# NALEDI LOCAL MUNICIPALITY TENDER NO. NLM2025-016A

### **REHABILITATION OF HUHUDI SPORT FACILITY: PHASE 2**

### **TENDER DOCUMENT**

### September 2025



**ISSUED BY:** 

### PREPARED BY:



Naledi Local Municipality 19A Market Street Vryburg 8601

Tel: 053 928 2207/2217

Contact Person: Mrs. D Munyai

Email: technicalservices.nlm@gmail.com

**BMH Africa Engineers (Pty) Ltd** 66 Peter Mokaba Street Potchefstroom 2531

Tel: 018 294 5052

E-mail: <a href="mailto:admin.p@bmhconsult.co.za">admin.p@bmhconsult.co.za</a>

Enquiries: D.D Slabbert Tel: 018 294 5052

BIDDER NAME	
TENDER AMOUNT (Incl. VAT)	

BMH Africa Engine	ers				1
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Volume 1:

#### LIST OF CONTRACT DOCUMENTS

The following documents form part of this contract:

The following accounts from pairt of time continuous

The General Conditions of Contract for Construction Works, Third Edition (GCC 2015), published by the South African Institute of Civil Engineers. This publication is available and tenderers must obtain copies at their own cost from the South African Institution of Civil Engineering (SAICE), Private Bag X200, Halfway House 1685, Tel: (011) 805 5947, Fax:

(011) 805 5971, e-mail: civilinfo@saice.org.za

Volume 2: The SANS Standard Specifications for Engineering Construction prepared by the Standards South

Africa. These publications are available and tenderers must obtain copies at their own costfrom

Standards South Africa, Private Bag X191, PRETORIA, 0001.

Volume 3: The Project Document containing the Tender Notice, Conditions of Tender, Tender Data, Returnable Schedules, Form of Offer, General and Particular Conditions of Contract, Pricing

Schedule, Project Specifications, Site Information, and the tender drawings issued by the Employer (See note 1 below). The Employer's Form of Acceptance and any correspondence from the selected Tenderer, performance security-demand guarantee and all addenda issued during the period of

the tender will also form part of this volume once a Tenderer has been appointed.

#### **Notes to Tenderer**

1. Volume 3 is issued at tender stage in paper format.

At contract stage Volume 3 will be a bound signed paper copy containing the following documents:

- Returnable schedules relevant to the project
- Agreements and Contract Data
- Pricing Data
- Scope of Work
- Site Information

#### 2. SUBMISSION OF TENDER - Refer to clause F2 in the Tender Data

Information provided by a Tenderer over and above the above elements of Volume 3 shall be treated as information only and will only be bound into the document if the tenderer notes on Form A4: Schedule of Variations or deviations that the information has a bearing on the tender price.

BMH AFRICA ENG	INEERS				2
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



CONTENTS THE TENDER **PAGE** PART T1: TENDERING PROCEDURES T1.1 Tender Notice and Invitation to Tender.....(WHITE) 5 T1.2 Tender Data.....(PINK) 9 **PART T2: RETURNABLE DOCUMENTS** T2.1 Returnable Schedules required for Tender Evaluation.....(YELLOW) 25 T2.2 Other Documents required for Tender Evaluation ......(YELLOW) 51 T2.3 Returnable Schedules that will be incorporated into the Contract ......(YELLOW) 68 THE CONTRACT PART C1: AGREEMENT AND CONTRACT DATA C1.1 Form of offer and acceptance.....(WHITE) 74 C1.2 Agreement in terms of OHS Act.....(WHITE) 79 Performance Guarantee..... C1.3 (WHITE) 81 C1.4 Contract Data..... (WHITE) 86 PART C2: PRICING DATA C2.1 Pricing Instructions......(YELLOW) 99 C2.2 Bills of Quantities..... (YELLOW) 101 PART C3: SCOPE OF WORK C3.1 Project Specifications..... 135 (BLUE) 142 (BLUE) C3.2 Contract / Standards/Technical Specifications..... Management of the work..... (BLUE) 217 C3.3 Planning and Programming..... (BLUE) 217 C3.4 General Allowance..... (BLUE) 217 C3.5 List of Applicable Specifications..... (BLUE) 224 C3.6 Community Liaison Officer & Local Labour Specifications..... (BLUE) 225 C3.7 Occupational Health & Safety Specifications...... (BLUE) 228 C3.8 **PART C4: SITE INFORMATION** C4.1 Site Information & Locality Plan..... (GREEN) 255 C4.2 Drawings..... (WHITE) 257

