:	
(Insert name and address of	organisation)
Name & signature of witness	Date
Tenderer's CIDB registration number:	

### **Acceptance**

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

The terms of the contract, are contained in:

Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part C2 Pricing Data

Part C3 Scope of Work: Works Information

Part C4 Site Information

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

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

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

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

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DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

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 SOC Ltd		
(Insert name and address of organisation)	Date	
		(Insert name and address of organisation)



DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

#### **Schedule of Deviations**

Note:

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

No.	Subject	Details
1		
2		
3		
4		
5		

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

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

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



DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

# **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		
		A:	Priced contract with activity schedule
	dispute resolution Option	W1:	Dispute resolution procedure
	and secondary Options		
		<b>X2</b>	Changes in the law
		X7:	Delay damages
		X16:	Retention
		X18:	Limitation of liability
		Z:	Additional conditions of contract
	of the NEC3 Engineering and Construction Contract June 2005 (amended June 2006 and April 2013)		
10.1	The <i>Employer</i> is:		net SOC Ltd stration No. 1990/000900/30)

	Address	Registered address: Transnet SOC Ltd Transnet National Ports Authority N2 Neptune Road, Entrance Foyer, TNPA Admin Building (eMendi Building) Port of Ngqura
	Having elected its Contractual Address for the purposes of this contract as:	Transnet SOC Ltd Transnet National Ports Authority N2 Neptune Road, Entrance Foyer, TNPA Admin Building (eMendi Building) Port of Ngqura
10.1	The <i>Project Manager</i> is: (Name)	Siyabonga Tshaka
	Address	Transnet SOC Ltd Transnet National Ports Authority N2 Neptune Road, Entrance Foyer, TNPA Admin Building (eMendi Building) Port of Ngqura
	Tel	
	e-mail	siyabonga.tshaka@transnet.net
10.1	The <i>Supervisor</i> is: (Name)	Yandisa Siralarala
	Address	Transnet SOC Ltd Transnet National Ports Authority N2 Neptune Road, Entrance Foyer, TNPA Admin Building (eMendi Building) Port of Ngqura
	Tel No.	
	e-mail	Yandisa.Siralarala@transnet.net
11.2(13)	The works are	Alterations and Partitioning of the eMendi Building including design, supply, installation and commissioning of Electrical, Mechanical, Civil & Structural Engineering works at the Port of Ngqura

31.1 31.2 32.2	whole of the <i>works</i> is  The <i>Contractor</i> is to submit a first programme for acceptance within  The <i>starting date</i> is  The <i>Contractor</i> submits revised	2 weeks of the Contract Date.  01 June 2023
	The <i>Contractor</i> is to submit a first programme for acceptance within	2 weeks of the Contract Date.
31.1	The <i>Contractor</i> is to submit a first programme for acceptance	
	whole of the works is	
11.2(3)	The <i>completion date</i> for the	31 October 2023
3	Time	
2	The <i>Contractor's</i> main responsibilities	No additional data is required for this section of the <i>conditions of contract</i> .
13.3	The <i>period for reply</i> is	2 weeks
13.1	The language of this contract is	English
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.
11.2(19)	The Works Information is in	Part C3
11.2(16)	The Site Information is in	Part C4
11.2(15)	The boundaries of the site are	As stated in Part C4.1. Description of the Site and it surroundings"
11.2(14)	The following matters will be included in the Risk Register	Working in an operational area Integration of existing and new systems
11.2(14)	_	-

5	Payment	
50.1	The <i>assessment interval</i> is monthly on the	18 <sup>th</sup> (Eighteen) day of each successive month.
51.1	The <i>currency of this contract</i> is the	South African Rand.
51.2	The period within which payments are made is	Payment will be effected on or before the last day of the month following the month during which a valid Tax Invoice and Statement were received.
51.4	The <i>interest rate</i> is	the prime lending rate of Standard Bank of South Africa.
6	Compensation events	
60.1(13)	The <i>weather measurements</i> to be recorded for each calendar month are,	the cumulative rainfall (mm)
		the number of days with rainfall more than 10 mm
		the number of days with minimum air temperature less than 0 degrees Celsius
		the number of days with snow lying at 08:00 hours South African Time
		and these measurements:
	The place where weather is to be recorded (on the Site) is:	The <i>Contractor'</i> s Site establishment area
	The weather data are the records of past weather measurements for each calendar month which were recorded at:	Port Elizabeth
	and which are available from:	South African Weather Service 012 367 6023 or <a href="mailto:info3@weathersa.co.za">info3@weathersa.co.za</a> .

7	Title		No additional data is required for this section of the <i>conditions of contract</i> .
8	Risks	and insurance	
80.1	These risks	are additional <i>Employer</i> 's	None
84.1		Employer provides these inces from the Insurance	
	1	Insurance against:	Loss of or damage to the <i>works</i> , Plant and Materials is as stated in the Insurance policy for Contract Works/ Public Liability.
		Cover / indemnity:	to the extent as stated in the insurance policy for Contract Works / Public Liability
		The deductibles are:	as stated in the insurance policy for Contract Works / Public Liability
	2	Insurance against:	Loss of or damage to property (except the works, Plant and Materials & Equipment) and liability for bodily injury to or death of a person (not an employee of the Contractor) 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.
No	te:	The deductibles for the insurance as stated above are listed in the document titled "Certificate of Insurance: Transnet (SOC) Limited Principal Controlled Insurance."

84.1 The minimum limit of indemnity and in the course of their 130 of 1993 as amended. employment in connection with this contract for any one event is

for insurance in respect of death The Contractor must comply at a minimum of or bodily injury to employees with the provisions of the Compensation for of the Contractor arising out of Occupational Injuries and Diseases Act No.

TRANSNET

additional Insurances

The Contractor provides these 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** professional indemnity insurance cover in connection therewith has been affected

2 Where the contract involves manufacture, and/or fabrication of Plant & Materials, components or other goods to be incorporated into the works at premises other than the site, the Contractor shall satisfy the Employer that such plant & materials, components or other goods for incorporation in the works are adequately insured during manufacture and/or fabrication and transportation to the site.

- 3 Should the *Employer* have an insurable interest in such items during manufacture, and/or fabrication, such interest shall be noted by endorsement to the *Contractor's* policies of insurance as well as those of any sub-contractor
- 4 Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger and Unauthorised Passenger Liability indemnity with a minimum indemnity limit of R 5 000 000.
- 5 Marine Craft Hull insurance in respect of all marine craft or vessels utilised in performance of the Works for a sum sufficient to provide for their replacement
- 6 Protection and Indemnity Insurance in respect of all marine craft or vessels utilised in performance of the Works extended for Specialist Operations with a minimum indemnity limit of R 20,000,000

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

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

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

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

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

### 9 Termination

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

## **10** Data for main Option clause

A	Priced contract with Activity Schedule	No additional data is required for this Option.
60.6	The <i>method of measurement</i> is	The Activity Schedule has been measured in accordance with SANS 1200 unless indicated otherwise.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	Both parties will agree as and when a dispute arises. If the parties cannot reach an agreement on the <i>Adjudicator</i> , the Chairman of the Association of Arbitrators will appoint an <i>Adjudicator</i> .
W1.2(3)	The Adjudicator nominating body is:	The Chairman of the Association of Arbitrators (Southern Africa)
	If no <i>Adjudicator nominating</i> body 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	Port Elizabeth, Gqeberha, South Africa
	The person or organisation who will choose an arbitrator  - if the Parties cannot agree a choice or  - if the arbitration procedure does not state who selects an arbitrator, is	The Chairman of the Association of Arbitrators (Southern Africa)
12	Data for secondary Option clauses	

X2	Changes in the law	No additional data is required for this Option
X7	Delay damages	
X7.1	Delay damages for Completion of the whole of the <i>works</i> are	R2500.00 per day
X16	Retention	
X16.1	The retention free amount is	Nil
	The retention percentage is	5% on all payments certified.
X18	Limitation of liability	
X18.1	•	Nil (this is the default position depending on a risk assessment, therefore this can go up to Total of the Prices)
X18.2	For any one event, the Contractor's liability to the Employer for loss of or damage to the Employer's 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

TRANSNET NATIONAL PORTS AUTHORITY
DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY,
INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF
NGQURA FOR A PERIOD OF FIVE (5) MONTHS

Z Additional conditions of
contract are:

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

#### **Z2.1**

#### Insert the additional core clause 27.5

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

TRANSNET

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 contract part the lead partner between the lead provided by the lead partner between the lead provided by the lead partner by the lead partner to bind the lead part

iii. Identification of the roles and responsibilities of the constituents to provide the Works.

• Financial requirements for the Joint Venture:

/ 02

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TRANSNET

<b>Z2.2</b>		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> .
<b>Z</b> 3	Additional obligations in respect of Termination	
<b>Z3.1</b>		The following will be included under core clause 91.1:
		In the second main bullet, after the word 'partnership' add 'joint venture whether incorporate or otherwise (including any constituent of the joint venture)' and
		Under the second main bullet, insert the following additional bullets after the last sub-bullet:
		<ul> <li>commenced business rescue proceedings (R22)</li> <li>repudiated this Contract (R23)</li> </ul>
Z3.2	Termination Table	The following will be included under core clause 90.2 Termination Table as follows:
		Amend "A reason other than R1 $-$ R21" to "A reason other than R1 $-$ R23"
Z3.3		Amend "R1 - R15 or R18" to "R1 - R15, R18, R22 or R23."
<b>Z4</b>	Right Reserved by the Employer to Conduct Vetting through SSA	

### **Z4.1**

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

TRANSNET

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

# Z5 Additional Clause Relating to Collusion in the Construction Industry

# **Z5.1**

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

# TRANSNET NATIONAL PORTS AUTHORITY

DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE EMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A PERIOD OF FIVE (5) MONTHS

TRANSNET

<b>Z6</b>	Protection of Information Act	Personal	
<b>Z6.1</b>		The <i>Employer</i> and the <i>Contractor</i> required to process information observed for the duration of the Agreemen manner that is aligned to the Protect Personal Information Act.	tained t in a
<b>Z7</b>	B-BBEE Clauses		
<b>Z7.1</b>		Insert additional clause 27.7. <b>27.7.1</b> The <i>Employer</i> encourages its <i>Con</i> to constantly strive to improve their Contributor Status Levels.	

DESCRIPTION OF THE WORKS: FOR THE PARTITIONING OF THE EMENDI ADMINISTRATION BUILDING, PORT





# C1.2 Contract Data

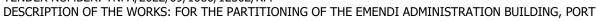
# PART TWO - DATA PROVIDED BY THE CONTRACTOR

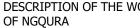
The tendering *Contractor* is advised to read both the NEC3 Engineering and Construction Contract - June 2005 (with amendments June 2006 and April 2013) and the relevant parts of its Guidance Notes (ECC3-GN) in order to understand the implications of this Data which the tenderer is required to complete. 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 working areas are the Site and	
24.1	The Contractor's key persons are:	
	1 Name:	
	Job:	
	Responsibilities:	
	Qualifications:	
	Experience:	
	2 Name:	
	Job	
	Responsibilities:	
	Qualifications:	
	Experience:	

TENDER NUMBER: TNPA/2022/09/1080/12302/RFP







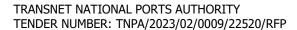
61 in SSCC	The hourly rates for Defined Cost of design outside the Working Areas are	Category of employee	e	Hour	ly rate	
			1			
22 in SSCC	The rates of other Equipment are:	-1 - 1	Size capac	or city	Rate	
	The percentage for adjustment for Equipment in the published list is	% (state plus or	minus	s)		
21 in	The published list of Equipment is the last edition of the list published by					
41 in SSCC	The percentage for people overheads is:	%				
A	Priced contract with activity schedule	Data for the Shorte Components	er Sch	edul	e of Cost	
	Data for Schedules of Cost Components	Note "SCC" means Schedule of Components starting on page 60 of ECC, a "SSCC" means Shorter Schedule of Components starting on page 63 of ECC.				
		(in words), exc	cludin	ıg VA <sup>.</sup>	т	
11.2(20)	The tendered total of the Prices is	(in figures)				
11.2(20)	schedule The activity schedule is in					
A	Contract Data is  Priced contract with activity					
31.1	in the Risk Register  The programme identified in the					
11.2(14)	The following matters will be included					
		CV's (and further including CVs) are a Schedule entitled	_	_		

# TRANSNET NATIONAL PORTS AUTHORITY

OF NGQURA

TRANSNET TENDER NUMBER: TNPA/2022/09/1080/12302/RFP DESCRIPTION OF THE WORKS: FOR THE PARTITIONING OF THE EMENDI ADMINISTRATION BUILDING, PORT

62 SSCC	in	The percentage for design overheads is	%	
63 SSCC	in	The categories of design employees whose travelling expenses to and from the Working Areas are included in Defined Cost are:		





# **PART 2: PRICING DATA**

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



# **C2.1 Pricing instructions: Option B**

#### The conditions of contract 1.

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

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

# **Identified** 11 and defined

- (21) The Bill of Quantities is the bill of quantities as changed in 11.2 terms 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.



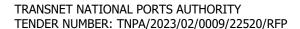
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# 2. Measurement and payment

# 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
I	litre
m	metre
mm	millimetre
m <sup>2</sup>	square metre
m <sup>2</sup> -pass	square metre pass
$m^3$	cubic metre
m³-km	cubic metre-kilometre
MN	meganewton





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MN.m	meganewton-metre
MPa	megapascal
No.	number
Prov sum <sup>1</sup>	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

<sup>&</sup>lt;sup>1</sup> 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



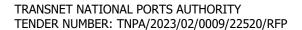
the *Contractor* is deemed to have allowed for all costs associated with such requirements within the tendered rates and Prices in the Bill of Quantities.

- 2.2.5. 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*

# 2.4. Amplification of or assumptions about measurement items

For the avoidance of doubt the following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.





# C2.2 The bill of quantities

# SECTION NO. 1 PRELIMINARIES

		Unit	Quantity	Rate	Amour
	SECTION NO.1				
	BILL NO. 1				
	PRELIMINARIES				
	NOTES				
	The works information and NEC contract conditions are to be studied carefully when pricing the items in the Bill of Quantities				
	FIXED CHARGE ITEMS				
1	Contractual requirements	Item	1		
	Facilities for Contractor on site:				
2	Offices and storage sheds	Item	1		
3	Ablutions	Item	1		
4	Water, electricity and communication	Item	1		
5	Fencing for site establishment and recreational working area.	Item	1		
6	Tools and equipment	Item	1		
7	Water, electricity and communications	Item	1		
8	Access and access control	Item	1		
9	Removal of site establishment	Item	1		
10	Rehabilitate site establishment area	Item	1		
	Other fixed obligations:				
11	(i) Health & safety obligations as per H&S specifications, including provision of risk assessments, project specific H&S plan, H&S safety file, training, medical assessments.	Lump Sum	1		
12	(ii) Compliance with COVID 19 regulations	Lump Sum	1		
	Time related items:				
13	Contractual requirements	Months	5		
	Operation and maintenance of facilities on site for duration of construction except where stated				
	Facilities for the Contractor:				
14	Offices and storage	Months	5		
15	Handover Clean	Months	5		
				R	

		Unit	Quantity	Rate	Amount
16	Ablutions	Months	5		
17	Tools and Equipment	Months	5		
18	Water and electricity	Months	5		
19	Scaffolding	Months	5		
20	Supervision	Months	5		
21	Transport	Months	5		
22	Crainage	Months	5		
23	Security	Months	5		
24	IT and communications	Months	5		
25	Skips,etc	Months	5		
	Other items:				
26	Complying with Environmental Specifications	Months	5		
27	Complying with Health and Safety Specifications	Months	5		
28	Complying with the Industrial Relations	Months	5		
29	Compliance with COVID 19 regulations	Months	5		
	Professional Services (refer to works information):				
	Professional Electrical Engineer/ Pr. Eng Technologist:				
30	(i) ECSA Registered Electrical Engineer for the design including issuing of approved for construction (AFC) drawings, intergration with other disciplines, commisining and close-out documentations for Electrical works as detailed in the works information.	Months	5		
31	(ii) Technical Management Packs - incl. data books, quality control documentation, operation and maintenance manuals, as-built drawings, technical monthly reports, engineering technical monthly queries, Final close out reports, etc.	Months	5		
32	(iii) Supervision for duration of construction (monitoring, quality control, etc.)	Months	5		
33	(iv) Project Progress Meetings	Months	5		
				R	
		•	· '	•	

		Unit	Quantity	Rate	Amount	
	Professional Mechanical Engineer/ Pr. Eng Technologist:					
34	(i) ECSA Registered Mechanical Engineer for the design including issuing of approved for construction (AFC) drawings, intergration with other disciplines, commisining and close-out documentations for Electrical works as detailed in the works information.	Months	5			
35	(ii) Technical Management Packs - incl. data books, quality control documentation, operation and maintenance manuals, as-built drawings, technical monthly reports, engineering technical monthly queries, Final close out reports, etc.	Months	5			
36	(iii) Supervision for duration of construction (monitoring, quality control, etc.)	Months	5			
37	(iv) Project Progress Meetings	Months	5			
	Professional Civil/ Structural Engineer/ Pr. Eng Technologist:					
38	(i) ECSA Registered Civil/ Structural Engineer for the design including issuing of approved for construction (AFC) drawings, intergration with other disciplines, commisining and close-out documentations for Electrical works as detailed in the works information.	Months	5			
39	(ii) Technical Management Packs - incl. data books, quality control documentation, operation and maintenance manuals, as-built drawings, technical monthly reports, engineering technical monthly queries, Final close out reports, etc.	Months	5			
40	(iii) Supervision for duration of construction (monitoring, quality control, etc.)	Months	5			
41	(iv) Project Progress Meetings	Months	5			
				R		_

# SECTION NO. 2 BUILDING WORKS

		Unit	Quantity	Rate	Amount
SECTION NO. 2	1				
BUILDING WOF	RKS				
BILL NO. 1					
<b>ALTERATIONS</b>					
Key:	Location Description:				
Un/A GF-W	Unallocated				
GF-W GF-E	GROUND FLOOR-WEST GROUND FLOOR-EAST				
FF-W	FIRST FLOOR-WEST				
FF-E	FIRST FLOOR-EAST				
SF-W	SECOND FLOOR-WEST				
SF-E	SECOND FLOOR-EAST				
TF-W TF-E	THIRD FLOOR-WEST THIRD FLOOR-EAST				
1F-E 1	Item Location (Auto)				
4F-W	FOURTH FLOOR-WEST				
4F-E	FOURTH FLOOR-EAST				
BF-1	BASEMENT FLOOR-01				
BF-2	BASEMENT FLOOR-02				
RK CWK	RECREATIONAL & KITCH COVERED WALKWAY				
CWK	GOVERED WALKWAT				
TRADE PREAM	BLES				
Trade Preamble					
	nbles refer to 'Model Preambles for				
Trades' (2008 ed	dition) for the full descriptions of material work to be done in this Bill.				
SUPPLEMENTA	ARY PREAMBLES				
Proprietary iten	ns or materials:				
Proprietary items of the brand spe Project Manager	s or materials where specified are to be cified - or other approved - by the				
View Site:					
site and satisfy h work to be done in the buildings of demolished. No sum in respect of	g this tender the contractor shall visit the nimself as to the nature and extent of the and the value of the materials contained or portions of the buildings to be claim for any variations of the contract of the nature and extent of the work or of ged materials will be entertained.				
Section No. 2 Bill No. 1	Carried to Collection			R	
Alterations					
, ittorations	4				
	•		1		a I

	1	Unit	Quantity	Rate	Amount	
	General:					
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the Project Manager.					
	Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing					
	TEMPORARY BARRIERS, SCREENS, ETC.					
	Temporary barriers, screens, etc including removal.					
1	Drywall barrier 3200mm high of galvanised steel channel section rails and studs covered on one side with 12,7mm gypsum plasterboard and finished with two coats interior quality PVA emulsion paint, including corners, ends, etc	m	156			
	GF-W 33 FF-W 20 FF-E 18					
	SF-W 33					
	4F-E 16 BF-1 8 BF-2 16					
2	Extra over for hollow core single door size 813 x 2032mm high, including steel frame, two-lever mortice lock, hinges, primer and two coats paint	No	47			
	GF-W 8 GF-E 7 FF-W 6					
	FF-E 4 SF-W 4 SF-E 6					
	TF-E 4 4F-W 2 4F-E 2 BF-1 2 BF-2 2					
	REMOVAL OF EXISTING WORK					
	Taking down and removing roofs, floors, panelling,					
	ceilings, partitions, etc					
	REMOVAL OF EXISTING WORK.					
3	Allow for watering, cleaning, protection, etc. of the works to prevent any nuisance of dust, noise, pollution, etc. and supply, errect and remove on completion all temporary dust screens, signs, etc. required for the working regulation compliances. (for entire working area)	Item				
	I 1					
	Carried to Collection			R		
	Section No. 2					
	Bill No. 1					
	Alterations					
	5					

		Unit	Quantity	Rate	Amount	
4	Allow for protecting all existing work liable to suffer					
4	damage (i.e. Walls, doors, windows, roofs, finishes, floors, fittings, etc.) from damage during the building operations, alterations, etc., and make good all work damaged with new material to match existing to the approval of the Project Manager. (For entire working area and the payment will be pro-rata in accordance of value related work).	Item				
	Breaking down and removing brickwork, concrete, etc.					
5	230mm brick walls. (tiled & steel edge protection strips, etc.).	m²	32			
6	GF-W 32 350mm Brick walls. (plastered).	m²	284			
7	GF-W 50 GF-E 216 RK 18 350mm Cavity brick walls.(plastered).	m²	41			
8	GF-E 39 RK 2 500mm Cavity brick walls.(plastered).	m²	3			
9	RK 3 350mm Cavity brick walls (tiled & steel edge protection strips, etc.).	m²	20			
	GF-E 20 <u>Taking out and removing doors, windows, etc from</u> <u>brickwork to be demolished:</u>					
10	Timber single door and frame size 813 x 2032mm high overall from 90mm thick partition/ brickwalls/concrete,etc.	No	6			
11	GF-W 4 GF-E 1 TF-E 1 Timber double door and frame size 1800 x 2032mm high overall from 90mm thick partition/ brickwalls/concrete,etc.	No	2			
	GF-W 2  Carefully Taking out and removing doors, windows, etc from brickwork/concrete to be handed over to client:					
12	Heavy Duty Double Door hardwood timber and frame size 1800 x 2700mm high overall from 350mm brickwalls/ concrete, etc.	No	4			
	GF-W 4					
	Carried to Collection Section No. 2 Bill No. 1			R		_
	Alterations 6					

		Unit	Quantity	Rate	Amount	
13	Heavy Duty Roller Shutter Door steel with size 4800 x 2100mm opening size locked side and wall, locks to be fitted on both sides internally finish floor level, components including end plates, guide rails, 400mm wide grinate counter top, etc. from brickwalls / concrete, etc.	No	1			
14	GF-W 1 Heavy Duty/Special Sliding timber room diving panels with steel and system tracks and frame size 14800 x 3200mm high overall from brickwalls, concrete, roof, etc.	No	1			
15	GF-E 1 Heavy Duty/Special projector board or screen / frame with hanger size 2250 x 3600mm high overall from brickwalls, concrete, roof, etc.	No	1			
16	GF-W 1 Heavy Duty/Special video screen or television with hanger size 2250 x 3600mm high overall toghether with projector from brickwalls, concrete, roof, etc.	No	1			
17	GF-E 1 Heavy Duty/Special Granite counter planter box (trough planter) plugged on floor size 4517 x 600 x 1200mm high, store in contractor's store, set aside for re-use and					
18	install later.  GF-E 2  Heavy Duty/Special Granite counter planter box (trough planter) plugged on floor size 2300 x 600 x 1200mm high store in contractor's store, set aside for re-use and	No	2			
	install later.  GF-E 2  Taking out and removing doors, windows, etc.	No	2			
19	including thresholds, sills, etc (building up openings and making good finishes elsewhere measured)  Glazed Aluminium window not exceeding 2,5m².	No	1			
	RK 1  Taking down and removing roofs, floors, panelling, ceilings, partitions, etc					
20	Side sheets or cladding steel covering and steel purlins, etc.  RK 7	m²	7			
21	Side flashing to eaves overhangs, etc. including steel purlin or sprockets.	m	10			
	Carried to Collection Section No. 2			R		
	Bill No. 1 Alterations 7					

		Unit	Quantity	Rate	Amount	
	Taking out and removing doors, windows, gates, etc., including thresholds, sills, etc., and making good plaster on both sides and plastering reveals (making good paint work elsewhere measured):					
22	Timber single door and timber frame size 813 x 2032mm high overall from one brickwall.	No	1			
	TF-E 1 Carefully Taking down and removing roofs, floors, panelling, ceilings, partitions, etc., set aside for later refixing to similar position:					
23	Acoustic tile suspended ceilings, including cornices, suspension grid, hangers, etc.	m²	1,004			
	GF-W 446 GF-E 407 FF-E 52 SF-W 41 4F-W 13 4F-E 12 BF-1 33					
	<u>Taking down and removing roofs, floors, panelling, ceilings, partitions, etc.:</u>					
24	Timber bulkhead size 1300 x 300mm fixed at junction bewteen wall and concrete soffit inculding making good plaster. (making good paint elsewhere measured).	m	11			
25	GF-E 11 Gypsum plasterboard ceilings including cornices, steel/timber brandering, etc.	m²	15			
26	Drywall partitions 3620mm high, including doors, glazed borrowed lights, etc.	m	33			
	GF-W 17 GF-E 9 SF-E 4 TF-E 3					
	Taking out and removing sundry joinery work, fittings, etc and making good plaster where disturbed. (Making good paint elsewhere measured):					
27	Timber skirtings from brickwork.	m	43			
28	GF-W 20 GF-E 23  12 000 x 5 000 x 350mm high raised timber floor supporting platform including underneath services, etc.	No	1			
	GF-W 1  Carefully taking out and removing joinery fittings etc.:					
29	Cupboard doors size 540 x 2500mm high from exising DB built-in cupboard and make good to receive new doors (new doors elsewhere measured).	No	2			
	GF-E 2					
	Carried to Collection			R		
	Section No. 2 Bill No. 1					_ <b></b>
	Alterations					
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1	1	Unit	Quantity	Rate	Amount
	Taking out and removing sundry joinery work,				
	fittings, etc, setting aside for re-use and later refixing in similar new position				
30	Timber skirtings	m	500		
	GF-W 123 GF-E 197 FF-W 23				
	FF-E 23 SF-W 29 SF-E 50				
31	TF-E 33 4F-W 15 4F-E 7 Timber counter size 640 x 4811 x 900mm high including				
31	drawers, etc.	No	1		
	GF-E 1				
32	Structural steel canopy with size 9000 x 1000 x 2300mm	NI-			
	high including bases, etc.	No	1		
	RK 1  Taking up and removing wood block floor coverings,				
	vinyl floor coverings, carpets, etc. and preparing				
	screeds for new self- levelling screed (self-levelling screed elsewhere measured):				
33	Carpet floor covering including alluminium dividing strips.	m²	1,732		
	GF-W 136 GF-E 1374 FF-W 84	•••	1,702		
	FF-E 14 SF-W 27 SF-E 53				
	TF-W 15 TF-E 24 4F-E 5				
34	Taking out/off and removing sundry metalwork:  1000mm high Steel /Alluminium balustrades fixed to				
34	concrete/brickwork, etc.	m	47		
	GF-W 15 SF-E 5 TF-E 5				
	BF-1 7 RK 15  Taking out/off and removing metalwork and				
	preparing for refixing new:				
35	Aluminium shopfronts, fixed light and frame size 1800 x				
	2180mm high and make good to receive new shopfront (new shopfront elsewhere measured).	NI.			
		No	1		
36	RK 1 Aluminium shopfronts, fixed light and frame size 5000 x				
	3400mm high with double door size 1800 x 2300mm				
	high and make good to receive new shopfront (new shopfront elsewhere measured).	No	1		
	GF-W 1	110	'		
37	Aluminium shopfronts, fixed light and frame size 9000 x				
	3400mm high with double door size 2000 x 2300mm high and make good(new shopfront elsewhere				
	measured).	No	1		
	RK 1				
	Carried to Collection			R	
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1		Unit	Quantity	Rate	Amount	
	Hacking up/off and removing granolithic, screeds,					
	plaster, etc. from concrete or brickwork and preparing surfaces for new screed, plaster, tile					
	finishes, etc.:					
38	Internal plaster from walls and columns.	m²	20			
	GF-W 20					
39	External plaster from walls, columns and beams.	m²	13			
	GF-W 13					
	Hacking up/off and removing ceramic tiles including removing mortar bed or adhesive from concrete or					
	brickwork and preparing surfaces for new screed,					
	plaster, tile finish, etc.:					
40	Tiles to floors including aluminium dividing strips.	m²	1,197			
	GF-W 522 GF-E 188 FF-W 55					
	FF-E 81 SF-W 100 SF-E 89					
	TF-E 29 4F-W 13 4F-E 24 BF-1 33 RK 63					
41	BF-1 33 RK 63 Tiles to walls.	m²	318			
7'	GF-W 285 BF-1 33	***	310			
	Taking out and removing piping, sanitary fittings,					
	etc., including cutting off as necessary,					
	disconnecting piping from fittings and making					
	good floor and wall finishes (making good tiling and paintwork elsewhere):					
42	15mm Copper piping including fittings and brackets and blanking off in walls.	m	5			
	GF-W 5	•••				
43						
	blanking off in walls.	m	12			
	GF-W 12					
44	11 11 0 0 0		_			
	blanking off in walls.	m	5			
	GF-W 5 CUTTING THROUGH FLOORS AND CEILINGS					
	Cutting through:					
45	150mm thick reinforced concrete surface bed for 750mm wide concrete wall footings and making good concrete					
	on both sides of new 230mm brick walls.	m	6			
	RK 6	•••				
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ı		Unit	Quantity	Rate	Amount	
46	Existing suspended ceilings and alluminium frame for 100mm thicik shopfronts, including making good on both sides, new cornices to match existing ceiling.  GF-W 19 GF-E 41 FF-W 8 FF-E 9 SF-W 19 SF-E 10	m	113			
47	Existing suspended ceilings and alluminium frame for 100mm dry wall partition walls, including making good on both sides of walls including new cornices to match existing  GF-W 14 GF-E 95 FF-E 4	m	121			
	SF-W 4 4F-W 4 PREPARATORY WORK TO EXISTING SURFACES					
	Hacking existing screed to receive tiles					
48	Hacking existing screed to receive tiles (tiles elsewhere measured).	m²	77			
	RK 77  MAKING GOOD OF FINISHES, ETC.					
	Making good cement screeds:					
49	Floors where Dry walls removed.	m	36			
	GF-W 17 GF-E 9 SF-E 4 TF-E 3 RK 3					
50	Floors where one brick walls removed.	m	31			
	GF-W 6 GF-E 25					
	Making good internal cement plaster (Provisional):					
51	Walls in patches.	m²	36			
	GF-W 35 RK 1		40			
52	Walls where half brick walls removed.	m	12			
53	GF-W 12 Walls where one brick walls removed.	m	14			
	GF-W 14					
54	Chase for 15mm diameter pipes.	m	10			
	GF-W 10					
55	Chase for 22mm diameter pipes.	m	23			
56	GF-W 23 Chase for 28mm diameter pipes.	m	22			
57	GF-W 22 Chase for 40mm diameter pipes.	m	33			
58	GF-W 33 Chase for 50mm diameter pipes.	m	2			
36	GF-W 2	m	2			
	G1-W 2					
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		Unit	Quantity	Rate	Amount	
59	Chase for 15mm diameter pipes including 'Menlath 213' galvanised 'Mentex' plaster mesh fixed to concrete or brickwork.	m	4			
60	GF-W 4 Chase for 20mm diameter pipes including "Menlath 213" galvanised "Mentex" plaster mesh fixed to concrete or brickwork. (Provisional)	m	5			
61	GF-W 5 Chase for 22mm diameter pipes including 'Menlath 213' galvanised 'Mentex' plaster mesh fixed to concrete or brickwork.	m	12			
	GF-W 12 BUILDING UP OPENINGS					
	Brickwork in NFP bricks in class II mortar in building					
62	up openings One brick walls	m²	7			
	GF-W 3 RK 4 PREPARATORY WORK TO EXISTING SURFACES	•••				
	Preparatory work to existing surfaces:					
63	Prepare existing painted walls to receive skim coat plaster.	m²	10			
64	TF-E 10 Prepare existing painted walls to receive ceramic tiles.	m²	134			
	GF-W 67 RK 67  OPENINGS THROUGH EXISTING WALLS ETC					
	Breaking out for and forming plain openings through brick walls, including prestressed concrete lintels, making good cement plaster on both sides and into reveals and making good 'Prostruct' polyurethane coating where disturbed. (making good paintwork elsewhere)					
65	Opening size 813 x 2032mm high through one brick wall for door. (door elsewhere measured).	No	1			
66	Opening size 1500 x 1200mm high through 270mm cavity wall for folding window. (window elsewhere measured).	No	1			
	RK 1	INO	'			
67	Opening size 900 x 2100mm high through dry wall partitioning for door. (door elsewhere measured).  4F-E 1	No	1			
	Carried to Collection Section No. 2			R		
	Bill No. 1					
	Alterations					
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		Unit	Quantity	Rate	Amount	
	Breaking out for and forming plain openings through brick walls, including prestressed concrete lintels, making good cement plaster on both sides and into reveals. (making good paintwork elsewhere					
68	measured) Hole through half brickwall for pipe not exceeding 50mm diameter.	No	3			
69	GF-W 3 Hole through half brickwall for pipe exceeding 50mm not exceeding 100mm diameter.	No	2			
70	GF-W 2 Hole through half brickwall for pipe exceeding 100mm not exceeding 150mm diameter.	No	4			
	GF-W 4					
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1		Unit	Quantity	Rate	Amount
SECTION NO. 2					
BUILDING WORK	(S				
BILL NO. 2					
EARTHWORKS					
Key:	Location Description:				
Un/A	Unallocated				
GF-W	GROUND FLOOR-WEST				
GF-E	GROUND FLOOR-EAST				
FF-W	FIRST FLOOR-WEST				
FF-E SF-W	FIRST FLOOR-EAST SECOND FLOOR-WEST				
SF-E	SECOND FLOOR-EAST				
TF-W	THIRD FLOOR-WEST				
TF-E	THIRD FLOOR-EAST				
I	Item Location (Auto)				
4F-W	FOURTH FLOOR-WEST				
4F-E	FOURTH FLOOR-EAST				
BF-1	BASEMENT FLOOR-01 BASEMENT FLOOR-02				
BF-2 RK	RECREATIONAL & KITCH				
CWK	COVERED WALKWAY				
TRADE PREAMB	LES				
Trade Preambles					
	_				
Trades' (2008 edit	oles refer to 'Model Preambles for ion) for the full descriptions of material ork to be done in this Bill.				
SUPPLEMENTAR	RY PREAMBLES				
Nature of ground					
	ground is assumed to be earth, but sed with hard rock or soft rock.				
	excavated material:				
	rting away of excavated material shall				
be deemed to include trucks directly from	ude loading excavated material onto n the excavations or, alternatively, from				
•	d on the building site.				
Demolition:					
to be demolished	to visit the site, and inspect the works and price accordingly. No claims for egard of demoliitions will be				
	Coming to Callection			,	
Ozafie - Ne - O	Carried to Collection			R	
Section No. 2					
Bill No. 2					
Earthworks					
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1	1	Unit	Quantity	Rate	Amount	
	Filling:					
	Notwithstanding the reference to prescribed multiple handling in clause 1 page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material					
	Note:					
	The removal of bitumen paving has not been measured, and forms part of the relevent excavations. No payment will be made for the removal of bitumen pavings when it forms part of areas to be excavated.					
	BULK EXCAVATIONS ETC.					
	Open face excavation in earth over sloping site:					
1	Open face excavation.	m³	187			
	RK 187					
	Extra over bulk excavations in earth for excavation in:					
2	Soft rock	m³	19			
	RK 19					
3	Hard rock.	m³	9			
	RK 9					
	EXCAVATION OTHER THAN BULK.					
	Excavation in earth not exceeding 2m deep:					
4	Trenches.	m³	62			
_	RK 62 Holes.	m3	170			
5	RK 87 CWK 91	m³	178			
	Extra over excavations other than bulk in earth for					
	excavation in:					
6	Soft rock.	m³	24			
	RK 15 CWK 9	2	40			
7	Hard rock.	m³	12			
	RK 7 CWK 5  Risk of collapse of excavations other than bulk:					
8	Sides of trenches and hole excavations not exceeding					
	1,5m deep.	m²	583			
	RK 369 CWK 214					
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	Earthworks 16					
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1	ı	Unit	Quantity	Rate	Amount
	CARTING AWAY.				
	Extra over all excavations for loading, carting and				
	dumping surplus excavated material (no allowance made for increase in bulk):				
9	Off site to a dumping site to be found by the Contractor.	m³	105		
	RK 86 CWK 19		100		
	EARTH FILLING, ETC.				
	Filling with material from the excavations compacted				
	to a density of at least 95% Mod. AASHTO maximum density:				
10	Backfilling to trenches, holes, etc.	m³	82		
	RK 46 CWK 36				
	Filling with approved G7 material in accordance with				
	SABS 1200 DM supplied and carted on to site site by the Contractor, compacted to 95% Mod AASHTO				
	density.				
11	Under floors, pavings, etc.	m³	8		
	RK 8				
12	Backfilling to trenches, holes, etc.	m³	44		
	RK 26 CWK 18				
	Filling with over site of G5 material in accordance with SABS 1200 DM supplied and carted on to site				
	by the Contractor, compacted to 95% Mod AASHTO				
	density.				
13	Under floors, pavings, etc.	m³	8		
4.4	RK 8	m3	46		
14	Backfilling to trenches, holes, etc.  RK 28 CWK 18	m³	40		
	Hardcore filling:				
15	Under floors etc.	m³	16		
.0	RK 16	•••	10		
	Coarse river sand filling compacted to 95% Mod.				
	AASHTO maximum density:				
16	Under floors, etc.	m³	3		
	RK 3				
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	Earthworks				
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1		Unit	Quantity	Rate	Amount
	Surface Preparation:				
17	Trim and level off surface of ground (excavated or filled under this Contract) to receive concrete surface beds, including excavating or filling, ripping and scarifying as necessary and compacting the whole area for a depth of 150mm to a density of at least 93% Mod. AASHTO maximum density, part to falls.	m²	55		
	RK 55 KEEPING EXCAVATIONS FREE OF WATER.				
	Keeping excavations free of water:				
18	Keeping excavations free of all water other than subterranean water.	Item			
	1 <u>TESTS.</u>				
	Prescribed density tests on filling:				
19	Modified AASHTO Density test.	No	26		
20	RK 26 Field Density test including Optimum Moisture Content (four readings per test).	No	15		
	RK 15 SOIL POISONING.				
	Approved brand of anti-termite soil poison applied by a Registered Pest Control company and				
	guaranteed against termite infestation for ten years:				
21	Under floors, etc., including forming and poisoning shallow furrows against foundation walls, etc., filling in furrows and ramming.	m²	55		
	RK 55				
22	To bottoms and sides of trenches, holes, etc	m²	762		
	RK 426 CWK 336				
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Earthworks			
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SECTION NO. 2 BULL INO. 3 CONCRETE, FORMWORK AND REINFORCEMENT  Mox: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-W FIRST FLOOR-WEST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-B THORD FLOOR-WEST I I I I I I I I I I I I I I I I I I I			Unit	Quantity	Rate	Amount
BULL DING WORKS BILL NO. 3  CONCRETE, FORMWORK AND REINFORCEMENT  Key:  Location Description:  UniA  Uniallocated GF-W GROUND FLOOR-WEST GF-E  GROUND FLOOR-WEST FF-E  FIRST FLOOR-BST SF-E  SECOND FLOOR-WEST SF-E  SF-E  SECOND FLOOR-WEST SF-E  SECOND FLOOR-WEST SF-E  SECOND FLOOR-WEST SF-E  SF-E  SECOND FLOOR-WEST TF-E  TH-W  THIRD FLOOR-WEST TF-E  TH-W  FOURTH FLOOR-WEST BF-1  BASEMENT FLOOR-01  BF-2  BASEMENT FLOOR-02  RR  RECREATIONAL & KITCH CVIK  COVERED WALKWAY   Trade Preambles  FOR Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES  Cost of tests:  The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200  G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze Concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part crement (12-1), the sab graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The liner materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.  Carried to Collection						
BILL NO. 3  CONCRETE. FORMWORK AND REINFORCEMENT  Key: Location Description: Un-W Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-WEST TF-W THIRD FLOOR-BST TF-W THIRD FLOOR-BST TF-W THIRD FLOOR-BST TF-W THIRD FLOOR-BST TF-W FOURTH FLOOR-BST TF-B F-1 BASEMENT FLOOR-O1 BF-2 BASEMENT FLOOR-02 RR RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles:  For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES  Cost of tests:  The costs of making, storing and testing of concrete test cubes as required under clause 7 Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are required to or other foreign matter, to one part cement (12-1), the ash graded up to particles which will pass a 16.5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be lifert mixed with the cement into a mordar and the ash added afterwards and thoroughly incorporated.  Rection No. 2 Bill No. 3 Concrete, Formwork And Reinforcement	SECTION NO.	<u>2</u>				
CONCRETE. FORMWORK AND REINFORCEMENT  Sex: Location Description: UniA Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-W FIRST FLOOR-WEST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-RAST SF-W SECOND FLOOR-RAST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W FOURTH FLOOR-WEST TF-B THIRD FLOOR-WEST TF-W FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles:  For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES  Cost of tests:  The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. Trest cubes are required under clause of variety and the contractor to the approval of the Architect. (Test cubes and or or or or or or institution nominated by the Contractor to the approval of the Architect. (Test cubes and or or or or or or or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze concrete shall consist of twelve parts clean dy furnace ash, free from coal or or or for foreign matter, to orne part cement (12:1), the ash graded up to particles which will pass a 4.75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	BUILDING WORKS					
Key: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-E FIRST FLOOR-WEST FF-E FIRST FLOOR-WEST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-REST TF-E THIRD FLOOR-REST TF-E THIRD FLOOR-REST TF-E THIRD FLOOR-REST TF-E TOWN FOWN FOR THE TOWN FOWN FOWN FOWN FOWN FOWN FOWN FOWN F	BILL NO. 3					
Un/A GF-W GR-W GROUND FLOOR WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-RAST SF-W SECOND FLOOR-RAST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W FOURTH FLOOR-WEST TF-W FOURTH FLOOR-WEST TF-W FOURTH FLOOR-WEST TF-B F-1 BASEMENT FLOOR-O2 RK RCCREATIONAL & KITCH CWK COVERED WALKWAY   Trades '(2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests:  The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from an inimimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.	CONCRETE, F	ORMWORK AND REINFORCEMENT				
GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-WEST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E FOURTH FLOOR-WEST AF-E FOURTH FLOOR-BAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RCCREATIONAL & RITCH CWK COVERED WALKWAY   Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests:  The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze Concrete:  Breeze Concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (1(2:1)), the ash graded up to particles which will pass a 16,5mm ing from an inimimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.  Carried to Collection  Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement	<u>Key:</u>	Location Description:				
GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-WEST SF-W SECOND FLOOR-EAST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W FOURTH FLOOR-WEST TF-B THIRD FLOOR-WEST TF-B THIRD FLOOR-WEST TF-E FOURTH FLOOR-WEST AF-E FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles: FOr Trade Preambles refer to Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests:  The costs of making, storing and testing of concrete test cubes as required under clause 7 Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.  Carried to Collection  R  Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement						
FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THORD FLOOR-WEST TF-E FOURTH FLOOR-WEST TF-E SASEMENT FLOOR-OI BF-2 BASEMENT FLOOR-OI BF-2 BASEMENT FLOOR-OI BF-2 BASEMENT FLOOR-WEST RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles: FOr Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests: The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete  Breeze Concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.  Carried to Collection  R  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	_					
FF-E SECOND FLOOR-BAST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-BAST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST I I Item Location (Auto) 4F-W FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests: The costs of making, storing and testing of concrete test cubes as required under clause 7 Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze Concrete:  Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16.5mm ring from a minimum which fails to pass a 4.75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.  Carried to Collection  R Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement	-					
SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-EAST TF-W THIRD FLOOR-WEST TF-E FOURTH FLOOR-BAST HF-E FOURTH FLOOR-BAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles:  For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests: The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze Concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16.5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.  Carried to Collection  R Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement						
TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-EAST I I Item Location (Auto) 4F-W FOURTH FLOOR-EAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests:  The costs of making, storing and testing of concrete test cubes as required under clause 7 Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete: Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a montar and the ash added afterwards and thoroughly incorporated.  Carried to Collection  R  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement						
TF-E THIRD FLOOR.EAST I Item Location (Auto) 4F-W FOURTH FLOOR.WEST 4F-E FOURTH FLOOR.EAST BF-1 BASEMENT FLOOR.01 BF-2 BASEMENT FLOOR.02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests: The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze concrete shall consist of twelve parts clean dry furnace ash, free from coal or other foreign matter, to one part cement (12:1), the ash graded up to particles which will pass a 16,5mm ring from a minimum which fails to pass a 4,75mm mesh. The finer materials from the screening are to be first mixed with the cement into a mortar and the ash added afterwards and thoroughly incorporated.  Carried to Collection  R  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	SF-E					
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BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles:  For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Cost of tests:  The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze Concrete:  Breeze Concrete:  The costs of making, storing and testing of concrete test cubes as required under clause 7 'Tests' of SABS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the Architect. The testing shall be undertaken by an independent firm or institution nominated by the Contractor to the approval of the Architect. (Test cubes are measured separately).  Breeze Concrete:  Breeze Concrete:  Carried to collection  R  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement						
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Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement	furnace ash, fre one part cemer which will pass fails to pass a 4 the screening a mortar and the	the from coal or other foreign matter, to the first (12:1), the ash graded up to particles a 16,5mm ring from a minimum which 1,75mm mesh. The finer materials from the to be first mixed with the cement into a				
Bill No. 3 Concrete, Formwork And Reinforcement		Carried to Collection			R	
Concrete, Formwork And Reinforcement	Section No. 2					
Concrete, Formwork And Reinforcement	Bill No. 3					
		work And Reinforcement				
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		eMENDI BUILDING ALTERATION-PoN					
	1	Unit	Quantity	Rate	Amount		
	Foamcement Lightweight Concrete:						
	Foamcement lightweight concrete is to have a density of 600kg/m3 for the top 50mm and 500kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 50mm.						
	Celbeton Lightweight Concrete:						
	Celbeton lightweight concrete is to have a density of 1000kg/m3 for the top 20mm and 408kg/m3 for the remaining thickness. The minimum thickness at outlets, channels, etc. shall be 30mm.						
	Formwork:						
	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.						
	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.						
	Formwork to soffits of solid slabs etc., shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described.						
	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.						
	UNREINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES.						
	15Mpa/19mm Concrete						
1	Surface blinding under footings and bases.	m³	8				
	RK 5 CWK 3						
	20Mpa/19mm Concrete						
2	Filling to cavity of hollow brick wall.	m³	3				
	RK 3						
	Carried to Collection						
	Section No. 2			R			
	Bill No. 3						
	Concrete, Formwork And Reinforcement						
	21						
,	'		'		'		