BMH AFRICA ENGI	NEERS				3
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



### THE TENDER

### PART T1: TENDERING PROCEDURES

T1.1	TENDER NOTICE AND INVITATION TO TENDER	. 5

BMH AFRICA ENGINEERS 4

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



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

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

THE NALEDI LOCAL MUNICIPALITY INVITES INTERESTED TENDERERS TO BID FOR THE FOLLOWING TENDER:

BID NO	DEPARTMENT	DESCRIPTION	MINIMUM CIDB GRADING	CONTACT PERSON	SITE BRIEFING	AVAILABILITY	CLOSING DATE
NLM2025- 016A	TECHNICAL DEPARTMENT: PMU	REHABILIATION OF HUHUDI SPORTS FACILITY	5CE	D MUNYAI: 053 928 2207/2217	YES	01/10/2025 @ 12H00	29/10/2025 @ 12H00

We adhere to all relevant Acts including the Black Economic Empowerment Act No.53 of 2003, Preferential Procurement Policy Framework Act No.5 of 2000, Employment Equity act No. 55 of 1998.

In terms of Preferential Procurement Regulation of 2011, the Naledi Local Municipality will be applying the 80/20 preference point system.

Broad-Based Black Economic Empowerment (B-BBEE) requires that the bidders submit original and valid B-BBEE Status Level Verification Certificates or certified copies thereof to substantiate their B-BBEE rating claims. A trust, consortium or joint venture must obtain and submit a consolidated B-BBEE Status level Verification Certificate for every separate bid. Failure to do so will result in the Bidder forfeiting the points allocated for B-BBEE. Public entities and tertiary institutions must also submit B-BBEE Status Level Verification Certificates together with their bids.

NB: The Naledi Local Municipality reserves the right to award tenders on the basis of a principle that work shall be fairly or equitably distributed amongst contractors/entities.

#### **COMPULSORY/MANDATORY TENDER REQUIREMENTS:**

Failure to submit the following required documents will render the bidders tender disqualified:

- Fully complete and submit the compulsory MBD documents, i.e. MBD 4, MBD 6, MBD 8 and MBD 9 which
  form part of the tender document.
- · Required CIDB grading of 5CE or higher.
- Bidders must attend the compulsory site briefing as indicated above.
- Founding Statement/ Proof of Registration as a Legal Entity
- Valid Tax Clearance Certificates
- Company Profile CV's, References
- Certified ID Copies of all Directors
- Proof of business address
- Proof of payment of Municipal services for both the business properties and residential properties of Directors
  of the company
- B-BBEE certificated obtained from accredited agencies by SANAS or registered auditors approved by IRBA (Independent Regulatory Board of Auditors) or in case Micro Enterprises, The B-BBEE certificate may be issued by registered Accountant as well

NB: Bidders who are listed on the National Treasury's register of defaulters and restricted suppliers will be automatically disqualified.

BMH AFRICA ENGINEE	RS				5
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### **ADDITIONAL TENDER REQUIREMENTS**

- Valid Tax Clearance (A trust, consortium or joint venture must submit consolidated Tax Clearance or tax clearance of each partner in the trust, consortium or joint venture).
- Company Registration Documents CIPC (Company Intellectual Property Commission).
- Valid B-BBEE Verification Certificate (Failure to submit required B-BBEE certificate will result in the bidder getting zero points).
- Certified ID copies of company members and shareholders. (NB: date of certification must be less than 3
  months old).

Bid documents are available from 07:30 to 13:00 and 13:30 to 16:00 upon payment of **R500-00** (Five Hundred Rand) cash non-refundable document fee, at the cashier, Finance Naledi Local Municipality (Room 21), **Naledi Local Municipality Building**, 19A Market Street, Vryburg, 8601, North West Province.

Bid documents will be made available from 01/10/2025 @ 12H00

Tenderers are advised to ensure that all tender documents are properly bound upon submission on the closing date. Failure to submit all the required pages of the Tender document may result in the tenderer either being disqualified or forfeiting the available points on functionality, depending on the nature of the submission.

Electronic submissions of Tender offers/ bids will NOT be accepted.

Submission of tender offers/ bids by telegraph, telex, telephone, facsimile, or email will NOT be accepted.

If you attempt to submit a tender offer/ bid after the official closing date and time, that offer/ bid will NOT be accepted.

A clearly indexed and numbered tender offer/ bid documents together with all applicable attachments must be deposited into the Tender box at the foyer of Naledi Local Municipality Building, 19A Market Street, Vryburg, by no later than 12h00 on the closing date 29/10/2025

The requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the tender data.

- \* In the event of any conflict between the data provided in this summary and that given in the Bid, the latter shall apply.
- \* Each tender offer communicated on paper shall be submitted as **one (1) original hardcopy**, plus **one (1) electronic scanned PDF copy on a CD** (compact disc)

Naledi Local Municipality reserves the right to cancel or/ not to award this tender to any party.

BMH AFRICA ENGINEE	ERS				6
- Outstand	Milana	Mitara 0	- Familian	Miles	Mitara O
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



\_\_\_\_\_

### **INVITATION TO BID**

MBD 1

# YOU ARE HEREBY INVITED TO BID FOR REQUIREMENTS OF NALEDI LOCAL MUNICIPALITY

BID NUMBER	NLM2025-016A	CLOSING DATE	29/10/2025	CLOSING TIME	12H00
DESCRIPTION	REHABILITATION OF HU	JHUDI SPOR	RT FACILITY: PHASE 2		

The successful bidder will be required to fill in and sign a written Contract Form (MBD 7)

BID DOCUMENTS MAY BE DEPOSITED IN THE BID BOX SITUATED AS INDICATED BELOW:

The Tender Document may be deposited in the tender box which is identified as the tender box of the NALEDI LOCAL MUNICIPALITY in the TENDER BOX in the FOYER OF NALEDI LOCALMUNICIPALITY, 19A MARKET STREET, VRYBURG, 8601

Bidders should ensure that bids are delivered timeously to the correct address. If the bid is late, it will not be accepted for consideration.

ALL BIDS MUST BE SUBMITTED ON THE OFFICIAL FORMS – (NOT TO BE RE-TYPED)

NALEDI LOCAL MUNICIPALITY RESERVES THE RIGHT TO DISQUALIFY BIDDERS FOR DISMANTLING THE TENDER DOCUMENTS THIS BID IS SUBJECT TO THE GENERAL CONDITIONS OF CONTRACT (GCC 2015) AND, IF APPLICABLE, ANY OTHER SPECIAL CONDITIONS OF CONTRACT