1		Unit	Quantity	Rate	Amount
	REINFORCED CONCRETE.				
	30MPa/19mm Concrete:				
3	Slabs including beams and inverted beams.	m³	19		
4	RK 19 Columns in foundations.	m3	0		
4		m³	8		
	RK 4 CWK 4  REINFORCED CONCRETE CAST AGAINST  EXCAVATED SURFACES.				
	30Mpa/19mm Concrete				
5	Surface beds cast in panels on waterproofing.	m³	13		
	RK 13				
6	Strip footings.	m³	12		
	RK 12				
7	Bases.	m³	47		
	RK 23 CWK 24				
	TEST BLOCKS.				
	Test blocks:				
8	Making and testing set of three 150 x 150 x 150mm concrete strength test cubes.	Sets	20		
	RK 20				
	GROUTING.				
	35MPa non-shrink grout:				
9	Bedding approximately 150 x 150 x 25mm thick to 250 x 250mm base plate including chamfered edges all round.	No	80		
	GF-E 3 FF-W 15 RK 20				
	CWK 42 SUNDRIES.				
10	Take delivery of holding down bolts and cast into exact				
10	position in top of column or base including template, etc	Item			
	l 1				
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides of columns in foundations.				
11	Square columns with total height not exceeding 3,5m high.	m²	98		
	RK 48 CWK 50				
	Rough formwork to soffits				
12	Slabs exceeding 250mm but not exceeding 500mm thick propped up exceeding 3,5m and not exceeding 5,0m				
	high.	m²	57		
	RK 57				
	Carried to Collection			R	
	Section No. 2				
	Bill No. 3				
	Concrete, Formwork And Reinforcement 22				
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Rough Formwork to Sides and Soffits:    Rough Formwork to Sides and Soffits:	I		Unit	Quantity	Rate	Amount	
Edges of roof slab propped up exceeding 3.5m and not exceeding 3migh.  RK 28  MOVEMENT JOINTS ETC.  Saw cut joints:  14 Saw cut joint in top of concrete formed of a 10mm x 60mm first cut not later than 1 day after casting concrete and 6mm x 20mm second cut at top of joint made 21 days after casting.  RK 34  Expansion joints with bitumen impregnated softboard between vertical concrete surfaces:  15 10mm Joints not exceeding 300mm high.  RK 15  'Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  16 10mm Joints not exceeding 300mm high.  RK 21  'Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  17 10mm Joints not exceeding 300mm high.  RK 21  'Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  18 2 Vertical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  18 Surface beds not exceeding 300mm high.  RK 67  REINFORCEMENT  Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 051 CWK 021  8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  20 2mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement							
exceeding 5m high.  RX 28  MOVEMENT JOINTS ETC.  Saw cut joint in top of concrete formed of a 10mm x 60mm first cut not later than 1 day after casting concrete and 6mm x 20mm second cut at top of joint made 21 days after casting.  RK 34  Expansion joints with bitumen impregnated softboard between vertical concrete surfaces:  10mm Joints not exceeding 300mm high.  RK 15  Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  10mm Joints not exceeding 300mm high.  RK 21  Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  17 10mm Joints not exceeding 300mm high.  RK 21  Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  17 10mm Joints not exceeding 300mm high.  RK 21  Sortical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  Surface beds not exceeding 300mm thick.  RK 67  REINFORCEMENT  Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 0.51 CWK 0.21  10mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 3mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  23 3mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement							
MOVEMENT JOINTS ETC.  Saw cut joints:  14 Saw cut joint in top of concrete formed of a 10mm x 80mm first cut not later han 1 day after casting concrete and 6mm x 20mm second cut at top of joint made 21 days after casting.  RK 34  Expansion loints with bitumen impregnated softboard between vertical concrete surfaces:  15 10mm Joints not exceeding 300mm high.  RK 15  Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  16 10mm Joints not exceeding 300mm high.  RK 21  'Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  17 10mm Joints not exceeding 300mm high.  RK 21  'Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  18 20  Vertical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  18 Surface beds not exceeding 300mm thick.  RK 67  REINFORCEMENT  Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 1.45 CWK 1.2  10mm Diameter bars.  RK 0.51 CWK 0.21  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 3mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	13	exceeding 5m high.	m²	28			
Saw cut joint in top of concrete formed of a 10mm x 60mm first cut not later than 1 day after casting concrete and 6mm x 20mm second cut at top of joint made 21 days after casting.  RK 34  Expansion joints with bitumen impregnated softboard between vertical concrete surfaces:  15 10mm Joints not exceeding 300mm high.  RK 15 'Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  16 10mm Joints not exceeding 300mm high.  RK 21 'Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  17 10mm Joints not exceeding 300mm high.  RK 21 'Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  18 23 Vertical jogale construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  8 Surface beds not exceeding 300mmm thick.  RK 67  REINFORCEMENT Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 0.51 CWK 0.21  8mm Diameter bars.  RK 0.51 CWK 0.21 High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21 High tensile steel reinforcement to structural concrete work:  23 32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement							
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Expansion joints with bitumen impregnated softboard between vertical concrete surfaces:  15 10mm Joints not exceeding 300mm high. RK 15 'Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  16 10mm Joints not exceeding 300mm high. RK 21 'Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  17 10mm Joints not exceeding 330mm high. RK 21 'Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  18 10mm Joints not exceeding 330mm high. RK 23 Vertical joggle construction joints through concrete including applying bond breaker to matting face and finishing joint with a nosing tool:  18 Surface beds not exceeding 300mmm thick. RK 67 REINFORCEMENT Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars. RK 1.45 CWK 1.2 10mm Diameter bars. RK 0.51 CWK 0.21 8mm Diameter bars. RK 0.51 CWK 0.21 High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars. RK 0.51 CWK 0.21  Carried to Collection  Carried to Collection  Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement	14	60mm first cut not later than 1 day after casting concrete and 6mm x 20mm second cut at top of joint made 21	m	34			
Softboard between vertical concrete surfaces:		RK 34					
RK 15  'Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  10mm Joints not exceeding 300mm high.  RK 21  'Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  17 10mm Joints not exceeding 330mm high.  RK 23  Vertical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  18 Surface beds not exceeding 300mmm thick.  RK 67  REINFORCEMENT  Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 1.45 CWK 1.2  10mm Diameter bars.  RK 0.51 CWK 0.21  8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement							
Sondor Jointex' closed cell expanded polyethylene between vertical concrete surfaces:  10 10mm Joints not exceeding 300mm high.  RK 21  Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  10 10mm Joints not exceeding 330mm high.  RK 23  Vertical loggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  Surface beds not exceeding 300mmm thick.  RK 67  REINFORCEMENT  Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 1.45 CWK 1.2  10mm Diameter bars.  RK 0.51 CWK 0.21  8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	15		m	15			
RK 21 Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  17 10mm Joints not exceeding 330mm high.  RK 23 Vertical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  18 Surface beds not exceeding 300mmm thick.  RK 67 REINFORCEMENT Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 1.45 CWK 1.2  20 10mm Diameter bars.  RK 0.51 CWK 0.21  21 8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection Section No. 2  Bill No. 3 Concrete, Formwork And Reinforcement		'Sondor Jointex' closed cell expanded polyethylene					
**Sondor Jointex' closed cell expanded polyethylene between vertical concrete and brick surfaces:  17 10mm Joints not exceeding 330mm high.  RK 23  **Vertical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  18 Surface beds not exceeding 300mmm thick.  RK 67  **REINFORCEMENT**  **Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 1.45 CWK 1.2  20 10mm Diameter bars.  RK 0.51 CWK 0.21  21 8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  **Carried to Collection**  **Carried to Collection*	16	10mm Joints not exceeding 300mm high.	m	21			
between vertical concrete and brick surfaces:  17 10mm Joints not exceeding 330mm high.  RK 23  Vertical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  18 Surface beds not exceeding 300mmm thick.  RK 67  REINFORCEMENT  Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 1.45 CWK 1.2 10mm Diameter bars.  RK 0.51 CWK 0.21 21 8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  23 2mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement		RK 21					
RK 23 Vertical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  18 Surface beds not exceeding 300mmm thick. RK 67 REINFORCEMENT Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars. RK 1.45 CWK 1.2 20 10mm Diameter bars. RK 0.51 CWK 0.21 21 8mm Diameter bars. RK 0.51 CWK 0.21 High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars. RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  23 32mm Diameter bars. RK 0.51 CWK 0.21  Carried to Collection R Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement							
Vertical joggle construction joints through concrete including applying bond breaker to mating face and finishing joint with a nosing tool:  Surface beds not exceeding 300mmm thick.  RK 67  REINFORCEMENT  Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 1.45 CWK 1.2  20 10mm Diameter bars.  RK 0.51 CWK 0.21  21 8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	17	10mm Joints not exceeding 330mm high.	m	23			
RK   67   REINFORCEMENT   Mild steel reinforcement to structural concrete work:   19   12mm Diameter bars.   Tonnes   2.65   RK   1.45   CWK   1.2   CWK   0.21   CWK   0.51   CWK   0.21   RK   0.51   CWK   0.21   CONCRETE WORK:   CONCRETE WOR		Vertical joggle construction joints through concrete including applying bond breaker to mating face and					
REINFORCEMENT Mild steel reinforcement to structural concrete work:  19 12mm Diameter bars.  RK 1.45 CWK 1.2  10mm Diameter bars.  RK 0.51 CWK 0.21  8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	18	Surface beds not exceeding 300mmm thick.	m	67			
Mild steel reinforcement to structural concrete work:  12 mm Diameter bars.  RK 1.45 CWK 1.2  10 mm Diameter bars.  RK 0.51 CWK 0.21  8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement		RK 67					
19 12mm Diameter bars.  RK 1.45		REINFORCEMENT					
RK 1.45 CWK 1.2 10mm Diameter bars. RK 0.51 CWK 0.21 8mm Diameter bars. RK 0.51 CWK 0.21 High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars. RK 0.51 CWK 0.21  Carried to Collection Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement		Mild steel reinforcement to structural concrete work:					
20 10mm Diameter bars.  RK 0.51 CWK 0.21  21 8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to Structural concrete work:  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	19	12mm Diameter bars.	Tonnes	2.65			
RK 0.51 CWK 0.21 8mm Diameter bars.  RK 0.51 CWK 0.21 High tensile steel reinforcement to structural concrete work:  32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement		RK 1.45 CWK 1.2					
21 8mm Diameter bars.  RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  22 32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection  Section No. 2  Bill No. 3  Concrete, Formwork And Reinforcement	20	10mm Diameter bars.	Tonnes	0.72			
RK 0.51 CWK 0.21  High tensile steel reinforcement to structural concrete work:  32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection Section No. 2  Bill No. 3 Concrete, Formwork And Reinforcement							
High tensile steel reinforcement to structural concrete work:  32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement	21	8mm Diameter bars.	Tonnes	0.72			
Concrete work:  32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement							
22 32mm Diameter bars.  RK 0.51 CWK 0.21  Carried to Collection Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement							
Carried to Collection Section No. 2 Bill No. 3 Concrete, Formwork And Reinforcement	22	- <del> </del>	Tonnes	0.72			
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Bill No. 3 Concrete, Formwork And Reinforcement					K		
Concrete, Formwork And Reinforcement							

1		Unit	Quantity	Rate	Amount
00	25mm Diameter bars.	T	0.70		
23	RK 0.51 CWK 0.21	Tonnes	0.72		
24	20mm Diameter bars.	Tonnes	0.72		
	RK 0.51 CWK 0.21	_			
25	16mm Diameter bars.  RK 0.51 CWK 0.21	Tonnes	0.72		
26	RK 0.51 CWK 0.21 12mm Diameter bars.	Tonnes	0.72		
07	RK 0.51 CWK 0.21	T	0.70		
21	10mm Diameter bars.  RK 0.51 CWK 0.21	Tonnes	0.72		
28		Tonnes	0.72		
	RK 0.51 CWK 0.21				
	Fabric reinforcement:				
29	Type 245 fabric reinforcement in concrete surface beds, etc.	m²	55		
	RK 55				
	Carried to Collection			R	
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	Bill No. 3				
	Concrete, Formwork And Reinforcement				
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		Amount	
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Section No. 2			
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Concrete, Formwork And Reinforcement			
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I		Unit	Quantity	Rate	Amount
SECTION NO. 2					
BUILDING WORK	<u>KS</u>				
BILL NO. 4					
MASONRY					
Key:	Location Description:				
Un/A	Unallocated				
GF-W	GROUND FLOOR-WEST				
GF-E	GROUND FLOOR-EAST				
FF-W	FIRST FLOOR-WEST				
FF-E	FIRST FLOOR-EAST				
SF-W	SECOND FLOOR-WEST				
SF-E	SECOND FLOOR-EAST				
TF-W	THIRD FLOOR-WEST				
TF-E	THIRD FLOOR-EAST				
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Item Location (Auto)				
4F-W 4F-E	FOURTH FLOOR-WEST FOURTH FLOOR-EAST				
4F-E BF-1	BASEMENT FLOOR-61				
BF-1	BASEMENT FLOOR-02				
RK	RECREATIONAL & KITCH				
CWK	COVERED WALKWAY				
TRADE PREAMB	I ES				
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					
Trade Preambles	<u>u</u>				
Trades' (2008 edit	oles refer to 'Model Preambles for tion) for the full descriptions of material ork to be done in this Bill.				
SUPPLEMENTAR	RY PREAMBLES				
BRICKWORK					
	ions				
Sizes in descript					
	scriptions are given in brick units, 'one ent the length and 'half brick' the width				
Hollow walls etc:	<u>:</u>				
	ollow walls shall be deemed to include perpend of the bottom course of the n as a weep hole.				
shall be deemed t inner skin bagged	described as 'bagged and sealed' o include having the outer face of the with 1:6 cement and sand mixture and pats 'Brixeal' bitumen emulsion ting.				
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Section No. 2					
Bill No. 4					
Masonry					
	26				

1	1	Unit	Quantity	Rate	Amount
	Face bricks:				
	Bricks shall be ordered timeously to obtain uniformity in size and colour.				
	Pointing:				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.				
	BRICKWORK IN FOUNDATIONS				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in Class II mortar:				
1	115mm brick walls in foundation.	m²	11		
	RK 11				
2	270mm Hollow walls of two half brick skins including wire ties in foundation.	m²	33		
3	RK 33 450mm Hollow walls of two half brick skins including wire ties in foundation.	m²	6		
	RK 6 BRICKWORK IN SUPERSTRUCTURE				
	Brickwork of NFP bricks in class II mortar:				
4	115mm brick walls	m²	76		
	GF-W 4 RK 72				
5	230mm brick in parapet walls.	m²	12		
	RK 12				
6	270mm Hollow walls of two half brick skins including wire ties	m²	95		
7	GF-E 7 RK 88 450mm Hollow walls of two half brick skins including wire ties.	m²	19		
	RK 19 BRICKWORK SUNDRIES.				
	Sundries:				
8	Cutting toothings and bonding new brickwork to existing.	m²	2		
	FF-W 1 RK 1	•••			
9	Splayed mortar fillets one course high in 50mm cavities.	m	2		
10	Closing 50mm cavities of hollow walls vertically with brickwork half brick wide	m	22		
	RK 22				
	Operated to O. H. of			_	
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	Section No. 2 Bill No. 4				
	Masonry				
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		Unit	Quantity	Rate	Amount	
	Pageing of 1/2 coment and cond mixture.					
	Bagging of 1:3 cement and sand mixture:		0.5			
11	270mm brick walls, piers, etc	m²	95			
	GF-E 7 RK 88					
	Joint forming material in movement joints:					
12	Expansion joints with low density (33kg/m³), cross linked, closed cell, expanded polyethylene joint former, with tear off strip fitted to concrete surface with adhesive as per the manufacturer's recommendation and built in vertically between brickwalls.	m²	8			
	RK 8					
	Brickwork reinforcement:					
13	75mm Wide reinforcement built in horizontally.	m	1,214			
	GF-W 12 GF-E 163 RK 1039		,			
14	,					
	foundations.	m	654			
	RK 654					
15	150mm Wide reinforcement built in horizontally.	m	251			
	GF-W 66 GF-E 140 RK 45					
	Prestressed fabricated lintels:					
16	110 x 75mm Lintels in lengths not exceeding 3m.	m	16			
	GF-W 2 RK 14					
	NUTEC-CEMENT/FIBRE-CEMENT WINDOW SILLS					
	Natural grey sills in single lengths bedded in class I mortar including metal fixing lugs, etc:					
17	15 x 150mm Wide sills set flat and slightly projecting.	m	4			
17	RK 4	m	4			
	KK 4					
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	Masonry					
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BILL NO. 4  MASONRY  COLLECTION	Brought Forward from Page	Page No 26		
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Section No. 2 Bill No. 4 Masonry	Carriou 10 Goodon Guinnary	IX.		
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ı		Unit	Quantity	Rate	Amount	
	SECTION NO. 2					
	BUILDING WORKS					
	BILL NO. 5					
	WATERPROOFING					
	Key: Location Description:					
	Un/A Unallocated					
	GF-W GROUND FLOOR-WEST					
	GF-E GROUND FLOOR-EAST					
	FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-EAST					
	FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-WEST					
	SF-E SECOND FLOOR-EAST					
	TF-W THIRD FLOOR-WEST					
	TF-E THIRD FLOOR-EAST					
	I Item Location (Auto)					
	4F-W FOURTH FLOOR-WEST					
	4F-E FOURTH FLOOR-EAST					
	BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02					
	BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH					
	CWK COVERED WALKWAY					
	TRADE PREAMBLES					
	<u>Trade Preambles:</u>					
	For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of materia to be used and work to be done in this Bill.					
	SUPPLEMENTARY PREAMBLES					
	Waterproofing:					
	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.					
	DAMPPROOFING OF WALLS AND FLOORS.					
	One layer of 375 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
	In walls.	m²	43			
	PK 43 One layer of 250 micron Consol Plastics Brikgrip DPC embossed damp proof course:					
2	Under surface beds.	m²	147			
	RK 147					
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	Section No. 2					
	Bill No. 5					
	Waterproofing					
	30					

Two coats 'ABE Brixeal' bitumen emulsion waterproof coating:  On bagged brick walls  GF-E 7 RK 88 WATERROOFING TO ROOFS. BASEMENTS. ETC. One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torchtusion'. Waterproofing to be installed by an Approved Berbigum Contractor under a ten year guarantee:  On flat roofs RK 57 50 On turn-ups and turn-downs exceeding 300mm girth. RR 28 Additional membrane 300mm girth at internal and external angles. FF-W 4 RK 28 Additional membrane and sealing into 80mm diameter outlet. RK 2 Additional membrane and sealing into 100mm diameter outlet. RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint: On waterproofing to roofs. RK 57 JOINT SEALANTS, ETC. Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors RK 12 Carried to Collection RK 12  Carried to Collection RC  Carried to Collection Section No. 2 Bill No. 5 Waterproofing						Amount	
waterproof coating:  On bagged brick walls  GF-E 7 RK 88  WATERPROOFING TO ROOFS. BASEMENTS. ETC.  One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by torchtusion. Waterproofing to be installed by an Approved Derbigum Contractor under a ten year guarantee:  4 On flat roofs  RK 57  On turn-ups and turn-downs exceeding 300mm girth.  RK 28  Additional membrane 300mm girth at internal and external angles.  FF-W 4 RK 28  Additional membrane and sealing into 80mm diameter outlet.  RK 2  Additional membrane and sealing into 100mm diameter outlet.  RK 2  Additional membrane and sealing into 150mm diameter outlet.  RK 2  PROTECTIVE ROOFING PAINT  Two coats 'Roofcote' bituminous aluminium paint:  On waterproofing to roofs.  RK 57  JOINT SEALANTS. ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  10 10 x 60mm In saw cut joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  Section No. 2  Bill No. 5  Waterproofing	I						
3 On bagged brick walls GF-E 7 RK 88 WATERPROOFING TO ROOFS, BASEMENTS, ETC. One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torch: fusion'. Waterproofing to be installed by an Approved Derbigum Contractor under a ten year guarantee: 4 On flat roofs RK 57 5 On turn-ups and turn-downs exceeding 300mm girth. RK 28 6 Additional membrane 300mm girth at internal and external angles. FF-W 4 RK 28 7 Additional membrane and sealing into 80mm diameter outlet. RK 2 8 Additional membrane and sealing into 100mm diameter outlet. RK 2 9 Additional membrane and sealing into 150mm diameter outlet. RK 2 PROTECTIVE ROOFING PAINT Two coats' Roofcote' bituminous aluminium paint: 10 On waterproofing to roofs. RK 57 JOINT SEALANTS, ETC. Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc: 10 x 20mm In save cut joints in floors including raking out expansion joint filler as necessary. RK 12  Carried to Collection Section No. 2 Bill No. 5 Waterproofing							
GF-E 7 RK 88 WATERPROOFING TO ROOFS. BASEMENTS. ETC. One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by torchtusion. Waterproofing to be installed by an Approved Derbigum Contractor under a ten year guarantee:  4 On flat roofs RK 57 On turn-ups and turn-downs exceeding 300mm girth. RK 28 6 Additional membrane 300mm girth at internal and external angles. FF-W 4 RK 28 Additional membrane and sealing into 80mm diameter outlet. RK 2 Additional membrane and sealing into 100mm diameter outlet. RK 2 Additional membrane and sealing into 150mm diameter outlet. RK 2 Additional membrane and sealing into 150mm diameter outlet. RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs. RK 57 JOINT SEALANTS, ETC. Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm in saw cut joints in filoors RK 22 10 x 20mm in isolation joints in floors including raking out expansion joint filler as necessary. RK 12  Carried to Collection  Section No. 2 Bill No. 5 Waterproofing	-		m²	95			
WATERPROOFING TO ROOFS, BASEMENTS, ETC. One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torch': fusion'. Waterproofing to be installed by an Approved Derbigum Contractor under a ten year guarantee:  4 On flat roofs make so so turn-downs exceeding 300mm girth.  RK 29 6 Additional membrane 300mm girth at internal and external angles.  FF-W 4 RK 28 7 Additional membrane and sealing into 80mm diameter outlet.  RK 2 8 Additional membrane and sealing into 100mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 PROTECTIVE ROOFING PAINT  Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57  JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  Section No. 2  Bill No. 5  Waterproofing			""	33			
with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torch fusion'. Waterproofing to be installed by an Approved Derbigum Contractor under a ten year guarantee:  4  On flat roofs RK 57 On turn-ups and turn-downs exceeding 300mm girth. RK 28 6  Additional membrane 300mm girth at internal and external angles. FF-W 4  RK 28 7  Additional membrane and sealing into 80mm diameter outlet. RK 2 8  Additional membrane and sealing into 100mm diameter outlet. RK 2 9  Additional membrane and sealing into 150mm diameter outlet. RK 2 9  Additional membrane and sealing into 150mm diameter outlet. RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10  On waterproofing to roofs. RK 57 JOINT SEALANTS, ETC. Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11  10 x 60mm In saw cut joints in floors RK 23 12  10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary. RK 12  Carried to Collection Section No. 2 Bill No. 5 Waterproofing							
RK 57  On turn-ups and turn-downs exceeding 300mm girth.  RK 28  Additional membrane 300mm girth at internal and external angles.  FF-W 4 RK 28  Additional membrane and sealing into 80mm diameter outlet.  RK 2  Additional membrane and sealing into 100mm diameter outlet.  RK 2  Additional membrane and sealing into 150mm diameter outlet.  RK 2  PADDITION TO THE ROOFING PAINT  Two coats 'Roofcote' bituminous aluminium paint:  On waterproofing to roofs.  RK 57  JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors must be founded in the same of the same outled in the	wit pri fus Ap	th 75mm side laps and 100mm end laps, sealed to imed surface to falls and crossfalls by 'torchsion'. Waterproofing to be installed by an oproved Derbigum Contractor under a ten year					
5 On turn-ups and turn-downs exceeding 300mm girth.  RK 28 Additional membrane 300mm girth at internal and external angles.  FF-W 4 RK 28 Additional membrane and sealing into 80mm diameter outlet.  RK 2 8 Additional membrane and sealing into 100mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57 JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 12 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  R Section No. 2 Bill No. 5 Waterproofing	4 On	n flat roofs	m²	57			
RK 28 6 Additional membrane 300mm girth at internal and external angles.  FF-W 4 RK 28 7 Additional membrane and sealing into 80mm diameter outlet.  RK 2 8 Additional membrane and sealing into 100mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57 JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 12 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  Re Section No. 2 Bill No. 5 Waterproofing							
6 Additional membrane 300mm girth at internal and external angles.  FF-W 4 RK 28 7 Additional membrane and sealing into 80mm diameter outlet.  RK 2 8 Additional membrane and sealing into 100mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57 JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 12 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection Section No. 2 Bill No. 5 Waterproofing			m²	28			
7 Additional membrane and sealing into 80mm diameter outlet.  RK 2 8 Additional membrane and sealing into 100mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57 JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection Section No. 2 Bill No. 5 Waterproofing	6 Add	Iditional membrane 300mm girth at internal and ternal angles.	m	32			
outlet.  RK 2 Additional membrane and sealing into 100mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57 JOINT SEALANTS, ETC. Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  R  Carried to Collection  R  Vo 2  R  R  R  R  Vo 2  R  R  Vo 2  R  R  Vo 2  R  Vo 3  Vo 4  R  Vo 4  R  Vo 2  R  Vo 4  R  Vo 2  R  Vo 4  R  Vo 5  Vo 4  Vo 4  Vo 4  Vo 4  R  Vo 5  Vo 4  Vo 7  Vo 7  Vo 7  Vo 7  Vo 7  Vo 7  Vo 8  Vo 8  Vo 8  Vo 8  Vo 8  Vo 9  V		-					
8 Additional membrane and sealing into 100mm diameter outlet.  RK 2 9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57 JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 12 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection Section No. 2 Bill No. 5 Waterproofing			No	2			
9 Additional membrane and sealing into 150mm diameter outlet.  RK 2 PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57 JOINT SEALANTS, ETC. Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23  12 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  R  BR  Carried to Collection Section No. 2 Bill No. 5 Waterproofing	8 Add	Iditional membrane and sealing into 100mm diameter	No	2			
PROTECTIVE ROOFING PAINT Two coats 'Roofcote' bituminous aluminium paint:  10 On waterproofing to roofs.  RK 57 JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors m 23 RK 23 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection R  Section No. 2 Bill No. 5 Waterproofing	9 Ad	Iditional membrane and sealing into 150mm diameter	No	2			
On waterproofing to roofs.  RK 57  JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  Section No. 2  Bill No. 5  Waterproofing							
RK 57  JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  R  Section No. 2  Bill No. 5  Waterproofing	<u>Tw</u>	vo coats 'Roofcote' bituminous aluminium paint:					
JOINT SEALANTS, ETC.  Approved two-part polyurethane sealing compound including backing cord, bond breaker, primer, etc:  11 10 x 60mm In saw cut joints in floors  RK 23 12 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  Section No. 2  Bill No. 5  Waterproofing	10 On	n waterproofing to roofs.	m²	57			
including backing cord, bond breaker, primer, etc:  10 x 60mm In saw cut joints in floors  RK 23  10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection  Section No. 2  Bill No. 5  Waterproofing							
RK 23 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection Section No. 2 Bill No. 5 Waterproofing	Ap inc	proved two-part polyurethane sealing compound cluding backing cord, bond breaker, primer, etc:					
12 10 x 20mm In isolation joints in floors including raking out expansion joint filler as necessary.  RK 12  Carried to Collection Section No. 2 Bill No. 5 Waterproofing	11 10	x 60mm In saw cut joints in floors	m	23			
out expansion joint filler as necessary.  RK 12  Carried to Collection  Section No. 2  Bill No. 5  Waterproofing							
Carried to Collection  Section No. 2  Bill No. 5  Waterproofing			m	12			
Section No. 2 Bill No. 5 Waterproofing	RK	. 12					
Section No. 2 Bill No. 5 Waterproofing							
Section No. 2 Bill No. 5 Waterproofing							
Section No. 2 Bill No. 5 Waterproofing		Couried to Collection			Б		
Bill No. 5 Waterproofing	Se				K		—
Waterproofing							
31		31					

		Unit	Quantity	Rate	Amount	
13	10 x 10mm In expansion joints in walls including raking out expansion joint filler as necessary.	m	719			
	GF-E 78 FF-W 477 RK 80 CWK 84  Clear silicone sealant applied in accordance with the manufacturers instructions:					
14	In joints between ceramic sanitary ware and ceramic tiles.	m	4			
15	RK 4 In joints between stainless steel sanitary ware and ceramic tiles.	m	4			
	GF-W 1 FF-W 1 TF-E 1 RK 1					
	Carried to Collection Section No. 2			R		
	Bill No. 5 Waterproofing					
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		I	Amount	
BILL NO. 5 WATERPROOFING COLLECTION		Page No		
	Brought Forward from Page	30		
		31		
		32		
	Carried To Section Summary	R		
Section No. 2 Bill No. 5				
Waterproofing				
	33			

		Unit	Quantity	Rate	Amount	1
SECTION NO.	2					
BUILDING WO						
BILL NO. 6						
ROOF COVERI	INGS					
	Location Description:					
<u><b>Key:</b></u> Un/A	Unallocated					
GF-W	GROUND FLOOR-WEST					
GF-E	GROUND FLOOR-EAST					
FF-W	FIRST FLOOR-WEST					
FF-E	FIRST FLOOR-EAST					
SF-W	SECOND FLOOR-WEST					
SF-E	SECOND FLOOR-EAST					
TF-W	THIRD FLOOR-WEST					
TF-E	THIRD FLOOR-EAST					
Ι 4Ε \Λ/	Item Location (Auto)					
4F-W 4F-E	FOURTH FLOOR-WEST FOURTH FLOOR-EAST					
BF-1	BASEMENT FLOOR-01					
BF-2	BASEMENT FLOOR-02					
RK	RECREATIONAL & KITCH					
CWK	COVERED WALKWAY					
TRADE PREAM	/IBLES					
Trade Preambl	es:					
Trades' (2008 e	mbles refer to 'Model Preambles for edition) for the full descriptions of material work to be done in this Bill.					
	L SHEETING AND ACCESSORIES					
Supplemetary						
Guarantee All r	material will carry a manufacturer's an approved contractor shall lay sheeting in strict accordance with the					
	·					
	Carried to Collection			R		
Section No. 2						
Bill No. 6						
Roof Coverings						
	34					
1	01		I	I	II	I

1		Unit	Quantity	Rate	Amount	
	Erection, handling and storage Every precaution shall be taken to prevent damage to roof sheets during all stages of construction. Duckboards should be used when necessary to protect the sheeting from damage. Sheeting which has become deformed or damaged in any way shall be replaced The contractor shall exercise special care when handling long length sheeting, particularly in windy conditions. Should work be interrupted for any reason, all loose sheeting and incomplete sections must be adequately secured against possible movement by wind and gravity. The contractor shall ensure that all materials used on site are transported, handled and stored in accordance with the manufacturer's recommendations. Material damaged shall be rejected and replaced with undamaged material at the contractor's expense. Repair of damaged material will no be permitted. Rates are to include for preventing damage and protecting sheets through all stages of construction.  Cleaning, etc. All debris, swarf, etc. arising from the fixing of the cladding shall be removed from the sheeting as the fixing progresses. In addition, off-cuts of insulation, surplus fasteners and sealants, mandrels from pop rivets, off-cuts of flashings and sheeting, surplus flashing, food packaging, cartons, bottles, cans, etc shall not be left on the roof or in the gutters. Care shall be taken to ensure that no such material enters, blocks or partially impedes the flow of water into the outlets, down pipes, etc.  Guarantee:  The manufacturer shall comply with ISO9002 Quality Management System. Sheeting shall be laid in strict accordance with the manufacturer's specifications by an approved contractor.  'Klip-Lok 406' profile rolled formed in continuous lengths form 0,8mm Color-Tech G4 finish aluminium roof sheeting and accessories fixed to steel purlins					
1	or rails at 1350mm centres:  Roof covering to curved roof fixed to steel purlins.	m²	80			
2	RK 80 Roof covering to roof fixed to steel purlins.	m²	309			
3	Sides cladding fixed to side steel purlins.	m²	7			
4	RK 7 Circular cutting.	m²	211			
	RK 11 CWK 200					
	Carried to Collection Section No. 2			R		
	Bill No. 6 Roof Coverings					
	35					

		Unit	Quantity	Rate	Amount	
	'Klip-Lok 406 0.8mm thick Colortech G4 C1S' Flashings:					
5	Side cover flashing 350mm girth and bent along girth (curved).  RK 10  ROOF AND WALL LINING AND INSULATION.	m	10			
	Double-sided 'Sisalation®' FR405 light industrial aluminium foil sheeting fixed in strict accordance with the manufacturers instructions:					
6	Insulation sheeting laid taut over purlins (at approximately 1500mm centres) and fixed concurrent with roof covering with minimum 150mm stapled laps including galvanised steel straining wires at not exceeding 400mm centres and doublesided tape at edges where required.	m²	80			
	RK 80					
	Carried to Collection			R		
	Section No. 2 Bill No. 6 Roof Coverings					
	36					

		 	Amount	
BILL NO. 6 ROOF COVERINGS COLLECTION		Page No		
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	Carried To Section Summary	R		
Section No. 2 Bill No. 6 Roof Coverings				
	37			

I		Unit	Quantity	Rate	Amount	1
SECTION NO.	<u>2</u>					
<b>BUILDING WO</b>	RKS					
BILL NO. 7						
CARPENTRY A	AND JOINERY					
Key:	Location Description:					
Un/A	Unallocated					
GF-W	GROUND FLOOR-WEST					
GF-E	GROUND FLOOR-EAST					
FF-W	FIRST FLOOR-WEST					
FF-E	FIRST FLOOR-EAST					
SF-W	SECOND FLOOR-WEST					
SF-E	SECOND FLOOR-EAST					
TF-W	THIRD FLOOR-WEST THIRD FLOOR-EAST					
117-12	Item Location (Auto)					
4F-W	FOURTH FLOOR-WEST					
4F-E	FOURTH FLOOR-EAST					
BF-1	BASEMENT FLOOR-01					
BF-2	BASEMENT FLOOR-02					
RK	RECREATIONAL & KITCH					
CWK	COVERED WALKWAY					
TD A DE DDE AA	4DL 50					
TRADE PREAM						
Trade Preambl						
Trades' (2008 e	mbles refer to 'Model Preambles for dition) for the full descriptions of material work to be done in this Bill.					
SUPPLEMENT	ARY PREAMBLES					
Joinery:						
	frames shall be deemed to include ns, mullions, rails, etc.					
Descriptions of include pelleting	hardwood joinery shall be deemed to g of bolt holes.					
Fixing:						
	I as nailed shall be deemed to be fixed steel nails or shot pins to brickwork or					
Decorative lam	ninate finish:					
	shall be glued under pressure. Edge utt jointed at junctions with adjacent					
	Carried to Collection			R		
Section No. 2	Carried to Concellent			1		
Bill No. 7	La Caraca					
Carpentry And	-					
	38					

I		Unit	Quantity	Rate	Amount	
	SKIDTING					
	SKIRTING. Wrought meranti:					
1	19 x 70mm skirting with straight top edge, including					
'	19mm quadrant bead nailed.	m	473			
	GF-W 136 GF-E 227 FF-W 19					
	FF-E 9 SF-W 9 TF-E 5 4F-W 5 4F-E 4 BF-1 4					
	BF-2 54 RK 1					
	PURPOSE MADE SOLID HARDWOOD DOORS:					
2	Solid hardwood doors: 40mm Door size 813 x 1800mm high solid core, flush					
2	panel door suitable for exterior use with sill, horizontally					
	routered grooves 10mm wide including weather-bar to botton edge of the door.	No	1			
	RK 1	140	'			
	SEMI SOLID CORE FLUSH DOORS					
	Solid core doors with sill:					
	Laminated Semi-solid flush panel doors:					
3	40mm Door size 813 x 2032mm high fitted with hardwood edging and paintable 'Masonite' faces both					
	sides, horizontally routered grooves 10mm wide.	No	4			
	RK 4					
4	40mm Door size 1600 x 2032mm high double door fitted with hardwood edging and paintable 'Masonite' faces					
	both sides, horizontally routered grooves 10mm wide.	No	2			
	FF-W 2					
5	40mm Door size 1752 x 2032mm high double door fitted with hardwood edging and paintable 'Masonite' faces					
	both sides, horizontally routered grooves 10mm wide.	No	2			
	FF-W 2 FRAMED FRAMES ETC.					
	Meranti door frames:					
6	50 x 76mm Single Rebated frames	m	118			
	GF-W 15 GF-E 4 FF-W 79	•••				
	RK 20					
	JOINERY SUNDRIES  16mm Melawood:					
7	Natural finish, colour to be charcoal grey cupboard doors					
	size 600 x 2875mm high including hinges, fixed to					
	existing built-in cupboards.	No	2			
	GF-E 2					
	0			_		
	Carried to Collection Section No. 2			R		
	Bill No. 7					
	Carpentry And Joinery					
	39					

1		Unit	Quantity	Rate	Amount
	FITTINGS				
	FITTINGS.				
	PG Bison Melawood or similar approved:	m²	18		
8	16mm Tops, shelves, sides, divisions, etc. Colour: BF-1 18	1112	10		
	Steel Metal Shelves:				
9	Adjustable metal shelves, etc.	m²	12		
	BF-1 12				
	PG Bison Formica Lifeseal or similar approved 32mm worktop including fixing brackets:				
10	32mm Thick x 400mm wide to tops including fixing				
	brackets.	m	5		
11	RK 5 32mm Thick x 600mm wide to tops including fixing				
	brackets.	m	43		
	GF-W 5 TF-E 3 RK 35				
	Fenix NTM or similar approved 10mm counter tops - Colour 0720 Nero Ingo:				
12					
	brackets (vertical to walls).	m	11		
	GF-W 6 TF-E 4 RK 1  Rustenberg Granite or similar approved 30mm				
	counter top (Kitchenette tops):				
13	30mm Thick x 600mm wide to tops including fixing				
	brackets.	m	8		
	GF-W 5 TF-E 3 FITTINGS				
	General:				
	The following cupboard fittings have been measured as				
	complete units i.e. the components of the units have not				
	been separately measured. The descriptions, therefore, of such units shall be deemed to include all components,				
	assembling, housing, notching, glueing, blocking,				
	planting on and screwing with countersunk screws, edge strips, decorative plastic finish, glass, ironmongery,				
	metalwork, paint or varnish finishes, etc.				
	The references given in the descriptions are to the respective types of fittings detailed on the Architect's				
	drawings numbered as indicated in the descriptions and				
	annexed to these Bills of Quantities for tender purposes.				
	Carried to Collection			R	
	Section No. 2 Bill No. 7				
	Carpentry And Joinery				
	40				
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1	1	Unit	Quantity	Rate	Amount	l
	Kitchen Joinery:					
14	Wall cupboard type size 5000 x 450 x 1180mm high with top, sides, bottom, division, shelf, back and six hinged doors, shadow line, ironmongery.	No	1			
	TF-E 1					
15	Floor cupboard type size 5000 x 600 x 900mm high with top, sides, bottom, back, four drawers and six hinged doors and dividing framework, stainless steel kickplate, ironmongery.	No	1			
	SF-E 1					
16	Kitchen timber slatted timber screen to match other kitchens, it is made of 28 pieces of evenly spaced 38X114 SA Pine, shaved smooth to a thickness of 30mm, stained in Ebony and finished in a glossy varnish; These are held together by 2X 25mm diameter chrome round tube posts at both edges and at approximately 1m spacing in-between.	No	3			
		140				
	GF-W 1 GF-E 1 SF-E 1					
	Carried to Collection			R		
	Section No. 2			• •		
	Bill No. 7					
	Carpentry And Joinery					
	41					

		I I	Amount	
BILL NO. 7  CARPENTRY AND JOINE COLLECTION	<u>ERY</u>	Page No		
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		41		
	Carried To Section Summary	R		
Section No. 2	•			
Bill No. 7 Carpentry And Joinery				
Jaiponay / and Johnory	42			

I		Unit	Quantity	Rate	Amount
SECTION NO.					
BUILDING WO	<u>orks</u>				
BILL NO. 8	OTITIONS AND ACCESS ELOOPING				
` <u> </u>	RTITIONS AND ACCESS FLOORING  Location Description:				
<u><b>Key:</b></u> Un/A	Unallocated				
GF-W	GROUND FLOOR-WEST				
GF-E	GROUND FLOOR-EAST				
FF-W	FIRST FLOOR-WEST				
FF-E	FIRST FLOOR-EAST				
SF-W	SECOND FLOOR-WEST				
SF-E	SECOND FLOOR-EAST THIRD FLOOR-WEST				
TF-W	THIRD FLOOR-WEST				
	Item Location (Auto)				
4F-W	FOURTH FLOOR-WEST				
4F-E	FOURTH FLOOR-EAST				
BF-1	BASEMENT FLOOR-01				
BF-2	BASEMENT FLOOR-02				
RK	RECREATIONAL & KITCH				
CWK	COVERED WALKWAY				
TDADE DDEAL	MDI EC				
TRADE PREAL	<u> </u>				
Trade Preamb	<u>les:</u>				
Trades' (2008 e	ambles refer to 'Model Preambles for edition) for the full descriptions of material work to be done in this Bill.				
SUPPLEMENT	TARY PREAMBLES				
	ems or materials:				
	ns or materials where specified are to be				
	ecified - or other equal approved - by the				
Descriptions:					
	d as nailed shall be deemed to be fixed steel nails or pins or shot pinned to oncrete.				
screwing to fibr	d as plugged shall be deemed to include re, plastic or metal plugs at not exceeding s, and where described as bolted the bolts en.				
	Corried to Collection				
Section No. 2	Carried to Collection			R	
Section No. 2					
Bill No. 8	<u> </u>				
Ceilings Partition	ons And Access Flooring				
	43				

		Unit	Quantity	Rate	Amount	
	CEILING TIMBERS, BEADS, INSULATION, ETC.					
	6,4mm Gypsum plasterboard with taped joints and the whole finished with gypsum plaster trowelled to a smooth polished surface to the thickness					
	recommended by the manufacturer.					
1	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres and cross brandering at 1200mm centres	m²	166			
	FF-W 151 RK 15					
2	Ceilings including 38 x 38mm sawn softwood brandering at 400mm centres and cross brandering at 1200mm centres (curved).	m²	63			
	RK 63					
3	Circular cutting	m	10			
	I 10					
4	Opening for sprinkler head	No	8			
	I 8					
5	Extra over ceiling for opening for size 1200 x 600mm light fitting	No	4			
	I 4					
6	Extra over ceiling for size 600 x 600mm opening for ventilation grille/air conditioning diffuser	No	4			
	T 4					
7	Extra over ceiling for size 900 x 900mm trap door of 38 x 38mm wrought softwood rebated framing with one cross brander, covered with ceiling board and fitted flush in opening, including necessary trimmers around					
		No	2			
	TF-E 2					
	Gypsum plasterboard cornices:					
8	75mm Coved cornices, plugged	m	324			
	6,4mm Gypsum plasterboard bulkhead with taped joints and the whole finished with gypsum plaster trowelled to a smooth polished surface to the thickness recommended by the manufacturer.					
9	Rectangular bulkhead, 1695mm wide x 300mm high, including standard steel brandering at 400mm centres, joined with joiner sections and hung with suspension brackets.	m	4			
	GF-E 4					
	Carried to Collection			R		
	Section No. 2					
	Bill No. 8					
	Ceilings Partitions And Access Flooring					
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1		Unit	Quantity	Rate	Amount	I
10	Rectangular bulkhead, 1800 mm wide x 300mm high, including standard steel brandering at 400mm centres,					
	joined with joiner sections and hung with suspension brackets.	m	2			
11	GF-E 2 Rectangular bulkhead, 2400 mm wide x 300mm high, including standard steel brandering at 400mm centres, joined with joiner sections and hung with suspension brackets.	m	7			
12	GF-W 7 Rectangular bulkhead, 3000 mm wide x 300mm high, including standard steel brandering at 400mm centres, joined with joiner sections and hung with suspension brackets.	m	2			
13	GF-E 2 Extra over ceiling for opening for 210mm diameter downlighter or loudspeaker.	No	5			
14	GF-W 3 GF-E 2 Extra over ceiling for opening for 150mm diameter sprinkler.	No	13			
15	GF-E 2 FF-W 3 I 8 Extra over ceiling for size 600 x 1200mm opening for					
	ventilation / air conditioning diffuser.  GF-E 2 FF-W 3 I 3  'Donn' prepainted cornices to suspended ceilings:	No	8			
16	47 x 35mm 'SM25' recessed shadowline cornice plugged. (code LSM 25)	m	10			
	SUSPENDED CEILINGS.					
	Suspended ceiling panels size 600 x 1200 x 15mm thick to match existing ceiling with tegular (reveal) edge, installed on Tee (Aluminium white-colour Zinc coating, AZ 50 standard) at 1200mm c/c suspended using Hanger Strap 19mm fixed to the Main Tee.  Perimeter - T Shadow Line Wall Angle to the wall using fixings at 300mm centres strictly in accordance with the manufacturers instructions:					
17	Ceilings suspended not exceeding 1m below concrete soffits	m²	573			
	GF-W 141 FF-W 432					
	Carried to Collection			R		
	Section No. 2 Bill No. 8					
	Ceilings Partitions And Access Flooring 45					

1	1	Unit	Quantity	Rate	Amount
	Acoustic ceiling tiles size 600 x 600mm x 12.5mm to match existing laid onto white powder coated ceiling grid system shadow-line including galvanised main tees, cross tees, hold-down clips, wedges, reinforcement splines, etc., all suspended with galvanised hangers at not exceeding 1200mm centres strictly in accordance with the manufacturers instructions:				
18	Ceilings suspended not exceeding 1m below concrete soffits.	m²	452		
19	GF-W 248 GF-E 94 FF-E 52 4F-W 13 4F-E 12 BF-1 33 Extra over ceiling for opening for 210mm diameter downlighter or loudspeaker.	No	59		
	GF-W 18 GF-E 2 FF-W 39	140	39		
20	Extra over ceiling for opening for 150mm diameter sprinkler.	No	0		
21	Extra over ceiling for opening for 600 x 1200mm light fitting.	No	140		
	GF-W 30 GF-E 8 FF-W 102				
22	Extra over ceiling for 600 x 600mm opening for ventilation / air conditioning diffuser.	No	92		
	GF-W 30 GF-E 4 FF-W 58  'Gyproc' cornices to suspended ceilings:				
23	45 x 35mm Flush plaster trim cornices for flush plastered ceilings, plugged. (code 1969)	m	423		
0.4	GF-W 91 GF-E 227 FF-W 19 FF-E 9 SF-W 9 TF-E 5 4F-W 5 4F-E 4 BF-2 54				
24	45 x 35mm Flush plaster trim cornices for flush plastered ceilings, circular on plan, plugged. (code 1969)  FF-W 14	m	14		
	Carried to Collection			R	
	Section No. 2				
	Bill No. 8 Ceilings Partitions And Access Flooring				
	Ceilings Partitions And Access Flooring  46				

		Unit	Quantity	Rate	Amount	
	PARTITIONS ETC (CPAP Work Group No 138)  'Gyproc 3200 - 3620mm high GypWall Ultrasteel Stud Drywall' steel stud partitions, consisting of stud and track system with 70 x 50mm 'Donn Drywall UltraSTEEL™' studs at 600mm centres friction fitted into head track and floor track clad on both sides with one layer of 12,5mm thick Gyproc Rhinoboard fixed with 25mm and 42mm Gyproc RhinoBoard Sharp Point Screws at 220mm centres and resilient bars to one side with all external angles to have natural anodized aluminium channels attached and all joints to be covered with RhinoTape and finished with two layers of 'RhinoGlide' applied and lightly sanded down, skimmed, well painted with three coats, 100mm thick acoustic insulation in blanket form installed vertical, leaving wall surface prepared for painting and 70mm high natural anodised					
25	aluminium skirting, all in accordance with the manufacturer's recommendations:  Partitioning 3620mm high with bottom track plugged and top track fixed to concrete soffit, Rhino board to be 3700mm high (Partition studs project 150mm above					
	ceiling level).  GF-W 88 GF-E 114 FF-W 9	m	255			
26	FF-E 4 SF-W 5 TF-E 3 4F-W 3 4F-E 2 BF-2 27 Extra over partition 3620mm high, Rhino board to be 3700mm high for vertical abutment. (Partition studs project 150mm above ceiling level).	No	18			
	GF-W 18	110	10			
27	Extra over partition 3600mm high for corner  GF-W 5 GF-E 4 SF-W 1	No	11			
28	4F-W 1 Extra over partition 3600mm high for irregular corner SF-W 2	No	2			
29	Extra over partition 3600mm high for T-intersection  GF-W 1 GF-E 11	No	12			
30	Extra over partition 3600mm high for fair end  GF-W 28 GF-E 54 FF-W 4  FF-E 2 SF-W 2 TF-W 2  TF-E 2 4F-E 2	No	96			
	Carried to Collection			R		
	Section No. 2 Bill No. 8 Ceilings Partitions And Access Flooring 47					

Extra over 900 x 2035mm Partitions for 40mm semi- solid flush doors with ? veneer on both sides and hardwood edge strips to vertical edges, hung to and including standard natural anodised aluminium door frame with one pair of 100mm nylon washered aluminium hinges to each hanging stile, including additional studding, trimming, etc to partitions  Door 813 x 2032mm high.  No 1  Carried to Collection Section No. 2 Bill No. 8 Ceilings Partitions And Access Flooring  48						DING ALTERATION	-Poi
solid flush doors with ? veneer on both sides and hardwood edge strips to vertical edges, hung to and including standard natural anodised aluminium door frame with one pair of 100mm rulon washered aluminium hinges to each hanging stile, including additional studing, trimming, sto to partitions    Door 813 x 2032mm high.			Unit	Quantity	Rate	Amount	
Carried to Collection  R  Section No. 2  Bill No. 8  Ceilings Partitions And Access Flooring		solid flush doors with ? veneer on both sides and hardwood edge strips to vertical edges, hung to and including standard natural anodised aluminium door frame with one pair of 100mm nylon washered aluminium hinges to each hanging stile, including additional studding, trimming, etc to partitions	No	1			
Carried to Collection R Section No. 2 Bill No. 8 Ceilings Partitions And Access Flooring	1		INO	I			
Section No. 2 Bill No. 8 Ceilings Partitions And Access Flooring							
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CEILINGS PARTITIONS AND ACCESS FLOORING			
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Section No. 2	K		
Bill No. 8			
Ceilings Partitions And Access Flooring			
49			
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SECTION NO. 2 BUILDING WORKS BILL NO. 9 FLOOR COVERINGS  Key: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-WEST FF-E FIRST FLOOR-WEST FF-E FIRST FLOOR-WEST FF-E SECOND FLOOR-WEST FF-E THIRD FLOOR-EAST TF-E THIRD FLOOR-EAST TF-B THORD FLOOR-WEST FF-E FOURTH FLOOR-WEST FF-E FOURTH FLOOR-WEST FF-E FOURTH FLOOR-WEST FF-E SB-E SECOND FLOOR-WEST FF-E THIRD FLOOR-EAST I MEM Location (Auto) 4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-01 BF-2 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals« 500 x 500 x 8mm thick stainproof miracle fibre 0 (Polypropylene) structured needlepunch Nexbac EcoO SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  On floors and landings.  On floors and landings.  On floors and landings.  FF-E 29 SF-W 59 SF-E 89						EMENDI BUIL	DING ALTERATION	N-POIN
BUIL DING WORKS BILL NO. 9 FLOOR COVERINGS  Key: Location Description: UnA Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W HIRST FLOOR-WEST FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-BAST TT-W THIRD FLOOR-WEST TT-E THOP FLOOR-WEST TF-E THOP FLOOR-BAST I Interpret The THIRD FLOOR-WEST TF-E THOR FLOOR-BAST I Interpret The THIRD FLOOR-WEST AF-E FOURTH FLOOR-BAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals-500 x 500 x 500 x 8mm thick stainproof miracle fibre O (Polypropylene) structured needlepunch Nexbac EcoO SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89			ı	Unit	Quantity	Rate	Amount	ı
BUIL DING WORKS BILL NO. 9 FLOOR COVERINGS  Key: Location Description: UnA Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W HIRST FLOOR-WEST FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-BAST TT-W THIRD FLOOR-WEST TT-E THOP FLOOR-WEST TF-E THOP FLOOR-BAST I Interpret The THIRD FLOOR-WEST TF-E THOR FLOOR-BAST I Interpret The THIRD FLOOR-WEST AF-E FOURTH FLOOR-BAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals-500 x 500 x 500 x 8mm thick stainproof miracle fibre O (Polypropylene) structured needlepunch Nexbac EcoO SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
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BILL NO. 9 FLOOR COVERINGS  Key: UniA Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TT-W THIRD FLOOR-EAST I I Item Location (Auto) 4F-W FOURTH FLOOR-EAST BF-1 BASEMENT FLOOR-OR BF-2 BASEMENT FLOOR-OR BF-2 BASEMENT FLOOR-OR RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals* 500 x 500 x 8mm thick stainproof miracle fibre 0 (Polypropulene) structured needlepunch Nexbas EcoO SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel, all installed as per manufacturer's specifications  On floors and landings.  M**2 1,502	<u>S</u>	ECTION NO. 2						
FLOOR COVERINGS   Key: Location Description: Un/A Unallocated   GF-W GROUND FLOOR-WEST   GF-E GROUND FLOOR-EAST   FF-W FIRST FLOOR-EAST   FF-W FIRST FLOOR-EAST   FF-E FIRST FLOOR-EAST   SF-W SECOND FLOOR-EAST   SF-E SECOND FLOOR-EAST   TF-W THIRD FLOOR-WEST   TF-E THIRD FLOOR-EAST   I I I I I I I I I I I I I I I I I I	<u>B</u>	BUILDING WORKS						
FLOOR COVERINGS   Key.   Location Description:   Un/A   Unallocated   GF-W   GROUND FLOOR-WEST   GF-E   GROUND FLOOR-EAST   FF-PW   FIRST FLOOR-EAST   FF-PW   FIRST FLOOR-WEST   FF-E   FIRST FLOOR-WEST   SF-PW   SECOND FLOOR-WEST   SF-PW   SECOND FLOOR-WEST   SF-PW   SECOND FLOOR-WEST   TF-PW   THIRD FLOOR-WEST   TF-PW   THIRD FLOOR-WEST   TF-PW   THIRD FLOOR-EAST   I   Item Location (Auto)   Item Location (	В	BILL NO. 9						
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Uh/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-EAST FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-EAST TF-W THIRD FLOOR-EAST TT-W THIRD FLOOR-EAST TF-E THIRD FLOOR-EAST I Item Location (Auto) 4F-W FOURTH FLOOR-EAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials: Proprietary items or materials: Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals« 500 x 500 x 8mm thick stainproof miracle fibre 0' (Polypropylene) structured needlepunch Nexbac Eco O' SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel, all installed as per manufacturer's specifications  On floors and landings.  M° 1,502 GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89	-		eation Description:					
GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-EAST FF-W FIRST FLOOR-EAST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E TOURTH FLOOR-WEST TF-E FOURTH FLOOR-WEST WE F-E F-E F-E F-E F-E F-E F-E F-E F-E F-		<del></del>	•					
GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-EAST SF-W SECOND FLOOR-EAST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-EAST I I Item Location (Auto) 4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials: Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals « 500 x 500 x 8mm thick stainproof miracle fibreÖ (Polypropylene) structured needlepunch Nexbac EcoÖ SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
FF-W FIRST FLOR-RAST FF-E FIRST FLOR-RAST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-BAST TF-E THIRD FLOOR-BAST TF-E THIRD FLOOR-BAST I I Item Location (Auto) 4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials: Proprietary items or materials: Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals ** 500 x 500 x 8mm thick stainproof miracle fibre O' (Polypropylene) structured needlepunch Nexbac Eco O' SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-EAST SF-E SECOND FLOOR-EAST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-EAST I I INTER LOCATION (Auto) 4F-W FOURTH FLOOR-EAST BF-1 BASEMENT FLOOR-O1 BF-2 BASEMENT FLOOR-O2 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals 500 x 500 x 8mm thick stainproof miracle fibre (Polypropylene) structured needlepunch Nexbac Eco SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-AST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-EAST I Ilem Location (Auto) 4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-OR BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals * 500 x 500 x 8mm thick stainproof mirracle fibre O (Polypropylene) structured needlepunch Nexbac Eco O SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
SF-E SECOND FLOOR-EAST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-EAST I I Item Location (Auto) 4F-W FOURTH FLOOR-EAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals « 500 x 500 x 8mm thick stainproof miracle fibre O (Polypropylene) structured needlepunch Nexbac EcoO SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-EAST I Item Location (Auto) 4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-CAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials: Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals « 500 x 500 x 8mm thick stainproof miracle fibre (Polypropylene) structured needlepunch Nexbac Eco (SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 386 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
I Item Location (Auto)  4F-W FOURTH FLOOR-WEST  4F-E FOURTH FLOOR-WEST  BF-1 BASEMENT FLOOR-01  BF-2 BASEMENT FLOOR-02  RK RECREATIONAL & KITCH  CWK COVERED WALKWAY   TRADE PREAMBLES  Trade Preambles:  For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES  Proprietary items or materials:  Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES:  Nexus Diagonals« 500 x 500 x 8mm thick stainproof miracle fibreÖ (Polypropylene) structured needlepunch Nexbac EcoÖ SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel, all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 386 GF-E 771 FF-W 159  FF-E 29 SF-W 59 SF-E 89								
4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-AST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials: Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals « 500 x 500 x 8mm thick stainproof miracle fibreÖ (Polypropylene) structured needlepunch Nexbac EcoÖ SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-AST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials: Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals « 500 x 500 x 8mm thick stainproof miracle fibreÖ (Polypropylene) structured needlepunch Nexbac EcoÖ SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials: Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals 500 x 500 x 8mm thick stainproof miracle fibre (Polypropylene) structured needlepunch Nexbac Eco SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  On floors and landings.  MP 1,502  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES  Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES Proprietary items or materials: Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES: Nexus Diagonals 500 x 500 x 8mm thick stainproof miracle fibreÖ (Polypropylene) structured needlepunch Nexbac EcoÖ SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89		4F-E FOL	URTH FLOOR-EAST					
RK COVERED WALKWAY  TRADE PREAMBLES  Trade Preambles:  For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES  Proprietary items or materials:  Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.  NEEDLE PUNCH CARPET SHEETING AND TILES:  Nexus Diagonals « 500 x 500 x 8mm thick stainproof miracle fibre (Polypropylene) structured needlepunch Nexbac Eco SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  1 On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89		BF-1 BAS	SEMENT FLOOR-01					
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NEEDLE PUNCH CARPET SHEETING AND TILES:  Nexus Diagonals « 500 x 500 x 8mm thick stainproof miracle fibreÖ (Polypropylene) structured needlepunch Nexbac EcoÖ SABS Class 3 fire rating grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
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grade general / medium commercial carpet tiles, colour Squirrel , all installed as per manufacturer's specifications  On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89	n	niracle fibreÖ (Polypr	opylene) structured					
colour Squirrel , all installed as per manufacturer's specifications  On floors and landings.  GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
specifications           1 On floors and landings.         m²         1,502           GF-W 366         GF-E 771         FF-W 159           FF-E 29         SF-W 59         SF-E 89								
On floors and landings.  GF-W 366			stalled as per manufacturer's					
GF-W 366 GF-E 771 FF-W 159 FF-E 29 SF-W 59 SF-E 89								
FF-E 29 SF-W 59 SF-E 89	C	on floors and landings.		m²	1,502			
	G	F-W 366 GF-F	E 771 FF-W 159					
	F	F-E 29 SF-V	<i>W</i> 59 SF-E 89					
IF-E 29	Т	F-E 29						
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Section No. 2	S	Section No. 2						
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Floor Coverings	-	ioor Coverings						
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ı	1	Unit	Quantity	Rate	Amount	I
	VINYL FLOOR COVERINGS, WALL LININGS, ETC					
	(CPAP Work Group No 130)					
	Supply and fix 2.0mm thick x 2.0m wide Primo SD non-directional static dissipative vinyl sheeting,					
	manufactured in accordance with EN 649 and laid in					
	pattern over an earthed grid of aluminium tape in					
	FloorworX No.27 acrylic conductive adhesive spread					
	using a trowel fitted with an A2 notched blade at a					
	rate of between 5.5m2 and 6.5m2 per litre on a					
	previously prepared Class 1 sub-floor in accordance					
	with SANS 10070, using a reliable self-leveller when required, including all cutting and waste. The					
	sheeting must be rolled in both directions with an					
	articulated 68kg three-sectional roller immediately					
	after it has been laid into the adhesive. Joins must					
	be butted, grooved and heat welded using the					
	manufacturer's welding rod, ensuring that the					
	welding rod bonds to more than 70% of the sheet thickness. After completing the installation the floor					
	must be electrically tested for resistivity in					
	accordance with the requirements of SANS 6160.					
2	On floors.	m²	42			
	GF-W 10 GF-E 32					
	ENTRANCE MATTING, ETC (CPAP Work Group No					
	130)					
	'Matco Trio Scraper entrance mats Colour Grey					
	(Code: 2402)' 13mm gauge, consiting of					
	polypropylene coarse fibre needle punch alternated					
	with polyamide brush and drying strips, fixed in					
	sunken mat surround (surround elsewhere					
	measured) in accordance with the manufacturers					
	recommendations:					
3	Entrance mat size 1800 x 1200mm wide. (trimmed on					
	site to suit recess)	No	1			
	RK 1					
	Epoxy:					
	2mm thick "Sikafloor«-381 AS" (or similarlarly					
	approved) highly chemically resistant and					
	electrostatic conductive, applied in accordance with					
	the manufacturer's instructions using a serrated trowel and roller:					
		_				
4	On floors and landings.	m²	55			
	RK 55					
	"KIRT" aluminium diving strips:					
5	"SQE150" 8 x 15mm stainless steel square edge trim.	m	24			
	RK 24					
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	Section No. 2					
	Bill No. 9					
	Floor Coverings					
	51					
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BILL NO. 9		
FLOOR COVERINGS		
COLLECTION		
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Brought Forward fro	om Page 50	
	51	
Carried To Section Summary	R	
Section No. 2		
Bill No. 9 Floor Coverings		
52		

SECTION NO. 2 BUILDING WORKS BILL NO. 10 IRONMONGERY  Key: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-W FIRST FLOOR-WEST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST I H HEN LOGASION (Auto) 4F-W FOURTH FLOOR-RAST I H HEN LOGASION (Auto) 4F-W FOURTH FLOOR-RAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 R R R RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles: For Trade Preamble srefer to Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Finishes to ironmongery: Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromium plated: SC Satin chromium plated: SE Silver enamelled: GE Grey enamelled: AS A nodised sliver: AB Anodised bronze: AG Anodised gold: ABL Anodised bronze: AG Anodised Selver: AB Polished bronze: AG Anodised gold: ABL Anodised bronze: AG Anodised gold: ABL Anodised bronze: AG Anodised Selver: AB Polished Bronz	[		Unit	Quantity	Rate	Amount	
BUIL No. 10 IRONMONGERY Key: Location Description: Un/A Unallocated GF-W GROUND PLOOR-WEST GF-E GROUND PLOOR-WEST FF-W FIRST FLOOR-WEST FF-W FIRST FLOOR-WEST FF-W SECOND FLOOR-WEST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-W THIRD FLOOR-BAST TF-W THIRD FLOOR-BAST I I I tem Location (Ault) 4F-W FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RCDEATONAL & NITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Finishes to ironmongery: Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromium plated: SC Satin chromium plated: SE Sive enamelled: GE Grey enamelled: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised blor. PB Polished brass: PL Polished and lacquered: PT Epoxy coated. HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, PANIC BOLTS, PANIC BOLTS, PANIC BOLTS, ETC. (CPAP Work Group No 132): Dormakaba:  Dormakaba: Dormakaba DBB-SS009' 102 x 75 x 3mm stainless steel hinge. FE 3 RK 12 A 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment.  GF-W 30 GF-E 6							
BILL NO. 10 IROMMONGERY  Key: Location Description: UniA Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-W FIRST FLOOR-EAST FF-W FIRST FLOOR-EAST FF-W FIRST FLOOR-EAST SF-W SECOND FLOOR-KEST SF-W SECOND FLOOR-KEST TF-W THIRD FLOOR-KEST TF-W THIRD FLOOR-KEST TF-W THIRD FLOOR-EAST I I Itam Location (Auto) 4F-W FOURTH FLOOR-EAST I BASEMENT FLOOR-10 BF-2 B	SECTION NO.	<u>2</u>					
IRONMONGERY  Mey: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-BAST FF-W FIRST FLOOR-BAST FF-W FIRST FLOOR-BST SF-W SECOND FLOOR-BST SF-W SECOND FLOOR-BST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THORD FLOOR-BST TF-E THIRD FLOOR-WEST TF-E TOWN FLOOR-BST TF-E THIRD FLOOR-BST TF-E TOWN FLOOR-BST TR-W FOURTH FLOOR-BST TR-W GOVERNORM FLOOR-BST TR-W FOURTH FLOOR-BST TR-W FOURTH FLOOR-BST TR-W FOURTH FLOOR-BST BF-1 BASSEMENT FLOOR-01 BF-2 BASSEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Finishes to ironmongery: Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromium plated: SC Satin Chromium plated	BUILDING WO	ORKS					
Key: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-W FIRST FLOOR-WEST FF-W FIRST FLOOR-WEST FF-W SECOND FLOOR-WEST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-W THIRD FLOOR-EAST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST AF-E FOURTH FLOOR-WEST AF-E FLOOR-WEST AF-E FOURTH FLO	<b>BILL NO. 10</b>						
Key: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-WEST FF-W FIRST FLOOR-WEST FF-W FIRST FLOOR-WEST FF-W SECOND FLOOR-WEST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-W THIRD FLOOR-EAST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST AF-E FOURTH FLOOR-WEST AF-E FLOOR-WEST AF-E FOURTH FLO		RY					
GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-BAST FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-WEST SF-W SECOND FLOOR-BAST TF-W THEN FLOOR-WEST TF-W THIRD FLOOR-WEST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-BAST I I III IBEN LOOR-BAST AF-W FOURTH FLOOR-WEST TF-E FOURTH FLOOR-WEST TF-E THIRD FLOOR-BAST I BB-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & RITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Finishes to ironmongery: Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromium plated: SC Satin chromium plated: SE Siliver enamelled : SC Satin chromium plated: SE Siliver enamelled: AS Anodised silver: AB Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated. HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOTTS, ETC. (CPAP Work Group No 132): Dormakaba:  1 Cormakaba:  1 Carried to Collection Section No. 2 Bill No. 10 Ironmongery							
GF-E GROUND FLOOR-REST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-WEST SF-W SECOND FLOOR-REST SF-E SECOND FLOOR-REST TF-W THIRD FLOOR-REST TF-W FOURTH FLOOR-REST I I Item Location (Auto) 4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Finishes to ironmongery: Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromitum plated: SE Silver enamelled: GE Grey enamelled: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ASL Anodised black: PB Polished and lacquered: TF Epoxy coated. HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC. (CPAP Work Group No 132):  Dormakaba:    'Oormakaba:   'Oormakaba:	Un/A	Unallocated					
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FF.E FIRST FLOOR-EAST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST TF-E THIRD FLOOR-WEST I I Item Location (Auto) 4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-WEST 4							
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#F-W FOURTH FLOOR-WEST #F-E FOURTH FLOOR-03 BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill  SUPPLEMENTARY PREAMBLES Finishes to ironmongery: Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromium plated: SC Satin chromium plated: SE Silver enamelled: GE Grey enamelled: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated.  HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC. (CPAP Work Group No 132):  Dormakaba:  'Dormakaba:  'Dormakaba DBB-SS009' 102 x 75 x 3mm stainless steel hinge.  GF-E 3 RK 12 2 A 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment.  GF-W 30 GF-E 6   Carried to Collection  Section No. 2 Bill No. 10 Ironmongery	TF-E	THIRD FLOOR-EAST					
4F-E FOURTH FLOOR-02 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill  SUPPLEMENTARY PREAMBLES Finishes to ironmongery: Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromium plated: SC Satin chromium plated: SE Silver enamelled: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated. HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC. (CPAP Work Group No 132): Dormakaba:  1 'Dormakaba DBB-SS009' 102 x 75 x 3mm stainless steel hinge. GF-E 3 RK 12 A 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment. GF-W 30 GF-E 6  Carried to Collection Section No. 2 Bill No. 10 Ironmongery	1	Item Location (Auto)					
BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   TRADE PREAMBLES Trade Preambles: For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill  SUPPLEMENTARY PREAMBLES Finishes to ironmongery: Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered: CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled: AS Anodised silver: AB Anodised bronze: AG Anodised gold: ABL Anodised black: PB Polished brass: PL Polished and lacquered: PT Epoxy coated. HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC. (CPAP Work Group No 132):  Dormakaba: 1 'Dormakaba: 1 'Dormakaba DBB-SS009' 102 x 75 x 3mm stainless steel hinge. GF-E 3 RK 12 2 A 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment.  GF-W 30 GF-E 6  Carried to Collection  R  BOLTS, PANIC							
BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  TRADE PREAMBLES Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill SUPPLEMENTARY PREAMBLES Finishes to ironmongery:  Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS Satin bronze lacquered : CH Chromium plated : SC Satin chromium plated : SE Silver enamelled : GE Grey enamelled : AS Anodised silver : AB Anodised bronze : AG Anodised gold : ABL Anodised black : PB Polished brass : PL Polished and lacquered : PT Epoxy coated. HINGES, FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC. (CPAP Work Group No 132): Dormakaba:  1 'Dormakaba DBB-SS009' 102 x 75 x 3mm stainless steel hinge.  GF-E 3 RK 12 2 A 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment.  GF-W 30 GF-E 6  Carried to Collection  R  BASEMENT FLOOR SPRING HINGES, BOLTS, PANIC BOLTS, ETC. (CPAP Work Group No 132): Dormakaba:  1 'Dormakaba DBB-SS009' 102 x 75 x 3mm stainless steel hinge.  GF-E 3 RK 12 2 A 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment.  GF-W 30 GF-E 6							
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A 1040 100mm Aluminium Sinkless Hinge, Centre Pin With Standard Alignment Grooving For Easy Fitment.  GF-W 30 GF-E 6  Carried to Collection Section No. 2  Bill No. 10  Ironmongery		SD-SS009 102 x 73 x SHIIII Stailliess Steel	No	15			
With Standard Alignment Grooving For Easy Fitment.  GF-W 30							
Carried to Collection  Section No. 2  Bill No. 10  Ironmongery			Pairs	36			
Section No. 2 Bill No. 10 Ironmongery	GF-W 30	GF-E 6					
Bill No. 10 Ironmongery		Carried to Collection			R		
Ironmongery	Section No. 2						
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	Ironmongery						
		53					

3 'Dormakaba DFB-SC-180' 153mm satin chrome manual flush boit with heel.  FF-W 4 4 'Dormakaba DFB-SC-180' 153mm satin chrome manual flush boit with heel with keep let into concrete.  FF-W 4 5 Galvanised Barrel Bolt, 150mm Long Fitted To Bottom Of Inactive Doorleaf.  GF-E 1 FF-W 2  Alufab: 6 'Alufab 2040' 200mm aluminum anodised sickless hinges, centre pin.  GF-W 15 GF-E 30 FF-E 3 SF-W 0 4F-E 3 BF-1 6  Y-Alufab M1519N' 150mm natural anodised aluminium flush bolt.  GF-W 12 GF-E 9 RK 3  CATCHES, CABIN HOOKS, ETC. (CPAP Work Group No 132):  Halstead: 8 'Halstead: 9 'Halstead 166' 200mm Stain Chrome on brass cabin hook and eye including 100 x 100 x 75mm chamfered hardwood block twice olied and plugged.  GF-W 5 GF-E 10 FF-W 1  FF-E 1 SF-W 2  LOCKS. (CPAP Work Group No 132):  Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  Dormakaba D038RNP Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  Section No. 2  Bill No. 10  Ironmongery 54	1		Unit	Quantity	Rate	Amount	
flush bolt with heel.  FF-W 4  Dormakaba DFB-SC-180' 153mm satin chrome manual flush bolt with heel with keep let into concrete.  FF-W 4  Galvanised Barrel Bolt, 150mm Long Fitted To Bottom Of Inactive Doorleaf.  FF-W 2  Autab:  A							
4 Tormakaba DFR-SC-180 153mm satin chrome manual flush bolt with heel with keep let into concrete.  FF-W 4  5 Galvanised Barrel Bolt, 150mm Long Fitted To Bottom Of Inactive Doorleaf.  GF-E 1 FF-W 2  Aufufab:  6 'Alufab 2040' 200mm aluminum anodised sickless hinges, centre pin.  GF-W 15 GF-E 30 FF-E 3 SF-W 9 4F-E 3 BF-1 6  7 'Alufab M1519N 150mm natural anodised aluminium flush bolt.  GF-W 12 GF-E 9 RK 3  CATCHES, CABIN HOOKS, ETC. (CPAP Work Group No 132):  Halstead:  18 'Halstead 166' 200mm Stain Chrome on brass cabin hook and eye including 100 x 100 x 75mm chamfered hardwood block twice oiled and plugged.  GF-W 5 GF-E 10 FF-W 1 FF-E 1 SF-W 3 4F-E 1 BF-1 2 SF-W 3 4F-E 1 BF-1 5F-W 2 LOCKS. (CPAP Work Group No 132):  Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  10 'Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  10 'Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  No 6 GF-E 1 FF-W 1  Carried to Collection  Section No. 2 Bill No. 10 Ironmongery	3		No	4			
Galvanised Barrel Bolt, 150mm Long Fitted To Bottom Of Inactive Doorleaf.  GF-E 1 FF-W 2  Alufab:  6 'Alufab 2040' 200mm aluminum anodised sickless hinges, centre pin.  GF-W 15 GF-E 30 FF-E 3 SF-W 9 AF-E 3 SF-W 9 AF-E 9 RK 3 GATCHES, CABIN HOOKS, ETC. (CPAP Work Group No 132): Halstead:  8 'Halstead 166' 200mm Stain Chrome on brass cabin hook and eye including 100 x 100 x 75mm chamfered hardwood block twice oiled and plugged.  GF-W 5 GF-E 10 FF-W 1 FF-E 1 SF-W 3 AF-E 1 BF-1 2  9 'Halstead' 200mm satin chromed cabin hook and eye, including 100 x 100 x 75mm chamfered meranti block twice oiled and plugged.  GF-E 1 FF-W 2  LOCKS. (CPAP Work Group No 132): Dormakaba 10 'Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 186 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  Tormakaba D038RNP Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  Section No. 2  Bill No. 10  Ironmongery	4	'Dormakaba DFB-SC-180' 153mm satin chrome manual	No	4			
Alutab:  Alutab 2040' 200mm aluminum anodised sickless hinges, centre pin.  GF-W 15	5	Galvanised Barrel Bolt, 150mm Long Fitted To Bottom	No	3			
hinges, centre pin.  GF-W 15 GF-E 30 FF-E 3 SF-W 9 4F-E 3 BF-1 6  7' Alufab M1519N' 150mm natural anodised aluminium flush bolt.  GF-W 12 GF-E 9 RK 3 CATCHES, CABIN HOOKS, ETC. (CPAP Work Group No 132):  Halstead:  8 'Halstead 166' 200mm Stain Chrome on brass cabin hook and eye including 100 x 100 x 75mm chamfered hardwood block twice oiled and plugged.  GF-W 5 GF-E 10 FF-W 1 FF-E 1 SF-W 3 4F-E 1 BF-1 2  9 'Halstead' 200mm satin chromed cabin hook and eye, including 100 x 100 x 75mm chamfered meranti block twice oiled and plugged.  GF-E 1 FF-W 2 LOCKS. (CPAP Work Group No 132): Dormakaba  10 'Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  Dormakaba D038RNP' Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  Section No. 2  Bill No. 10  Ironmongery							
SF-W 9	6		No	66			
flush bolt.  GF-W 12 GF-E 9 RK 3  CATCHES, CABIN HOOKS, ETC. (CPAP Work Group No 132):  Halstead:  **Halstead 166' 200mm Stain Chrome on brass cabin hook and eye including 100 x 100 x 75mm chamfered hardwood block twice oiled and plugged.  GF-W 5 GF-E 10 FF-W 1 FF-E 1 SF-W 3 4F-E 1 BF-1 2  9 'Halstead' 200mm satin chromed cabin hook and eye, including 100 x 100 x 75mm chamfered meranti block twice oiled and plugged.  GF-E 1 FF-W 2 LOCKS. (CPAP Work Group No 132):  Dormakaba:  10 'Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  11 'Dormakaba D038RNP' Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  Section No. 2  Bill No. 10 Ironmongery	7	SF-W 9 4F-E 3 BF-1 6					
CATCHES, CABIN HOOKS, ETC. (CPAP Work Group No 132):  Halstead:  8		flush bolt.	No	24			
8 'Halstead 166' 200mm Stain Chrome on brass cabin hook and eye including 100 x 100 x 75mm chamfered hardwood block twice oiled and plugged.  GF-W 5		CATCHES, CABIN HOOKS, ETC. (CPAP Work Group					
hook and eye including 100 x 100 x 75mm chamfered hardwood block twice oiled and plugged.  GF-W 5		Halstead:					
FF-E 1 SF-W 3 4F-E 1 BF-1 2  9 'Halstead' 200mm satin chromed cabin hook and eye, including 100 x 100 x 75mm chamfered meranti block twice oiled and plugged.  GF-E 1 FF-W 2 LOCKS. (CPAP Work Group No 132):  Dormakaba:  10 'Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  'Dormakaba D038RNP' Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  Section No. 2  Bill No. 10  Ironmongery	8	hook and eye including 100 x 100 x 75mm chamfered	No	23			
including 100 x 100 x 75mm chamfered meranti block twice oiled and plugged.  GF-E 1 FF-W 2 LOCKS. (CPAP Work Group No 132):  Dormakaba:  10 'Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  'Dormakaba D038RNP' Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  R  Section No. 2  Bill No. 10  Ironmongery		FF-E 1 SF-W 3 4F-E 1					
LOCKS. (CPAP Work Group No 132):  Dormakaba:  10 'Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  'Dormakaba D038RNP' Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  Section No. 2  Bill No. 10  Ironmongery	9	including 100 x 100 x 75mm chamfered meranti block	No	3			
10 Dormakaba D037D SS' stainless steel cylinder deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  11 Dormakaba D038RNP' Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  Section No. 2  Bill No. 10  Ironmongery		9. =					
deadlock, case dimensions 116.5 x 78mm, forend dimesions 168 x 22mm, backset 57mm.  GF-W 2 GF-E 3 FF-W 1  'Dormakaba D038RNP' Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection  Section No. 2  Bill No. 10  Ironmongery		Dormakaba:					
'Dormakaba D038RNP' Rebate conversion kit for europrofile locks D036S, D037D.  GF-E 1 FF-W 1  Carried to Collection Section No. 2 Bill No. 10 Ironmongery	10	deadlock, case dimensions 116.5 x 78mm, forend	No	6			
Carried to Collection Section No. 2 Bill No. 10 Ironmongery	11	'Dormakaba D038RNP' Rebate conversion kit for euro-	No	2			
Section No. 2 Bill No. 10 Ironmongery							
Section No. 2 Bill No. 10 Ironmongery							
Section No. 2 Bill No. 10 Ironmongery		Carried to Collection			ь		
Ironmongery		Section No. 2			K		
54		Ironmongery					
		54					

I		Unit	Quantity	Rate	Amount	
12	'Dormakaba D036S SS' stainless steel cylinder sash lock, case dimensions 116.5 x 78mm, forend dimesions					
	168 x 22mm, backset 57mm, centres 61mm.  GF-W 13	No	51			
13	'Dormaka DHK004201' Satin nickel 43mm half knob cylinder.	No	23			
	GF-W 5 GF-E 10 FF-W 1 FF-E 1 SF-W 3 4F-E 1 BF-1 2					
14	'Dormaka DCE-002 SS' Stainless Steel round cylinder escutcheon.	Pairs	22			
15	GF-W 5 GF-E 9 FF-W 3 FF-E 1 SF-W 2 4F-E 1 BF-1 1 'Dormakaba DSC104301MK' Satin nickel 43mm five pin Euro-profile knob cylinder master keyed, cylinders stamped accordingly with corresponding door numbers, three keys with tags required per cylinder.	No	3			
16	GF-E 1 FF-W 2 'Dormakaba DKC106601' 66mm five pin Euro-profile knob cylinder master keyed, cylinders stamped accordingly with corresponding door numbers, three keys with tags required per cylinder.	No	13			
17	GF-W 2 GF-E 3 FF-W 3 FF-E 1 SF-E 2 TF-E 1 RK 1 'Dormakaba EMC 1200 ALH' sinlge electromagnetic lock with 1200 ibf (5338N) holding force, surface-mounted, with lock status sensor and red/ gree LED indicator		13			
18	(19860504).  GF-W 2 GF-E 1 FF-W 1  'Dormakaba DDC106601MK' Satin nickel 66mm five pin Euro-profile knob cylinder master keyed, cylinders stamped accordingly with corresponding door numbers, three keye with tage required per cylinder.	No	4			
19	three keys with tags required per cylinder.  GF-W 9 GF-E 5 FF-W 9  FF-E 1 4F-W 1 4F-E 2  RK 1  'Dormakaba DDC106600MK' Brass 66mm five pin Europrofile double cylinder master keyed, cylinders stamped accordingly with corresponding door numbers, three	No	28			
	keys with tags required per cylinder.  GF-W 1	No	1			
	Carried to Collection			R		
	Section No. 2 Bill No. 10 Ironmongery 55					

1	1	Unit	Quantity	Rate	Amount	
20	'Basket' iseo ISEO 35mm Backset Hooklock.	No	11			
	GF-W 2 GF-E 1 FF-W 3 FF-E 1 SF-E 2 TF-E 1 RK 1					
21	'Dormakaba 'PHA3 L DD' Three point locking panic bar -double door - door leaf 1000mm wide x 3400mm high (2101.2104.2104.2201.PHX02.PHX05).	No	4			
	GF-E 4					
	HANDLES (CPAP Work Group No 132):  Equally approved od Dormakaba:					
22	'Dormakaba TH120 BP Cyl SS' Stainless steel lever handle on rose with cylinder escutcheons.	Sets	23			
	GF-W 7 GF-E 4 FF-W 7 FF-E 1 4F-W 1 4F-E 2					
23	PK 1 'Dormakaba TH120 Cyl SS' Stainless steel lever handle on rose with cylinder escutcheons.	Sets	2			
24	GF-W 1 FF-W 1 'Dormakaba TH120 Latch SS' Stainless steel lever					
24	handle on rose with latch.	Sets	25			
	GF-W 5 GF-E 11 FF-W 2 FF-E 1 SF-W 3 4F-E 1 BF-1 2					
25	'Dormakaba DCE-105 SS' stainless steel narrow stile cylinder escutcheons	Pairs	11			
	GF-W 2 GF-E 1 FF-W 3 FF-E 1 SF-E 2 TF-E 1 RK 1					
26	'Dormakaba DPH207 BTB' 500 x 25mm stainless steel straight tubular pull handle fixed back to back (BTB fixing sets included).	Pairs	15			
	GF-W 4 GF-E 6 FF-W 2 RK 3	i dii3	10			
27	'Dormakaba DFP-SS-025' Stainless Steel 120x40mm Rectangular Flush Pull Handle.	No	26			
	GF-W 4 GF-E 2 FF-W 10 FF-E 2 SF-E 4 TF-E 2 RK 2					
28	'Dormakaba TH120 WC LH SS' Stainless steel lever handle on rose with bathroom funirture with cylinder cut out prepared for padlock.	Sets	1			
	FF-W 1	Oolo				
	Carried to Collection			R		
	Section No. 2					
	Bill No. 10 Ironmongery					
	56					

		Unit	Quantity	Rate	Amount	
	DOOR CLOSERS (CPAP Work Group No 132):					
	Dormakaba:					
29	'Dormakaba TS91B' Non hold open cam action side action door closer, closing force EN3, hydrualic speed control, pull side door leaf fixing (standard), push side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120	No	7			
	FF-W 4 RK 3					
30	'Dormakaba TS91B-SL' Non hold open cam action side action door closer, closing force EN3, hydrualic speed control, pull side door leaf fixing (standard), push side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120	No	6			
31	GF-W 3 FF-W 3 'Dormakaba TS91B HO-SL' Mechanical hold open cam action slide channel door closer, closing force EN3, hydrualic speed control, pull side door leaf fixing (standard), push side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120	No	4			
	GF-E 4					
32	'Dormakaba TS90-SL' Silver Non hold open cam action slide channel door closer, closing force EN3/4, hydrualic speed control, pull side door leaf fixing (standard), push side transom fixing. EN3 850-950, EN4 950-1100	No	33			
33	GF-W 12 FF-W 21  'Dormakaba TS92B - SL' Non hold open cam action slide channel door closer, closing force EN2-4V, hydrualic speed control, pull side door leaf fixing (standard), push side transom fixing. Door closer compliant with EN 1154. Door closer is CERTI FIRE approved (Certificate No. CF 119) for door types ITT 120	No	7			
34	GF-W 2 GF-E 4 FF-W 1  'Dormakaba TS83 PA + Parallel arm bracket' EN 3-6 parallel arm non hold open door closer, fixed strength, hydraulic speed control, push side fixing (parallel arm included), EN3 850-950, with and including EN4 950-1100, EN5 1100-1250, EN6 1250-1400., Door Closer tested to EN 1154. Approved to AS1905 Part 1 Fire Resistant Doors. Certified manufacturer to ISO 9001	No	3			
	FF-W 3					
35	'Dormakaba TS83' Drop plate.	No	1			
	FF-W 1					
	Carried to Collection			R		
	Section No. 2			K		
	Bill No. 10					
	Ironmongery					
	57					

1	1	Unit	Quantity	Rate	Amount	
	PUSH PLATES AND KICK PLATES (CPAP Work Group No 132):					
	Dormakaba:					
36	'Dormakaba DKP-430-200 screw fixed' 813 x 920 x 1,2mm thick Grade 430 stainless steel kick plate with 10No countersunk holes for screw fixing with and including stainless steel screws.	No	3			
	FF-W 3  LETTERS, NAMEPLATES, ETC. (CPAP Work Group No 132):					
	Dormaka:					
37	'Dormakaba DSS-130M/ 131F' 150 x 150mm MALE/ FEMALE sign.	No	3			
38	RK 3 'Dormakaba DSS-133P' 150 x 150mm DISABLED PERSON sign.	No	4			
39	GF-W 1 FF-W 3 'Dormakaba DSS-152 C' 150 x 150mm CLEANER sign.	No	2			
40	GF-W 1 RK 1 'Dormakaba DSS-135 TC' 150 x 150mm TEA CUP sign.	No	4			
	GF-W 1 FF-W 3  BLINDS, PELMETS AND CURTAIN TRACKS					
	BLINDS.					
41	1500 X 3000mm Roller blinds to meet the existing including rails, adjustable cable, screws, top hung to ceiling.	No	69			
	GF-W 61 FF-E 2 SF-W 1 SF-E 3 4F-W 2 BATHROOM FITTINGS. (CPAP Work Group No 132):					
	Franke:					
42	'Franke Stratos STRX 672' satin stainless steel double toilet roll holder, with cylinder lock, plugged to wall with stainless steel screws.	No	2			
43	RK 2 'Franke sensor operated hand dryer HF2400HD, plugged to wall with stainless steel screws.	No	2			
44	RK 2 'Franke Stratos STRX 618' Stainless steel soap dispenser plugged to wall with stainless steel screws.	No	2			
	GF-W 2					
	Carried to Collection			R		
	Section No. 2					
	Bill No. 10					
	Ironmongery 58					
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		Unit	Quantity	Rate	Amount	
45	600mm Long 'Franke' stainless steel towel rail bolted. (code 359933)  GF-W 2	No	2			
46	wall mounted waste bin, plugged to wall with stainless steel screws.	No	2			
47	GF-W 2  Chairman Industries:  'Franke' CNTXBR 750 x 260mm stainless steel disabled grab rail. (code 359912)  GF-W 1 FF-W 3	No	4			
48		No	4			
	SUNDRIES. (CPAP Work Group No 132):					
	Dormakaba:					
49	'Dormakaba L + Z Bracket 1200' for EMC 1200 ALH (19860525).	No	4			
50	GF-W 2 GF-E 1 FF-W 1 'Dormakaba DDS-SS-017' floor mounted door stop plugged.	No	79			
	GF-W 25 GF-E 12 FF-W 38 FF-E 1 4F-W 1 4F-E 2					
51	'Dormakaba DDH-SS-020' stainless steel wall buffer plugged.	No	8			
52	GF-W 1 FF-W 3 RK 4	No	21			
52	'Dormakaba DPS-SS-032' Dust proof strike.  GF-W 6 GF-E 6 FF-W 9	No	21			
53		No	41			
	GF-W 6 GF-E 1 FF-W 26 RK 8 <b>Arufab:</b>					
54	'Alufab H469' 600mm extension rod.	No	8			
	GF-W 2 GF-E 4 FF-W 2					
	Carried to Collection			R		
	Section No. 2 Bill No. 10					
	Ironmongery					
	59					