BMH AFRICA ENGINEERS 7

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



------

# THE FOLLOWING PARTICULARS MUST BE FURNISHED (FAILURE TO DO SO MAY RESULT IN YOUR BID BEING DISQUALIFIED)

NAME					
OF BIDDER POSTAL					
ADDRESS:					
STREET ADDRESS:					
TELEPHONE	0005				
NUMBER:	CODE:	CODE: NUMBER:			
CELLPH ONE					
FACSIMILE	CODE:	NUMBER:			
NUMBER: VAT REGISTRATION		NONDELL.			
		CATE DEEN CUDMITTED (MDD 2)2	VECALO		
HAS A TAX CLEARA	NCE CERTIFIC	CATE BEEN SUBMITTED (MBD 2)?	YES/NO		
ARE YOU THE ACCE			YES/NO		
IN SOUTH AFRICA F	OR THE GOOL	OS/SERVICES OFFERED BY YOU?	(IF YES ENCLOSE PROOF)		
SIGNATURE OF BID	DER				
DATE					
CAPACITY UNDER V	_				
THIS BID IS SIGNED	)				
	ute and compl	e undersigned (full name of the Tender	ccordance with the Drawings,		
Specifications, Bills of provide all the labour necessary.	ute and comploi	ete the above-mentioned service in a nd condition of contract for the amour orkmanship, machinery plant and eve	ccordance with the Drawings, nt indicated hereunder, and to		
Specifications, Bills of	ute and comploi	ete the above-mentioned service in a	ccordance with the Drawings, nt indicated hereunder, and to		
Specifications, Bills of provide all the labour necessary.	ute and comploi	ete the above-mentioned service in a nd condition of contract for the amour orkmanship, machinery plant and eve	ccordance with the Drawings, nt indicated hereunder, and to		
Specifications, Bills of provide all the labour necessary.  Bid price:	ute and comploi	ete the above-mentioned service in a nd condition of contract for the amour orkmanship, machinery plant and eve	ccordance with the Drawings, nt indicated hereunder, and to		
Specifications, Bills of provide all the labour necessary.  Bid price:  VAT:	ute and comploi	ete the above-mentioned service in and condition of contract for the amour orkmanship, machinery plant and even	ccordance with the Drawings, nt indicated hereunder, and to		
Specifications, Bills of provide all the labour necessary.  Bid price:  VAT:  Total Bid amount:	ute and comploi	ete the above-mentioned service in and condition of contract for the amount orkmanship, machinery plant and even	ccordance with the Drawings, nt indicated hereunder, and to		
Specifications, Bills of provide all the labour necessary.  Bid price:  VAT:  Total Bid amount:  Is your price firm?	ute and comploi	ete the above-mentioned service in and condition of contract for the amount orkmanship, machinery plant and even	ccordance with the Drawings, nt indicated hereunder, and to		
Specifications, Bills of provide all the labour necessary.  Bid price:  VAT:  Total Bid amount:  Is your price firm?  Total tender amount in words	ute and comploi	ete the above-mentioned service in and condition of contract for the amount orkmanship, machinery plant and even	accordance with the Drawings, not indicated hereunder, and to perything that is or may before		
Specifications, Bills of provide all the labour necessary.  Bid price:  VAT:  Total Bid amount:  Is your price firm?  Total tender amount in words	ute and comploi	ete the above-mentioned service in and condition of contract for the amount orkmanship, machinery plant and even	accordance with the Drawings, not indicated hereunder, and to perything that is or may before		



\_\_\_\_\_

### **TENDER DATA**

#### **PART T1: TENDERING PROCEDURES**

T1.2 TENDER DATA	10
------------------	----

BMH AFRICA ENGINEERS 9

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



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

#### T1.2 TENDER DATA

The conditions of tender are the Standard Conditions of Tender as contained in Annex F of the CIDB Standard for Uniformity in Construction Procurement (May 2010) as published in Government Gazette No 33239, Board Notice 86 of 2010 and Annex E of SANS 294:2004

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

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

Sub clause	Data	
F.1	General	
F.1.1	The employ	yer is the Naledi Local Municipality
F.1.2	The Project	ct Document issued by the employer consists of the following:
	THE TEND	DER
	Part T1:	Tendering procedures:
		T1.1 Tender notice and invitation to tender
		T1.2 Tender Data
	Part T2:	Returnable documents: T2.1 Returnable Schedules required for Tender Evaluation T2.2 Other Documents required for Tender Evaluation T2.3 Returnable Schedules that will be incorporated into the contract
	THE CON	TRACT
	Part C1:	Agreements and contract data
		C1.1 Form of Offer and Acceptance, MBD 7.1
		C1.2 Agreement in terms of Occupation Health and Safety Act and
		Construction regulations 2014
		C1.3 Form of Guarantee C1.4 Contract Data
	Part 2:	Pricing data
		C2.1 Pricing instructions C2.2 Bills
		of quantities
		C2.3 BOQ Summary and Calculation of Tender Sum
	Part C3:	Scope of work
	Part C4:	Site information