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BILL NO. 10 IRONMONGERY COLLECTION		Page No		
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Section No. 2 Bill No. 10 Ironmongery	Carried To Section Summary  60	R		

1	1	Unit	Quantity	Rate	Amount
SECTION NO. 2	2				
BUILDING WOI	RKS				
BILL NO. 11					
STRUCTURAL	STEELWORK				
Key:	Location Description:				
Un/A	Unallocated				
GF-W	GROUND FLOOR-WEST				
GF-E	GROUND FLOOR-EAST				
FF-W	FIRST FLOOR-WEST				
FF-E	FIRST FLOOR-EAST				
SF-W	SECOND FLOOR-WEST				
SF-E	SECOND FLOOR-EAST				
TF-W	THIRD FLOOR-WEST				
TF-E	THIRD FLOOR-EAST				
I 4F-W	Item Location (Auto) FOURTH FLOOR-WEST				
4F-VV 4F-E	FOURTH FLOOR-WEST FOURTH FLOOR-EAST				
BF-1	BASEMENT FLOOR-01				
BF-2	BASEMENT FLOOR-02				
RK	RECREATIONAL & KITCH				
CWK	COVERED WALKWAY				
TRADE PREAM	IBLES				
Trade Preamble	es:				
	mbles refer to 'Model Preambles for				
Trades' (2008 e	dition) for the full descriptions of material work to be done in this Bill.				
SUPPLEMENT	ARY PREAMBLES				
Proprietary iter	ns or materials:				
	s or materials where specified are to be ecified - or other equal approved - by the				
Descriptions:					
	bolts shall be deemed to include nuts				
bolts shall be de	straight, L-shaped and U-shaped anchor emed to include bending, threading, nuts d embedding in concrete.				
chemical ancho	expansion anchors and bolts and rs and bolts shall be deemed to include and mortices in brickwork or concrete.				
	be calculated according to the tables A Institute of Steel Construction.				
	Carried to Collection			R	
Section No. 2					
Bill No. 11					
Structural Steel	work				
Siruciural Steel					
	61				

		Unit	Quantity	Rate	Amount	
	SHOP DRAWINGS (CPAP Work Group No: Non Adjustable)					
	The Sub-Contractor shall prepare his own shop details. Immediately on receipt of the Engineer's drawings, the Sub-Contractor shall satisfy himself that the design drawings contain all the information required for the preparation of the shop details. The said shop details and other drawings shall be submitted in duplicate to the Engineer for approval at least 1 week before commencement of fabrication. The Sub-Contractor's drawings shall be complete in every respect (including welding details which shall be fully described) and shall be checked by the Sub-Contractor prior to submission. One copy of each drawing will be retained by the Engineer and, within 1 week after the date of receipt by the Engineer, the other copy will be returned to the Sub-Contractor with the Engineer's comments or written approval, as the case may be. Before the commencement of fabrication, the Sub-Contractor shall obtain from the Engineer approval of the shop drawings, in writing. The approval given by the Engineer relates to structural adequacy and does not absolve the Sub-Contractor from the responsibility for dimensional accuracy.					
1	Preparation and approval of shop drawings	Item				
2	Galvanising testing.	Item				
	HOT DIPPED GALVANISED STEEL COLUMNS AND BEAMS (CPAP Work Group No 134)  Welded columns in single lengths with flat section base, top, bearer, stiffner and connection plates bolted to steel and concrete:					
3	100 x 100 x 6mm Square hollow section columns.	Tonnes	1.16			
4	RK 1.16 205mm Diameter x 6mm Rolled Circular hollow section trusses including cleats, etc.	Tonnes	1.02			
5	RK 1.02 200 x 150 x 6mm Rectengular hollow section columns.	Tonnes	1.32			
6	CWK 1.32 100 x 100 x 6mm Square hollow section beams.	Tonnes	3.23			
7	RK 3.23 200 x 150 x 6mm Rectengular hollow section beams.	Tonnes	1.32			
	CWK 1.32					
	Carried to Collection			R		
	Section No. 2 Bill No. 11 Structural Steelwork 62					
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ı		Unit	Quantity	Rate	Amount	
	Bolts to columns, beams, etc:					
8	Grade 4.8 bolts	Tonnes	2.00			
	RK 2	_	0.00			
9	High tensile Grade 8.8 bolts  RK 2	Tonnes	2.00			
10	M20 holding down bolt 606mm long with 70 x 70 x 12mm plate welded 10mm up on one end with two nus and washers.	No	108			
11	RK 108 M20 Anchor bolts.	No	22			
12	RK 22 M16 150mm long chemical anchor.	No	8			
13	M20 150mm long chemical anchor.	No	6			
	Bolts to trusses, purlins, beams, etc:					
14	Grade 4.8 bolts.	Tonnes	0.95			
15	RK 0.95 High tensile Grade 8.8 bolts.	Tonnes	1.23			
	RK 1.23  HOT DIPPED GALVANISED STEEL PURLINS, GIRTS, BRACING, ETC (CPAP Work Group No 134)					
	Purlins and girts bolted to steel:					
16	100 x 100 x 6mm Lid channel purlins.	Tonnes	3.23			
17	RK 3.23 150 x 75 x 6mm Lipped channel section purlins.	Tonnes	1.00			
18	RK 1 200 x 75 x 6mm Lipped channel section purlins.	Tonnes	9.45			
	Welded bracing etc with flat section connection					
19	plates bolted to steel: Angle section bracing.	Tonnes	1.60			
10	FF-E 0.82 CWK 0.78	Tormos	1.00			
20	High tensile Grade 8.8 bolts.	Tonnes	0.86			
	FF-E 0.86					
	Carried to Collection			R		
	Section No. 2					
	Bill No. 11					
	Structural Steelwork 63					
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<u>BILL NO. 11</u>				
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STRUCTURAL STEELWO	<u>KN</u>			
<u>COLLECTION</u>				
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	Carried 10 Section Summary	K		
Section No. 2				
Bill No. 11				
Structural Steelwork				
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		Unit	Quantity	Rate	Amount
SECTION NO. 2	2				
<b>BUILDING WOR</b>	<u>RKS</u>				
<b>BILL NO. 12</b>					
<b>METALWORK</b>					
<u>Key:</u>	Location Description:				
Un/A	Unallocated				
GF-W GF-E	GROUND FLOOR-WEST GROUND FLOOR-EAST				
FF-W	FIRST FLOOR-WEST				
FF-E	FIRST FLOOR-EAST				
SF-W	SECOND FLOOR-WEST				
SF-E	SECOND FLOOR-EAST				
TF-W	THIRD FLOOR-WEST				
TF-E	THIRD FLOOR-EAST				
I 4F-W	Item Location (Auto) FOURTH FLOOR-WEST				
4F-E	FOURTH FLOOR-EAST				
BF-1	BASEMENT FLOOR-01				
BF-2	BASEMENT FLOOR-02				
RK	RECREATIONAL & KITCH				
CWK	COVERED WALKWAY				
TRADE PREAM	BLES				
Trade Preamble	<u>98:</u>				
Trades' (2008 ed	nbles refer to 'Model Preambles for dition) for the full descriptions of material work to be done in this Bill.				
	ARY PREAMBLES				
Proprietary iten					
	s or materials where specified are to be cified - or other equal approved - by the				
Descriptions:					
Descriptions of band washers.	polts shall be deemed to include nuts				
chemical anchor	expansion anchors and bolts and is and bolts shall be deemed to include and mortices in brickwork or concrete.				
	ribed as holed for bolt(s) shall be ude the bolts unless otherwise described.				
	Carried to Collection			R	
Section No. 2	Carried to Collection			ĸ	
Bill No. 12					
Metalwork					
	65				

			eMENDI BUIL	DING ALTERATION	N-PON
	Unit	Quantity	Rate	Amount	ı
Powder coating					
All powder coating shall be executed only by applicators approved by the powder manufacturers & shall be executed strictly in conformance with sabs 1796 manufacturer to provide powder coat samples for architect's approval prior to ordering.					
<u>General</u>					
Glazing shall be executed in strict conformance with glass manufacturer's recommendations & all in accordance with the national building Regulations Part N, SABS 0137, SABS 1263 & AAAMSA selection guide for safety glazing materials.					
Structural glazing					
In case of structural glazing written proof is to be provided that all stages of fabrication & installation have been executed with disciplined quality assurance in accordance with the relevant parts of SABS ISO 9000.					
Safety glazing					
All safety glazing materials (individual panes) shall be permanently marked. Such marking to be visible after glazing.					
Compliance					
All materials, glazing & sealing to comply with SANS 10400.					
Prior to the commencement of any site work, the following certificates should be provided:					
<ol> <li>A copy of relevant AAAMSA performance certificate from the manufacturer / contractor supplying the architectural aluminium product.</li> </ol>					
2. A certificate of conformance confirming that all anodizing or powder coating has been processed in strict accordance with SABS 999:1998 and SABS 1976:2001 respectively.					
3. A powder guarantee of no less than 15 years issued by the powder manufacturer. The specific conditions contained in this guarantee shall form part of the powder coating process and may only be applied by an approved powder applicator.					
4. A certificate of conformance that glazing has been installed in accordance with SABS 0137 ensuring that safety glass glazing materials have been installed in the mandatory areas and that each individual pane of safety glazing material has been permanently marked.					
Carried to Collection			R		
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Metalwork					
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		Unit	Quantity	Rate	Amount	ı
	5. A warranty from the manufacturer of the laminated safety glass and / or hermetically sealed glazing units warranting the products against delamination and colour degradation for a period of not less than 5 years					
	Shop drawings must be provided to the architect for approval					
	SUNDRY GALVANIZED STEELWORK (CPAP Work Group No 136)					
	Corner protectors, bollards etc:					
	NATURAL ANODISED ALUMINIUM LOUVRE UNITS					
	Louvre units fixed to timber doors:					
1	501 x 560mm fixed louvre six times holed and fitted to door with six 30mm counter sunk stainless steel screws	No	2			
	RK 2  HOT DIPPED GALVANISED SCREENS, GATES, ETC.					
	Galvanised screens, gates to brickwork or concrete:					
2	Double swing gate size 1600 x 2100mm high over all, each leaf size 800 x 2100mm high consisting of 76 x 50 x 3,5mm rectangular hollow section frame, one 76 x 50 x 3,5mm vertical rail and filled in with 'Steeldale' Specimesh Ref. No. M126 mesh with 100 x 100 x 3,15mm thick wire and 25 x 25 x 3mm flat bar border, 100 x 75 x 5mm locking plate with one 15mm diameter hole for padlock (padlock elsewhere measured), 25 x 50 x 6mm flat bar barrel bolt catch, 50 x 245 x 10mm diameter barrel bolt slotted into 175mm long 10mm internal diameter circular hollow section welded to frame					
	for barrel bolt and two heavy duty hinges, installed					
	complete.	No	1			
	BF-2 1 ALUMINIUM ROLLER SHUTTERS ETC.					
	Epoxy powder coated aluminium push-up roller shutters fixed to brickwork:					
3	Motorized operated slatted roller shutter door for size 4765 x 1400mm high opening size locked side and base, locks to be fitted on both sides internally at 1600mm above finish floor level, powder coated ancillary components including end plates, guide rails, etc. with slide bolt and 457mm high canopy cover, all as per the manufacturers specification and recommendation.	No	1			
	RK 1					
	Carried to Collection			R		
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	Bill No. 12					
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		Unit	Quantity	Rate	Amount	
	SHOP DRAWINGS (CPAP Work Group No: Non Adjustable)					
	The Sub-Contractor shall prepare his own shop details immediately on receipt of the Architect's drawings, the Sub-Contractor shall satisfy himself that the design drawings contain all the information required for the preparation of the shop details. The said shop details and other drawings shall be submitted in duplicate to the Architect for approval at least 1 week before commencement of manufacturing. The Sub-Contractor's drawings shall be complete in every respect and shall be checked by the Sub-Contractor prior to submission. One copy of each drawing will be retained by the Architect and, within 1 week after the date of receipt by the Architect, the other copy will be returned to the Sub-Contractor with the Architect's comments or written approval, as the case may be. Before the commencement of manufacturing, the Sub-Contractor shall obtain from the Architect approval of the shop drawings, in writing. The approval given by the Architect relates to designl adequacy and does not absolve the Sub-Contractor from the responsibility for dimensional accuracy.					
4	Preparation and approval of shop drawings for aluminium windows and shopfronts.	Item				
5	Preparation and approval of shop drawings for curtain walls.	Item				
	Solarvue Neutral HL" safety glass in accordance with SANS 10160:2020, SANS 10137:2002, SANS 10400:2010 (Part N of Section 3) and SANS 1263:2006, all in accordance with AAMSA Selection Guide for glazed Aluminium Architectural Products. All glazing sizes as per specialist specification. All safety glass to display name of glazing company as well as class and number of glass."					
6	Window size 600 x 900mm high top hung including self-sdhesive, sandblast vinyl (plain), etc., installed complete	No	6			
	RK 6					
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ı	ı	Unit	Quantity	Rate	Amount
	Solarvue Neutral HL' safety glass in accordance with SANS 10160:2020, SANS 10137:2002, SANS 10400:2010 (Part N of Section 3) and SANS 1263:2006, all in accordance with AAMSA Selection Guide for glazed Aluminium Architectural Products. All glazing sizes as per specialist specification. All safety glass to display name of glazing company as well as class and number of glass."				
	Powder Coated Aluminum Doors, ETC				
	Powder coated aluminium doors, with 6.38mm clear laminated safety glass and plugged to dry wall partition including aliminium frame:				
7	Single door and frame to suit opening size 900 x 2100mm high including self-sdhesive, sandblast vinyl (plain).	No	11		
8	GF-W 3 GF-E 4 FF-E 1 4F-W 1 4F-E 2 Double door and frame to suit opening size 1600 x				
8	2100mm high including self-sdhesive, sandblast vinyl (plain).	No	1		
	RK 1  ALUMINIUM SLIDING FOLDING WINDOWS:				
	Powder coated sliding folding doors as per the system complete with subframes, ironmongery, glass, sealing, etc and fixing to brickwork or concrete or steel frame, etc.				
9	Purpose made sliding folding window, 1500 x 1200mm high.	No	1		
	RK 1 ALUMINIUM SHOPFRONTS:				
	Self-adhesive, sandblast vinyl (plain) at 2100mm high etc to existing shopfronts and doors:				
10	On existing shopfronts and doors.	m²	185		
	GF-E 38 SF-W 32 TF-W 24 4F-W 69 4F-E 22				
	Carried to Collection Section No. 2			R	
	Bill No. 12				
	Metalwork 69				
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1	1	Unit	Quantity	Rate	Amount	
	60 - 80 micron aluminium epoxy powder coated shopfronts complete with head, bottom rails, mullions, side rails, frames, sub frames, ironmongery, glass, sealing, etc and fixing to brickwork or concrete as per the manufacturer's instructions:					
	Ground Floor work area 0.1:					
11	Shopfront size 2440 x 3400mm high with single door size 950 x 2100mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	6			
12	GF-E 6 Shopfront 4320 x 3400mm high with single door size 950 x 2325mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
13	GF-E 1 Shopfront 1805 x 3400mm high with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	2			
	GF-E 2 <b>Ground Floor work area 0.2:</b>					
14	Shopfront 7700 x 3400mm high with single door size 950 x 2325mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
15	GF-E 1 Shopfront 10 000 x 3400mm high with 2 x single doors, each door size 950 x 2090mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm highetc., installed complete.	No	1			
	GF-E 1	110	'			
16	Ground Floor work area 0.4:  Shopfront 3010 x 3400mm high with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	GF-W 1					
	Carried to Collection			R		
	Section No. 2					
	Bill No. 12					
	Metalwork					
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		Unit	Quantity	Rate	Amount	
17	Shopfront 3795 x 3400mm high with single door size 950 x 2325mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
18	GF-W 1 Shopfront 4000 x 3400mm high with single door size 950 x 2325mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
19	GF-W 1 Shopfront 7920 x 3400mm high with one double swing door size 1246 x 2325mm high overall in two equal leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc.	No	1			
20	GF-W 1 Shopfront 5000 x 3400mm high with one double swing door size 1800 x 2100mm high overall in two equal leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc.	No	1			
	GF-W 1  Basement work area B1:					
21	Shopfront 4390 x 2200mm high with single door size 950 x 2100mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	2			
22	BF-1 2 Shopfront 6600 x 2100mm high glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	BF-1 1 Ground Floor work area 0.5:					
23	Shopfront 2540 x 3400mm high with single door size 950 x 2090mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.  GF-W 1	No	1			
	Carried to Collection			R		
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	1	Unit	Quantity	Rate	Amount	
24	Shopfront 5510 x 3400mm high with 2 x single doors, each door size 950 x 2090mm high overall, shopfront and door glazed with Clear laminated safety glass,					
	including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.  GF-W 1	No	1			
25	Ground Floor work area 0.6: Shopfront 5300 x 3400mm high with one double swing					
25	Shopfront 5300 x 3400mm high with one double swing door size 1246 x 2325mm high overall in two equal leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc.	No	1			
	GF-W 1 Fourth Floor work area 4.2:					
26	Shopfront 3268 x 3400mm high with single door size 950 x 2090mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
27	4F-E 1 Shopfront 3661 x 3400mm high glazed with Clear					
21	laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	4F-E 1 Third Floor work area 3.2:					
28	Shopfront 2222 x 3400mm high with one double swing door size 1607 x 2040mm high overall in two leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
29	TF-E 1 Shopfront 5020 x 3400mm high glazed with Clear laminated safety glass, including self-sdhesive,					
	sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	TF-E 1 Second Floor work area 2.1:					
30	Shopfront 7602 x 3400mm high with single door size 950 x 2090mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	SF-W 1					
	Carried to Collection Section No. 2			R		
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	Metalwork 72					
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I		Unit	Quantity	Rate	Amount	
	Second Floor work area 2.2:					
31	Shopfront 2222 x 3400mm high with one double swing door size 1637 x 2040mm high overall in two leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
32	SF-E 1 Shopfront 5015 x 3400mm high glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete	No	1			
	SF-E 1					
33	Second Floor work area 2.3:  Shopfront 3660 x 3400mm high glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete	No	1			
34	SF-E 1 Shopfront 2435 x 3400mm high glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete	No	1			
35	SF-E 1 Shopfront 1500 x 3400mm high with one double swing door size 1500 x 2325mm high overall in two leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	SF-E 1					
36	laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete	No	1			
37	SF-W 1 Shopfront 3575 x 3400mm high with single door size 950 x 2325mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	SF-W 1					
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		Unit	Quantity	Rate	Amount	
38	Shopfront 4425 x 3400mm high with single door size 950 x 2325mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	SF-W 1 First Floor work area 1.1:					
39	Shopfront 7985 x 3400mm high glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete	No	1			
40	FF-W 1 Shopfront 1500 x 3400mm high with one double swing door size 1500 x 2325mm high overall in two leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	FF-W 1 First Floor work area 1.2:					
41	Shopfront 4120 x 3400mm high glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete	No	1			
42	Shopfront 3515 x 3400mm high formed of two (2) pannels as per plan with single door size 950 x 2325mm high overall, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed					
	complete.  FF-E 1	No	1			
43	Shopfront 1500 x 3400mm high with one double swing door size 1500 x 2325mm high overall in two leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	FF-E 1  Recreational Facility and Kitchen:					
44	Shopfront 3700 x 2300mm high with a folding window size 3700 x 1500 mm high overall, shopfront and window glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) etc., installed complete.	No				
	RK 2	No	2			
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		Unit	Quantity	Rate	Amount	
45	Shopfront 5100 x 2300mm high with a folding window size 5100 x 1500 mm high overall, shopfront and window glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) etc., installed complete.	No	1			
46	RK 1 Shopfront 3700 x 1650mm high glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) etc., installed complete	No	2			
47	Shopfront 1000 X 2300mm high glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) etc., installed complete	No	3			
48	Shopfront 3818 x 3400mm high with one double swing door size 1500 x 2100mm high overall in two leaves, shopfront and door glazed with Clear laminated safety glass, including self-sdhesive, sandblast vinyl (plain) at 2100mm high etc., installed complete.	No	1			
	RK 1					
	Carried to Collection			R		
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<u>METALWORK</u>				
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Metalwork				
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1	1	Unit	Quantity	Rate	Amount
	SECTION NO. 2				
	BUILDING WORKS				
	BILL NO. 13				
	<u>PLASTERING</u>				
	Key: Location Description:				
	Un/A Unallocated				
	GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST				
	FF-W FIRST FLOOR-WEST				
	FF-E FIRST FLOOR-EAST				
	SF-W SECOND FLOOR-WEST				
	SF-E SECOND FLOOR-EAST				
	TF-W THIRD FLOOR-WEST				
	TF-E THIRD FLOOR-EAST				
	I Item Location (Auto) 4F-W FOURTH FLOOR-WEST				
	4F-E FOURTH FLOOR-EAST				
	BF-1 BASEMENT FLOOR-01				
	BF-2 BASEMENT FLOOR-02				
	RK RECREATIONAL & KITCH				
	CWK COVERED WALKWAY				
	TRADE PREAMBLES				
	Trade Preambles:				
	For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.				
	SCREEDS:				
	Screeds on concrete:				
1	30mm Thick on floors and landings.	m²	587		
	GF-W 248 GF-E 94 FF-E 52 SF-W 41 4F-W 36 4F-E 28 BF-1 33 RK 55				
2	Average 75mm thick on floors to falls and currents.	m²	63		
	RK 63				
3	Average 75mm thick on roofs with upper surface to falls				
	and currents.	m²	57		
	RK 57				
	Carried to Collection			R	
	Section No. 2			• • •	
	Bill No. 13				
	Plastering				
	77				

ı	1	Unit	Quantity	Rate	Amount
	'Tal Screedmaster' Self levelling screeds on existing				
	concrete floors applied as per manufacturers instructions:				
4	4mm Thick on floors and landings, including 'Tal X-				
•	calibur X-Shield VapourStop HB' two component solvent				
	free epoxy primer applied to concrete prior to self leveling screed.	2	4 400		
		m²	1,423		
	GF-W 347 GF-E 791 FF-W 55 FF-E 29 SF-W 59 SF-E 89				
	TF-E 41 4F-E 12				
	INTERNAL PLASTER				
	Cement plaster steel trowelled, on brickwork				
5	On narrow widths not exceeding 300mm wide	m²	11		
	4F-W 3 RK 8				
	Cement plaster steel trowelled, on concrete				
6	On narrow widths not exceeding 300mm wide	m²	13		
	SF-E 5 4F-E 6 RK 2				
	GRANOLITHIC				
	Untinted granolithic, on concrete:				
7	25mm Thick on floors and landings.	m²	9		
	FF-W 7 RK 2 INTERNAL PLASTER				
0	Cement plaster on brickwork: On walls.	m2	752		
8		m²	732		
	GF-W 327 GF-E 70 FF-W 6 FF-E 8 SF-W 12 SF-E 17				
	BF-1 33 RK 279				
9	On walls (Textured)	m²	100		
10	RK 100 On narrow widths.	m²	61		
10	GF-W 7 GF-E 1 FF-W 45	111-	01		
	RK 8				
	Cement plaster on concrete:				
11	On walls	m²	32		
	Un/A 32				
12	On columns	m²	2		
12	GF-E 2 On soffit of concrete slabs.	m2	57		
13	RK 57	m²	57		
14	On narrow widths.	m²	11		
	FF-W 11				
	Carried to Collection			R	
	Section No. 2				
	Bill No. 13				
	Plastering				
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1		Unit	Quantity	Rate	Amount
	Skim coat on plastered brickwork:				
15	Rhinolite to plastered walls.	m²	1,295		
	GF-W 181 GF-E 328 FF-W 28		1,200		
	FF-E 40 SF-W 61 SF-E 84 TF-E 46 4F-W 32 4F-E 12				
	RK 483				
16	Rhinolite to plastered soffits of slab.	m²	57		
17	RK 57 Rhinolite to rhino board dry wall partitioning walls.	m²	1,524		
	GF-W 328 GF-E 818 FF-W 68				
	FF-E 31 SF-W 33 TF-E 19 4F-W 19 4F-E 13 BF-2 195				
	4F-W 19				
	Cement plaster on brickwork:				
18	On walls.	m²	708		
	GF-E 51 FF-W 558 RK 99				
19	On walls in foundations	m²	127		
20	GF-E 61 FF-W 45 RK 21 On narrow widths.	m²	1		
	RK 1				
21	On sloping top, front edge and projecting soffit of sills 357mm girth	m	4		
	RK 4				
	CORNER PROTECTORS, DIVIDING STRIPS, ETC				
	Corner protectors, dividing strips, etc:				
22	3 x 57mm Flat section brass water bar.	m	2		
	RK 2				
	Carried to Collection			R	
	Section No. 2				
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	Plastering				
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			Amount	
BILL NO. 13 PLASTERING COLLECTION	Brought Forward from Page	Page No		
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I	ı	Unit	Quantity	Rate	Amount
SECTION NO.	2				
BUILDING WO	RKS				
BILL NO. 14					
TILING					
	Location Description:				
<u><b>Key:</b></u> Un/A	Unallocated				
GF-W	GROUND FLOOR-WEST				
GF-E	GROUND FLOOR-EAST				
FF-W	FIRST FLOOR-WEST				
FF-E	FIRST FLOOR-EAST				
SF-W	SECOND FLOOR-WEST				
SF-E	SECOND FLOOR-EAST THIRD FLOOR-WEST				
TF-W TF-E	THIRD FLOOR-WEST				
" -	Item Location (Auto)				
4F-W	FOURTH FLOOR-WEST				
4F-E	FOURTH FLOOR-EAST				
BF-1	BASEMENT FLOOR-01				
BF-2	BASEMENT FLOOR-02				
RK CWK	RECREATIONAL & KITCH COVERED WALKWAY				
CVVK	COVERED WALKWAT				
TDADE DDEAL	ADI ES				
TRADE PREAM					
Trade Preambl					
Trades' (2008 e	mbles refer to 'Model Preambles for dition) for the full descriptions of material work to be done in this Bill.				
SUPPLEMENT	ARY PREAMBLES				
Descriptions:					
	ad an fixed with adhering to place.				
(plaster elsewhe concrete walls, 1:4 cement plas	ed as fixed with adhesive to plaster ere), descriptions of tiling on brick or columns, etc., shall be deemed to include ster backing and descriptions of tiling on etc. shall be deemed to include 1:3.				
NOSINGS, JOI	NT COVERS, PROTECTORS, ETC.				
Wall edge prot	ectors:				
	PVC regular tiling trim 21mm wide x				
6mm high with t		m	52		
GF-W 21	FF-W 31				
	0			_	
	Carried to Collection			R	
Section No. 2					
Bill No. 14					
Tiling					
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1		Unit	Quantity	Rate	Amount	
	'M Trim' Stainless Steel straight edge trim:					
2	'M Trim' Stainless Steel straight edge trim 12mm high (code SSE120) to suit tiling 8 to 9mm thick, fixed with adhesive to treads and risers.	m	38			
	GF-W 18 TF-E 10 RK 10					
	CERAMIC WALL TILING					
	Allow the prime cost of R450.00 (Four Hundred and					
	Fifty Rand) net per square metre for ceramic tiles supplied and delivered to site and add for taking					
	delivery, storage, fixed with adhesive and flush					
	pointed with tinted jointing compound mortar, waste and profit. (plaster elsewhere measured)					
3	On walls.	m²	79			
	GF-W 8 TF-E 10 RK 61		75			
4	On narrow widths.	m²	5			
	RK 5					
5	Fair exposed cutting and fitting around pipe etc not exceeding 100mm internal diameter.	No	21			
	GF-W 3 TF-E 3 RK 15	INO	21			
	PORCELAIN FLOOR TILING					
	Allow the prime cost of R500.00 (Five Hundred Rand)					
	net per square metre for porcelain tiles supplied and delivered to site and add for taking delivery, storage,					
	fixed with adhesive and flush pointed with tinted					
	jointing compound mortar, waste and profit. (plaster elsewhere measured)					
6	On floors and landings.	m²	634			
	GF-W 248 GF-E 94 FF-E 52		004			
	SF-W 41 4F-W 13 4F-E 13					
	BF-1 33 RK 140					
	Carried to Collection			R		
	Section No. 2			IX		_
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	Tiling					
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				EMENDI BUIL	DING ALTERATION-PO
I	1	Unit	Quantity	Rate	Amount
SECTION NO.	<u>2</u>				
BUILDING WO	nrks				
	<del>NNO</del>				
BILL NO. 15					
PLUMBING AN	ND DRAINAGE				
Key:	Location Description:				
Un/A	Unallocated				
GF-W	GROUND FLOOR-WEST				
GF-E	GROUND FLOOR-EAST				
FF-W	FIRST FLOOR-WEST				
FF-E	FIRST FLOOR-EAST				
SF-W	SECOND FLOOR-WEST				
SF-E	SECOND FLOOR-EAST				
TF-W	THIRD FLOOR-WEST				
TF-E	THIRD FLOOR-EAST				
1	Item Location (Auto)				
4F-W	FOURTH FLOOR-WEST				
4F-E	FOURTH FLOOR-EAST				
BF-1	BASEMENT FLOOR-01				
BF-2	BASEMENT FLOOR-02				
RK	RECREATIONAL & KITCH				
CWK	COVERED WALKWAY				
TRADE PREAM	MRI ES				
Trade Preamb	<u>les:</u>				
For Trade Prea	imbles refer to 'Model Preambles for				
	edition) for the full descriptions of material				
	work to be done in this Bill.				
CIIDDI EMENT	ADV DDEAMDLES				
SUPPLEINIENT	ARY PREAMBLES				
Project particu	ular specifications:				
The specification	ons particular to this project are included				
	lar Specifications included in Envelope A				
	of the tender documents. The Contractor				
	sance of them when pricing the relevant				
	of Quantities as no extras arising out of				
	do so will be entertained.				
Proprietary ito	ems or materials:				
	ns or materials where specified are to be				
	ecified - or other equal approved - by the				
Principal Agent					
'Polycop' poly	propylene pipes:				
<u> </u>	pipes 54mm diameter and under shall be				
	er coloured class 16 pipes jointed with				
	t welded thermoplastic or brass				
	tings as designed for use with copper				
pipes as stated					
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		_		DING ALTERATION	N-LOIN
1	Unit	Quantity	Rate	Amount	
Pipes shall be firmly fixed to walls etc with coloured nylon snap-in pipe clips with provision for accommodating thermal movement and jointed and fixed strictly in accordance with the manufacturer's instructions.					
All pipe diameters are nominal external.					
'Polylink' polypropylene pipes:					
Polypropylene pipes 63mm diameter and over shall be class 12 pipes jointed with cast iron 'Supraclamp' running joints.					
Fusion welded bends, once or twice mitred as necessary, and tees shall be factory manufactured.					
Fusion welded bends and tees shall include jointing to pipes with PVC rubber ring double X joint couplers.					
Branch tees shall include flanged and bolted joints to 'Polycop' branch pipes in addition and for brass compression male iron to copper straight couplers.					
Reducers shall include jointing to pipes with PVC rubber ring double Z joint couplers and reduces shall be of sufficient overall length to accommodate same.					
All pipes shall be jointed and fixed strictly in accordance with the manufacturer's instructions.					
All pipe diameters are nominal external.					
Concrete pipes:					
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.					
Vitrified clay pipes etc:					
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.					
uPVC pipes and fittings.					
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.					
Soil, waste and vent pipes and fittings shall be solvent weld jointed.					
uPVC pressure pipes and fittings:					
Pipes for water supply shall be of the class stated.					
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.					
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Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not performed the class of the shall hard pipes shall not performed the class of the shall hard pipes shall not performed the performed the pipes shall not performed the pipes shall not performed the		Unit	Quantity	Rate	Amount
and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.  Copper pipes:  Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall be used in walls or in ground.  Fixing of pipes  Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level.  Lead pipes and traps:  All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel.  Reducing fittings:  Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and not claim for extra bushes, reducers, etc will be entertained.  Wire gratings:  Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.  Septit tanks:  Descriptions of septic tanks shall be deemed to include wire balloon gratings.  Exposed concrete surfaces:  Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cledening eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.					
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall be used in walls or in ground.  Fixing of pipes  Unless specifically otherwise stated, descriptions of pipes shall be deemed to include for fixing to walls etc. casting in, building in or suspending not exceeding 1m below suspension level.  Lead pipes and traps:  All soldered joints shall be wiped and brass unions shall be used for jointing lead to steel.  Reducing fittings:  Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.  Wire gratings:  Descriptions of gutter outlets etc shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.  Exposed concrete surfaces:  Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.	and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast				
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Descriptions of gutter outlets etc shall be deemed to include wire balloon gratings.  Septic tanks:  Descriptions of septic tanks shall be deemed to include excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in accordance with the manufacturer's instructions.  Exposed concrete surfaces:  Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.  Carried to Collection  R  Section No. 2  Bill No. 15  Plumbing And Drainage	described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for				
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Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.  Carried to Collection  Section No. 2  Bill No. 15  Plumbing And Drainage	excavation, bedding and jointing, concrete base slabs, jointing to drains and backfilling, compaction, etc all in				
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Section No. 2 Bill No. 15 Plumbing And Drainage	cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc				
Section No. 2 Bill No. 15 Plumbing And Drainage	Carried to Collection			p	
Plumbing And Drainage	Section No. 2			IX	

			EINIEINDI BUIL	DING ALTERATION-
	Unit	Quantity	Rate	Amount
Excavations:				
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.				
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.				
Laying, backfilling, bedding, etc of pipes:				
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.				
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.				
Flush pans:				
Flush pans shall have straight or side outlets and 'P' or 'S' traps as necessary.				
Descriptions of WC pans and bidets are deemed to include setting in silicone sealant and screwing to timber or plugging and screwing to concrete floor. Cisterns are to be plugged and brass screwed to walls.				
Stainless steel basins, sinks, wash troughs, urinals, etc:				
Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.				
Waste unions:				
Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.				
Steel sectional water tanks:				
Tanks shall comply with SABS CKS 114.				
'Densyl' petrolatum anti-corrosion tape as manufactured by Denso SA (Pty) Ltd:				
Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied with minimum 15mm lap per spiral unless otherwise described.				
Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including all mastic, tape, 'Layflat' sheeting, securing of same, etc.				
Prices for wrapping of pipes shall include for all work as described to couplings in the length.				
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		Unit	Quantity	Rate	Amount	
	RAINWATER DISPOSAL (CPAP Work Group No 148)					
	'Watertite' pre painted externally and internally with 'Color-Tech G4' high performance non-fluorinated polymer modified long chain hydro-carbon paint aluminium concealed fixed in strict accordance with the manufacturer's instructions:					
1	3mm Thick x 862mm girth rectanuglar shaped box gutter including stiffener's, four times bent along length fixed to steel purlins and structural steel support in strict accordance with the manufacturer's instructions.	m	14			
2	Extra over 862mm girth rectangular-shaped gutter for 350 x 350 x 150mm deep drop out box with outlet for outlet for 250 x 250mm aluminium rainwater pipe including joining to rainwater pipe.	No	1			
	RK 1	INO				
3	3mm Thick x 250 x 250mm Rectuangular rainwater pipes.	m	3			
4	Extra over 250 x 250mm rectangular rainwater pipes for shoes.	No	1			
	RK 1 Saint-Gobain Fullbore cast iron outlets:					
5	80mm Vertical outlet with dome grating.	No	4			
6	RK 4 100mm Vertical outlet with dome grating.	No	3			
7	RK 3 80mm 45 Degree outlet with dome grating.	No	2			
8	RK 2 100mm 45 Degree outlet with dome grating.	No	2			
9	RK 2 150mm Vertical outlet with dome grating.	No	4			
	RK 4 SANITARY FITTINGS (CPAP Work group No 148)					
	'Geberit Sanitaryware' wash hand basins:					
10	'Geberit Selnova' (GEB-500.305.01.1) wall-hung white washhand basin size 800 x 240 x 550mm colour white with one centre taphole integrated overflow and chainstay hole, mounted to wall on and including two bolts (Code: 8448Z0).	No	1			
	RK 1					
	Carried to Collection			R		
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'Geberit Sanitaryware' urinals:  'Geberit (Code: GEB-500.344.01.1) wall hung back inlet urinal for concealed control rear entry colour white with chromium plated dack inlet spreader (Code: 705422), 38mm chromium plated domical grating (Code: 878720) hung on and including two hanger brackets (Code: 8127720)  RK 2  Geberit (Code: SKU-115.211.TD.1) wall hung glass urinal division colour white with brushed and anodised brackets fixed to walls.  GF-W 1 FF-W 3  Geberit Sanitaryware' WC suites:  'Geberit White vitreous china wall hung washdown suite (product code GEB-240400000) comprising 90° outlet open rim pan with back inlet with Geberit icon soft close toilet seat with metal hinges (product code GEB-574130000) and 'Geberit Komblifx' element for wall hung wc. 108m. 'Sigma' concealed cistern 12cm (product code GEB-110.360.00.5). 'Geberit dual flush hung wc. 108m. 'Sigma' concealed cistern 12cm (product code GEB-110.360.00.5). 'Geberit dual flush pixer of suitable plate (Article No 115.770.21.5) in shiny chrome finish, fitments, etc., concealed flush valve, protection cover for service opening and flush pipe, fitted on and including boil-throughthe- wall bracket (product code 808420) boiled to brick wall  RK 1  'Blanco' Stalness steel domestic inset sinks:  'Blanco LAR-BL00204059 and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including two 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  GF-W 1 TF-E 1 RK 1  'Blanco' LAR-BL00204059 Single end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with one bowls 410 x 343 x 167mm, including one 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  F-W 1 TF-E 1 RK 1  'Blanco' Stalness outles (Code 3000651), built into worktop. (Worktop elsewhere)  Kubus or similar approved:  Kubus or similar approved:  Kubus or similar approved:	1		Unit	Quantity	Rate	Amount	
11 'Geberit' (Code: GEB-500.344.01.1) wall hung back inlet urinal for concealed control rear entry colour white with chromium plated back inlet spreader (Code: 7054/22), 38mm chromium plated domical grating (Code: 8787/20) hung on and including two hanger brackets (Code: 8127/20) hung on and including two hanger brackets (Code: 8127/20)  RK 2  12 'Geberit' (Code: SKU-115.211.TD.1) wall hung glass urinal division colour white with brushed and anodised brackets fixed to walls.  GF-W 1 FF-W 3  13 'Geberit' shite vitreous china wall hung washdown suite (product code GEB-204000000) comprising 90° outlet open rim pan with back inlet with Geberit con soft close tollet seat with metal hinges (product code GEB-574130000) and Geberit Komblitik element for wall hung wc. 198cm. Sigma (1) status of 115.770.21.5) in shiny chrome finish, fitments, etc., concealed flush valve, protection cover for service opening and flush pipe, fitted on and including boit-throughthe- wall bracket (product code 8084/20) boited to brick wall  RK 1  Blanco' LAR-BL00204059 double end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with two bowls 410 x 434 x 167mm, including two 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  GF-W 1 FF-E 1 RK 1  Blanco' LAR-BL00204059 single end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with one bowls 410 x 343 x 167mm, including one 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  TF-W 1 Kubus or similar approved:  Kk 10 Single bowl 367 x 480 x 220mm undermount sink (Code FRA-1250003) complete with waste union.  RK 1							
urinal for concealed control rear entry colour white with chromium plated back inlet spreader (Code: 764Z2), 38mm chromium plated domical grating (Code: 8787Z0) hung on and including two hanger brackets (Code: 8127Z0)  RK 2  12 'Geberit' (Code: SKU-115.211.TD.1) wall hung glass urinal division colour white with brushed and anodised brackets fixed to walls.  GF.W 1 FF.W 3  'Geberit Sanitaryware' WC sultes:  13 'Geberit' white vitreous china wall hung washdown suite (product code GEB-2400000) comprising 90° outlet open rim pan with back inlet with Geberit icon soft close toilet sear with metal hinges (product code GEB-57413000) and 'Geberit Kombifix' element for wall hung wc. 108cm, 'Sigma' concealed cistern 12cm (product code GEB-110.360.00.5)', 'Geberit' dual flush 'Sigma 01' actuator plate (Article No 115.770.21.5) in shiny chrome finish, fitments, etc., concealed flush valve, protection cover for service opening and flush pipe, fitted on and including bott-throughthe- wall bracket (product code 809420) bolted to brick wall  RK 1  'Blanco' stainless steel domestic inset sinks;  14 'Blanco' LAR-BL00204059 double end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including two 90mm waste outlets (Code 3000651), built into worktop, (Worktop elsewhere)  GF-W 1 TF-E 1 RK 1  15 'Blanco' LAR-BL00204059 Single end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including one 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  TF-W 1  Kubus or similar approved:  'Kubus' Single bowl 367 x 480 x 220mm undermount sink (Code FRA-1250003) complete with waste union.  RK 1		'Geberit Sanitaryware' urinals:					
Geberit' (Code: SKU-115.211.TD.1) wall hung glass urinal division colour white with brushed and anodised brackets fixed to walls.  GF-W 1 FF-W 3 "Geberit Sanitaryware' WC suites:  Geberit Sanitaryware' WC suites:  Geberit Sanitaryware' WC suites:  Geberit White vitreous china wall hung washdown suite (product code GEB-204000000) comprising 90° outlet open rim pan with back inlet with Geberit icon soft close toilet seat with metal hinges (product code GEB-574130000) and Geberit Kombifix' element for wall hung we, 108cm. 'Sigma' concealed cistern 12cm (product code GEB-110.360.00.5), 'Geberit' dual flush 'Sigma 01' actuator plate (Article No 115.770.21.5) in shiny chrome finish, fitments, etc., concealed flush valve, protection cover for service opening and flush pipe, fitted on and including bolt-throughther wall bracket (product code 8084Z0) bolted to brick wall  RK 1  Blanco' stainless steel domestic inset sinks:  'Blanco' LAR-BL00204059 double end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including two 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  GF-W 1 TF-E 1 RK 1  'Blanco' LAR-BL00204059 Single end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with one bowls 410 x 343 x 167mm, including one 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  TF-W 1  Kubus or similar approved:  Kubus or similar approved:  Kubus Single bowl 367 x 480 x 220mm undermount sink (Code FRA-1250003) complete with waste union.  No 1	11	urinal for concealed control rear entry colour white with chromium plated back inlet spreader (Code: 7054Z2), 38mm chromium plated domical grating (Code: 8787Z0) hung on and including two hanger brackets (Code:	No	2			
GF-W 1 FF-W 3  'Geberit Sanitaryware' WC suites:  'Geberit White vitreous schina wall hung washdown suite (product code GEB-204000000) comprising 90° outlet open rim pan with back inlet with Geberit icon soft close toilet seat with metal hinges (product code GEB-574130000) and 'Geberit Kombifix' element for wall hung wc, 108cm, 'Sigma' concealed cistern 12cm (product code GEB-110.360.00.5), 'Geberit' dual flush 'Sigma 01' actuator plate (Article No 115.770.21.5) in shiny chrome finish, fitments, etc., concealed flush valve, protection cover for service opening and flush pipe, fitted on and including bolt-throughthe- wall bracket (product code 808420) bolted to brick wall  RK 1  'Blanco' stainless steel domestic inset sinks:  14 'Blanco' LAR-BL00204059 double end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including two 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  GF-W 1 TF-E 1 RK 1  15 'Blanco' LAR-BL00204059 Single end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with one bowls 410 x 343 x 167mm, including one 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  No 1  TF-W 1  Kubus or similar approved:  Kubus Single bowl 367 x 480 x 220mm undermount sink (Code FRA-1250003) complete with waste union.  RK 1	12	'Geberit' (Code: SKU-115.211.TD.1) wall hung glass urinal division colour white with brushed and anodised	No	4			
(product code GEB-20400000) comprising 90° outlet open rim pan with back inlet with Geberit icon soft close toilet seat with metal hinges (product code GEB-574130000) and 'Geberit Komblifix' element for wall hung wc, 108cm, 'Sigma' concealed cistern 12cm (product code GEB-110.360.00.5), 'Geberit' dual flush 'Sigma 01' actuator plate (Article No 115.770.21.5) in shiny chrome finish, fitments, etc., concealed flush valve, protection cover for service opening and flush pipe, fitted on and including bolt-throughthe- wall bracket (product code 808420) bolted to brick wall  RK 1  **Blanco** stainless steel domestic inset sinks:  14  **IBlanco** LAR-BL00204059 and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including two 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  GF-W 1 TF-E 1 RK 1  **IBlanco** LAR-BL00204059 Single end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with one bowls 410 x 343 x 167mm, including one 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  TF-W 1  **Kubus or similar approved:*  'Kubus or similar approved:*			140				
Blanco' stainless steel domestic inset sinks:   Blanco' LAR-BL00204059 double end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including two 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)    GF-W 1	13	(product code GEB-204000000) comprising 90° outlet open rim pan with back inlet with Geberit icon soft close toilet seat with metal hinges (product code GEB-574130000) and 'Geberit Kombifix' element for wall hung wc, 108cm, 'Sigma' concealed cistern 12cm (product code GEB-110.360.00.5) , 'Geberit' dual flush 'Sigma 01' actuator plate (Article No 115.770.21.5) in shiny chrome finish, fitments, etc., concealed flush valve, protection cover for service opening and flush pipe, fitted on and including bolt-throughthe- wall bracket (product	No	1			
'Blanco' LAR-BL00204059 double end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including two 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  GF-W 1							
'Blanco' LAR-BL00204059 Single end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with one bowls 410 x 343 x 167mm, including one 90mm waste outlets (Code 3000651), built into worktop. (Worktop elsewhere)  TF-W 1  Kubus or similar approved:  'Kubus' Single bowl 367 x 480 x 220mm undermount sink (Code FRA-1250003) complete with waste union.  RK 1	14	'Blanco' LAR-BL00204059 double end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with two bowls 410 x 343 x 167mm, including two 90mm waste outlets (Code 3000651), built	No	3			
TF-W 1  Kubus or similar approved:  16 'Kubus' Single bowl 367 x 480 x 220mm undermount sink (Code FRA-1250003) complete with waste union.  RK 1	15	'Blanco' LAR-BL00204059 Single end bowl inset sink (Code LAR-BL00204059) and drainer unit, size 1160 x 500mm overall with one bowls 410 x 343 x 167mm, including one 90mm waste outlets (Code 3000651), built	No				
Kubus or similar approved:  'Kubus' Single bowl 367 x 480 x 220mm undermount sink (Code FRA-1250003) complete with waste union.  RK 1		, , , , ,	No	1			
sink (Code FRA-1250003) complete with waste union.  RK 1							
	16	sink (Code FRA-1250003) complete with waste union.	No	1			
Carried to Collection R		RK 1					
Carried to Collection R							
		Carried to Collection			R		
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		Unit	Quantity	Rate	Amount	
	WASTE UNIONS ETC (CPAP Work group No 148)					
	'Cobra Watertech' waste unions etc:					
17	'Blanco' 38mm Chromium plated brass slotted sink waste outlet with plug, chain and chain stay.	No	6			
	GF-W 2					
	TRAPS ETC (CPAP Work group No 148)					
	PVC traps, etc:					
18	38mm PVC SPAZA F/2 double bowl plumbing kit, 50/90mm outlet (product code FRA-1120009).	No	3			
	GF-W 1 TF-E 1 RK 1  'Cobra Watertech' traps etc:					
19	'Geberit' Chrome plated concealed trap and waste for wash hand basin (product code GEB-151.122.21.1).	No	4			
	RK 4					
20	Stainless steel floor drains:					
20	'RO125V NW50' square floor drain including connections to 50mm PVC pipe in concrete floor with 7mm tile finish,					
	removable grid to be secured to main body of trap with					
	300mm length 3mm diameter stainless steel braided wire rope	No	2			
	RK 2	-				
	TAPS, VALVES, ETC (CPAP Work group No 148)					
	'GIO Watertech' angle regulating valves:					
21	15mm ' GIO 5188' Ball type angle regulating valve.	No	10			
	GF-W 2 TF-E 2 RK 6  'Cobra Watertech' elbow action pillar taps:					
22	'Hansgrohe' 15mm Chrome plated décor care 70 basin mixer (product code HG-31910223).	No	4			
	RK 4					
	'Hensgrohe' mixers:					
23	'Hansgrohe' 15mm Chromium plated single-hole sink mixer with S-041/10 overarm swivel outlet, mounting kit, angle valves and 234mm long flexible inlets (product code HG-71832003)	No	2			
	RK 2					
	Carried to Collection			R		
	Section No. 2					
	Bill No. 15					
	Plumbing And Drainage 90					
I	30		ı	l	I	I

ı	1	Unit	Quantity	Rate	Amount
	'Cobra Watertech' toilet and urinal flushvalves:				
24	'Geberit' Urinal electronic flush act plate mains operations Sigma 10 black/ bright chrome/ block with actuator plates (product code GEB-116.025.KM.1) complete with flush pipe for urinal flush control universal (product code GEB-116.003.00.1) including connection to electricity.	No	2		
	RK 2 SANITARY PLUMBING (CPAP Work group No 148)				
	uPVC pipes:				
25	40mm Pipes.	m	51		
	GF-W 1 FF-W 48 TF-E 1				
26	50mm Pipes.	m	52		
27	FF-W 40 RK 12 50mm Pipes cast in concrete (concrete elsewhere measured).	m	60		
28	FF-W 60 50mm Pipes laid in trenches not exceeding 1m deep (Class 34).	m	34		
29	FF-W 34 110mm Pipes.	m	28		
	GF-W 6 FF-W 18 RK 4				
30	110mm Pipes cast in concrete (concrete elsewhere measured)	m	103		
31	FF-W 103 110mm Pipes laid in trenches not exceeding 1m deep (Class 34).	m	15		
20	FF-W 15		04		
32	40mm Pipes chased into brick walls.  GF-W 1 FF-W 18 TF-E 1	m	21		
	RK 1				
	Extra over uPVC pipes for fittings:				
33	50mm Straight reducer.	No	8		
24	RK 8 40mm Bend.	No	21		
34	GF-W 1 FF-W 18 TF-E 1	No	21		
	RK 1				
35	50mm Bend.	No	8		
36	RK 8 110mm Bend.	No	14		
	GF-W 3 FF-W 9 RK 2				
	Carried to Collection			R	
	Section No. 2				
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1		Unit	Quantity	Rate	Amount	
37	40mm Access bend.	No	21			
	GF-W 1 FF-W 18 TF-E 1	110				
38	RK 1 50mm Access bend.	No	4			
30	RK 4	NO	_			
39	40mm Junction.	No	4			
40	FF-W 4	Na	4			
40	110mm Junction. FF-W 4	No	4			
41	110mm Access bend.	No	14			
	GF-W 3 FF-W 9 RK 2					
42	40mm Access junction.  GF-W 1 FF-W 18 TF-E 1	No	21			
	RK 1					
43	50mm Access junction.	No	4			
44	RK 4 110mm Access junction.	No	2			
	FF-W 2	-				
45	110mm Double junction.	No	4			
46	FF-W 4 110mm Rodding eye.	No	3			
70	FF-W 3	140				
47	110mm Access bend with anti-syphon horn.	No	4			
40	FF-W 4	No	4			
48	50 x 40mm Access reducing junction.  RK 4	No	4			
49	110 x 50mm Access reducing junction.	No	6			
	FF-W 6					
50	110mm Pan connector.  GF-W 3 FF-W 9 RK 2	No	14			
51	50mm Air release vent valve.	No	4			
	RK 4					
52	110mm Air release vent valve.	No	5			
53	FF-W 5 50mm Vent cowl.	No	2			
	RK 2					
54	110mm Vent cowl.	No	8			
	FF-W 8 Sundries:					
55	Testing waste pipe system.	Item				
	FF-E 1					
	Carried to Collection			R		
	Section No. 2			K		
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		Unit	Quantity	Rate	Amount	
	WATER SUPPLIES. (CPAP Work Group No 148)					
	High density black polyethylene (HDPE) pipes with and including compression fittings:					
56	25mm Piping laid in trenches not exceeding 1m deep.	m	6			
	Extra over HDPE pipes for polypropylene					
57	<u>compression fittings:</u> 25mm Fittings.	No	6			
	FF-W 6					
50	Class 2 copper pipes:		90			
58	15mm Pipes.  GF-W 10	m	90			
59	TF-E 4 RK 20 22mm Pipes.	m	32			
	GF-W 6 FF-W 18 RK 8					
60	28mm Pipes. FF-W 42	m	42			
61	15mm Pipes chased into brick walls.	m	264			
	GF-W 22 GF-E 8 FF-W 162 TF-E 16 RK 56					
62		m	32			
63	GF-W 6 FF-W 18 RK 8 28mm Pipes chased into brick walls.	m	21			
00	FF-W 21	'''	21			
	Extra over class 2 copper pipes for capillary fittings:					
64	15mm Fittings.	No	280			
	GF-W 25 GF-E 8 FF-W 171 TF-E 16 RK 60					
65	22mm Fittings.	No	48			
66	GF-W 9 FF-W 27 RK 12 28mm Fittings.	No	63			
	FF-W 63					
	Extra over class 2 copper pipes for brass compression fittings:					
67	15mm Fittings.	No	280			
	GF-W 25 GF-E 8 FF-W 171					
68	TF-E 16 RK 60 22mm Fittings.	No	48			
00	GF-W 9 FF-W 27 RK 12	INO	40			
69	28mm Fittings.	No	63			
	FF-W 63					
	Carried to Collection			R		
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		Unit	Quantity	Rate	Amount	
	Copper overflow and service pipes:					
70	15mm Braided flexible connector 350mm girth.	No	60			
	GF-W 4 GF-E 2 FF-W 36 TF-E 4 RK 14					
71	15mm Braided flexible connector 500mm girth.	No	14			
	GF-W 3 FF-W 9 RK 2 Sundries:					
72	Cut into existing 28mm copper or polycarb pipe and join new 25mm HDPE pipe including all necesarry fittings etc.	No	1			
	GF-W 1  TESTING. (CPAP Work Group No 148)					
	Testing:					
73	Testing water pipe system.	Item				
	FF-E 1 WATER HEATERS:					
	Franke or equal approved					
74	Zip stainless steel 5 litre Hydroboil, size 318 x 150 x 460mm high with instant boiling water, two way tap control, connected to 15mm cold water supply and 220 volt 15 amp electrical power supply, plugged and screwed to wall	No	4			
	GF-W 1 GF-E 1 TF-E 1					
	RK 1 <u>Kwikot or equal approved</u>					
	Electric domestic water heater, c/w all pipe work, valves, gauges, drip tray, vacuum breakers, shut-off valve on cold water side, multi valve (pressure-temperature control valve c/w piping to drain), thermostat, self sacrificing anode, power wiring from isolator. Installed according to the specifications of the manufacturer.					
75	200L Electric Water Heater	No	4			
	GF-W 1 GF-E 1 TF-E 1 RK 1 FIRE APPLIANCES ETC. (CPAP Work Group No 148) 'Chubb':					
76	4,5kg Chemical dry powder fire extinguisher including backing board.	No	16			
	Un/A 16	. 10				
	Carried to Collection			R		
	Section No. 2					
	Bill No. 15					
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1		Unit	Quantity	Rate	Amount	I
	SLEEVES (CPAP Work Group No 148)					
	Plastic sleeves for pipes not exceeding 100mm					
77	diameter. Sleeve exceeding 250mm and not exceeding 500mm					
	long cast into concrete beam.	No	21			
	FF-W 21  Plastic sleeves for pipes exceeding 100mm and not					
	exceeding 200mm diameter:					
78	Sleeve exceeding 250mm and not exceeding 500mm long cast into concrete beam.	No	21			
	FF-W 21 HOLES ETC. (CPAP Work Group No 148)					
	Core drilling of hole for pipe not exceeding 50mm					
	diameter:					
79	270mm Reinforced concrete slab, beam, wall, etc.	No	2			
	Core drilling of hole for pipe exceeding 50mm and not exceeding 100mm diameter:					
80	270mm Reinforced concrete slab, beam, wall, etc.	No	2			
	FF-W 2 Core drilling of hole for pipe exceeding 100mm and not exceeding 150mm diameter:					
81		No	2			
	FF-W 2					
	Carried to Collection			R		
	Section No. 2			ĸ		
	Bill No. 15					
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		1	Amount	I
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COLLECTION				
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SECTION NO. 2 BUILDING WORKS BILL NO. 16 GLAZING  Key: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-WEST	
BUILDING WORKS           BILL NO. 16           GLAZING           Key:         Location Description:           Un/A         Unallocated           GF-W         GROUND FLOOR-WEST           GF-E         GROUND FLOOR-EAST           FF-W         FIRST FLOOR-WEST           FF-E         FIRST FLOOR-EAST	
BUILDING WORKS           BILL NO. 16           GLAZING           Key:         Location Description:           Un/A         Unallocated           GF-W         GROUND FLOOR-WEST           GF-E         GROUND FLOOR-EAST           FF-W         FIRST FLOOR-WEST           FF-E         FIRST FLOOR-EAST	
BUILDING WORKS           BILL NO. 16           GLAZING           Key:         Location Description:           Un/A         Unallocated           GF-W         GROUND FLOOR-WEST           GF-E         GROUND FLOOR-EAST           FF-W         FIRST FLOOR-WEST           FF-E         FIRST FLOOR-EAST	
BILL NO. 16           GLAZING         Key:         Location Description:           Un/A         Unallocated         Unallocated           GF-W         GROUND FLOOR-WEST         GROUND FLOOR-EAST           FF-W         FIRST FLOOR-WEST         FIRST FLOOR-EAST	
GLAZING           Key:         Location Description:           Un/A         Unallocated           GF-W         GROUND FLOOR-WEST           GF-E         GROUND FLOOR-EAST           FF-W         FIRST FLOOR-WEST           FF-E         FIRST FLOOR-EAST	
Key:         Location Description:           Un/A         Unallocated           GF-W         GROUND FLOOR-WEST           GF-E         GROUND FLOOR-EAST           FF-W         FIRST FLOOR-WEST           FF-E         FIRST FLOOR-EAST	
Un/A         Unallocated           GF-W         GROUND FLOOR-WEST           GF-E         GROUND FLOOR-EAST           FF-W         FIRST FLOOR-WEST           FF-E         FIRST FLOOR-EAST	
GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-EAST	
GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-EAST	
FF-W FIRST FLOOR-WEST FF-E FIRST FLOOR-EAST	
FF-E FIRST FLOOR-EAST	
SF-E SECOND FLOOR-EAST	
TF-W THIRD FLOOR-WEST	
TF-E THIRD FLOOR-EAST	
I Item Location (Auto)	
4F-W FOURTH FLOOR-WEST	
4F-E FOURTH FLOOR-EAST BF-1 BASEMENT FLOOR-01	
BF-2 BASEMENT FLOOR-02	
RK RECREATIONAL & KITCH	
CWK COVERED WALKWAY	
TRADE PREAMBLES	
Trade Preambles:	
For Trade Preambles refer to 'Model Preambles for	
Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.	
TOPS, SHELVES, DOORS, MIRRORS, ETC. (CPAP Work Group No 150)	
6mm float glass copper backed mirrors with 10 mm bevelled and polished edges fixed with chrome	
plated dome head mirror screws to wall:	
Mirror 600 x 600mm high.	
RK 4	
Carried To Section Summary	
Carried To Section Summary Section No. 2	
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SECTION NO. 2 BUILDING WORKS BILL NO. 17 PAINTWORK  Key: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-WEST SF-W SECOND FLOOR-EAST SF-W SECOND FLOOR-EAST TF-W THIRD FLOOR-WEST TF-E THOOR-EAST I I IND LOCATION WEST TF-E THIRD FLOOR-WEST TF-E TOURTH FLOOR-WEST AF-W FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  Trade Preambles: TRADE PREAMBLES FOR Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES All work to be executed in strict accordance with the specifications of ICI Dulux (Pty) Ltd. The coating systems are as per Dulux's List of Decorative Paint Products' unless otherwise specified. Primers and first coats may be thinned in accordance
BULLING. 17 PAINTWORK  Key: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-EAST FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-EAST TF-W THIRD FLOOR-EAST I Hem Location (Auto) 4F-W FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-OR1 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  Trade Preambles: TRADE PREAMBLES For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES All work to be executed in strict accordance with the specifications of ICI Dulux (Pty) Ltd. The coating systems are as per Dulux's List of Decorative Paint Products' unless otherwise specified.
BULLING. 17 PAINTWORK  Key: Location Description: Un/A Unallocated GF-W GROUND FLOOR-WEST GF-E GROUND FLOOR-EAST FF-W FIRST FLOOR-EAST FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-EAST TF-W THIRD FLOOR-EAST I Hem Location (Auto) 4F-W FOURTH FLOOR-WEST BF-1 BASEMENT FLOOR-OR1 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY  Trade Preambles: TRADE PREAMBLES For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES All work to be executed in strict accordance with the specifications of ICI Dulux (Pty) Ltd. The coating systems are as per Dulux's List of Decorative Paint Products' unless otherwise specified.
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Un/A  Un/A  GF-W  GROUND FLOOR-WEST  GF-E  GROUND FLOOR-WEST  FF-W  FIRST FLOOR-WEST  FF-E  FIRST FLOOR-EAST  SF-W  SECOND FLOOR-WEST  SF-E  SECOND FLOOR-WEST  TF-W  THIRD FLOOR-WEST  I ltem Location (Auto)  4F-W  FOURTH FLOOR-EAST  BF-1  BASEMENT FLOOR-01  BF-2  BASEMENT FLOOR-02  RK  RECREATIONAL & KITCH  CWK  COVERED WALKWAY   Trade Preambles:  TRADE PREAMBLES  For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES  All work to be executed in strict accordance with the specifications of ICI Dulux (Pty) Ltd. The coating systems are as per Dulux's 'List of Decorative Paint Products' unless otherwise specified.
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FF-E FIRST FLOOR-EAST SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-WEST TF-W THIRD FLOOR-WEST TF-B THIRD FLOOR-EAST I Item Location (Auto) 4F-W FOURTH FLOOR-EAST BF-1 BASEMENT FLOOR-01 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles:  TRADE PREAMBLES For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES All work to be executed in strict accordance with the specifications of ICI Dulux (Pty) Ltd. The coating systems are as per Dulux's 'List of Decorative Paint Products' unless otherwise specified.
SF-W SECOND FLOOR-WEST SF-E SECOND FLOOR-EAST TTF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-EAST I let me Location (Auto) 4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-O1 BF-2 BASEMENT FLOOR-02 RK RECREATIONAL & KITCH CWK COVERED WALKWAY   Trade Preambles: TRADE PREAMBLES For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES All work to be executed in strict accordance with the specifications of ICI Dulux (Pty) Ltd. The coating systems are as per Dulux's 'List of Decorative Paint Products' unless otherwise specified.
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TF-W THIRD FLOOR-WEST TF-E THIRD FLOOR-EAST I Item Location (Auto)  4F-W FOURTH FLOOR-WEST 4F-E FOURTH FLOOR-01  BF-1 BASEMENT FLOOR-01  BF-2 BASEMENT FLOOR-02  RK RECREATIONAL & KITCH  CWK COVERED WALKWAY   Trade Preambles:  TRADE PREAMBLES  For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.  SUPPLEMENTARY PREAMBLES  All work to be executed in strict accordance with the specifications of ICI Dulux (Pty) Ltd. The coating systems are as per Dulux's 'List of Decorative Paint Products' unless otherwise specified.
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Primers and first coats may be thinned in accordance
with the paint specifications of ICI Dulux (Pty) Ltd to aid the absorption of the paint.
All surfaces must be sound, clean and have a moisture content of less than 12%.
Where surfaces of plaster etc are sandy / friable, the first coat must be replaced with 'Dulux Trade Bonding Liquid' plaster primer and must be overcoated within 48 hours.
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Bill No. 17
Paintwork
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		Unit	Quantity	Rate	Amount	
	ON FLOATED PLASTER (CPAP Work Group No 152)					
	Prepare surfaces and remove all loose material, apply one coat 'Dulux Trade Moisture Tolerant Plaster Primer' and two coats 'Dulux Wallguard' paint:					
1	On exterior walls.	m²	838			
2	GF-W 110 GF-E 11 FF-W 558 SF-E 38 RK 121 On exterior walls in foundations.	m²	106			
2	GF-E 61 FF-W 45	m²	106			
	One coat professional gypsum and plaster primer and two coats Plascon (or equally approved)  Professional Superior low sheen (Code: Y4-E2-3) with evasive white colour or equal approved for interior use					
3	On interior walls.	m²	626			
	GF-W 293 GF-E 7 BF-1 33 RK 293					
4	On interior textured walls	m²	100			
5	RK 100 On interior feature walls	m²	31			
	ON PLASTER BOARD (CPAP Work Group No 152)  One coat professional gypsum plaster primer and two coats Plascon (or equally approved)  Professional Superior low sheen (Code: NEU 08) with worn wood colour or equal approved for					
6	interior use On interior partitions.	m²	1 504			
6	GF-W 328 GF-E 818 FF-W 68 FF-E 31 SF-W 33 TF-E 19 4F-W 19 4F-E 13 BF-2 195  Remove any loose and flaking residue by means of wire brushing, wash with 'Polycell Sugar Soap' or weak spirits of salts, open up cracks and make good with 'Polycell Mendall 90' or 'Polycell Polyfilla Exterior' filler sanded smooth, apply one coat 'Dulux Trade Moisture Tolerant Plaster Primer' and two coats "Dulux Trade 65 Matt PVA" paint:	m²	1,524			
7	On ceilings.	m²	151			
8	GF-W 151 On soffits of slab.	m²	57			
	RK 57					
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1		Unit	Quantity	Rate	Amount	1 014
9	On bulkheads.	m²	42			
	GF-E 14 FF-W 28					
	Remove any loose and flaking residue by means of wire brushing, wash with 'Polycell Sugar Soap' or					
	weak spirits of salts, open up cracks and make good					
	with 'Polycell Mendall 90' or 'Polycell Polyfilla  Exterior' filler sanded smooth, apply one coat 'Dulux					
	Trade Moisture Tolerant Plaster Primer' and two					
	coats 'Dulux Trade 65 Matt PVA' paint:					
	ON FIBRE-CEMENT, ETC. (CPAP Work Group No 152)					
	Prepare surface and remove any loose material,					
	apply one coat 'Dulux Trade Moisture Tolerant Plaster Primer' and two coats "Dulux Luxurious Silk"					
	paint:					
10	On interior cills not exceeding 300mm girth.	m	1			
	RK 1 ON METAL					
	Clean down with galvanised iron cleaner and apply					
	one coat galvanised iron primer, one universal under coat and two coats of 'Plascon' or equally approved					
	super enamel paint:					
	Prepare surfaces, apply two coats 'Dulux Galvanised					
	Iron Cleaner' and two coats 'Dulux Primer fro Galvanised Iron' paint:					
11	On back of door frames.	m²	2			
	GF-W 2					
	Clean down with galvanised iron cleaner and apply					
	one coat galvanised iron primer, one universal under coat and two coats of "Plascon" or equally approved					
	super enamel paint:					
12	Columns and beams.	m²	211			
	FF-W 28 RK 101 CWK 82					
13	On gates, grilles, burglar screens, balustrades, etc. (both sides measured over the full flat area).	m²	4			
	BF-2 4					
	ON WOOD, WOOD BOARD					
	Two coats 'Dulux Primer' for wood:					
14	On backs of frames, linnings, etc. not exceeding 300mm wide.	m	6			
	RK 6					
	Carried to Collection			R		
	Section No. 2					
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	100					

1		Unit	Quantity	Rate	Amount	
15	On skirting not exceeding 300mm girth.	m	473			
	GF-W 136 GF-E 227 FF-W 19 FF-E 9 SF-W 9 TF-E 5 4F-W 5 4F-E 4 BF-1 4 BF-2 54 RK 1  Stop, fill, sand down and prepare wood surfaces and apply one coat 'Dulux Primer', one coat 'Dulux Trade Universal Undercoat' and two coats 'Dulux Pearlglo Waterbased Enamel' paint:					
16	On doors.	m²	259			
	GF-W 43 GF-E 3 FF-W 199 RK 14		200			
17	On door frames.  GF-W 15 GF-E 1 FF-W 60	m²	81			
	RK 5					
	PREPARATORY WORK TO PREVIOUSLY PAINTED SURFACES					
	Generally:					
	All work to be executed in strict accordance with the specifications of ICI Dulux (Pty) Ltd. The coating systems are as per Dulux's 'List of Decorative Paint Products' unless otherwise specified.					
	Primers and first coats may be thinned in accordance with the paint specifications of ICI Dulux (Pty) Ltd to aid the absorption of the paint.					
	All surfaces must be sound, clean and have a moisture content of less than 12%.					
	Where surfaces of plaster etc are sandy / friable, the first coat must be replaced with 'Dulux Trade Bonding Liquid' plaster primer and must be overcoated within 48 hours.					
	ON FLOATED PLASTER					
	Remove any loose and flaking residue by means of wire brushing, wash with 'Polycell Sugar Soap' or weak spirits of salts, open up cracks and make good with 'Polycell Mendall 90' or 'Polycell Polyfilla Exterior' filler sanded smooth apply one coat 'Dulux Trade Moisture Tolerant Plaster Primer' and two coats 'Dulux Luxurious Silk' paint:					
18	On interior walls.	m²	1,541			
	GF-W 824 GF-E 314 FF-W 28 FF-E 40 SF-W 61 SF-E 84 TF-E 46 4F-W 85 4F-E 12 RK 47					
	Carried to Collection			R		
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1	1	Unit	Quantity	Rate	Amount	
	Remove any loose and flaking residue by means of wire brushing, wash with 'Polycell Sugar Soap' or weak spirits of salts, open up cracks and make good with 'Polycell Mendall 90' or 'Polycell Polyfilla Exterior' filler sanded smooth apply one coat 'Dulux Trade Moisture Tolerant Plaster Primer' and two coats 'Dulux Wallguard' paint:					
19	On exterior walls.	m²	20			
	ON EXISTING INTERNAL FLOATED PLASTER SURFACES					
	Two coats premium quality polyurethane enamel paint					
20	Walls	m²	10			
	GF-W 1 SF-E 5 4F-W 3 4F-E 6 RK -5 ON EXTERNAL TEXTURED PLASTER SURFACES					
21	Remove any loose and flaking residue by means of wire brushing, wash with 'Polycell Sugar Soap' or weak spirits of salts, open up cracks and make good with 'Polycell Mendall 90' or 'Polycell Polyfilla Exterior' filler sanded smooth apply one coat 'Dulux Trade Moisture Tolerant Plaster Primer' and two coats 'Dulux Wallguard' paint:	m²	55			
	RK 55 ON INTERNAL GYPSUM PLASTER SURFACES					
	One coat professional gypsum plaster primer and two coats Plascon (or equally approved) Professional Superior low sheen (Code: NEU 08) with worn wood colour or equal approved for interior use					
22	Dry wall partitioning.	m²	6			
	4F-E 6 ON WOOD SURFACES					
	Stop, fill, sand down and prepare wood surfaces and apply one coat 'Dulux Primer', one coat 'Dulux Trade Universal Undercoat' and two coats 'Dulux Pearlglo Waterbased Enamel' paint:					
23	Skirtings, rails, etc not exceeding 300mm girth.	m	500			
	GF-W     123     GF-E     197     FF-W     23       FF-E     23     SF-W     29     SF-E     50       TF-E     33     4F-W     15     4F-E     7					
	Carried to Collection			R		
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7	CARPENTRY AND JOINERY	42		
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# SECTION NO. 3 EXTERNAL WORKS

1		Unit	Quantity	Rate	Amount	
	SECTION NO. 3					
	EXTERNAL WORKS					
	BILL NO. 1					
	ROADS, PAVING ETC					
	TRADE PREAMBLES					
	Trade Preambles:					
	For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.					
	Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item					
	Excavation in existing bitumen paving:					
	Note: The removal of bitumen paving has not been measured, and forms part of the relevent excavations. No payment will be made for the removal of bitumen pavings when it forms part of areas to be excavated.					
	ROADS, PAVING, ETC					
	DEMOLITIONS ETC					
	Breaking up and removing					
1	125mm Thick unreinforced concrete surface beds, paving, etc	m²	12			
2	150mm Thick average mesh reinforced concrete ramp, etc	m²	3			
3	30mm Thick average tarmac, etc	m²	15			
4	75 x 150mm Unreinforced concrete kerbs	m	35			
	ALTERATIONS (CPAP Work Group No 102)					
	Saw cuts:					
5	Neatly saw cut edge of existing asphalt surface to facilitate part removal thereof.	m	24			
	EXCAVATION OTHER THAN BULK (CPAP Work Group No 104)					
	Excavation not exceeding 2m deep:					
6	Over site between buildings, retaining walls, etc to reduce levels and depositing excavated material in prescribed stock piles on site.	m³	72			
	Corried to Collection			<b>.</b>		
	Carried to Collection Section No. 3			R		
	Bill No. 1					
	Roads, Paving Etc					
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I		Unit	Quantity	Rate	Amount
	Extra over excavations other than bulk in earth for excavation in:				
7	Soft rock.	m³	4		
8	Hard rock.	m³	2		
	Keeping excavations free of water:				
9	Keeping excavations free of all water other than subterranean water.	Item			
	CARTING AWAY. (CPAP Work Group No 104)				
	Extra over all excavations for loading, carting and dumping surplus excavated material (no allowance made for increase in bulk):				
10	Off site to a dumping site to be found by the Contractor.	m³	72		
	MASONRY (CPAP Work Group No 116)				
	Brick Paving:				
	Paving of Corobrik® Corocobble or Equally Approved Bevel Grey concrete paving brick manufactured in accordance with SANS 1058, size 200 x 100 x 50 x 50mm thick laid in accordance with SANS 1200 MJ and CMA Concrete Block Paving Manuals on and including 50mm thick river sand bed with dry filler sand swept and vibrated into joints, including treatment with weed killer all laid on subgrade (elsewhere measured) conforming to SABS 1200D degree of accuracy I:				
11	Paving in Herringbone pattern or running bond.	m²	92		
12	Fair circular cutting and waste to paving.	m	55		
	PRECAST CONCRETE KERBS (CPAP work group 112):  Precast concrete kerbing (complying with SABS 927) in 1m lengths, wet presses, placed in position, bedded and jointed in (3:1) cement mortar and flush pointed on exposed faces, including 15MPa/19mm				
	unreinforced concrete haunching at back of each joint, excavation, backfilling, ramming, etc.:				
13	Barrier kerb ( Figure 4) 150 x 250mm high.	m	41		
14	Barrier kerb (Figure 4) 150 x 250mm high circular on plan not exceeding 4m radius formed with 330mm lengths of straight kerb.				
	ionguis of straight refu.	m	26		
	Carried to Collection			R	
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	Unit	Quantity	Rate	Amount
SECTION NO. 3				
EXTERNAL WORKS				
BILL NO. 2				
STORMWATER DRAINAGE				
TRADE PREAMBLES				
<u>Trade Preambles:</u>				
For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.				
SUPPLEMENTARY PREAMBLES				
Proprietary items or materials:				
Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.				
Note:				
Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item				
SUPPLEMENTARY PREAMBLES				
Concrete pipes:				
Pipes shall be jointed with ogee joints with rubber collars or socket and spigot joints with rubber rings.				
Exposed concrete surfaces:				
Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc shall be finished smooth with plaster.				
Excavations:				
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.				
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.				
Laying, backfilling, bedding, etc of pipes:				
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.				
Carried to Collection			R	
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Bill No. 2				
Stormwater Drainage 109				
109		I	I	II I

1	Unit	Quantity	Rate	Amount	1 014
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SABS 1200 DB: Earthworks (Pipe trenches) Clause 5.7.2 will only be applicable if authorised by the Engineer in writing.					
Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding.					
Descriptions of pipes laid in trenches:					
Descriptions of pipes laid in trenches shall be deemed to include for carting away all surplus excavated material to a dumping site located by the contractor. Note minimium width of trench is 500mm on either side of pipe.					
<u>Descriptions of catchpits, junction boxes, manholes, etc:</u>					
Descriptions of catchpits, junction boxes, manholes, etc, shall be deemed to include for compaction, disposal of surplus excavated material to a dumping site located by the contractor, risk of collapse and keeping excavations free from water.					
Existing services:					
There are a number of existing services within the site boundaries, some of these are shown on the drawings. This information is not exhaustive and does not relieve the contractor of the responsibility of locating all existing services prior to construction. There are existing water, storm water, telephone, communications and electrical services on the site. Work is to be carried out without any disruption to existing services, this includes instances where newly constructed services are to be connected to existing 'live' services.					
Brickwork in Manholes:					
Brickwork in manholes to be 28 MPa in accordance with the engineers specifications.					
Carried to Collection			R		
Section No. 3 Bill No. 2 Stormwater Drainage					
110					

1	1	Unit	Quantity	Rate	Amount	
	STORMWATER CHANNELS (CPAP Work Group No 146)  Precast or in-situ reinforced concrete (30Mpa) with mesh Ref 395, V- shaped stormwater channels,					
	finished smooth on all exposed surfaces and with angles rounded, cast in suitable lengths (not exceeding 2 000mm), with bitumen applied to one edge at joints, and reinforced as necessary for handling if precast, including all formwork, reinforceing, moulds, shallow excavation, filling and ramming, laying to falls, bedding and pointing in (3:1) cement mortar:					
1	300 x 150mm concrete V-Channel.	m	28			
2	Extra for angles, intersections, ends, dressing into sides of catchpits, etc.	No	12			
	STORMWATER DRAINAGE (CPAP Work Group No 146)					
	Sumps, catchpits, inspection chambers, etc.:					
3	Excavate for and build catchpit size 1250 x 640mm exceeding 1,0m and not exceeding 1.50m deep over all formed of 150mm thick cement concrete (25MPa) bottom projecting 75mm all round, mass concrete (15Mpa) benching, hard burnt one brick sides with galvanised brickforce between each course, rendered internally in 1:3 cement plaster, including all necessary fittings, excavations, formwork, holes through sides for pipes etc, as per stormwater catchpit typical details on BVI drawing number 34306_123_01 attached to these					
	Bills of Quantities.	No	1			
	Gratings, covers, etc:					
4	610 x 640mm Heavy duty grating and frame.	No	3			
5	1250 x 640mm double grating heavy duty manhole cover and frame.	No	1			
	Sundries:					
6	Cutting into side of existing inspection chamber for and connecting 450mm pipe including making good concrete benching.	No	2			
	Prescribed tests on filling:					
7	Modified AASHTO Density test.	No	1			
8	DCP test.	No	1			
9	Compactibility test.	No	4			
	Carried to Collection			R		
	Section No. 3					
	Bill No. 2 Stormwater Drainage					
	111					

1	1	Unit	Quantity	Rate	Amount	
	Testing:					
10	Testing drainage pipe system.	Item				
	resting drainage pipe system.	пеш				
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	Section No. 3					
	Bill No. 2 Stormwater Drainage					
	112					

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STORMWATER DRAINAGE			
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Stormwater Drainage			
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	Unit	Quantity	Rate	Amount	1 011
SECTION NO. 3					
EXTERNAL WORKS					
BILL NO. 3					
SOIL DRAINAGE					
TRADE PREAMBLES					
<u>Trade Preambles:</u>					
For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.					
SUPPLEMENTARY PREAMBLES					
Proprietary items or materials:					
Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.					
Note:					
Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item.					
SUPPLEMENTARY PREAMBLES					
uPVC pipes and fittings:					
Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.					
Soil, waste and vent pipes and fittings shall be solvent weld jointed.					
Vitrified clay pipes etc:					
Pipes shall rest on solid ground and, where necessary, pockets of sufficient size shall be cut around joints to enable the jointing to be properly performed or, alternatively, pipes shall be bedded full length on and including unreinforced concrete laid in a semi-dry state immediately before pipes are laid.					
Excavations:					
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.					
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.					
Carried to Collection			R		_
Section No. 3 Bill No. 3					
Soil Drainage					
114					

Laying, backfilling, bedding, etc of pipes:  Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.  Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L. Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3.5.5, 5.6, 5.7 and 7 of SABS 1200 L. Medium pressure pipelines LD : Sewers LE : Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3.5.5, 5.6, 5.7 and 7 of SABS 1200 LB: Earthworks (Pipe trenches) Clause 5.7.2 will only be applicable if authorised by the Engineer in writing.  Pipes shall be bedded in accordance with clauses 3.1 to 3.4, 1.5.1 to 3.3 and 7 of SABS 1200 LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding.  Pescriptions of pipes laid in trenches:  Descriptions of pipes laid in trenches:  Descriptions of pipes laid in trenches shall be deemed to include for carting away all surplus excavated material to a dumping site located by the contractor.  Pescriptions of catchpits, junction boxes, manholes, etc. shall be deemed to include for compaction, disposal of surplus excavated material to a dumping site located by the contractor, risk of collapse and keeping excavations free from water.  Precast concrete manholes shall be constructed using dolomitic aggregate.  Precast concrete manholes shall be constructed using dolomitic aggregate.  Step irons:  Calcamite step irons are to be cast into the manhole walls as specified.  Precast concrete manholes shall be constructed using dolomitic aggregate.  There are a number of existing services within the site boundaries, some of these are shown on the drawings. This information is not exhaustive and does not relieve the contractor of the responsibility of locating all existing services. This information is not exhaustive and does not relieve the contractor of		Unit	Quantity	Rate	Amount
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Section No. 3 Bill No. 3 Soil Drainage	boundaries, some of these are shown on the drawings. This information is not exhaustive and does not relieve the contractor of the responsibility of locating all existing services prior to construction. There are existing water, storm water, telephone, communications and electrical services on the site. Work is to be carried out without any disruption to existing services, this includes instances where newly constructed services are to be				
Section No. 3 Bill No. 3 Soil Drainage					
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	SOIL DRAINAGE					
	Excavation, etc. for soil drainage:					
1	Carefully excavate by hand in small sections, to expose existing services, including backfilling to 90% Mod AASTHO density on completion.	m³	10			
2	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock.	m³	10			
3	Backfilling to pipe trenches, chambers, etc with G7 material supplied by the contractor compacted to 90% Mod AASHTO density and stabalised with 3 percent cement.	m³	10			
4	Granular material in bedding under and filling around pipes supplied by the contractor in accordance with SABS 1200 LB 3.1 and 3.4.2. (Bedding cradle)	m³	10			
	uPVC Class 34 Socketed sewer piping with bedding and filling in accordance with SABS 1200LB:	- '''	10			
5	110mm Pipes vertically or ramped to cleaning eyes etc (no excavation).	m	43			
6	110mm Pipes laid in and including trenches not exceeding 1m deep.	m	32			
	Extra over uPVC pipes for fittings:					
7	50mm Bend.	No	6			
8	110mm Bend.	No	7			
9	110mm Junction.	No	4			
10	110 x 160mm Access reducing junction.	No	6			
11	110mm Access bend.	No	8			
12	110mm Access junction.	No	6			
13	110 x 50mm Access reducing junction.	No	5			
	PVC gulleys:					
14	110mm Gulley not exceeding 1m deep with and including precast concrete gully head surround.	No	1			
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		Unit	Quantity	Rate	Amount	
	Manholes:					
15	Precast concrete inspection chamber size 1000mm internal diameter exceeding 0,5m and not exceeding 1m deep internally to invert level, including 150mm thick (25MPa/19mm) concrete cover slab with Y12 bars at 150mm centres, finished smooth with a steel float and rebated for and fitted with cast iron double seal cover and frame (cover and frame elsewhere) in accordance with SABS 558, bedded in 1:2 cement mortar and 1300mm diameter x 350mm thick (20Mpa/19mm) unreinforced concrete bottom, including cast iron step irons, concrete benching, uPVC channels and fittings, sealing joints between manhole rings with Bitu-Joint sealer, backfilling and ramming, carting away surplus excavated material, formwork, holes through sides for pipes, etc complete.	No	2			
	Gratings, covers, etc:					
16	550mm Diameter x 75kg type 4A medium duty manhole cover and frame.	No	2			
	Sundries:					
17	Unreinforced concrete encasing to 110mm horizontal pipe.	m	18			
	<u>Desludging</u>					
18	Clean out septic tank by desludging including removal of all debris and waste including solid waste as per Health and Safety requirements and make good on completion including disposing of all debris and waste at an authorised municipal waste disposal facility or designated area	Item				
19	Issue of Certificate of Waste Disposal.	Item				
20	Backfilling to pipe trenches, chambers, etc with G7 material supplied by the contractor compacted to 90% Mod AASHTO density and stabalised with 3 percent cement. (provisional)	m³	12			
21	100mm Cast iron 'ABC' cleaning eye.	No	6			
-'	Prescribed tests on filling:	. 10				
22	Modified AASHTO Density test.	No	2			
23	DCP test.	No	2			
24	Compactibility test.	No	2			
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	Bill No. 3					
	Soil Drainage					
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1	I	Unit	Quantity	Rate	Amount	
	Testing:					
25	Testing drainage pipe system.	Item				
	recalling dramage pipe cyclemi	nom				
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SOIL DRAINAGE				
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Carri Section No. 3	ied To Section Summary	R		
Bill No. 3				
Soil Drainage				
	119			

			eMENDI BUIL	DING ALTERATION	N-PoN
	Unit	Quantity	Rate	Amount	
SECTION NO. 2					
SECTION NO. 3 EXTERNAL WORKS					
BILL NO. 4					
WATER SUPPLY IN GROUND					
WATER GOLLET IN GROOMS					
TRADE PREAMBLES					
<u>Trade Preambles:</u>					
For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.					
SUPPLEMENTARY PREAMBLES					
Project particular specifications:					
The specifications particular to this project are included in C3.2 Particular Specifications included in Envelope A Volume 1 of 2 of the tender documents. The Contractor is to take cognisance of them when pricing the relevant items in the Bill of Quantities as no extras arising out of their failure to do so will be entertained.					
Proprietary items or materials:					
Proprietary items or materials where specified are to be of the brand specified - or other equal approved - by the Principal Agent.					
Note:					
Where items in this Bill are identical to those in the previous Bills, the descriptions have been shortened, and the full descriptions in the Trades concerned are to be referred to for the full meaning and intent of each item					
SUPPLEMENTARY PREAMBLES					
uPVC pressure pipes and fittings:					
Pipes for water supply shall be of the class stated.					
Pipes of 40mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.					
Pipes of 50mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.					
Carried to Collection			Б		
Section No. 3 Bill No. 4			R		
Water Supply In Ground					
120					

	Unit	Quantity	Rate	Amount	
Copper pipes:					
Pipes shall be hard drawn and half-hard pipes of the class stated. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), class 2 (half-hard) and class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be 'Cobra Watertech' type. Capillary solder fittings shall comply with ISO 2016. Only compression fittings shall be used in walls or in ground.					
Reducing fittings:					
Where fittings have reducing ends or branches they are described as 'reducing'. In the case of pipes with diameters not exceeding 60mm only the largest end or branch size is given. Should the Contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained. In the case of pipes with diameters exceeding 60mm all sizes are given and no claim for extra bushes, reducers, etc will be entertained.					
Laying, backfilling, bedding, etc of pipes:					
Pipes shall be laid and bedded and trenches shall be carefully backfilled in accordance with manufacturers' instructions.					
Where no manufacturers' instructions exist pipes shall be laid in accordance with clauses 5.1 and 5.2 of each of the following: SABS 1200 L: Medium pressure pipelines LD: Sewers LE: Stormwater drainage Pipe trenches etc shall be backfilled in accordance with clause 3, 5.5, 5.6, 5.7 and 7 of SAB.					
Pipes shall be bedded in accordance with clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SABS 1200LB: Bedding (Pipes). Unless otherwise described bedding of rigid pipes shall be class B bedding.					
Excavations:					
No claim for rock excavation will be entertained unless the Contractor has timeously notified the quantity surveyor thereof prior to backfilling.					
'Soft rock' and 'hard rock' shall be as defined in 'Earthworks'.					
Descriptions of pipes laid in trenches:					
Descriptions of pipes laid in trenches shall be deemed to include for carting away all surplus excavated material to a dumping site located by the contractor.					
Carried to Collection			r.		
Section No. 3 Bill No. 4 Water Supply In Ground			R		
121					

Descriptions of catchpits, junction boxes, manholes, etc.; shall be deemed to include for compaction, disposal of surprise severated material to a dumping site located by the contractor, risk of collapse and keeping excavations free from water.  Thrust Blocks:  Thrust blocks for pressure pipes to be formed of Class B concrete shaped for fittings with notchings of suitable size to take fittings and with sinkings and flanges of short collar detachable joints of suitable size to take fittings and with sinkings and flanges of short collar detachable joints of suitable size to take fittings and with sinkings and flanges of short collar detachable joints of suitable size to take fittings and with sinkings and flanges of short collar detachable joints of suitable size to allow for removing of coupling when necessary formwork, excavation, etc  Existing services:  There are a number of existing services within the site boundaries, some of these are shown on the drawings.  This information is not exhaustive and does not relieve the contractor of the responsibility of locating all existing services prior to construction. There are existing water, storm water, telephone, communications and electrical services on the site. Work is to be carried out without any disruption to existing services, this includes instances where newly constructed services are to be connected to existing live services.  Corrosion Protection:  All steel and cast iron fittings, specials and valves shall be lusion bonded epoxy lined and coated, film thickness 300 micrors. Sleel pipes and fittings shall be hot dipped galdvanised and Fusion Bonded Epoxy coated and fined.  The film thickness shall be 30A SP 783. Fusion Bond Epoxy lining and coating to be to SABS 1747. And strictly in accordance with the manufacturer's specifications. All pipes shall be inspected before and after laying, and any damage shall be made good with cold galvanising and the appropriate peoxy paint. Any on-site cutting and jointing of pipes shall be similarly treated.  Carrosite		Unit	Quantity	Rate	Amount	
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Section No. 3 Bill No. 4 Water Supply In Ground	are to be treated with a compatible primer, packed with a bitumen or tar based mastic and wrapped with 'Denso Tape'. The cost of this work shall be included in the rates tendered for supplying and fixing fittings, specials					
Section No. 3 Bill No. 4 Water Supply In Ground						
Section No. 3 Bill No. 4 Water Supply In Ground						
Bill No. 4 Water Supply In Ground	Carried to Collection			R		
	Bill No. 4					

1		Unit	Quantity	Rate	Amount	
	Bolts for Flanges:					
	All cast iron valves are to be class 16 waterworks pattern with wedge gate to SABS 664 and 665, clock-wise closing with non-rising spindle, and fitted with a valve cap. Valves are to be embossed with the SABS mark, operating class and size. Flanged valves are to be drilled according to SABS 1123 (1977) table 16.					
	<u>Valves:</u>					
	Bolts and nuts shall comply with the standards of SABS 136 and shall be hot dipped galvanised to SABS 763 (1977)					
	WATER SUPPLIES IN GROUND (CPAP Work Group No 148)					
	Excavation, etc. for water supplies:					
1	Carefully excavate by hand in small sections, to expose existing services, including backfilling to 90% Mod AASTHO density on completion.	m³	15			
2	Excavation in earth not exceeding 2m deep for pipe trenches.	m³	9			
3	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in soft rock.	m³	3			
4	Extra over excavation in earth for pipe trenches, chambers, etc for excavation in hard rock.	m³	1			
5	Extra over excavation for pipe trenches, chambers, etc for carting away surplus material to a dumping site to be located by the Contractor.	m³	8			
6	Backfilling to pipe trenches with material from the excavations including haulage of a maximum of 350m from perimeter of excavations or stock piles compacted to 90% Mod AASHTO density.	m³	7			
7	Backfilling to pipe trenches, chambers, etc with G7 material supplied by the contractor compacted to 90% Mod AASHTO density.	m³	4			
8	Backfilling to pipe trenches, chambers, etc with G7 material supplied by the contractor compacted to 90% Mod AASHTO density and stabalised with 3 percent cement.	m³	3			
	Carried to Collection			R		
	Section No. 3 Bill No. 4 Water Supply In Ground					
	123					

		Unit	Quantity	Rate	Amount	
9	Selected backfilling to pipe trenches with material from the excavations including haulage of a maximum of 350m from perimeter of excavations or stock piles in accordance with SABS 1200 LB 3.2 and 3.4.1 compacted to 90% Mod AASHTO density. (Fill blanket)	m³	4			
10	Backfilling to pipe trenches supplied with material by the contractor in accordance with SABS 1200 LB 3.2 and 3.4.2 compacted to 90% Mod AASHTO density. (Fill blanket)	m³	3			
11	Selected granular material in bedding under and filling around pipes with material from the excavations including haulage of a maximum of 350m from perimeter of excavations or stock piles in accordance with SABS 1200 LB 3.1 and 3.4.1. (Bedding cradle)	m³	2			
12	Granular material in bedding under and filling around pipes supplied by the contractor in accordance with SABS 1200 LB 3.1 and 3.4.2. (Bedding cradle)	m³	3			
13	Sand filling in bedding under and filling around pipes supplied by the contractor.	m³	3			
	Class 10 High density black polyethylene (HDPE) pipes:					
14	32mm Pipes laid in trenches (trenches elsewhere).	m	15			
15	50mm Pipes laid in trenches (trenches elsewhere).	m	8			
16	63mm Pipes laid in trenches (trenches elsewhere).	m	3			
	Extra over Class 10 HDPE pipes for plasson fittings:					
17	32mm to 22mm Reducer.	No	4			
18	32mm to 28mm Reducer.	No	3			
19	50mm to 32mm Reducer.	No	4			
20	63mm to 50mm Reducer.	No	2			
21	32mm 90 Degree elbow.	No	4			
22	50mm 90 Degree elbow.	No	3			
23	63mm 90 Degree elbow.	No	4			
24	32mm 45 Degree elbow.	No	2			
25	50mm 45 Degree elbow.	No	3			
26	63mm 45 Degree elbow.	No	2			
	Carried to Collection			R		
	Section No. 3 Bill No. 4					
	Water Supply In Ground					
	124					

1		Unit	Quantity	Rate	Amount	
27	32mm Tee.	No	3			
28	50mm Tee.	No	4			
29	63mm Tee.	No	1			
30	32mm Male adapter.	No	2			
31	50mm Male adapter.	No	3			
32	63mm Male adapter.	No	4			
33	32mm Female adapter.	No	4			
34	50mm Female adapter.	No	1			
35	63mm Female adapter.	No	2			
36	75 x 50mm Male adapter.	No	2			
	Galvanised steel pipes with screwed and socketed					
37	joints: 20mm Pipes.	m	20			
	Extra over Galvanised steel pipes with screwed and	•••	20			
	socketed joints for malleable steel fittings:					
38	20mm Fittings.	No	12			
	Clean all surfaces with a high pressure waterwasher					
	using a mixuture of water and 'Plascon Aquasolve' degreaser, apply two inner layers with a 50 percent					
	overlay of 'Canusa Wrapid' tape and single outer wrap with a 50 percent overlay of 'Wrapid Bond':					
39	20mm Pipes.	m	12			
40	20mm Fittings.	No	3			
41	75 x 50mm Reducing tee.	No	4			
42	75 x 63mm Reducing tee.	No	3			
43	75mm Equal tee.	No	2			
	Valves, meters etc:					
44	20mm Plain rough brass bibtap.	No	3			
45	28mm Brass gate valve.	No	2			
46	20mm Brass male/female Dole 10l/min flow contoller.	No	2			
47	'Kent Helix 4000' 100mm Water meter with flanged					
	couplings to 110mm uPVC pipe.	No	1			
	Carried to Collection			R		
	Section No. 3 Bill No. 4					
	Water Supply In Ground					
	125					

1		Unit	Quantity	Rate	Amount	
	Sundvice					
40	Sundries:					
48	Unreinforced concrete in thrust blocks in trenches at bends, tees, etc., including extra excavation, formwork,					
	etc.	m³	7			
49	Cut into and temporarily stop off 75mm diameter water					
	pipe, insert reducing tee and joint to new 50mm uPVC					
	pipe.	No	3			
	Prescribed tests on filling:					
50	Modified AASHTO Density test.	No	3			
51	DCP test.	No	3			
52	Compactibility test.	No	3			
	Testing:	lkomo				
53	Testing water pipe system.	Item				
	Corried to Collection					
	Carried to Collection Section No. 3			R		
	Bill No. 4					
	Water Supply In Ground					
	126					

		1	Amount	I
BILL NO. 4 WATER SUPPLY IN GRO COLLECTION	<u>UND</u>	Page No		
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Bill No. 4 Water Supply In Ground				
a.c. capp., cround	127			

			Amount	
	SECTION NO. 3			
	EXTERNAL WORKS			
	SECTION SUMMARY			
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2	STORMWATER DRAINAGE	113		
3	SOIL DRAINAGE	119		
4	WATER SUPPLY IN GROUND	127		
	Carried to Final Summary	R		
	Section No. 3 SECTION SUMMARY			
	128			

# SECTION NO. 4 ELECTRICAL INSTALLATION

				eMENDI BUIL	DING ALTERATION	-PoN
		Unit	Quantity	Rate	Amount	I
	SECTION NO. 4					
	ELECTRICAL INSTALLATION					
	BILL NO. 1					
	ELECTRICAL WORK					
	ELECTRICAL WORK					
	TENDERERS ARE TO REFERTO ATTACHED ELECTRICAL BILLS OF QUANTITIES FOR THE DETAILED DESCRIPTION OF THE WORKS					
	Electrical installation:					
	The contractor must employ Specialist Sub-Contractors who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal or higher than the value of the Sub-Contract work. CV's will be required to be presented during the adjudication process to verify the above.					
	The contractors rates: Electrical Installation: Are to include for any profit and attendance on the Specialist Sub-Contractor the Contractor deems necessary.					
1	TOTAL TRANSFERRED FROM ELECTRICAL INSTALLATION BILL OF QUANTITIES: TENDERER TO ENTER PRICE RECEIVED FROM HIS DOMESTIC ELECTRICAL SUB- CONTRACTOR EXCLUDING VAT, INCLUDING ANY BUILDERS PROFIT AND ATTENDANCE DEEMED NECESSARY	Item				
	Carried to Final Summary			R		
	Section No. 4					
	Bill No. 1					
	Electrical Work					
	130					
			. '		••	

#### PROJECT NO:

#### **ELECTRICAL WORKS - BILL OF QUANTITIES**

ITEM	DESCRIPTION	UNIT	QTY	MATERIAL	INSTALL	TOTAL
1	DISTRIBUTION BOARDS					
-	Modifications to the existing distribution boards, addition of circuit breakers including all					
1.1	other accessories. Refer to TPD-002-DBSPEC and Electrical Drawing	item	5			
2	LUMINAIRES AND LAMPS					
	Supply, delivery and install 30W 600mmx600mm LED recessed light fitting (mounted					
2.1	onto the ceiling)	item	150			
2.3	Supply, delivery and install 130W Pandent light fitting	item	54			
2.4	Supply,delivery and install 2x9W LED downlighter	item	10			
	DOWED CURRLY POINTS					
4.1	POWER SUPPLY POINTS  Supply,delivery and install equal or similar approved to Crabtree 20A 1Ø CORDGRIP isolator	item	4			
4.2	Supply, delivery and install equal or similar approved to Crabtree 20A 1Ø isolator	item	6			
4.2			2			
4.3	Supply,delivery and install equal or similar approved to crabtree 60A 3Ø isolator Supply,delivery and install 16A Double socket outlet (installed 300mm above ground)	item	20		+	
4.4	Supply, delivery and install 16A Double socket outlet (installed 300mm above ground)  Supply, delivery and install 16A Double socket outlet (installed 1350mm above ground)	item	20	<del> </del>	+	
	Supply, delivery and install ToA Double socket outlet (installed 1350mm above ground) Supply, delivery and install socket box, 2x16A standard socket, LAN point and data point	item				
4.6	(installed on top of the table)	item	6			
4.7	Supply,delivery and install 5A single socket outlet (installed in ceiling)	item	200			
4.8	Supply,delivery and install 16A single socket outlet (installed in power skirting)	item	115			
4.9	Supply, delivery and install 16A dedicated socket outlet (installed in power skirting)  SWITCHING	item	115			
5			00			
5.1	Supply, delivery and install 16A PIR occupancy sensor	item	60			
6	CABLE MANAGEMENT					
6.1	40mm Ø PVC conduit complete with all fittings and accessories	m	400			
6.2	25mm Ø PVC conduit complete with all fittings and accessories	m	1000			
0.2	201111 2 1 VO CONCUL COMPLETE WITH CHI MATHING CHIC COCCOCCIOC		1000			
7	CABLING AND WIRING					
7.1	Low Voltage 2.5 mm <sup>2</sup> stranded house wiring for internal wiring - red	m	1500			
7.2	Low Voltage 2.5 mm² stranded house wiring for internal wiring - white	m	1500			
7.3	Low Voltage 2.5 mm <sup>2</sup> stranded house wiring for internal wiring - blue	m	1500			
7.4	Low Voltage 2.5 mm² stranded house wiring for internal wiring - black	m	1500			
7.5	Low Voltage 2.5 mm²stranded house wiring for internal wiring - green/yellow	m	1500			
7.6	2,5mm <sup>2</sup> draw wire	m	200			
7.7	4mm <sup>2</sup> , 2 core cable, ECC, SWA, PVC copper cable	m	400			
8	CABLE TERMINATIONS					
8.1	4mm², 4core, ECC, SWA, PVC copper cable terminations complete with accessories	item	5			
8.2	Wiring consumable accessories including lugs, ferrules, glands, tags etc	sum	1			
0.2	willing consumable accessories including lugs, lettules, gianus, tags etc	Suili	'			
9	EARTHING AND LIGHTNING					
9.1	Design, supply and installation of earthing and lighting protection	sum	1			
10	TESTING AND COMMISSIONING					
10.1	Testing and commissioning of complete installation in accordance to SANS 10142-1 including the issuing of certificate of compliance	sum	1			
	TOTAL					
11	GENERAL					
11.1	Allow a provisional sum for Sundry electrical work not covered above, to be used as directed by the Engineer and be deducted wholly or in part as required	sum	1			
	be carried forward to summary			<u> </u>		R 0.0

## SECTION NO. 5 MECHANICAL INSTALLATION

		Unit	Quantity	Rate	Amount	
	SECTION NO. 5					
	MECHANICAL INSTALLATION					
	BILL NO. 1					
	MECHANICAL WORK					
	TENDERERS ARE TO ATTACHED: MECHANICAL INSTALLATION BILL OF QUANTITIES FOR THE DETAILED DESCRIPTION OF THE WORKS					
	Mechanical Installation:					
	The contractor must employ Specialist Sub-Contractors who are registered with the CIDB, or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal or higher than the value of the Sub-Contract work. CV's will be required to be presented during the adjudication process to verify the above.					
	The contractors rates are to include for any profit and attendance on the Specialist Sub-Contractor the Contractor deems necessary.					
1	TOTAL TRANSFERRED FROM MECHANICAL INSTALLATION BILL OF QUANTITIES: TENDERER TO ENTER PRICE RECEIVED FROM HIS DOMESTIC MECHANICAL SUB- CONTRACTOR EXCLUDING VAT, INCLUDING ANY BUILDERS PROFIT AND ATTENDANCE DEEMED NECESSARY	Item				
	Carried to Final Summary			R		
	Section No. 5 Bill No. 1			••		
	Mechanical Work					
	132					

COST ESTIMATE	1		Ì	1	TR/	NSNEF
Head: TNPA						
Contract Number:	1	1	1	1		
Project Number:						
	· 1	(Including: Supply, Delivery, Installation and commissioning)	•	!	•	
Refers To	Item No.	Description	Unit	Quantity	Rate	Estimated Cos
		MECHANICAL INSTALLATION				
		PREAMBLES				
		For Preambles refer to "Model Preambles for Trades"				
		SUPPLEMENTARY PREAMBLES				
		Working Conditions: The contractor is hereby made aware that the proposed work is to be executed in confined spaces				
		The contractor is to allow for all costs in this regard in the tender price				
		Specifications, drawings, etc: Tenderers are referred to the specification accompanying these bills of quantities for the mechanical work, for the full descriptions of the following items which are to be read and priced in conjunction with the said specification				
		<u>Ductwork:</u> Where transformations or reducers occur the larger size ductwork has been measured through the fitting. Descriptions of ductwork shall be deemed to include stiffeners, jointing materials, sealants, couplers in the running length and access/inspection panels in accordance with the specification				
	1	Site Establishment Site Establishment and clearance at the end of the contract	Sum			
	2	GUARANTEE AND MAINTENANCE Guarantee and maintenance for the complete installation of mechanical installation including materials and workmanship for a period of TWELVE MONTHS after date of completion	Sum			
	3	REMOVAL OF WASTE Tenderer to allow for all costs associated with cleaning the site of all rubbish and waste caused by this contract	Sum			
	4	COMMISSIONING AND TESTING Allow for testing and commissioning the whole of the Mechanical Installation as laid down in the specification and for re-testing as may be required after the making good of all defective work to the satisfaction of the Consulting Engineer.	Sum			
	5	CERTIFICATE FOR COMPLIANCE Provision for the Certificate of Compliance to be issued on completion of the project.	Sum			
	6	BUILDERS WORK DRAWINGS Provision of Builders work layouts on AutoCAD to indicate exact positions of openings and power points.	Sum			
	7	CONTRACTORS SHOP DRAWINGS Contract shop drawings prepared in accordance with co-ordinated Architectural, Structural & Service layouts.	Sum			
	8	PROGRAMMING OF WORKS Programming of the works to run concurrently with the Builders programme.	Sum			
	9	EQUIPMENT APPROVAL Equipment Procurement Submissions for Engineers Approval.	Sum			
	11	SCAFFOLDING Provision of Scaffolding for installation of equipment at high level.	sum			

I	امد	ODEDATION AND MAINTENANCE MANUAL C		ı	Ì
	12	OPERATION AND MAINTENANCE MANUALS  Provision of Operating and Maintenance Manuals as per the Technical			
		Specification.	Sum		
	40	Project Head over			
	13	Project Hand-over	Sum		
· · · · · · · · · · · · · · · · · · ·					
		Basement 2			
	22	Air conditioning indoor unit as per specification			
		Supply, deliver, rig into position if necessary, install and commision air			
		conditioning units into place with all its components	sum		
		Indoor air conditioning units to be repositioned to align with Architectects			
		latest partioning drawings, System to be design, supplied, retested and			
		recommissioned to comply to new layout and movement of equipment in identified areas.	sum		
		identified dreas.	Sum		
	24	Accessories All accessories needed to be repositioned, , supplied, installed, tested and			
		commissioned and confirmed with engineer.	sum		
	25	Air Terminals  All air terminals needed to be repositioned, , supplied, installed, tested and			
		commissioned and confirmed with engineer.	sum		
		-			
		<b>Ductwork</b> All ductwork needed to be repositioned, , supplied, installed, tested and			
		commissioned and confirmed with engineer.	sum		
	27	Air Conditioning Outdoor Units			
		Capacity of outdoor unites needed to be confirmed to handle new			
		partitioned areas, tested and commissioned and confirmed with engineer.	sum		
	28	Drainage piping			
		All drainage needed to be repositioned, supplied, installed, tested and			
		commissioned and confirmed with engineer.	sum		
	29	Branch Pipes			
		All branch pipes needed to be repositioned, supplied, installed, tested and			
		commissioned and confirmed with engineer.	sum		
		All shave mentioned equipment shall be of an independent acquation			
		All above mentioned equipement shall be of an independent acoustic sensitive ventilation and cooling system for the work area B2.2 as depicted			
		on the Employers drawings. This system shall not exceed the 25 decibels			
		sound level as described in 2007 AHSHRAE Handbook – HVAC Applications – Chapter 47 – Table 42: Design Guidelines for HVAC –			
		Related to Background Sound in Rooms, for Drama theatres, concert hall			
		and recital halls. The Contractor shall ensure that on completion the entire			
		room with all systems on does not exceed the sound level mentioned within this paragraph.			
		and paragraph.			
		END OF FIRST FLOOR MEASUREMENT			
		Basement 1			
I					
		Air conditioning indoor unit as per specification			
	22	Supply deliver rig into position if page conv. install and commission air			
	22	Supply, deliver, rig into position if necessary, install and commision air conditioning units into place with all its components	sum		
	22	conditioning units into place with all its components	sum		
	22	conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects	sum		
	22	conditioning units into place with all its components	sum		
	22	conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and	sum		
	22	conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in			
		conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in			
	24	conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.			
	24	conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.  Accessories			
	24	conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.  Accessories  All accessories needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum		
	24	conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.  Accessories  All accessories needed to be repositioned, , supplied, installed, tested and	sum		
	24	conditioning units into place with all its components  Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.  Accessories  All accessories needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.  Air Terminals	sum		

	All ductwork needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum		
27	Air Conditioning Outdoor Units			
	Capacity of outdoor unites needed to be confirmed to handle new partitioned areas, tested and commissioned and confirmed with engineer.	sum		
28	Drainage piping All drainage needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	sum		
29	Branch Pipes All branch pipes needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	sum		
	END OF FIRST FLOOR MEASUREMENT			

	END OF FIRST FLOOR MEASUREMENT			
	Ground Floor			
14	Air conditioning indoor unit as per Conceptual Drawings Supply, deliver, rig into position if necessary, install and commission air conditioning units into place with all its components			
14.2 14.3 14.4 14.5 14.6	Concealed Ceiling Air Conditioning Indoor Unit: GF-E13 Concealed Ceiling Air Conditioning Indoor Unit: GF-W34 Concealed Ceiling Air Conditioning Indoor Unit: GF-E35 4-way Ceiling Cassette Indoor Unit: GF-E14a 4-way Ceiling Cassette Indoor Unit: GF-E14b 4-way Ceiling Cassette Indoor Unit: GF-E14c 4-way Ceiling Cassette Indoor Unit: GF-E14d	No. No. No. No. No. No. No.	1 1 1 1 1 1	
	4-way Ceiling Cassette Indoor Unit: GF-W-36  Heat Recovery Unit	No.	1	
15.1	BC-03 BC-04	No. No.	1	
	Accessories Wired Remote Controllers	No.	8	
	Air Terminals SAD-01 Fresh Air Diffuser with plenum box, mounting frame and adjustable damper. 200mm diameter, 600x600	No.	5	
17.2	SLD-05 Fresh Air Long Slot Diffuser with plenum box, mounting frame and adjustable damper. 150mm diameter, 900mm long	No.	2	
17.2	RAG-02 Return air grille,mounting frame and adjustable damper. 300mm diameter connection, 600x600	No.	1	
17.3	RAG-01 Return air grille,mounting frame and adjustable damper. 250mm diameter connection, 600x600	No.	2	
18	<b>Ductwork</b> All Ductwork to be manufactured from galvanised sheet metal and installed in accordance with SABS 1238 and SABS 0173. Round ducting to be of the spiral wound type unless indicated otherwise.	m		
18.1	Ø150 mm	m	20	
	Transformation piece Ø250 mm to Ø150 mm - 300 mm Long	No.	4	
	Ø200 mm	m	39	
	Ø250 mm	m No	18	
	Transformation piece Ø250 mm to Ø200 mm - 300 mm Long Ø300 mm	No. m	4 6	
	Ø350 mm	m	4	
18.8	Transformation piece Ø350 mm to Ø200 mm - 300 mm Long	No.	1	
	Air Conditioning Refrigerant Copper Piping. Size to be according to suppliers design 90 degree bends	m No.	40 40	
	Stopper valves	No.	10	
20	Drainage piping			

	PVC Piping. Size to be according to suppliers design, shall be included with all fittings and mountings, and seals and valves.	per m			
21.1	Branch Pipes Supply, deliver and install Y-Branch pipe (Outdoor) Supply, deliver and install Y-Branch pipe (indoor)	No No.	4 16		
	End of First Floor Measurement				
	Main Administration Building				
	First Floor				
22	Air conditioning indoor unit as per specification Supply, deliver, rig into position if necessary, install and commision air conditioning units into place with all its components	sum			
	Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.	sum			
24	Accessories All accessories needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum			
	Air Terminals  All air terminals needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum			
	<b>Ductwork</b> All ductwork needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum			
27	Air Conditioning Outdoor Units				
	Capacity of outdoor unites needed to be confirmed to handle new partitioned areas, tested and commissioned and confirmed with engineer.	sum			
28	Drainage piping All drainage needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	sum			
29	Branch Pipes All branch pipes needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	sum			
	END OF FIRST FLOOR MEASUREMENT				
	Second Floor				
30	Air conditioning indoor unit as per specification Supply, deliver, rig into position if necessary, install and commision air conditioning units into place with all its components				
	Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.	sum			
33	Accessories All accessories needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum			
34	Air Terminals All air terminals needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum			
35	Ductwork All ductwork needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum			
36	Air Conditioning			İ	

	Capacity of outdoor unites needed to be confirmed to handle new partitioned areas, tested and commissioned and confirmed with engineer.	sum		
37	Drainage piping All drainage needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	sum		
38	Branch Pipes All branch pipes needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	sum		
	END OF SECOND FLOOR MEASUREMENT			
	Third Floor			
39	Air conditioning indoor unit as per specification  Supply, deliver, rig into position if necessary, install and commision air conditioning units into place with all its components			
	Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.	sum		
41	Accessories All accessories needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum		
	Air Terminals  All air terminals needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.  Ductwork	sum		
	All ductwork needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum		
44	Air Conditioning			
	Capacity of outdoor unites needed to be confirmed to handle new partitioned areas, tested and commissioned and confirmed with engineer.	sum		
45	<b>Drainage piping</b> All drainage needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	sum		
46	<b>Branch Pipes</b> All branch pipes needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	sum		
	END OF THIRD FLOOR MEASUREMENT			
	Forth Floor	· · · · · ·	1	·
47	Air conditioning outdoor unit as per specification Supply, deliver, rig into position if necessary, install and commision air conditioning units into place with all its components			
	Indoor air conditioning units to be repositioned to align with Architectects latest partioning drawings, System to be design, supplied, retested and recommissioned to comply to new layout and movement of equipment in identified areas.	sum		
50	Accessories All accessories needed to be repositioned, , supplied, installed, tested and			
51	commissioned and confirmed with engineer. <b>Air Terminals</b> All air terminals needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum		
	Ductwork All ductwork needed to be repositioned, , supplied, installed, tested and commissioned and confirmed with engineer.	sum		
53	Air Conditioning  Capacity of outdoor unites needed to be confirmed to handle new			
	partitioned areas, tested and commissioned and confirmed with engineer.  Drainage piping	sum		

į l	TAIL dusting a model of a few sections of source to the section of	1	j i	1	i
	All drainage needed to be repositioned, supplied, installed, tested and commissioned and confirmed with engineer.	eum			
55	Branch Pipes	sum			
	All branch pipes needed to be repositioned, supplied, installed, tested and				
	commissioned and confirmed with engineer.	sum			
	END OF FORTH FLOOR MEASUREMENT				
	Fifth Floor				
	FIRTH FIGOR				
56	Air conditioning outdoor unit as per specification				
	Supply, deliver, rig into position if necessary, install and commision air				
	conditioning units into place with all its components				
	Indoor air conditioning units to be repositioned to align with Architectects				
	latest partioning drawings, System to be design, supplied, retested and				
	recommissioned to comply to new layout and movement of equipment in				
57	identified areas.  Air Conditioning	sum			
37	All Conditioning				
	Capacity of outdoor unites needed to be confirmed to handle new				
	partitioned areas, tested and commissioned and confirmed with engineer.	sum			
58	Drainage piping				
	All drainage needed to be repositioned, supplied, installed, tested and				
	commissioned and confirmed with engineer.	sum			
59	Branch Pipes				
	All branch pipes needed to be repositioned, supplied, installed, tested and				
	commissioned and confirmed with engineer. END OF FIFTH FLOOR MEASUREMENT	sum			
	JEND OF FIFTH FLOOK MEASOREMENT				
	Filter, fittings, meters and all other acessories as per SANS specifications				
	and manufacturer requirements	sum	1		
	·				
	Design, drawings and documentation as per Works Information	sum	1		
	Testing and Commissioning as per Works Information	sum	1		
	Design complete and letter testing and accomplete of all of the above				
	Design, supply, installation, testing and commission of all of the above systems, as per required modification by architects drawings, shall be				
	review by Employees Engineer for acceptance once design process has	sum			
	been completed. All equipment specified shall be of the same OEM as				
	what is currently installed in the building.				
	END OF MAIN ADMINISTRATION BUILDING MEASUREMENT				
	T		1	1	
	Canteen Building				
	HVAC System				
60	Air conditioning outdoor unit as per Conceptual Drawings				
	Supply, deliver, rig into position if necessary, install and commission, and				
	test air conditioning units into place with all its components				
	<u> </u>				
60.1	Outdoor Unit: AC4	No.	1		
61	Air conditioning indoor unit as per Conceptual Drawings				
	Supply, deliver, rig into position if necessary, install and commission air				
	conditioning units into place with all its components				
	Concealed Ceiling Air Conditioning Indoor Unit: AC1	No.	1		
	Concealed Ceiling Air Conditioning Indoor Unit: AC2	No.	2 5		
61.3	4-way Ceiling Cassette Indoor Unit: AC3	No.	5		
62	Accessories				
	Wired Remote Controllers	No.	2		
			-		
63	Air Terminals				
63.1					
	Fresh Air Diffuser with plenum box, mounting frame and adjustable	l			
	damper. 250mm diameter, 600x600	No.	2		
	ln2				
63.2					
	Fresh Air Diffuser with plenum box, mounting frame and adjustable damper. 270mm diameter, 600x600	No.	2		
	1 1. =		1	ļ	

		Ī	1 1	1
63.3	D3			
00.0	Fresh Air Diffuser with plenum box, mounting frame and adjustable			
	damper. 285mm diameter, 600x600	No.	2	
63.4	RAG			
	Return air grille, mounting frame and adjustable damper. 120mm diameter			
	connection, 300x150	No.	2	
63.5	11			
03.3	Door/Wall louvre, 600x150 mm	No.	12	
	5001/ Trail 100710, 000X100 Till11	140.	12	
63.6	L2			
	Door/Wall louvre, 400x400 mm	No.	2	
64	Ductwork			
	All Ductwork to be manufactured from galvanised sheet metal and installed			
	in accordance with SABS 1238 and SABS 0173. Round ducting to be of the spiral wound type unless indicated otherwise.			
	the spiral would type diffess indicated otherwise.			
64.1	Ductwork for fresh air intake fan	m	3	
-	Transformation piece fan duct to 500x450 mm - 400mm long	No.	1	
64.3	600x500 mmm	m	1	
-	Ø365 mm	m	7	
	300x300 mm	m	4	
	Ø255 mm	m	8	
	Transformation piece 600x500 mm to 500x450 mm 0 - 300mm long 500x450	No.	1	
-	Ø385 mm	m m	2 4	
	330x300 mm	m	1	
	Transformation piece 330x300 mm to 250x250 mm - 300mm long	No.		
	250x250 mm	m	6	
64.13	Ø270 mm	m	4	
64.14	Transformation piece 500x450 mm to 400x350 mm - 300mm long	No.	1	
	400x350 mm	m	7	
	350x300 mm	m	1	
	Transformation piece 350x300 mm to 360x200 mm - 300mm long	No.	1	
-	360x200 mm Ø285 mm	m m	4 2	
04.19	D203 IIIII	1111		
65	Air Conditioning (Refrrigeration)			
	Refrigerant Copper Piping. Size to be according to suppliers design	m	42	
65.1	90 degree elbow fittings	No.	8	
	Tee fittings	No.	6	
65.3	Stopper valves	No.	6	
00	Air Conditioning (Drainage)			
66 1	Air Conditioning (Drainage) PVC Piping. Size to be according to suppliers design	m	40	
	90 degree bends	111	70	
	oo aog. oo bonao	No.	8	
66.3	Tee fittings	No. No.	8	
	Tee fittings Stopper valves		8 6 6	
66.4	Stopper valves	No.	6	
66.4	Stopper valves  Kitchen Ventilation	No.	6	
66.4	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850.	No.	6	
66.4 67	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation	No. No.	6	
66.4 67 67.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction	No. No. Sum	6 6	
66.4 67 67.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation	No. No.	6	
66.4 67 67.1 67.2	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction	No. No. Sum	6 6	
66.4 67 67.1 67.2	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.	No. No. Sum	6 6	
66.4 67 67.1 67.2	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1	No. No. Sum Sum	6 6	
66.4 67 67.1 67.2 68	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans	No. No. Sum	6 6	
66.4 67 67.1 67.2 68 68.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity	No. No. Sum Sum	6 6 1 1	
66.4 67 67.1 67.2 68	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity F2	No. No. Sum Sum No.	6 6 1 1	
66.4 67 67.1 67.2 68 68.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity	No. No. Sum Sum	6 6 1 1	
66.4 67 67.1 67.2 68 68.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity  F2 Extractor fan with 171 L/s capacity	No. No. Sum Sum No.	6 6 1 1	
66.4 67 67.1 67.2 68 68.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity  F2 Extractor fan with 171 L/s capacity F3	No. No. Sum Sum No.	6 6 1 1	
66.4 67 67.1 67.2 68 68.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity  F2 Extractor fan with 171 L/s capacity	No. Sum Sum No.	6 6 1 1 1	
66.4 67 67.1 67.2 68 68.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity  F2 Extractor fan with 171 L/s capacity F3	No. Sum Sum No. No.	6 6 1 1 1	
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66.4 67 67.1 67.2 68 68.1	Kitchen Ventilation The ventilation of the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity F2 Extractor fan with 171 L/s capacity F3 Fresh air supply fan with minimum of 1370 L/s capacity Filter, fittings, meters and all other acessories as per SANS specifications	No. Sum Sum No. No.	6 6 1 1 1 2	
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66.4 67 67.1 67.2 68 68.1	Stopper valves  Kitchen Ventilation The ventilation for the kitchen must comply with SANS 1850. Installation of the existing kitchen canopy/hood and installing a ventilation system for extraction Design, supply, and Installation of make up air ventilation system.  Ventilation Fans Supply, delivery, and installation of supply and extraction fans F1 Extractor fan with 68 L/s capacity  F2 Extractor fan with 171 L/s capacity  F3 Fresh air supply fan with minimum of 1370 L/s capacity  Filter, fittings, meters and all other acessories as per SANS specifications and manufacturer requirements	No. Sum Sum No. No. sum	6 6 1 1 1 2 1	

Supply, deliver and install the following fire protection system, complete with fire extinguishers, hose reel, hydrant, and all related signage, brackets, supports and all necessary accessories, as per the, manufacturer's recommendations.  Fire extinguishers (4.5 kg dry chemical powder) and timber backing board, supports and all necessary accessories, as per the, manufacturer's  9.1 recommendations.  Fire Extinguisher (9L Wet Chemical ) and timber backing board, supports and all necessary accessories, as per the, manufacturer's  9.2 recommendations  Swing Type Hose Reel with (30m hose) with supports and all necessary  9.3 accessories, as per the, manufacturers recommendations  Fire hydrant (Tamper proof with fire cabinet to house 30m hose) with supports and all necessary accessories, as per the, manufacturers recommendations  150x150 mm Fire equipment signages and Photoluminescent emergency exit signages as per fire drawings including all necessary fixing  9.5 accessories.  XP 95 optical smoke detector with mounting supports and all necessary soccessories, as per the, manufacturers recommendations  No. 14  XP 95 muti-sensor optical heat detector with mounting supports and all necessary sper the, manufacturers recommendations  Intelligent manual call points with mounting supports and all necessary sper the, manufacturers recommendations  XP95 open area sounder beacon (SONOS) with mounting supports and all specessary accessories, as per the, manufacturers recommendations  Valves, filter, fittings, meters and all other acessories as per SANS specifications and manufacturer requirements  Design, drawings and documentation as per Works Information  End of Canteen Buildling Fire Suppression and DetectionMeasurement		Canteen Building Fire suppression and Detection			
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Testing and Commissioning as per Works Information sum 1		· · · · · · · · · · · · · · · · · · ·	sum	1	
		Design, drawings and documentation as per Works Information	sum	1	
End of Canteen Builling Fire Suppression and DetectionMeasurement		Testing and Commissioning as per Works Information	sum	1	
		End of Canteen Buidling Fire Suppression and DetectionMeasurement			

70	Canteen Building Fire suppression and Detection Water Reticulation System:		
70.1	For the design, supply, delivery, installation testing and Commissioning of the Water reticulation system including connection pipework, supports, hangers, pipe fittings, valves, pumps and control systems as per the manufacturer's specification and recommendations. Provision shall also be made for all plinths/foundations required under the relevant plant.		
71	Pipe Lengths	m	
	Pipe, DN 18: copper pipe	m	3
	Pipe, DN 28: copper pipe	m	5
	Pipe, DN 22: copper pipe	m	10
	Pipe, DN 15: copper pipe	m	7
72	Tee fittings		
72.1	Tee, DN 28 x DN 22 x DN 15: copper pipe	No	2
72.2	Tee, DN 22 x DN 15 x DN 22: copper pipe	No	2
72.3	Tee, DN 15 x DN 15 x DN 15: copper pipe	No	2
73	90 Degrees Fittings		
	DN 28 x 22, 90 degree bends	No	1
	DN 22 x 15, 90 degree bends	No	1
73.3	DN 15 x 15, 90 degree bends	No	1
74	Isolating valves		
74.1	Isolating valve, DN 22	No	5
74.2	Isolating valve, DN 28	No	1
74.3	Isolating valve, DN 15	No	5
	Reducers		
75.1	Reducer, DN 22 x DN 15	No	1
76	Hydroboil 150 L	No	1
78	Filter, fittings, meters and all other acessories as per SANS specifications and manufacturer requirements	sum	1

79 Design, dra	awings and documentation as per Works Information	sum	1		
80 Supply, ins	tallation, Testing and Commissioning as per Works Information	sum	1		
End of Car	nteen Buidling Water Reticulation Sytem				

# SECTION NO. 6 STUDIO

SECTION N				
STUDIO BILL NO. 1 STUDIO				
OF STUDIO  Before subresite and sate work to be of the control	mitting this tender the contractor shall visit the tisfy himself as to the nature and extent of the done in the studio. No claim for any variations act sum in respect of the nature and extent of of inferior or damaged materials will be			
complete as areas B2.2. attached to provide sho before com	oply and building/ installation of studio s detailed in the scope of works, page 5, work. The drawing for the size of the studio is also these Bills of Quantities. Contractor to op drawings for approval by the Employer mencement of the works. (refer to Drawing 0006-1-100-A-LA-0001-01).	Item		
Section No. Bill No. 1 Studio	Carried to Final Summary . 6		R	

# SECTION NO. 7 FURNITURE

				eMENDI BUIL	DING ALTERATION	-PoN
ı		Unit	Quantity	Rate	Amount	
	SECTION NO. 7					
	<u>FURNITURE</u>					
	BILL NO. 1					
	<u>FURNITURE</u>					
	TRADE PREAMBLES					
	<u>Trade Preambles:</u>					
	For Trade Preambles refer to 'Model Preambles for Trades' (2008 edition) for the full descriptions of material to be used and work to be done in this Bill.					
	Open plan desks should not be designed as clusters to allow for flexibility in placement. Desks and Cabinets to be delivered in parts and assembled in their final locations to avoid damage during the move.					
	Each desk cluster should include the following:					
	<ul> <li>1x plug units consisting of 1 Red 3-pin; 1 Regular 3-pin;</li> <li>1 regular 2-pin; 1 Network point.</li> </ul>					
	1x cable for Red plugs plus a cable to connect to the power supply					
	• 1x cable for Regular plugs (shared by 3-pin and 2-pin) plus a cable to connect to the power supply					
	1x round openings with beige pvc lining.					
	1x cable trunking unit					
	1x hook for Kensington Cables (Laptop locking)					
	• 1 set of steel legs					
	1x privacy screen - screen fabric Weavers World, Vulcan, Colour TBC; Desk-based screens are not to exceed 1500mm from floor level					
	FURNITURE FITTINGS:					
	Desks, Cabinet and Chairs:					
	Supply, delivery and installation of new Open Plan Workstations (Tables with screens, Cabinets and Chairs):.					
	Desk:					
1	Open plan office systems desk with 1600 x 750 top, finished in Coimbra laminate (or similar approved) with silver pvc edging supported on 50mmx50mm glossy white epoxy coated rectangular steel leg system. Desk system should include:					
	Carried to Collection Section No. 7 Bill No. 1			R		
	Furniture					
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		Unit	Quantity	Rate	Amount	
	Supply 4x4 plug unit consisting of 1 Red 3-pin; 1 Regular 3-pin; 1 regular 2-pin; 1 Network point; Cut-out for plug unit to be done in factory; 1 round opening with beige pvc lining. Cut-out to be done in factory; Supply under-desk fixing plates and trunking for cables; Hook for Kensington Cables (Laptop locking); Privacy Screens - Screen fabric Weavers World, Vulcan, Mamba 47; Deskbased screens are not to exceed 1200mm from floor level; Number of legs depending on clustering method.  Work surfaces to be manufactured from 32mm thick high-density particles board complying with SABS Standards (SANS 1763:2015 Ed 1.2), finished with 0.6mm low glare continuous decorative laminate Coimbra (or similar approved). Underside finished with quality 0.3mm balancing backer, not paper.  Steel Legs to be 50mm X 50mm glossy white powder					
	coated.	No	90			
2	Cabinet:  400w x 750d x 1200h lockable pull-out cabinet with shelves as per drawing. Include 1 lockable compartment with hinged door and 1 drawer 1 with roll-out pen tray. Finished in Coimbra laminate top (or similar approved) with silver pvc edging and glossy white body and front. Include vertical 300mm stainless steel handle.					
	Cabinet Tops to be manufactured from 22mm thick high-density particles board complying with SABS Standards (SANS 1763:2015 Ed 1.2), finished with 0.6mm low glare continuous decorative laminate Coimbra (or similar approved). Underside finished with quality 0.3mm balancing backer, not paper. Cabinet sides and inside (carcass) to be manufactured from 16mm thick high-density particles board complying with SABS Standards, finished with 0.6mm glossy white melamine.					
	Both locks must preferably be of the removable cylinder type. The cabinet locks must be master-keyed.	No	90			
	Chairs:					
3	Waltons 542099 Foam Highback Chair - Forward Knee Tilt Symchron - Chrome Height Base - 4D Height Adjustable Arms Boded Leather Black	No	90			
	Carried to Collection			R		
	Section No. 7 Bill No. 1 Furniture			ı,		
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Section No. 7 SECTION SUMMARY		FURNITURE SECTION SUMMARY			
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TENDER NUMBER: TNPA/2023/02/0009/22520/RFP

DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A



PERIOD OF FIVE (5) MONTHS

#### PART C3: SCOPE OF WORK

Document	Title	No	of
reference		page	
	This cover page	1	
C3.1	Employer's Works Information		
C3.2	Contractor's Works		
	Total number of pages		

TENDER NUMBER: TNPA/2023/02/0009/22520/RFP

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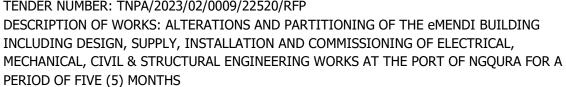


#### **C3.1** *EMPLOYER'S* WORKS INFORMATION

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DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL,

MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A

PERIOD OF FIVE (5) MONTHS



#### **SECTION 1**

#### 1 Description of the works

#### 1.1 Executive overview

Transnet National Port Authority's Head Office have recently relocated from Parktown, Johannesburg and Kingsmead, Durban offices to Port of Ngqura's eMendi Building. The eMendi building was commissioned in April 2017, however there was some outstanding scope that couldn't be done due to budget constraints.

With the relocation of the TNPA head office to the Port of Ngqura (eMendi building), an opportunity has presented itself to maximise the occupancy potential of the building through a reconfiguration of the office space.

The project scope entails a full Structural analysis and design of the proposed expansion of the additional floors and Building alterations. The Contractor's scope shall include the design, supply, installation, and commissioning of Electrical, Civil, structural and Mechanical Engineering works as detailed under the project's scope of work and floor plans.

#### 1.2 Employer's objectives

The *Employer*'s objective is to maximise the occupancy potential of the Emendi building through reconfiguration of the office space, to ensure it is fit for use and accommodates the new capacity of the Port and HQ employees.

#### 1.3 Scope of Works

The *Contractor* shall propose deliverables to achieve the required *scope of work* for acceptance by the *Employer*. The *Contractor* shall propose the skilled staff to be formally mobilised to ensure that the deliverables of this project are met. The Building is currently fully occupied and used as offices, the *Employer* and the *Contractor* shall agree the interface particulars as and when applicable. The sequencing and phasing out of the works will be agreed with the successful *Contractor*. All *Owners'* team representatives shall be consulted prior to commencement of each task order. All relevant policies and *procedure* documents shall be made available to the *Contractor* upon request. The Scope of work for this project includes the scope for Architecture, Structures, Electrical, Civil and Mechanical Engineering.

DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL,

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The *Employer* shall provide concept layouts of the proposed work areas. The *Contractor* shall therefore undertake full design responsibility for the total design solution of the new recreational facilities, Electrical and Mechanical works. The main parts of the works which the *Contractor* is to undertake shall be the Detailed Design phase and Execution phase deliverables. The *Contractor* shall submit all detailed design drawings to *Employer* for acceptance prior to execution of the works. The Contractor's ECSA registered engineering designers shall approve all design drawings and documentation prior submission to the *Employer*.

#### **1.3.1** Architecture *Scope of Work*

#### \*Read in conjunction with the latest version of the Architectural Layouts

The various work packages / work areas have been coded as per below and clearly marked on the floor plans.

#### **1.3.1.1 BASEMENT**

#### (REFER TO DRAWING XHOE0006-1-100-A-LA-0001-01)

#### Work Area B2.1 - CONVERT STOREROOM TO REGISTRY

• Design Supply & Install the required security gates and access control systems as well as the appropriate fire extinguishers.

#### Work Area B2.2 - CONVERT STOREROOM TO RECORDING STUDIO

- Supply & Install soundproof drywall partitions (up to slab above) with 1X 1000X1000mm view panel as indicated on the layout.
- Supply and install 6m2 drywall to box in services.
- Supply and install 12m2 acoustic cladding panels.
- Supply and install access floor (200 high) and ramp as indicated on the layout.
- Supply and install 2X 900 wide soundproof (solid) doors
- Supply and install acoustic ceiling tiles.
- Allow for skimming and painting of all walls.
- Make good screed and supply and install non-static carpet tiles with acoustic underlay throughout.
- Allow for HVAC provide sound dampening suitable for recording studios.
- Allow for 9 network points.
- Allow for changes to lighting allow for 8 fittings.
- Allow for a total of 5 plug points (wall boxes).
- Allow for 6 plug points (floor boxes in access floor).
- Allow for 4 plug points (wall boxes in ceiling void).
- Allow for signage to match existing.
- Allow for access control.
- Allow for appropriate fire extinguishers.

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#### Work Area B1.1 - CONVERT OPEN MEZZANINE TO LIBRARY

- Design, Supply & Install glass partitions including 2 x 900 single glass doors, from floor to ceiling, to match existing Shopfronts in building.
- Allow for signage to doors, to match that on existing doors
- Allow for access control
- Allow for appropriate fire extinguishers
- Make good to affected floors walls and ceiling
- Allow for additional ceiling bulkhead to accommodate HVAC
- Allow for alteration to Electrical, HVAC and Fire Layouts
- Removal of all the existing balustrades in the identified work areas and storing them at a designated TNPA site.

#### 1.3.1.2 GROUND FLOOR

(REFER TO DRAWINGS XHOE0006-1-200-A-LA-0001-01 and XHOE0006-1-200-A-LA-0002-01)

#### Work Area 0.1 - CONVERT ELWANDLE AUDITORIUM TO WORKSPACE

- Remove ceiling to ensure no damage to services.
- Remove divider panels with system and track.
- Blank off / disconnect all necessary building services.
- Demolish brick walls as indicated on the plans.
- Supply & install dry wall partitions as per layouts.
- Design, Supply & Install glass partitions including 900mm wide single glass doors, from floor to ceiling, to match existing Shopfronts in building.
- Allow for privacy film / decals
- Re-commission all services and install new ceiling
- Install new carpet tiles.
- Install timber screens at the kitchen area to match others in the building.
- Replace prep bowl with kitchen sink.
- Allow electrical point for Hydroboil above sink.
- Allow for alteration to Electrical, HVAC and Fire Layouts
- Allow for alteration to Access Control Systems
- Allow for signage to doors, to match that on existing doors
- Make good to affected floors walls and ceiling
- Allow for A/V fit-out in boardroom
- Allow for additional office furniture to match existing open plan furniture (as per TNPA guidelines to used).

Work Area 0.2 - CONSTRUCT OFFICES IN EAST WING EXHIBITION SPACE (REFER TO DRAWINGS XHOE0006-1-200-A-LA-0001-01 and

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#### XHOE0006-1-200-A-LA-0002-01)

- Supply & Install drywall partitions as indicated on the layouts.
- Design Supply & Install glazed shopfront partitions and glazed aluminium single doors
- Remove floor tiles and prepare screed for carpet tiles.
- Install new carpet tiles to match existing (40m2)
- Allow for privacy film / decals
- Allow for signage to doors, to match that on existing doors
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts
- Allow for additional office furniture to match existing open plan furniture (as per TNPA guidelines).

#### Work Area 0.3 - CONVERT OPERATION CENTRE TO WORKSPACE

- TNPA to remove all equipment before work can commence.
- Remove raised (access) floor and support structure for equipment.
- Make good other affected floors, walls, and ceilings.
- Install new carpet tiles in affected areas.
- Allow for alteration to ICT, Electrical, HVAC and Fire Layouts.
- Allow for privacy film / decals
- Allow for signage in passage and to doors, to match existing signage in the building
- Make good other affected floors, walls, and ceilings
- Allow for additional office furniture to match existing open plan furniture (as per TNPA quidelines).

## Work Area 0.4- CONSTRUCT OFFICES IN CANTEEN SEATING AREA (REFER TO DRAWINGS XHOE0006-1-200-A-LA-0001-01 and XHOE0006-1-200-A-LA-0003-01)

- Remove floor tiles and prepare floor for carpet tiles.
- Supply & Install drywall partitions as indicated on the layouts.
- Design Supply & Install glazed shopfront partitions and glazed aluminum single doors.
- Allow for privacy film / decals.
- Allow for signage to doors, to match that on existing doors.
- Make good to affected floors walls and ceiling.
- Allow for alteration to Electrical, HVAC and Fire Layouts
- Allow for additional office furniture to match existing open plan furniture (as per TNPA guidelines).

## Work Area 0.5 - CONSTRUCT MEETING ROOM AND OFFICES IN CANTEEN KITCHEN AREA

Part C3: The Scope of Work

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## (REFER TO DRAWINGS XHOE0006-1-200-A-LA-0001-01 and XHOE0006-1-200-A-LA-0003-01)

- Remove all floor and wall tiles and make good all affected walls and floors.
- Remove ceiling to decommission and remove extractors and other services.
- Blank off / disconnect all necessary building services.
- Demolish brick walls as indicated on the plans.
- Supply and install drywall partitions as per the layouts.
- Design Supply & Install glazed shopfront partitions and 900mm wide single and 1600mm wide double glazed aluminium doors.
- Install new ceiling to match existing.
- Allow for alteration to Electrical, HVAC and Fire Layouts
- Make good to affected floors walls and ceiling
- Allow for privacy film / decals
- Allow for signage to doors, to match that on existing doors
- Allow for additional office furniture to match existing open plan furniture (as per TNPA guidelines to be issued).

## Work Area 0.6 - REPLACE DRYWALL WITH SHOPFRONT IN WEST WING OFFICE AREA

- Demolish existing drywall as indicated on the layout
- Design Supply & Install glazed shopfront partitions including 1500mm wide glazed aluminium double door.

## Work Area 0.7 - CONVERT RECREATION AREA TO NEW CANTEEN (REFER TO DRAWINGS XHOE0006-1-200-A-LA-0001-01 and XHOE0006-1-700-A-LA-0001-01)

- Extend the recreational facility adjacent the Admin Building.
- Masonry work: Design and construct kitchen addition (as guided by TNPA drawings to be issued)
- Design and construct concrete roof for kitchen.
- Design and construct concrete surface bed for the kitchen.
- Allow for floor drains in the kitchen.
- New kitchen walls to be tiled full height (ceramic tiles)
- Allow for design and installation of ELECTRICAL, HVAC (including extraction) and FIRE services associated with restaurant kitchens.
- Convert small room at end of walkway to toilets
- Brick up existing windows where indicated
- Allow for porcelain floor tiles
- Allow for ceramic wall tile up to 1200mm and 600mm high splashbacks
- Allow for design and installation of new services in other areas, where deemed necessary.
- Move existing manhole at proposed kitchen.
- Move existing gulley (drain) and grease trap.

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• Design and construct external seating area (as guided by TNPA drawings) complete with steel roof, planter boxes, paved floor, etc.

- Extend curved steel roof over the BBQ area.
- Close off the newly roofed area to match existing shopfronts.
- Service / Repair existing sliding doors in glazed shopfront.
- Make good to affected floors walls and ceiling.
- Decommissioning of clashing services.
- Relocation of services where necessary.
- Allow for alteration to Electrical, HVAC and Fire Layouts
- Design and construct 100m long covered walkway from Office front door to new canteen (as guided by TNPA)

## Work Area 0.8 – REMOVE (DEMOLISH) MASONRY PLANTERS IN THE LOBBY TO ALLOW FOR MEETING PODS

(REFER TO DRAWING XHOE0006-1-200-A-LA-0002-01)

- Demolish existing brick walls (built-in seats) as indicated on the layout
- Make good all affected floors and prepare screed for carpet tiles.
- Install new carpet tiles to match existing

#### Work Area 0.9 - CHANGE FLOOR FINISH

- Remove floor tiles and prepare screed for carpet tiles.
- Install new carpet tiles to match existing (54m2)

#### 1.3.1.3 FIRST FLOOR

(REFER TO DRAWING XHOE0006-1-300-A-LA-0001-01)

### Work Area 1.1 - CREATE PASSAGE AT OPEN PLAN OFFICE OPPOSITE WEST WING KITCHEN

- Design Supply & Install glass partitions including 1,5 double glass doors, from floor to ceiling, to match existing Shopfronts in building.
- Allow for signage to door, to match that on existing doors
- Allow frosted decals on all glazed sections
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts

#### Work Area 1.2 - CONVERT OPEN SPACE TO MEETING ROOM (EAST WING)

- Design Supply & Install glass and drywall partitions including 900mm wide glass door, from floor to soffit, to match existing Partitions and Shopfronts in building.
- Allow for signage to doors, to match that on existing doors
- Allow frosted decals on all glazed sections
- Allow for new carpet tiles (remove tile floor)
- Make good to affected floors walls and ceiling

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Allow for alteration to Electrical, HVAC and Fire Layouts

## Work Area 1.3 - ENCLOSE EXISTING OPEN PLAN OFFICE OPPOSITE EAST WING KITCHEN

- Supply & Install drywall partitions including 900mm wide single glass door, from floor to ceiling, the door to match existing Shopfronts in building.
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts

#### Work Area 1.4 - SEPARATE WORK AREAS IN WEST WING OPEN PLAN AREA

- Supply & Install drywall partitions between columns as per layout.
- Allow for alteration to Electrical, HVAC and Fire Layouts

#### Work Area 1.5 – SEPARATE WORK AREAS IN WEST WING OPEN PLAN AREA

- Supply & Install drywall partitions between columns as per layout.
- Allow for alteration to Electrical, HVAC and Fire Layouts.

#### 1.3.1.4 SECOND FLOOR

(REFER TO DRAWING XHOE0006-1-400-A-LA-0001-01)

#### Work Area 2.1 - ENCLOSE EXISTING OPEN PLAN OFFICE (WEST WING)

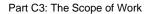
- Design Supply & Install glass partitions including single glass door, from floor to ceiling, to match existing Shopfronts in building.
- Allow for signage to door, to match that on existing doors
- Allow frosted decals on all glazed sections
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts

#### Work Area 2.2 - ENCLOSE EXISTING OPEN PLAN OFFICE (EAST WING)

- Design Supply & Install glass partitions including 1500mm wide double glass door, from floor to ceiling or u/s beams, to match existing Shopfronts in the building
- Allow for signage to door, to match that on existing doors
- Allow frosted decals on all glazed sections
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts

#### Work Area 2.3 - ENCLOSE EXISTING OPEN PLAN OFFICE (EAST WING)

- Design Supply & Install glass partitions including 1500mm wide double glass door, from floor to ceiling, to match existing Shopfronts in building.
- Allow for signage to door, to match that on existing doors
- Allow frosted decals on all glazed sections
- Allow for new carpet tiles (remove tile floor)
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts



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#### Work Area 2.4 - NEW MEETING ROOMS (WEST WING)

- Design Supply & Install glass partitions including 900mm wide single glass doors, from floor to ceiling, to match existing Shopfronts in building.
- Allow for drywall partition between rooms as indicated on the plan.
- Allow for signage to door, to match that on existing doors.
- Allow frosted decals on all glazed sections.
- Allow for new carpet tiles (remove tile floor)
- Make good to affected floors walls and ceiling.
- Allow for alteration to Electrical, HVAC and Fire Layouts.

#### Work Area 2.5 - DEMOLISH DRYWALL AND MAKE GOOD (EAST WING)

- Demolish drywall partition between rooms as indicated on the plan.
- Make good to affected floors walls and ceiling.
- Allow for alteration to Electrical, HVAC and Fire Layouts.

#### 1.3.1.5 THIRD FLOOR

#### (REFER TO DRAWING XHOE0006-1-500-A-LA-0001-01)

### Work Area 3.1 – DIVIDE EXISTING OFFICE AREA INTO A SINGLE OFFICE AND A KITCHEN

- Supply and install drywall partition as indicated on the layout.
- Design Supply & Install kitchen cupboards to match those in green areas of similar size.
- Provide electrical points for Fridge, Microwave and Hydroboil.
- Allow for water connection to fixtures.
- Allow for core drilling floor and connection drainage to closest stacks.
- Allow for boxing in of pipes finished with floor tiles.
- Allow for new floor finish to match that of other kitchen areas
- Allow for new wall finishes to match that of other kitchen areas.
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts

#### Work Area 3.2 - ENCLOSE EXISTING OPEN PLAN OFFICE

- Design Supply & Install glass partitions including 1500mm wide double glass door, from floor to ceiling or u/s beams and balustrade to u/s beams, to match existing Shopfronts in building.
- Allow for signage to door, to match that on existing doors
- Allow frosted decals on all glazed sections.
- Allow privacy film to the passage door leading to the gym.
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts

#### 1.3.1.6 FOURTH FLOOR

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#### (REFER TO DRAWING XHOE0006-1-600-A-LA-0001-01)

#### **Work Area 4.1 - ALTER EAST WING OFFICE AREA**

- Supply & install new 900mm wide single glass door in passage to match existing Shopfronts in building.
- Make good to affected floors walls and ceiling.
- Allow for alteration to Electrical, HVAC and Fire Layouts.

#### Work Area 4.2 - ALTER AREA IN FRONT OF EAST WING OFFICE AREA

- Design Supply & Install glass partitions including single glass door, from floor to ceiling, to match existing Shopfronts in building.
- Allow for signage to door, to match that on existing doors
- Allow frosted decals on all glazed sections
- Allow for new carpet tiles (remove tile floor)
- Make good to affected floors walls and ceiling
- Allow for alteration to Electrical, HVAC and Fire Layouts

## Work Area 4.3 - ALTER CE SECRETARY'S OFFICE TO INCLUDE BODYGUARD'S CUBICLE

- Alter the glass shopfront to include an additional glass door as indicated on the layout
- Allow for mobile screen between desks
- Allow for signage to door, to match that on existing doors
- Allow frosted decals on all glazed sections
- Make good to affected floors walls and ceiling
- Allow for alteration to Access Control Systems.

#### Work Area 4.4 - SWITCH GEAR ROOM AND WIND LOBBY

- Supply & Install fire rated drywall and 900mm wide single fire door in the switch room
- Install new carpet tiles in the switch gear room work area
- Make good to affected floors walls and ceiling
- Allow for additional Electrical and HVAC
- Allow for alteration to Electrical, HVAC and Fire Layouts / Systems

#### 1.3.2 Structural Engineering Scope of work

Contractor is required to contract a registered Professional Civil/ Structural Engineer or Professional Technologist for the detail design of recreational centre area and associated works including relocation of existing manholes, integration with other designs, monitoring and sign offs and close-out documentation of the civil/ structural works for the duration of the project. The engineer does not have to be full time on site but is required to ensure that, the work being executed by the *Contractor* is in line with the *Employers* scope of works and meet the *Employers* requirements.

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The requirements for the structural design of the eMendi Alteration's project to be carried out by the *Contractor* shall include the following:

Design, supply and install of all structural elements required for the roof extensions and additions indicated for work area 0.7 on the architectural concept layouts.

It is to be noted that all Structural Engineering works and designs are to be signed off by registered personnel (Pr. Tech/Pr. Eng.).

#### 1.3.3 Controls and Instrumentation(C&I) Scope of Work

The *works* to be carried out by the *Contractor* shall make provision for security systems, and ICT. These systems are to be interfaced with the Emendi building existing security and ICT systems.

The engineering scope and requirements shall be limited to the following scope:

- Provision of Access Control System
- Provision of closed-circuit television (CCTV)
- Provision of ICT local area network (LAN) points and Wi-Fi
- Provision of RFID system

The systems design requirements are indicated below:

#### 1.3.3.1. Access Control System design

#### **General**

- Access control system portal hardware shall be selected based on TNPA physical security operational philosophies, threat level requirements and TNPA Security Building Specification.
- Provision for lockable access control door
- During power outages and emergency situations-controlled doors must unlock automatically and open. When power is restored, these shall reset back to normal operational positions.

#### Lockable access control door

- Entry and exit biometric readers
- Break-glass unit for exit during emergency
- Door monitors embedded Maglock to lock and monitor door status.

#### **RFID System**

Provide the RFID System for book tracking at the library.

#### 1.3.3.2. CCTV

#### **General**

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CCTV hardware and software shall be compatible equal to the existing system used at the building.

Fixed position and fixed focus cameras shall be used in rooms that needs monitoring, and it is important that should an event occur it is viewed in real time or recorded.

The equipment selection shall conform to Transnet ICT Equipment Standardization Specification.

#### Surveillance

The indoor dome CCTV cameras shall produce sharp, detailed, and stable images on the monitor in sufficient detail to provide positive identification of individuals within the storage room under all conditions of light. The new indoor dome CCTV cameras shall be integrated to the existing security system.

Indoor dome CCTV cameras shall be monitored and controlled from an existing central control room.

#### 1.3.3.3. ICT design requirements

#### General

- The ICT system shall facilitate, Where applicable, office automation (networked printing).
- The ICT data network shall connect to Transnet National Port Authority (TNPA) corporate network.
- Multi-functional devices (MFD) shall be cabled to the ICT infrastructure network. The MFD shall have 2 data connections.
- The ICT equipment shall be protected from physical and environmental threats in accordance with Transnet ICT Physical and Environmental Security Standard.
- The design and deployment of hosts on the Transnet network shall conform to the Transnet Network Security Standard.

#### **Wired Network**

- Network wiring shall comply with EIA/TIA-568.
- Separation from electrical wiring and pathways shall be according to EIA/TIA-569
- Ethernet Cable (RJ 45) shall be connected to an existing Hub Ethernet Port.

#### **Wireless Network**

- The Wi-Fi Access Points shall be installed where required
- The Wi-Fi Access Points shall be powered through power over ethernet (PoE)

#### **Video and Teleconferencing**

To provide for Digital Signage system where required.

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#### 1.3.3.4. Acronyms and abbreviations

C&I acronyms and abbreviations a are summarised in the following table:

Abbreviation	Description
ACS	Access Control System
PoE	Power over Ethernet
ICT	Information and Communications Technology
C&I	Control and Instrumentation
CCTV	Closed Circuit Television
TNPA	Transnet National Port Authority
LAN	Local Area Network
MFD	Multi-Function Device

#### 1.3.4 Civil Engineering scope of work

Contractor is required to contract a registered Professional Civil/ Structural
Engineer or Professional Technologist for the detail design of recreational
centre area and associated works including relocation of existing manholes,
integration with other designs, monitoring and sign offs and close-out
documentation of the civil/ structural works for the duration of the project.
The engineer does not have to be full time on site but is required to ensure
that, the work being executed by the Contractor is in line with the Employer's
scope of works and meet the Employers requirements. The works to be
carried out by the Contractor shall include:

#### (REFER TO DRAWINGS XHOE0006-1-200-C-LA-0001-01)

The Civil *scope of works* focuses on the proposed extension of the Recreation centre building and all associated civil services in the basement floors as

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indicated on the conceptual Architectural layouts. The comprehensive scope shall include the design and construction of Civil services, as listed below:

- Decommissioning of services clashing with building footprint (extension side):
  - Septic tank.
  - Communications and electrical manholes.
  - Grease traps.
  - Sewer Rodding Eyes.
- Relocation of services and adjusting manhole covers:
  - Communications and Electrical manholes.
- Design of new services, where deemed necessary:
  - o Consolidated stormwater management system.
  - Sewer lines and manhole to accommodate proposed ablution block, tying into existing system.
  - New rodding eye and gullies where necessary.
- Detection of existing services.
- Allow for new service markers to match existing.
- Verify if the existing services can carry increase capacity.
- Water reticulation network to tie into existing.
- Earthworks:
  - Making shortfall in material through provision of engineered layer works.
  - Saw cutting, removal, and reinstatement of existing pavement structure (Asphalt) in sections of the parking lot where necessary to allow for installation of new services.
- Updating as-built information
- Demolition, removal/blocking and covering up of all floor drains located in basement as instructed by the *Employer's Agent* and/or as indicated in drawings.

It is to be noted that all Civil Engineering works and designs are to be signed off by registered personnel (Pr. Tech/Pr. Eng.).

### 1.3.4.1 Standard of Work, Equipment, and Materials

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All equipment and material used shall be of high quality and the work shall be of a high standard of workmanship carried out by qualified staff under proper supervision by experienced and competent officers.

*Contractor* to keep daily records of his Equipment used on Site and the Working Areas (distinguishing between owned and hired Equipment) with access to such daily records available for inspection by the Employer at all reasonable times.

Adapt facilities (provided by *Employer*) for use, then the make good and provide full reinstatement to the land (including all apparatus of the Employer and Others in, on or under the land) and surrounding areas to its original standard upon dismantling of such facilities and hand-back to the *Employer*.

## 1.3.4.2 Specifications

The design shall be undertaken using the latest revision of applicable SANS and other relevant standard specifications. The Contractor shall employ a registered Professional Engineer to review and sign off all design documents and drawings submitted to the Employer for approvals. The design shall be such that it is built by others to satisfy the functional and serviceability requirements and be cost-effective and safe. Sound Engineering judgment shall be exercised in applying these criteria to the system and its components. The *Contractor* shall communicate with the *Employer* to coordinate all designs.

The following publications and specifications (latest edition) shall apply:

SANS 10400	The Application of the National Building Regulations
SANS 2001-DP4	Sewers
SANS 2001-DP7	Sewers for buildings
SANS 2001-CC2	Concrete Works (Minor works)
SANS 1850	The design and manufacture of commercial kitchen extraction/ventilation systems

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SANS 2001-CM1	Masonry Walling
SANS 2001-DP1	Earthworks for Buried Pipelines and Prefabricated Culverts
SANS 2001-DP2	Medium Pressure Pipelines
SANS 2001-DP3	Cable Ducts
SANS 2001-DP5	Stormwater Drainage
SANS 1200-M	Road (general)
SANS 1200-MH	Asphalt Base and Surfacing
SANS 1200-MJ	Segmented Paving
SANS 1200-MK	Kerbing and channeling
SANS 1200-MM	Ancillary roadworks

# **1.3.5** Mechanical Engineering *Scope of work*

## 1.3.5.1. Employer's Design

The *Employer* makes available the drawings and specifications needed to successfully complete the Works.

- Conceptual HVAC designs for the addition work to accompany the current HVAC system for ground, first, second, third, fourth and fifth floor of the main administration building, as well as for the additional outside canteen building and surrounding structures, associated with the works.
- Conceptual water reticulation design for additional water supply points for outside canteen building and surrounding structures, associated with the works.
- Conceptual fire protection & detection systems design, for outside canteen building and surrounding structures, associated with the works; and
- The technical specification of all mechanical plant associated with the works for the above mentioned.

#### 1.3.5.2. The *works* to be carried out by the *Contractor*:

 Contractor is required to contract a registered Professional Mechanical Engineer or Professional Technologist for the design, integration with other designs,

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monitoring, commissioning, and close-out documentation of the mechanical works for the duration of the project. The engineer does not have to be full time on site but is required to ensure that, the work being executed by the *Contractor* is in line with the *Employers* scope of works and meet the *Employers* requirements. The works to be carried out by the *Contractor* shall include:

- Design, supply, and install, test and commission of addition ducting, and/or modification of current ducting, as per The Employers concept design for all current and addition HVAC equipment and the works associated with such equipment and designs. The *Contractor* shall complete modifications as per the architects and mechanical drawings. Any partitioning done in the Architects drawings, which do not include any mechanical concept drawings, shall be accommodated in the design, supply, install, testing and commissioning of new and modified HVAC system. Where possible the Contractor shall reposition and reuse, refurbish, and test and commission the current equipment to fit the new partitioning.
  - The design, supply, installation, testing and commission of the ventilation system, including but not limited to, ducting, air filters, dampers, return and supply air diffusers/grilles, and all other supporting air terminals, as per The Employers concept design. Any partitioning done in the Architects drawings, which do not include any mechanical concept drawings, shall be included in the above design, supply, installation, testing, and commissioning for all current and addition systems. Ventilation shall be designed as per SANS ventilation standards. The Contractor shall verify whether current supply and extract air fans can accommodate additional volumetric flow rate and pressure added to the system, design, supply, installation, testing and commission of upgraded ventilation fans shall be carried out by The *Contractor*, if required and all associated work.

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- The Contractor shall evaluate the current canteen extraction system and hood. They shall where possible reuse said system in the installation of the new canteen which will be outside of the main administration building. The Contractor shall provide all recommendation and evaluations to the Employers Engineers for confirmation. If deemed reusable, the Contractor shall refurbish, install, test and commission the extraction system and hood into the newly constructed canteen kitchen. If deemed unusable the contractor shall design, supply, install, test and commission and new kitchen extraction system for the newly constructed canteen.
- The design, supply, installation, testing and commission of the pipe network for the refrigeration lines and all associated work of the air conditioning system. The *Contractor* is to ensure all addition equipment install is of the same OEM as the current system installed in the building, as to avoid compatibility issues within the BMS currently installed in the building
  - The design, supply, installation, testing and commission of all air conditioning equipment, as depicted on The Employers concept design, including but not limited to additional 4-way cassette unit, concealed ceiling air conditioning units, heat recovery units and outdoor air condition units. The Contractor is to ensure the correct heating and cooling is determined and for each addition area, as per The Employers conceptual designs. The Contractor shall assess whether there is addition capacity on the current system to accommodate addition heating and cooling load of new equipment, if not, the *Contractor* shall make provision as per The Employers concept design and install addition heat recovery units as well as addition outdoor units. The *Contractor* is to ensure all addition equipment install is of the same OEM as the current system installed in the building, as to avoid compatibility issues within the BMS currently. Any partitioning done in the Architects drawings, which do not include any mechanical concept drawings, shall be included in the above design, supply, installation, testing, and commissioning for the air conditioning system.

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- The *Contractor* shall ensure that all new air-conditioning equipment and ventilation equipment being installed, be integrated into the existing BMS system.
- The Contractor shall, design, supply, install, test, and commission an independent acoustic sensitive ventilation and cooling system for the work area B2.2 as depicted on the Employers drawings. This system shall not exceed the 25 decibels sound level as described in 2007 AHSHRAE Handbook HVAC Applications Chapter 47 Table 42: Design Guidelines for HVAC Related to Background Sound in Rooms, for Drama theatres, concert hall and recital halls. The Contractor shall ensure that on completion the entire room with all systems on does not exceed the sound level mentioned above.
- The Contractor shall evaluate, design, supply, install, test and commission of the current fire detection system, provision is to be made for any new, including but not limited to, smoke detectors, heat detectors, manual call points, sirens, which are required due to the additional partitioning, and shall connect any addition equipment to the current addressable fire panel. The Contractor shall ensure that the new Canteen on the outside of the main building and all its equipment be connected to the main buildings fire panel, with its own zoning, and all associated works.

The Contractor shall evaluate, design, supply, install, test, and commission the current smoke extraction system for the main admin building, and that of the new proposed canteen area, as per The Employers conceptual drawings, which is located outside of the main building and all associated works. The *Contractor* shall evaluate, design, supply, install, test, and commission of the sprinkler pipe network within the main building due to all partitioning withing Architect's drawings. The *Contractor* is to ensure that current sprinkler system complies with ASIB, and that if meets the requirements of all partitioning within the building associated with The Employers conceptual designs. The *Contractor* shall evaluate where it is possible to expand the main buildings sprinkler system, to the newly proposed canteen on the outside of the building, if viable, The

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*Contractor* shall design, supply, install, test and commission the additional sprinkler system into the newly proposed canteen, and all associated works.

- The new HVAC system must be connected to the fire detection system and the two systems must be integrated into the existing BMS system.
- The Contractor shall design, supply, install, test and commission any additional water reticulation system and all associated works required for such system, in requirement of SANS, to suit the designs by the Employees architect.

### 1.3.5.1. South African National Standards

Standard No.	Description
NFPA 13	Standard for the Installation of Sprinkler Systems
SANS 10252	Water supply and drainage for buildings Part 1 and Part 2
SANS 10400-T	The application of the National Building Regulations Part T: Fire protection
SANS 10400-O	The application of the National Building Regulations Part O: Lighting and ventilation
SANS 10139	Fire detection and alarm systems for buildings - System design, installation, and servicing
SANS 1200HC	Corrosion Protection of Structural Steelwork
SANS 1200 L	Medium Pressure Pipeline
SANS 10400	The Application of the National Building Regulations
SANS 659:2007	Cold water - Copper
SANS 1545	Safety rules for the construction and installation of lifts
SANS 4344	Steel wire ropes for lifts – minimum requirements
SANS 347: 2012	Categorization and conformity assessment criteria for all pressure equipment
SANS 32/SANS121	Hot Dip Zinc (galvanised) Coatings
SANS 10254: 2017	The Installation, maintenance, replacement, and repair of fixed electric storage water heating systems
SANS 10139: 2012	Fire detection and alarm systems for buildings

Part C3: The Scope of Work

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SANS 10064	The preparation of steel surfaces for coating
SANS 763	Hot-dip (galvanised) zinc coatings
SANS 1091	National colour standards for paint
SANS 5493	Code of practice for protective coating of iron and steel structures against corrosion
SANS 10400 XA	Energy usage in buildings
SANS 1910	Portable refillable fire extinguishers
SANS 543	Fire hose reels
SANS 10400W	The application of the National Building Regulations Part W: Fire installation
SANS 1200 LB	Bedding (pipes)
SANS 10142	Code of Practice for the Wiring of Premises.
SANS 10147	Code of Practice for Refrigeration and air-conditioning installations
SANS 10173	Code of Practice for the installation, testing and balancing of air conditioning duct work
SANS 1387:2009	galvanized mild steel, medium weight
SANS 62	Pipes suitable for threading and of nominal size not exceeding 150 mm
SANS 1186	Standard signs and general requirements
SANS 1128- 1:2010	Components of underground and above-ground hydrant systems
SANS 1461	Major hazard installation - Risk assessments
-	

# Other Specifications

Specification No.	Description
Government Notice	Pressure Equipment Regulations, 2009
	The General Electrical Specification for the Provincial Administration of the Republic of South Africa Part 2E
	The Municipal Fire Regulations.
	The Municipal by laws and any special requirements of the Supply Activities of the area or district concerned.
	The Occupational Health and Safety Act No 85 of 1993

# **1.3.5.2.** Testing and Commissioning

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The *Contractor* shall provide a detailed testing and commissioning plan which shall be approved by the Project Manager prior to the start of any testing and commissioning activities. This includes the factory and site acceptance testing.

- The Commissioning of each system is done in accordance with the following highlevel procedure:
- All work is inspected by The Contractor to ensure all defects are identified and rectified. The Contractor informs the Employer of all defects identified and the remedial action taken.
- Once the defects identified by The Contractor have been rectified, The Contractor
  and the Supervisor shall jointly inspect the Works. Any further defects shall be
  recorded and categorised according to the following:
- Defects that are urgent and require immediate attention to enable testing and commissioning to be completed
- Defects that can be rectified after Commissioning
- Items that are out of scope and require approval to be implemented
- The Contractor and the Supervisor shall jointly inspect once all identified defects have been rectified
- The Project Manager notifies The *Contractor* that commissioning may proceed.
- A safety review is held with the *Contractor*, Supervisor, Project Manager, and necessary experts for the system being commissioned.
- Each system and item of major equipment is thoroughly checked using an accepted pre-commissioning check list.
- Functionality is checked for all items under no load conditions.
- Once all checks are complete and functionality confirmed, the system is started under test conditions and then put into operation
- *Contractor* rectifies all further defects identified during the commissioning process and previously identified defects including approved compensation events.
- The Contractor and the Supervisor shall jointly inspect once all identified defects have been rectified.
- The Contractor shall invite the Employers Engineer for all testing and commissioning activities at least 2 weeks prior to the start of the activities. the employers engineer must be present for all testing and commissioning activities

# **1.3.5.3. Mechanical Engineering Scope:**

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The *Contractor* shall ensure that the scope is read in conjunction with the conceptual drawings provided by The Employer.

- The Contractor shall design, supply, deliver, install, test and commission and handover the upgrade of the automated and manual firefighting system and signage that will include, but is not limited to, the addition of new fire extinguishers, piping, valves, fire equipment signage, emergency and safety signage and all emergency evacuation plans, as required due to SANS and local legislation in accordance with The Employers drawings.
- The Contractor shall perform an analysis to determine the possibility of the extension
  of the fire sprinkler system from main building to that of the new outside building,
  if deemed viable, The Contractor shall design, supply, deliver, install, test and
  commission and handover the extension of the fire sprinkler system and all
  associated works. The Contractor shall ensure that the extension of said sprinkler
  system is ASIB approved.
- The *Contractor* shall design, supply, deliver, install, test and commission and handover cold water reticulation system that will supply water to all additional taps, sinks, washbasins, wash troughs, toilets and urinals, and hot water kitchen storage systems as depicted on the employer's drawings. The *Contractor* shall design, supply, install, test and commission and handover all supporting infrastructure required for all mechanical works. Including but not limited to all structural supports for the fire and potable water reticulation systems regarding, thrust blocks, and anchoring down supports for the pipeline or bridges, plant bases or plinths, plant supports and fixings for all equipment. This is to be informed by water hammer analysis and thrust block restraint design
- The Contractor shall conduct flow and pressure analysis on all existing water tie in points to ensure sufficient flow and pressure requirements are met to comply to SANS and local regulations. This shall include the flow and pressure on both the potable water lines as well as the manual and automatic fire suppression systems
- The Contractor shall supply, install, test and commission and handover all control and actuation systems; MCC panels and Electrical Distribution Boards required for the mechanical Plant; and Electrical work including connection to power isolators, wiring between switchboards, unit mounted sensors, control devices, etc. and wiring between controllers and remote sensors, remote set point adjusters, etc.

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- The Contractor shall supply, install, test and commission and handover all painting and corrosion protection of Plant.
- The Contractor shall, supply, deliver, install, test and commission and handover HVAC system, to meet SANS, ASHRAE and local Legislation, in accordance with the Employers drawings submitted. Which include, all ducting, fans, filters, and air terminals for the fresh air supply to the building, and all auxiliary works which are associated. This shall include all air-conditioning equipment for the temperature control of the building, comprising of, but not limited to, 4-way cassettes, outdoor units, high static air handling units (concealed ceiling units), as well as fresh are units, heat recovery units and all controllers, and all the auxiliary works associated with the installation.
- The Contractor shall provide all detailed workshop and fabrication drawings, including pipe schedules, HVAC equipment and duct routing, services clashes, and weld maps for acceptance prior to the commencement of fabrication.
- The Contractor shall provide all as-built drawing of the current existing mechanical HVAC, Fire suppression and Detection Systems as well as the potable water systems.
   Following completion of the new works installed, updated as-built drawings shall be provided which indicate the newly installed equipment along with any old equipment which functions as part of the system.
- The Contractor shall provide a decommissioning and removal plan for current HVAC system equipment within the building which is requires removal/replacement, these plans to be confirmed with the Employers Engineers. All old equipment, ducting, refrigerant piping, or air-conditioning units which are to be used in the new system shall be as per The Employers conceptual drawings, for areas where no conceptual drawings are provided, the Contractor shall provide conceptual drawings for The Employers Engineers to confirm.
- The Contractor shall ensure all drawings mentioned in the Works Information, be supplied to the Employer, in a native DWG format for use on AutoCAD software.
- Assessment and Certificate of Conformance, of existing fire sprinkler system to be completed by ASIB. The *Contractor* is to ensure that this takes place before construction, to ensure that the sprinkler system meets accepted regulatory standards. If not, it shall be brought up to acceptance by The *Contractor*. The *Contractor* shall ensure that due to addition and/or new partitioning within the

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current building, that the sprinkler nozzles are situated within new partitioned areas, as per ASIB/SANS requirements.

- The Contractor shall provide a detailed testing and commissioning plan including all FAT, SAT and Commissioning tests and activities prior to the commencement of any testing activities.
- The Contractor shall test and commission the systems in line with the guidelines as per the Works Information as well as the manufacturer's requirements and industry best practices.
- The Contractor shall provide Operation and Maintenance manuals that will include, but is not limited to, quality certificates and tests conducted during fabrication and installation, all FAT and SAT tests conducted, all commissioning documentation, detailed as built drawings and technical specifications of all plant and systems, operation methodologies and information, maintenance methodologies and information and details of spares and replacement components.
- The *Contractor* shall guarantee all installations and equipment for twelve (12) months after "practical completion" date of the completed installation, or sections thereof. This is the date confirmed in writing by the Project Manager.

#### 1.3.5.4. General

The *Contractor* shall inform themselves with local site conditions such as safety requirements, access area available on site, type of ground, space available for onsite fabrication, storage, transport, loading and unloading facilities, scaffolding, tackles, and tools needed, as no claims by the *Contractor*, which may arise from ignorance of the site conditions, shall be considered.

### 1.3.5.5. Materials and Workmanship

- The Contractor shall ensure all materials shall be of the quality specified and The
  Contractor shall, furnish proof that the materials are of the specified quality. The
  Engineer is not responsible for Quality Assurance on behalf of The Contractor
  but shall be entitled to condemn unsatisfactory work.
- The Contractor shall ensure all materials and equipment used for the installations shall be new and undamaged. The Contractor shall, if requested by the Project Manager, provide samples of material and Plant for approval. If judged necessary by the Project Manager, such samples may only be returned after the completion of the installation, to ensure that the quality of the installed product is the same as that of the approved sample

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- Material for which a SABS specification exists, shall be in accordance with such a specification, and shall bear the SABS mark.
- All fire protection Plant used shall originate from suppliers which have been certified in accordance with SABS ISO 9001 (ISO 9001) or SABS ISO 9002 (ISO 9002) for Quality assurance. Copies of certificates of approval shall be provided by the tenderers with their tenders. Plant designed to BS 5446, Fire systems for residential premises, or similar other standards, are not acceptable.

## 1.3.5.6. Design and Drawings

- The *Contractor* shall ensure all Plant is positioned and installed in such a way as to ensure proper access for service and maintenance.
- The Contractor shall ensure That all control panels, wiring and components of the electrical installation comply with all application safety codes standards and regulations. All electrical works associated with the mechanical plant shall comply with the requirements of electrical works detailed in this document.
- The Contractor shall ensure the designs must be cost effective and energy efficient.
- The *Contractor* shall furnish details of any Plant that is other than, or different to, that specified by the Employer's Engineers, to the Supervisor for Approval by the Employer's Engineers. The *Contractor* is prohibited from installing said without the required prior authorization from the Employer's Engineers. The approval shall only apply to the selection of the type of Plant and in doing so, the Employer's Engineers assume no responsibility or accountability for the proper functionality of Plant or associated systems designed by The *Contractor* in any way whatsoever.
- The Contractor shall ensure All design calculations and simulations shall be submitted to the Project Manager for acceptance by the Employer's Engineer together with the workshop Drawings. The drawings shall be submitted in PDF as well as DWG formats for all submissions. The Contractor shall price in the works for the submission of the calculations and drawings as well as schedule the time for acceptance of all designs and approval of plant type (should there be any deviation from the specifications).

#### 1.3.5.7. Plant Supports, Bases and Foundations

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- The Contractor shall design all foundations required for mechanical Plant as per the recommendations of the Plant suppliers and to comply with the requirements of the Works Information and Technical Specifications.
- The *Contractor* shall design supports, stands, hangers, and suspended platforms for equipment, tanks or other Plant as required.
- The Contractor shall design bases and plinths for all items of plant to comply with the requirements as specified in this document.
- The *Contractor* shall ensure that all designs of foundations, bases and plinths are compatible with the type of floor designed by the Structural Engineers and be able to tie into the floor to provide a continuous surface.

## 1.3.5.8. Workshop Drawings

The *Contractor* shall ensure Preparation of complete workshop drawings is the responsibility of the *Contractor*. The workshop drawings must be prepared based on:

- The Contractor shall ensure the latest Architect's, Structural Engineer's, Civil Engineer's and Electrical Engineer's drawings regarding co-ordination, layout, and design.
- The Contractor shall make use of the actual Plant offered in the Tender and Approved by the Project Manager. No work may be put in hand before the relevant workshop drawings have been reviewed by the Project Manager for acceptance. The Employer's responsibility in this regard is limited to checking conformance with the works information and co-ordination with other disciplines where necessary This does not absolve The Contractor of any responsibility in terms of the contract or for errors or omissions in the shop drawings. Comments, amendments, or corrections of shop drawings are not intended to cause any variation in the cost of the work, and
- The Contractor shall include time in the schedule for acceptance of workshop drawings and Approval of Plant by the Employer. All workshop drawings submitted shall be signed by an ECSA registered Professional Engineer.
- The workshop drawings shall include but not be limited to the following:
- P&ID showing the entire system layout and plant details.
- Detailed drawings of all plant.
- Plant Specifications, including fixing details and materials.

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- Piping schedules.
- Detailed piping drawings, including joint details and positions.
- Welding schedules and weld maps (if applicable).
- Foundation, Plinth and Base details of all plant.
- Corrosion protection specifications for all plant and materials.
- Cable schedules; and
- General arrangement drawings and component lists for electrical and controls works associated with the mechanical plant.

### 1.3.5.9. Builders Work Drawings

Openings

 The Contractor shall show all openings and other finishes on layout drawings in such a way as to constitute a clear instruction to others.

Plant Foundations, Bases and Plinths

 The Contractor shall be responsible for providing detailed Builder's Work drawings for all foundations, plinths, and plant bases as per the manufacturer's recommendations for the Plant selected.

#### Noise and Attenuation

- In respect of noise control and attenuation The *Contractor* shall be responsible for the selection, supply and installation of all sound attenuators, spring mounts, mass bases, flexible connections, spring hangers, etc. as required by the *Contractor's* detailed design to comply with all relevant SANS standards and the OHS Act.
- The *Contractor* shall ensure that where ducts and pipes pass through concrete, brick or other structural members and finishes. This is achieved without transmission of noise and vibration.

## **1.3.5.10.** Responsibilities of the *Contractor*

- Ordering of Plant and Materials
- The Contractor shall be responsible to ensure that the project programme is adhered to and that no delays are caused by late deliveries of Plant and materials. All other activities which must proceed placing of orders must be considered when The Contractor schedules his activities.

### 1.3.5.11. Storage of Materials and Plant

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The Contractor shall be responsible for the proper storage of all materials and Plant on site to ensure protection against the elements, damage by impact, dirt, builder's rubble dust theft etc.

### 1.3.5.12. Protection of the Works

The Contractor shall programme his work to avoid damage by other Trades and shall be responsible for protection of the works against such damage until handover to the Client.

## 1.3.5.13. Accessibility

- The Contractor shall plan suitable accessibility for thermometers, gauges, controls, dampers, and other devices which require reading adjustment, inspection, repair removal or replacement.
- **1.3.5.14.** The Contractor shall design all systems and plant positioning to enable ease of maintenance or repair and provide sufficient space for removal or replacement of plant if required. **Weather Proofing** 
  - All outdoor Plant shall be weatherproof and corrosion resistant including minor items such as screws fixers, brackets, etc.
  - The IP rating for waterproofing of all Plant must be accepted by the Project Manager.
  - In addition to the above mentioned, The Contractor may comment on aspects of the Employer's design with a view to improvement or cost saving but must draw to the attention of the Engineer any aspect of the design which in his view is not appropriate. The final decision and responsibility rests with the Engineer.

#### 1.3.5.15. Alternatives and Main Offer

The main tender price must include for the equipment specified herein, under the heading of Allowed in Tender. This does not necessarily indicate a general preference for the specified equipment but serves the purpose of ensuring that all Tenderers include for the same major equipment in their Tender Price. Generally, the specified equipment will be of the quality and in the price range, deemed appropriate for the project. All tenders, including alternatives which comply with the specification, will be considered, but not only based on price. Factors such as Client preference, track record, service facilities, and spares back-up will be considered. Where alternatives do not comply with the specification or specified equipment in full, all deviations must be listed in detail. Incidental extra costs or savings associated with alternative proposals

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must be shown separately to give the full cost implications of any alternative offered. If tenders are within budget, this will not exclude lower priced alternatives from favourable consideration and vice-versa.

Any alternatives to the specifications must be highlighted by The Contractor
and shall be submitted to the Project Manager for acceptance by the
Employer's Engineer. The submission must include the detailed specification
for the alternative plant and The Contractor shall specify if the alternative
does not meet any of the minimum specified criteria in the technical
specifications and drawings.

#### 1.3.5.16. Service Conditions

- The Plant and Material shall be designed and rated for continuous operation under the following conditions.
- Ambient/Environment Conditions:
- All Plant and Material offered shall be rated for continuous operation under the following conditions:

#### **External Conditions**

Summer ambient : 40 °C DB Maximum

Winter ambient : -3 °C Minimum
Humidity : as high as 86%

Altitude : 0-1800m above sea level

Lightning conditions Severe, with a maximum lightning

ground flash density of 2.0 lashes

per km2 per annum

Atmosphere will be of a highly saline

and dust-laden nature

## **Internal Conditions (air-conditioned areas)**

Summer : 22.5 °C Dry bulb – 55 % Relative

Humidity

Winter : 22.5 °C Dry bulb – 55 % Relative

Humidity

#### **1.3.5.17.** Noise levels

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Maximum noise levels caused by the operation of items of Plant shall comply with the OHS Act 85 of 1993 and all other regulations.

#### 1.3.5.18. Normative References

The following publications and specifications (latest edition) shall apply where contextually correct:

In addition to the specifications, the project shall comply with the following relevant Acts and Regulations as listed below:

- Occupational Health and Safety Act 85 of 1993.
- The S.A. National Building Regulations and Building Standards Act. (Act 103 of 1977).
- South African National Standards and Codes of Practice.
- IEC Standards and Recommendations.
- International Standards and Codes ISO, DIN, BS, ASME, ASCE, ANSI, ASTM, EU, NFPA.
- The local, provincial or S.A. Government laws in force at the time.
- Construction Regulations 2014; and
- National Heritage Resource Act (Act 25 of 1999)

The SI ("Le Systeme International d' Unites") – Metric System of Units shall apply. Refer to SANS – M33A: The International Metric System: Guide to the use of the SI in South Africa.

The *Contractor* shall additionally read the Engineering Works Information for the mechanical works in conjunction to this with the Specifications provided separately in the annexures.

# 1.3.6 Electrical engineering *scope* of work

The *works* that the *Contractor* is to perform includes the following:

• Contractor is required to contract a registered Professional Electrical Engineer or Professional Technologist for the design, integration with other designs, monitoring, commissioning, and close-out documentation of the Electrical works for the duration of the project. The engineer does not have to be full time on site but is required to ensure that, the work being executed by the Contractor is in line with the Employers scope of works and meet the Employers requirements. The works to be carried out by the Contractor shall include:

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- Design, supply and install interior Lighting.
- Design, supply, and installation of small power.
- Design, supply, and installation of low voltage cabling and cable way systems.
- Design, supply and install Earthing and Lightning protection.
- Modifications to existing Distribution boards.
- o Building Management System integration of additional equipment.
- Testing and commissioning of the installation.
- Supply, installation of 3 phase and single-phase power skating.

#### 1.3.6.1. Standard of Work, Equipment and Materials

The electrical installation shall conform to the requirements of the latest edition and amendments of SANS 10142-1 Code of Practice for the Wiring of Premises Low-voltage installation and any additional requirements thereto, described in this specification.

Where the local supply authority requirements differ from those specified herein, the Transnet National Ports Authority (TNPA) electrical engineer shall be approached for a decision.

All equipment and material used shall be of high quality and the work shall be of a high standard of workmanship carried out by qualified staff under proper supervision by experienced and competent officers.

All equipment and material shall comply with the relevant National or International standard specifications. Where equipment does not comply, it shall be submitted to the TNPA electrical engineer for approval prior to installation.

All installation, testing and termination must be approved by the TNPA Engineer prior to commissioning.

#### 1.3.6.2. Service Conditions

The equipment shall be designed and rated for continuous operation under the following conditions:

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Altitude 0 – 1800 above sea level

Ambient temperature -3°C to +40°C

Relativity humidity As high as 86%

Lightning conditions Severe, with a maximum lightning ground flash density of 2.0 lashes per km² per annum

Atmosphere Atmosphere will be of a highly saline and dust-laden nature

#### 1.3.6.3. Electrical Conditions:

The voltage may vary within the range of 95% to 105% of the nominal and all equipment installed shall be suitably rated.

The low voltage system of supply will be three phase 400 V, 4 wire, and 50 Hz alternating current.

### 1.3.6.4. Lightning conditions

following conditions:

Current: The peak lightning current and its rate of rise shall be regarded as severe when Imax =200kA.

Voltage: The highest cloud potential shall be assumed to be more that 100MV, where; Q = CV, where Q is assumed at 100C and C to be 10^-7 F

## 1.3.6.5. Specifications.

The following publications and specifications (latest edition) shall apply:

#### CODES OF PRACTICE

SANS 10142-1	Code of Practice for the Wiring of Premises
SANS 10114-1	Interior lighting Part 1: Artificial lighting of interiors
SANS 10114-2	Interior lighting Part 2: Emergency lighting
SANS 10389-1	Exterior lighting Part 1: Artificial lighting of exterior areas for work and safety
SANS 10389-2	Exterior lighting Part 2: Exterior security lighting

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SANS 10389-3	Exterior lighting Part 3: Guide on the limitation of the effects of
	obtrusive light from outdoor lighting installations
SANS 10400	The Application of the National Building Regulations
SANS 62305-1	Protection against lightning Part 1: General principles
SANS 62305-2	Protection against lightning Part 2: Risk management
SANS 62305-3	Protection against lightning Part 3: Physical damage to structures and life hazard
SANS 62305-4	Protection against lightning Part 4: Electrical and electronic systems within structures
SANS 10313	Protection against lightning - Physical damage to structures and life hazard
SANS 1063	Earth rods, couplers, and connections
SANS 10198-8	The selection, handling, and installation of electric power cables of rating not exceeding 33 kV Part 8: Cable laying and installation
SANS 10199	The design and installation of earth electrodes

# 1.3.6.6. Transnet Specifications

The following publications and specifications (latest edition) shall apply:

TPD-001-EL&PSPEC	Technical specification for the supply and installation of
	electrical lighting and power in buildings other than dwelling
	houses.
TPD-002-DBSPEC	Technical specification for the design and manufacturing of
	low voltage distribution boards.
TPD-003-CABLESPEC	Technical specification for the installation of medium and low
	voltage cables.

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TPD-004-EARTHINGSPEC

Technical specification for the design, supply and installation of lightning protection and earthing for buildings and structures.

## 1.3.6.7. Electrical Engineering Scope:

# a) Lighting

The *Contractor* shall supply, deliver, offload, and install recessed and surface mounted luminaires

for all the rooms with ceiling. The recessed luminaires shall be connected through individual 5A single socket outlets to isolate luminaires during maintenance.

The *Contractor* shall design, supply, deliver, and install 16A one lever light switches and light switch dimmers, similar or equal approved to Legrand Arteor. The light switches shall be installed on 4x2 PVC boxes.

The *Contractor* shall design, supply and install light fitting that are compatible with the BMS used in the TNPA Building. *Contractor* shall integrate all new installation into the BMS system used in the building.

The *Contractor* shall design, supply, deliver, and install similar or equal approved to Schneider occupancy sensors. The sensor shall be recessed into the ceiling using a ceiling mounted adapter plate to secure the sensor. The time delay DIP switch setting on the occupancy sensor shall be set at ten (10) minutes.

The *Contractor* shall design, supply, deliver and install SABS approved, 20mm outer diameter, PVC conduit flush mounted in the wall. The PVC conduit shall be used as wireways, linking all flush mounted PVC boxes to the distribution board and luminaires. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc. shall be included to ensure a safe neat link for the conduit system.

The *Contractor* shall design, supply, deliver, offload, and install SABS approved PVC insulated house wire for all lighting circuits. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC. The wire shall be installed inside the Uni-strut system and conduit.

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Where new conduits are installed in masonry walls, the Contractor shall do the necessary chasing and all these areas will be made good after installation.

b) Switched Socket Outlets

The *Contractor* shall also design, supply, deliver, offload, install 2-tier power skirting, one compartment shall be dedicated to Electrical and the other two Data/communications. The size of both the compartments shall be 70mm<sup>2</sup>. The power skirting shall be supplied with all fastening accessories such as screws, and

end covers.

The Contractor shall design, supply, deliver, and install 16A single, dedicated, and

non-dedicated switched socket outlets.

The *Contractor* shall also design, supply, deliver, and install 16A double, flush mount, switched socket outlets. The socket outlets shall be installed 300mm and

1350mm above the floor.

The *Contractor* shall design, supply, deliver and install SABS approved, 20mm outer diameter, PVC conduits flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all socket outlets to the distribution board. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc. shall be included

to ensure a safe neat link for the conduit system.

The *Contractor* shall design, supply, deliver, offload, and install appropriately length of SABS approved, 32mm outer diameter, PVC conduit. The conduit shall be used as a wire way system to provide a path for data wires to connect from the power skirting to the data swing frame panel. The conduit wire way system shall be flush mount in the wall. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc. shall be included to ensure a safe neat link for the conduit .

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The *Contractor* shall design, supply, deliver, offload, and install SABS approved PVC insulated house wire for all socket outlet circuits. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC. The PVC insulated house wire shall be installed in conduit and trunking.

c) Switched Isolators

The *Contractor* shall design, supply, deliver, offload, and install 20A flush mount, double pole, single phase switched disconnector (isolator). The isolators shall be installed at various heights to accommodate the equipment being supplied. Location of isolator should comply with SANS 10142-1 reequipments.

The *Contractor* shall also design, supply, deliver, offload, and install surface mounted weatherproof, single phase and three phase switched disconnectors (isolators), for all areas disposed to water.

The *Contractor* shall design, supply, deliver and install SABS approved, 20mm outer diameter and 32mm outer diameter, PVC conduits flush mounted in the wall. The PVC conduit shall be used as a wireway, linking all isolators to the distribution board. All necessary accessories such as fasteners, bends, junction boxes, adaptors, etc. shall be included to ensure a safe neat link for the conduit system.

The *Contractor* shall design, supply, deliver, offload, and install SABS approved PVC insulated house wire for all isolator circuits. The PVC insulated wire shall comply with Transnet specification TPD-003-CABLESPEC. The PVC insulated house wire shall be installed in conduit.

d) Distribution Boards

The *Contractor* shall modify existing Low Voltage Distribution Boards, install circuits breakers and cables to the existing board.

The contractor shall test and re-commission the DB boards once completed.

The Distribution Board shall contain the following signage.

 Name of the Distribution Board. ("TNPA Distribution Board DB").

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- The rated Voltage level of the Distribution Board
- The rated Short Circuit Current for distribution board
- The rated current rating for the distribution board
- Description of circuits fed by the associated circuit breaker.
- Full description of the type of cable (Copper PVC insulated ECC, SWA), the size in mm<sup>2</sup> of the cable terminated in the associated circuit breaker and the cable run length to the load.
- Danger sign for electrical power exposure

## e) Cable and Cable Way System

The *Contractor* shall supply, deliver, offload, install and terminate 4-core low voltage 600/1000V, SWA, ECC, PVC insulated copper cable between the distribution boards. The PVC insulated, ECC, SWA, 4 core LV cables shall be terminated, and glanded neatly and appropriately using suitable sized Cable Corrosion Glands

The cables shall also be also installed on a cable ladder system. The OEM bending radii requirements of the cable shall be adhered to. The cable ladder system shall be used to sufficiently support the weight of PVC insulated, ECC, SWA, 4 core LV cables. The cable ladder and all associated mechanical supports such as anchor fixings bolts to the wall, suspending rods, supporting channel, etc. shall be made of stainless steel (grade 3CR12) and shall be powder coated grey. The cable ladder system shall be suitably bonded and connected to the nearest building earth bar with an appropriately sized protective earth conductor in compliance to SANS 10142-1 and TPD-004-EARTHINGSPEC. The *Contractor* shall submit, to the Employer's Engineer, all design aspects of the cable ladder system prior to any procurement of materials for acceptance.

### f) Earthing and Lightning Protection

The Contractor shall design, supply, and install earthing and lightning protection for and in accordance with specification No. TPD: 004-EARTHINGSPEC. The earthing and lightning protection design shall be submitted to TNPA electrical engineer for acceptance before any installation commences.

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Design and installation of earthing and lightning protection system shall be in strict accordance with the latest SANS Codes of practice 10313, 10199, and 1063 in conjunction with SANS 62305 1-4.

## g) Building Management System

The Building Management System (BMS) shall use industry standard protocols; TCP/IP, Bacnet, Modbus, and OPC network interfaces. The software shall reside on a dedicated computer terminal with a GUI to represent the key equipment in the building. The energy management system shall record data collected from various items of equipment. It shall also allow the user to configure the requirements for the operation settings, time of use, etc.

It shall be able to operate in customisable modes of operation such as night mode, day mode, summer mode, winter mode, and any combination of these as required by the user. A database application residing on this dedicated terminal shall record data and event histories from the BMS. This database will be accessible by authorised users through their user account configurations over an internet connection and will enable them to manipulate the BMS to different security and permission settings.

The BMS shall be equipped to collect energy use data from the different systems such as lighting, power, HVAC, hot water systems etc.

The BMS shall be enabled to effect energy saving concepts such as daylight harvesting, grey water use data, and potable water use data.

#### 1.3.6.8. Testing and Commissioning the Entire Installation

The *Contractor* shall conduct a Factory Acceptance Test (FAT) for all *Plant's* to be installed as part of the *Works* to be executed in this *Contract* prior to delivery to site. The FAT shall be conducted in the presence of the *Employer's Engineer*. The legal transfer of ownership from the *Plant's* supplier to the *Contractor* shall be held by the *Contractor* until the *Plant* is fully installed, tested commissioned on the *Employer's* designated site.

The *Contractor* shall conduct a Site Acceptance Test (SAT) for all *Plant's* supplied, offloaded, and delivered to the designated *Employer's* site. The SAT shall be conducted in the presence of the *Employer's Engineer*. The legal transfer of

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ownership from the *Plant's* supplier to the *Contractor* shall be held by the *Contractor* until the *Plant* is fully installed, tested commissioned on the *Employer's* designated site.

The *Contractor* shall test the entire installation, including but not limited to the MV installation, LV installation and the lighting installation as per SANS 10142-1 and hand over all relevant test certificates to the *Employers Project Manager* for acceptance. The *Contractor* shall hand over both MV and LV certificate of compliance as per the OHS Act of 85 and SANS 10142-1 and SANS1042-2 for the installations.

The *Contractor* shall test and commission the entire Earthing and Lightning protection system as per Transnet Specification TPD-004-EARTHINGSPEC and SANS 10142-1 in the presence of the *Employer's Engineer*. The *Contractor* shall handover all test certificates to the *Employer's Project Manager* for acceptance by the *Employer's Engineer*.

### 1.4 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
CDR	Contractor Documentation Register
CDS	Contractor Documentation Schedule
CIRP	Contractor's Industrial Relations Practitioner
CSHEO	Contractor's Safety, Health, and Environmental Officer
СМ	Construction Manager
DTI	Department of Trade and Industry
DWG	Drawings
EO	Environmental Officer
Native	Original electronic file format of documentation
NRS	National Regulatory Standard
NEC3 ECC	NEC3 Engineering and Construction Contract

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**Abbreviation** Meaning given to the abbreviation QΑ **Quality Assurance** QC **Quality Control** R&D Research and Development SANS South African National Standards **SAPS** South African Police Services **SASRIA** South African Special Risks Insurance Association SAT Site acceptance tests **SES** Standard Environmental Specification SHE Safety, Health, and Environment SHEC Safety, Health, and Environment Co-ordinator SIP Site Induction Programme **SMP** Safety Management Plan **SSA** State Security Agency **SSRC** Site Safety Review Committee **TNPA Transnet National Ports Authority AFC** Approved For Construction **DGN** Design **DWG Drawings EPCM** Engineering, Procurement & Construction Management **FEL** Front End Loading NEC 3 **New Engineering Contracts PEP Project Execution Plan SANS** South African National Standards SHE Safety, Health and Environmental

Transnet National Ports Authority

Engineering Council of South Africa

**User Requirement Specification** 

**TNPA** 

**URS** 

**ECSA** 

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# 2 Engineering and the *Contractor's* design

## 2.1 Parts of the works which the Contractor is to design

### **2.2.1** The *Contractor* is to design the following parts of the *Work:*

The *Contractor* is to design parts of the *works* as described in each Engineering discipline's *Scope of work.* 

#### 2.2 Procedure for submission and acceptance of *Contractor's* design

The *Contractor* submits designs as the 'Works Information' required to the *Project Manager* for review and acceptance.

The *Contractor's* documentation shall be issued to the *Project Manager* under cover of the Contractor's Transmittal Note indicating all Contract references (i.e., Project No, Contract No, etc.) as well as the *Contractor's* Project Document Number, Revision Number, Title, and chronological listing of transmitted documentation.

Formats of *Contractor* data submitted is dependent on the project procedure and shall be specified by the *Project Manager*, upon the notified request of the *Contractor*.

The *Contractor* shall deliver both hard copies and electronic media copies (CD Rom) to the *Project Manager* at the address stated within the Contract Data.

All electronic documentation shall be submitted by the *Contractor* in Adobe Acrobat (.PDF) and Native file format.

Acceptance of documentation by the *Project Manager* will in no way relieve the *Contractor* of his responsibility for the correctness of information, or conformance with his obligation to provide the Works. This obligation rests solely with the *Contractor*.

After review, a copy of the original reviewed/marked-up drawing/document, with the *Project Manager's* consolidated comments and document status marked on the *Contractor* Review Label, is scanned and the hard copy shall be returned to the *Contractor* under cover of the project's Transmittal Note for revision or re-submittal as instructed.

The *Contractor* shall allow the *Project Manager* 2 (two) weeks to review and respond to the *Contractor's* submission of their documentation, i.e., from time of receipt by the *Project Manager* to the time of despatch.

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However, work shall proceed without delay in the event of late return of the documentation by the *Project Manager* with prior notification in writing by the *Contractor*.

On receipt of the reviewed documentation the *Contractor* shall make any modifications requested/marked-up and resubmit the revised documentation to the *Project Manager* within 2 (two) weeks. Queries regarding comments/changes should be addressed with the *Project Manager* prior to re-submittal.

Any re-submittals, which have not included the changes/comments identified, will be returned to the *Contractor* to be corrected. The *Contractor* shall re-issue the revised documentation incorporating all comments and other specified details not included in the previous issue within 2 (two) working days of receipt of the marked-up document. No cost arising from any revisions which are a result of the *Contractor's* omission of critical details and any costs incurred by the *Contractor* in completing such designs and drawings, may be claimed from the *Employer*.

# 2.3 Use of Contractor's design

The *Contractor* grants the *Employer* a licence to use the copyright in all design data presented to the *Employer* in relation to the *works* for any purpose in connection with the construction, re-construction, refurbishment, repair, maintenance, and extension of the *works* with such licence being capable of transfer to any third party without the consent of the *Contractor*.

### 2.4 As-built drawings, operating manuals, and maintenance schedules

The *Contractor* provides the following:

As built drawings (2 (two) x hard copy plus editable Pdf and native file).

#### 3 Construction

The following considerations shall be made in the construction phase:

- A Method Statement and construction Schedule shall be submitted to the Employer timeously for approval prior to execution.
- The *Contractor* shall minimize disruptions of business operations in and around the eMendi Admin precinct.

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- The *Contractor* shall ensure that a quality assurance plan is in place and shall appoint a *Site Agent* who shall report to the *Employer* during the execution phase.
- Contractor shall, upon completion, furnish the Employer with As-built data in native format.

## 3.1 Temporary works, Site services & construction constraints

The following procedures relating to temporary works, site services and construction constraints shall be taken into consideration. The *Contractor* shall:

- Comply with all Site entry, permits and regulations as required by the *Employer*.
- Ensure that all its personnel on site are inducted and comply to Site safety regulations in accordance with the OHSA Act.
- Keep daily records of its personnel engaged on the Site and Working Areas with access to such daily records for inspection by the *Employer* at all reasonable times.
- Provide progress photographs at time intervals stipulated by the *Employer* in digital format (PDF format) conveyed by email.

#### 3.1.1 *Contractor's* Plant and Equipment.

The *Contractor* shall provide all Plant and Equipment required to provide the *works* and the *Employer* shall not provide any Plant and/or Equipment. The *Contractor* shall keep a tool and material checklist on hand for entering and exiting the Port, for inspection by the *Project Manager* and *Port Security*.

The *Contractor* shall provide, all facilities necessary to undertake the *works*, including establishment of such Equipment, storage facilities and personnel that is necessary to execute the *works*.

3.1.2 Plant and/ or Equipment provided by the *Employer*.

None.

- 3.1.3 The *Employer* provides the following facilities for the *Contractor*.
  - Access permit to the Port

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• The employer will endeavour to provide the appointed Contractor with all available information that may facilitate the progress of the project. However, in cases where such information is not available, the Contractor shall point out to the Employer for advice on steps to be taken.

## 3.2 Completion, testing, commissioning, and correction of Defects

The *work* to be done by the Completion Date:

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works, including removal of his establishment and equipment from the site. The *Project Manager* cannot certify Completion until all the work has been done and is also free of Defects, which would have, in his opinion, prevented the *Employer* from using the works and Others from doing their work.

### 3.2.1 As-built drawings and data packs

The Contractor ensures that the Project Manager has a full and accurate dossier of built documents that represent the status of the completed works to present to the Employer.

# 3.2.2 Pre-Commissioning Tests and Commissioning

The Contractor shall arrange for Factory Acceptance Testing of selected Electrical and Mechanical Plant as required by the Employer's Engineers at the Supplier's Premises before any Plant is despatched to site.

The Factory Acceptance Testing shall be witnessed by the *Employers* Engineers, but in doing so; the *Employers* Engineers assume no responsibility or accountability for the proper functionality of the Plant in any way whatsoever.

The *Contractor* shall arrange Site Acceptance Testing for the selected Plant when it arrives on Site.

The Site Acceptance Testing shall be witnessed by the Employers Engineers, but in doing so; the Employers Engineers assume no responsibility or accountability for the proper functionality of the Plant in any way whatsoever.

The cost of the FATs and SATs, including travel, accommodation, and daily stipend for the Employer's Engineers, is part of this contract, and shall be

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included in the Contractor's Price. The anticipated number of persons to be catered for in this regard is 3 (three) per FAT.

The *Contractor* shall appoint an independent ECSA registered commissioning engineer to conduct and coordinate the commissioning activities. The Curriculum Vitae of the commissioning engineer shall be submitted to the *Project Manager* and *Employer's* Engineers for acceptance before his appointment.

The *Employer's* Engineers and/or the *Project Manager* reserves the right to reject the proposed commissioning engineer if he is deemed unsuitable to carry out the commissioning activities as required by the *Employer* and the *Employer's* Engineers.

The installation shall be comprehensively tested and commissioned as individual and integrated systems as may be required by the configuration, after the Works are substantially complete.

The *Contractor* shall provide adequate and competent personnel for testing and commissioning of every installation and for the full duration of the commissioning process.

The commissioning shall include interaction between other systems and others where interdependence of installations is encountered.

The commissioning process shall, after all testing's has been completed be the final proving ground of the systems and during this procedure the installations shall be subjected to all possible inputs and actions which may be encountered under operational conditions.

The *Contractor* shall prove the full operation, working and compliance of the installation in accordance with the specifications.

A detailed programme of the planned commissioning procedures shall be submitted to the *Project Manager* and *Employer's* Engineers at least 14 days before commissioning commences.

### 3.2.2.1.1 The commissioning programme shall include, but is not limited to:

 A schedule of equipment to be commissioned, the proposed tests to be conducted and the testing methods and the range of acceptable results,

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- Commissioning check sheets,
- Commissioning programme dates and duration.

The *Contractor* shall supply all relevant test equipment, monitoring devices, network analysers, protocol testers/analysers etc. required to test and commission the complete Works.

An accurate record of all commissioning and testing is to be taken and included in the handover documentation as a permanent record.

The *Contractor* shall perform all tests as required by any Sections or Clauses of the Works Information and all tests required by the Employers Specifications annexed thereto, and all tests required by any applicable SANS Standard, or other Standard, and/or as directed by the *Employer's* Engineers and the *Project Manager*.

Testing and commissioning is considered part of the Works and is to be done before completion.

### 3.2.3 Access for correction of defects:

Should the *Contracto*r have to return to the Site after completion of the works to conduct an improvement or repair, the *Contractor* shall arrange all staff members required to perform the work and shall also carry the costs of such access.

#### 4 Plant and Materials Standards and Workmanship

# 4.1 Investigation, Survey and Site Clearance

The *Contractor* is required to protect existing services prior to construction for the full extent of the site.

### **4.2** Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

XHOE0006-1-100-A-LA-0001-01 - Basement Layout

XHOE0006-1-200-A-LA-0001-01 - Ground Floor Layout

XHOE0006-1-200-A-LA-0002-01 - Ground Floor Layout - East Wing

XHOE0006-1-200-A-LA-0003-01 - Ground Floor Layout - West Wing

XHOE0006-1-300-A-LA-0001-01 - First Floor Layout

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XHOE0006-1-400-A-LA-0001-01 - Second Floor layout

XHOE0006-1-500-A-LA-0001-01 - Third Floor Layout

XHOE0006-1-600-A-LA-0001-01 - Fourth Floor Layout

XHOE0006-1-700-A-LA-0001-01 - Recreation Building Alterations

XHOE0006-1-900-A-LA-0001-01 - Office Furniture (open plan) Cabinet Design

XHOE0006-1-200-C-LA-0001-01- Recreational Facility Layout

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#### **SECTION 2**

#### 5 Management and start up

#### **5.1** Management meetings

The *Contract* will be managed through the New Engineering Contract, NEC 3 Engineering Construction, Option A: Priced Contract with Activity Schedule. Meetings of a specialist nature may be arranged as specified elsewhere in this Scope, or if not so specified by persons and at times and locations (Gqeberha or virtual) to suit the Parties, the nature, and the progress of the study. The person arranging the meeting within five (5) days of the meeting shall submit records of these meetings to the Project Manager.

The *Employer* and the Contractor will conduct A Kick-off Meeting, Technical Meetings, progress meetings, Risk Reduction and SHE Meetings. All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Project Manager to circulate all meeting minutes within a period of 3days from the day of the meeting and adopted by way of signature by the Contractor. The *Contractor* 's key personnel are expected to attend meetings with the objective to resolve problems/challenges including making available to either party, any data, including data that may be viewed as confidential, that which may have bearing in the matter discussed in accordance with this contract.

The *Contractor* shall attend management meetings, bringing with supporting key personnel at the *Project Manager* or Engineering Manager's request as set out above. All meetings shall be held in either Gqeberha or virtual depending on the applicability. At these meetings the *Contractor* shall presents all relevant data including safety, health and environmental issues, progress reports, quality plans, sub-Contractor management reports, as may be required.

It is the *Employer's* specific intention that the Parties and their agents use the techniques of partnering to manage the contract by holding meetings designed to pro-actively and jointly manage the administration of the contract with the objective of justifying the opposing effects of risk for both Parties Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

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Title and	Approximate	Location	Attendance by:
purpose	time & interval		
Contract	Monthly on a	Port of Ngqura	Employer, Contractor,
Management	day and time	or Virtual	Supervisor and Project
Meeting -	mutually to be		Manager.
progress and	agreed.		
feedback.			
Contract risk	Monthly on a	Port of Ngqura	Employer, Contractor,
register and	day and time	or Virtual	Supervisor and Project
Compensation	mutually to be		Manager.
Events.	agreed.		
Site	Ad hoc.	Port of Ngqura	Employer, Contractor,
Inspections.			Supervisor and Project
			Manager.
Contractor	Held Monthly	Port of Ngqura	TNPA Safety Advisors;
Safety	with	or Virtual	Contractor Safety Officers and
Meetings.	Contractors. Day		Contractor management /
	and time to be		supervision and Project
	agreed.		Manager.
Safety Pre-	Once off at the	Port of Ngqura	Employer, Contractor
Mobilisation	kick-off meeting.		(appropriate key persons),
Meeting.			Supervisor (as necessary and
			appropriate delegates), and
			<i>Project Manager</i> (and
			appropriate delegates).
Safety, Health	Once off	Port of Ngqura	Contractor (appropriate key
and	Induction		persons), Contractor Supervisor
Environment	programme		(as necessary and appropriate
Induction	prior to		delegates), <i>Foreman</i> and
Training.	commencing		General Workforce.
	any work on site		
	and each time		
	for a new start.		

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One (1) x Site investigation—Project site investigation will be an opportunity where the *Contractor* will meet with local authority to discuss design requirements, highlighting current issues and coordinate with the proposed scope of work.

## **5.2 Documentation Control**

The *Contractor* shall submit all documentation complying with the *Employer's* standards and requirements.

- a) The *Employer* will issue relevant documentation to the *Contractor*, but control, maintenance and handling of these documents will be the *Contractor*'s responsibility, at their expense and managed with a suitable document control system.
- b) All project documents issued to 3rd Parties and to the *Employer* must be submitted through the *Employer*'s Document Control Department.
- c) In undertaking the study all documentation requirements for the study shall be dealt with in accordance with document DOC-STD-0001 (*Contractor* Documentation Submittal Requirements).
- d) The Documentation Schedule (CDS) is as contemplated in DOC-STD-0001.
- e) The *Contractor* documentation "Starter kit," as contemplated in DOC-STD-0001, will be issued at the kick-off meeting following award.
- f) All contract correspondence is issued through document control.
- g) Each supplier of documentation and data to the Project is responsible for ensuring that all documentation and data submitted conforms to the Project Standards and data Quality requirements in terms of numbering, uniqueness, quality, accuracy, format, completeness, and currency of information. Data not meeting the Project Standards and

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data Quality requirements will be cause for rejection and returned to the Contractor for corrective action and re-submission.

h) Should any change be made to documentation or data, which has already been

submitted to the Project, then new or revised documentation or data shall be issued to

replace the outdated information.

i) All drawings supplied shall comply with the CAD Standards, i.e., ENG-STD-0001.

j) It is the responsibility of all Project participants undertaking work on the Project to

ensure they obtain and comply with the relevant requirements to suit their deliverables.

k) The *Contractor* is to ensure that the latest versions of the required application software

and a suitable 'IT' Infrastructure are in place to support the electronic transmission of

documentation.

I) All native files are to be submitted to the *Employer*. Electronic files submitted to the

Project shall be clear of known viruses and irrelevant "instructions." The supplier of

documentation is required to always have, the latest generation of virus protection

software and up-to-date virus definitions.

m) The required number of copies shall as a minimum be three (2) (1x original + 1 x hard

copy), with the corresponding PDF and 'Native' file formats upon final submission.

n) The *Contractor* shall apply "wet signatures" to the original Documentation before

scanning the signed original and prior to formal submission.

o) Final issues of all documentation shall be supplied to the Project in "wet signature"

format along with the associated corresponding electronic 'native files and PDF

renditions.

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p) The *Contractor* shall ensure adequate resources are available to manage and execute the Document Control function as per the requirements of the Project.

## **5.3 Health and Safety management**

The Principal Contractor complies with the following Health and Safety requirements, but not limited to:

- Transnet Health and Safety Project Specification
- Occupational Health and Safety Act (Act 85 of 1993) and Regulations.
- Transnet health and safety policies and procedures.
- National Road Traffic Act.

The Principal Contractor ensures that its Contractors comply with the above-mentioned requirements.

The *Employer* will acknowledge the achievement of specific safety milestones set for the project with regards to incident statistics, incident recording, safety observation and conversations (SOC's) participation, safety initiatives, etc.

The Principal Contractor makes the Health and Safety specification available to its employees and Contractors in the language of this contract and other local languages as required.

The Principal Contractor conducts a method statement, risk assessment and safe work procedures pack per activity prior to carrying out that activity on the Site to the approval of the *Project Manager*.

The lines of communication of the various personnel acting on behalf of the *Project Manager*, who communicates directly with the Principal Contractor, and his key persons with respect to the HAS specification, are contained within (Health and Safety Project Specification).

The Principal Contractor shall appoint a full time CHSO per shift, registered with SACPCMP for the duration of the *works*, the number of which depending on the scope, complexity, and high-risk activities involved, as required by the Construction regulations of 2014, regulation 8(5). The Health and Safety Officer(s) must be on site when work commences at the start of the day and must remain on site until all activities for that day (including the activities of Contractors) have been completed.

The CM is responsible, within the context of the HAS project Specification, for health and safety on the site and reports to the *Project Manager*. The CM specific tasks are detailed in the Health and Safety Project Specification

All items of plant, equipment and vehicles travelling within the site shall be equipped with fully operational amber rotating flashing lights. All vehicles shall be roadworthy and shall at all times adhere to all traffic signage and speed limits.

All employees of the Principal Contractor will undergo entry medicals before the

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commencement of the project and thereafter on an annual basis inclusive of exit medicals. Medicals to include drug testing. Medicals to be done by an Occupational Medical Practitioner (OMP).

Trainings as stipulated in the HS project specification will be completed by relevant Principal Contractor employees before the commencement of the project

All will comply with PPE requirements as mentioned in this document as well as Health and Safety Project Specification taking note that only long sleeve pants and shirts are allowed to be worn on site in addition to the compulsory project PPE requirements.

Transportation of employees will not be allowed at the back of LDV's, even those fitted with a canopy.

All permit costs required for any activities relating to the project shall be for the Principal Contractors/Contractors account.

All employees and visitors to undergo daily alcohol testing by a trained person and calibration certificates to be available upon request.

The Principal Contractor shall further comply with all applicable legislative requirements and standards with respect to his own activities and others on the site. A health and safety file to be submitted by the Principal Contractor and all Contractors for acceptance by the Employer or Employers representative before site access can be granted. In addition, sufficient time to be allowed for health and safety file to be approved by TNPA HS Department.

## 5.4 Environmental constraints and management

All work is to be conducted in accordance with the principles of the National Environmental Management Act, 1998 (Act no 107 of 1998) as well as all other applicable legislation, regulations and accepted environmental good practice.

A Construction Environmental Management Programme (CEMPr) has been compiled for the Port of Ngqura which is applicable to this project and is included under Annexure B (Environmental Management Programme).

The CEMPr provides an integrated approach to environmental management. This approach is designed to guide the appropriate allocation of human resources, assign responsibilities, develop procedures, and ensure project compliance with regulatory and best practice requirements. The CEMPr is the minimum acceptable standard for the Project that shall be complied with at all times. The CEMPr requirements shall be applicable to the main Contractor and all its service providers.

The Contractor must sign the declaration of understanding as a commitment to abide with the Project CEMPr and Transnet Environmental Governance Framework. Sufficient environmental budget must be allocated to meet all the project environmental requirements for the duration of the contract.

The Contractor shall perform the Works and all construction activities within the Site and Working Areas having due regard for the environment and environmental management practices as more particularly described within the CEMPr.

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The Contractor must appoint a suitably qualified SHE Officer with a relevant environmental qualification and a minimum of 5 years relevant construction environmental management experience. Note that the SHE Officer will conduct a dual role for Health and Safety and Environmental Officer. The roles and responsibilities of the Contractor's EO are clearly outlined in the CEMPr.

The Contractor will be required to submit an environmental file to TNPA post award of tender. Particular requirements of the Employer will be made known on award of the contract. A Site access certificate shall not be granted until the environmental file has been approved by the Employer.

The overarching obligations of the Contractor in terms of the CEMPr before construction activities commence on the Site and/or Working Areas is to provide environmental method statements for all construction operations at the Site and/or Working Area and were requested by the Construction Manager. The Contractor shall comply with the following:

- The Contractor shall identify the kinds of environmental impacts that will occur as a result of their activities and accordingly prepare separate method statements describing how each of these impacts will be prevented or managed so that the standards set out in the CEMPr are achieved.
- Environmental method statements will be prepared in accordance with the requirements set out in the CEMPr. These method statements shall form part of the environmental file.
- The Contractor shall ensure that his management, foremen and the general workforce, as well as all suppliers and visitors to Site have attended the Environmental Induction Programme prior to commencing any work on Site.
- If new personnel commence work on the Site during construction, the Contractor shall ensure that these personnel undergo the Environmental Induction Programme and are made aware of the environmental specifications on Site.

The Contractor must appoint a waste removal Service Providers as per the TNPA list of waste removal Service Providers (to be provided after contract award).

During the construction period, the Contractor shall comply with the following:

- Upon award the Contractor will receive all the environmental file templates and copies of the project's EA, permits and licences and CEMPr.
- A copy of the project's EA permits and licences where relevant, CEMPr and method statements shall be available on Site, and the Contractor shall ensure that all the personnel on Site (including subcontractors and their staff) as well as suppliers are familiar with and understand the specifications contained in these documents.
- The Contractor must sign a Declaration of understanding (T2.2.38) as part of a returnable acknowledging understanding of the environmental requirements for the Project. Furthermore, sufficient environmental budget must be allocated for the implementation of environmental management requirements.
- Method statements that are required during construction must be submitted to the Project Manager for approval at least 10 days prior to the proposed commencement

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of the activity. Emergency construction activity method statements may also be required. The activities requiring method statements cannot commence if the method statements have not been approved by the Project Manager. The scope of the required method statements for completion by the Contractor shall, as a minimum, include all such items as are listed within the CEMPr.

• Where applicable, the Contractor shall provide job-specific training on an ad hoc basis when workers are engaged in activities, which require method statements.

The Contractor shall ensure that anyone making deliveries to Site is properly informed of all procedures and restrictions, e.g., which access roads to use, no go areas, speed limits, noise, and the like, as required by the relevant project Authorisations and the CEMPr, before they arrive at Site.

# 5.5 Quality assurance requirements

The *Contractor* shall ensure that all contractual deliverables required to be executed and completed are given due consideration to meet the client's Technical Specifications, Drawings and General Quality Requirements for Contractors and Suppliers (QAL-STD-0001).

The *Contractor* shall have, maintain, and demonstrate to the *Employer* the documented Quality Management System to be used in the performance of the scope. The *Contractor* shall institute a quality management system, instruments and equipment required including providing adequate quality supervision and control for always works.

The *Contractor's* Quality Management System shall conform to International Standard ISO 9001:2015.

The *Contractor* submits his Quality Management System documents to the Employer as part of his programme under ECC Clause 31.2 to include details of:

- Project Quality Plan for the contract SHALL cover project scope and be aligned to QAL-STD-0001 General Quality Requirements for Contractors and Suppliers.
- Quality Manual that is aligned to ISO 9001:2015 QMS requirements.
- Project Specific Quality Data Book Index
- Quality Officer with ISO 9001:2015 (Quality Understanding and Implementation Certificate) with a minimum of 3 years' experience in similar projects.

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 Quality Control Plan MUST cover all Engineering disciplines and clearly identify all inspection, test, verification requirements to meet contractual obligations, specification and drawings as required by the project scope.

The *Contractor* develops and maintains a comprehensive register of documents that will be generated throughout the contract including all quality related documents as part of its Quality Plan.

The *Employer* indicates those documents required to be submitted for information, review or acceptance and the *Contractor* indicates such requirements within his register of documents. The register shall indicate the dates of issue of the documents with the *Employer* responding to documents submitted by the *Contractor* for review or acceptance within the period for reply prior to such documents being used by the Contractor.

The Quality Plan shall outline the quality strategy, methodology, quality resource allocation, Quality Assurance and Quality Control co-ordination activities to ensure that the scope meet the standards stated in the Scope Information.

The *Contractor* shall nominate a suitably experienced quality representative for all aspects of the Works, including general Site activities, with a staff complement that is adequate to perform the requirements of the PQP.

The *Contractor* shall submit the CV of his nominated quality representative for the Project Manager's review and approval.

The *Contractor* shall also ensure that all sub-Contractors are suitably qualified and experienced to carry out the work for which they have been sub-contracted.

The *Employer* may, at own discretion, require a Quality Audit of sub-contractor(s) to ensure that the sub-Contractor(s) have the necessary management, facilities, skilled staff, and quality control facilities to carry out the Works to ensure compliance with the Works Information.

The *Contractor* shall accept full responsibility for the quality of his sub-Contractor(s) work and of materials used, irrespective of any quality surveillance that may be caried out by the *Employer* or his representative.

## **5.6 Programming constraints**

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The *Contractor* presents his first programme and all subsequently revised programmes in hard copy format printed in full colour in A3 size and in soft copy 'Native' format.

The Contractor submits his Level 3 programme to the Employer for acceptance in the period stated in the Contract Data.

The *Contractor* uses the latest version of Primavera or Microsoft Project his programme submissions.

The *Contractor* shows on his programme submitted for Acceptance and all subsequently revised programmes schedules showing the critical path or paths and all necessary logic diagrams demonstrating the order and timing of the operations, which the Contractor plans to do to provide the Services.

The *Contractor's* programme shows duration of operations in working days.

The *Contractor's* programme shows the following levels:

a) Level 3 Project Schedule - detailed schedules generated to demonstrate all operations identified on the programme from the starting date to Completion. The Employer notifies any subsequent layouts and corresponding filters on revised programmes.

The Contractor shows on each revised programme he submits to the Employer a resource histogram showing planned progress versus actual, deviations from the Accepted Programme and any remedial actions proposed by the Contractor. The Contractor's weekly programme narrative report includes:

- Level 4 Project Schedule showing two separate bars for each task i.e., the primary bar must reflect the current forecast dates and the secondary bar the latest Accepted programme.
- 3-week Look ahead Schedule showing two separate bars for each task i.e., the primary bar must reflect the current forecast dates and the secondary bar the latest Accepted programme.

## 5.7 Contractor's management, supervision, and key people

The Contractor employs a CSHEO as a key person under ECC Clause 24.1 Minimum requirements of people employed on the Site are:

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 The Contractor shall provide an adequate, experienced, and stable project team for the duration of the contract.

- It is a requirement of this contract that the *Contractor* will employ a full time, fully
  experienced Site Manager as key person who has been delegated sufficient authority
  to manage the contract efficiently on-site during construction.
- The *Contractor* shall employ personnel to perform functions of a Site Environmental officer, Safety Officer, and Quality Manager as key persons. These appointments shall have the necessary experience and be suitably qualified.
- The *Contractor* shall provide an Organogram of ALL his Key people (both as required by the *Employer* and as independently stated by the *Contractor* under Contract Data Part Two) and how.

# 5.8 Insurance provided by the *Employer*

Insurance provided by the *Employer* is contained in the Contract Data – Part 1.

# 5.9 Contracts change management

No additional requirements apply to ECC Clause 60 series.

## 5.10 Provision of bonds and guarantees

The form in which a bond or guarantee required by the conditions of contract (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Contractor* provides a bond or guarantee as required by the conditions of contract concurrently with the execution by the Parties of the form of agreement for the ECC contract.

# **5.11** Records of Defined Cost, payments & assessments of compensation events kept by Contractor

The *Contractor* keeps the following records available for the *Project Manager* to inspect:

• Records of design employee's location of work (if appropriate).

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 Records of Equipment used, and people employed outside the Working Areas (if applicable).

## 5.12 The Contractor's Invoices

When the *Project Manager* certifies payment (see ECC Clause 51.1) following an assessment date, the Contractor complies with the *Employer's* procedure for invoice submission.

The invoice must correspond to the *Project Manager*'s assessment of the amount due to the *Contractor* as stated in the payment certificate.

The invoice states the following:

Invoice addressed to Transnet SOC Ltd.

Transnet SOC Limited's VAT No: 4720103177.

Invoice number.

The Contractor's VAT Number; and

Purchase Order Number and

The Contract numbers

The invoice contains the supporting detail

The invoice is presented either by electronic mail or hand delivery.

Invoices submitted electronically are addressed to:

Invoices submitted by hand are presented to:

Transnet National Ports Authority eMendi Administration Building

Port of Ngqura,

N2, Neptune Road,

Off Klub Road,

Ggeberha

For the attention of

The invoice is presented as an original.

## **5.13 CONTRACTOR LIABILITY**

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The Contractor warrants that it will be liable to Transnet for any loss or damage caused

by strikes, riots, lockouts, or any labour disputes by and/or confined to the Contractor's

employees, which loss will include any indirect or consequential damages.

The *Contractor* warrants that no negotiations or feedback meetings by the *Contractor's* 

employees shall take place on Transnet premises, whether owned or rented by Transnet.

The Contractor shall give notice to Transnet of any industrial action by the Contractor's

employees immediately upon becoming aware of any actual or contemplated action that

is or may be carried out on Transnet's premises, whether owned or rented, and shall

notify Transnet of all matters associated with such action that may potentially affect

Transnet.

The *Contractor* is responsible for educating its employees on relevant provisions of the

Labour Relations Act which deal with industrial action processes, and the risks of non-

compliance.

The Contractor is required to develop a Contingency Strike Handling Plan, which plan the

Contractor is obliged to update on a three-monthly basis. The Contractor must provide

Transnet with this plan and all updates to the Plan. The Contractor is responsible to

communicate with its employees on site details of the plan.

**5.14 INDUSTRIAL ACTION BY CONTRACTOR EMPLOYEES** 

In the event of any industrial action by the *Contractor's* employees, the *Contractor* is

required to provide competent contingency resources permitted in law to carry out any of

the duties that are or could potentially be interrupted by industrial action in delivering the

Service.

The Contractor warrants that it will compensate Transnet for any costs Transnet incurs in

providing additional security to deal with any industrial action by the Contractor's

employees.

In the event of any industrial action by the *Contractor's* employees, the *Contractor* is

obliged to prepare and deliver to Transnet, within two (2) hours of the commencement

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of industrial action an Industrial Action Report. If the industrial action persists the *Contractor* is required to deliver the report at 8h30 each day.

The Industrial Action Report must provide at least the following information:

Industrial incident report,

Attendance register,

Productivity / progress to schedule reports,

Operational contingency plan,

Site security report,

Industrial action intelligence gathered.

The final Industrial Action Report is to be delivered 24 hours after finalisation of the industrial action.

The management of the *Contractor* is required to hold a daily industrial action teleconference with personnel identified by Transnet to discuss the industrial action, settlement of the industrial action, security issues and the impact on delivery under the contract.

The resolution of any disputes or industrial action by the Contractor's employees is the sole responsibility of the *Contractor*.

Access to Transnet premises by the Contractor and its employees is only provided for purposes of the *Contractor* delivering its goods and services to Transnet. Should the Contractor and its employees not, for any reason, be capable of delivering its goods and services, Transnet is entitled to restrict or deny access onto its premises and unless otherwise authorized; such person will be deemed to be trespassing.

# 5.15 Plant, Equipment and Materials

The Contractor provides Plant, Equipment and/or Materials for inclusion in the works in accordance with SANS 1200A sub-paragraph 2.1, unless otherwise stated elsewhere in the Works Information provided by the *Employer*. All Plant, Equipment and/or Materials are new, unless the use of old or refurbished Plant, Equipment and/or Materials are expressly permitted as stated elsewhere in this Works Information or as may be subsequently instructed by the *Project Manager*.

Part C3: The Scope of Work

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TENDER NUMBER: TNPA/2023/02/0009/22520/RFP

DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL,

MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A

PERIOD OF FIVE (5) MONTHS



Where Plant, Equipment and/or Materials for inclusion in the works originate from outside the Republic of South Africa, all such Plant, Equipment and/or Materials are new and of merchantable quality, to a recognised national standard, with all proprietary products installed to manufacturers' instructions.

The *Contractor* replaces any Plant, Equipment and/or Materials subject to breakages (whether in the Working Areas or not) or any Plant, Equipment and/or Materials not conforming to standards or specifications stated and notifies the *Project Manager* and the *Supervisor* on each occasion where replacement is required.

TENDER NUMBER: TNPA/2023/02/0009/22520/RFP

DESCRIPTION OF WORKS: ALTERATIONS AND PARTITIONING OF THE eMENDI BUILDING INCLUDING DESIGN, SUPPLY, INSTALLATION AND COMMISSIONING OF ELECTRICAL, MECHANICAL, CIVIL & STRUCTURAL ENGINEERING WORKS AT THE PORT OF NGQURA FOR A

**TRANSNEF** 

PERIOD OF FIVE (5) MONTHS

## **SECTION 3**

## **ANNEXURES**

Annexure A: Contractor Documentation Submittal Requirements standard DOC-STD-0001

Annexure B: Construction Environmental Management Programme for the Port of Ngqura

Annexure C: Declaration of Understanding (T2.2.38)

Annexure D: Transnet Technical Specifications (Electrical)

Annexure E: List of Architectural Drawings:

XHOE0006-1-100-A-LA-0001-01 - Basement Layout

XHOE0006-1-200-A-LA-0001-01 - Ground Floor Layout

XHOE0006-1-200-A-LA-0002-01 - Ground Floor Layout - East Wing

XHOE0006-1-200-A-LA-0003-01 - Ground Floor Layout - West Wing

XHOE0006-1-300-A-LA-0001-01 - First Floor Layout

XHOE0006-1-400-A-LA-0001-01 - Second Floor layout

XHOE0006-1-500-A-LA-0001-01 - Third Floor Layout

XHOE0006-1-600-A-LA-0001-01 - Fourth Floor Layout

XHOE0006-1-700-A-LA-0001-01 - Recreation Building Alterations

XHOE0006-1-800-A-LA-0001-01 - Covered Walkway

XHOE0006-1-900-A-LA-0001-01 - Office Furniture (open plan) Cabinet Design

Annexure F: XHOE006-ENG-A-SP-0001 Rev 00 - Office Furniture Specification

Annexure G: Health and Safety Specification

Annexure H Health and Safety Cost Breakdown

Annexure I: Health and Safety Contractor's questionnaire