BMH AFRICA ENGINEE	ERS				10
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Sub clause Data F.1.4 The employer's agent is: BMH Africa Engineers Address: Name: 66 Peter Mokaba Street Potchefstroom Tel: 018 294 5052 E-mail: admin.p@bmhconsult.co.za Contacts: D.D Slabbert Tel: 018 294 5052 F.1.6.4.3 Right to approach the courts and rights in terms of Promotion of Administrative Justice Act, 3 of 2000 and Promotion of Access to Information Act, 2 of 2000 The sub- clauses above do not influence any affected person's rights to approach the High Court at any time or its rights in terms of the Promotion of Administrative Justice Act and Promotion of Access to Information Act. F.1.8 National Treasury Web Based Central Supplier Database (CSD) Registration Tenderers are required to be registered on the National Treasury Web Based Central Supplier Database (CSD) as a service provider. Tenderers must register as such upon being requested to do so in writing and within the period contained in such a request, failing which no orders can be raised or payments processed from the resulting contract. In the case of Joint Venture partnerships this requirement will apply individually to each party of the Joint Venture. Tenderers who wish to register on the National Treasury Web Based Central Supplier Database (CSD) may do so via the web address https://secure.csd.gov.za. It is each tenderer's responsibility to keep all the information on the National Treasury Web BasedCentral Supplier Database (CSD) updated. **F.2** Tenderer's obligations F.2.1 Only those tenderers who are registered with the CIDB or are capable of being so registered within 10 working days from the closing date for submission of tenders, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a 5CE class of construction work, are eligible to submit tenders. Joint ventures are eligible to submit tenders provided that: every member of the joint venture is registered with the CIDB or are capable of being so registered within 10 days from the closing date for tender; the lead partner has a Contractor grading designation in the 5CE class of construction work F.2.7 A compulsory tender clarification meeting will be conducted.

BMH AFRICA EN	GINEE	ERS						11
				1		1		
Contractor		Witness 1	Witness 2	•	Employer	,	Witness 1	Witness 2



Construction Industry Development Board (CIDB) Registration F.2.1.4.1 Only those tenders submitted by tenderers who are registered, or capable of being registered, with an active status with the CIDB, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25 (7A) of the Construction Industry Development Regulations, for a 5CE or Higher class of construction work, will be declared responsive. Tenderers must obtain such active status upon being requested to do so in writing and within the period contained in such a request, failing which their tenders will be declared nonresponsive. F.2.11 The Procurement document as issued shall NOT be taken apart for purpose of submitting the Tender. F.2.12 Alternative Tenders will not be considered. F.2.13.1 Tenderers are to submit one tender only, either as a single tendering entity or as a member of a Joint Venture. F.2.13.3 Each tender offer communicated on paper shall be submitted as one (1) original hardcopy, plus one (1) electronic scanned PDF copy on a CD (compact disc). F.2.13.4 The tender shall be signed by a person duly authorized to do so. Tenders submitted by joint ventures of two or more firms shall be accompanied by the document of formation of the joint venture, in which is defined precisely the conditions under which the joint venture will function, its period of duration, the persons authorized to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning F.2.13.5 The employer's address for delivery of tender offers and identification details to be shown on each tender offer package are: Location of tender box: in the foyer of NALEDI LOCAL MUNICIPALITY, 19A MARKET STREET, VRYBURG, 8601. Identification details: TENDER No. NLM2025-016A: REHABILITATION OF HUHUDI SPORT FACILITY: PHASE 2. F.2.13. & A two-envelope procedure will not be followed. F.3.5 F.2.15 Closing time for submission of tender offers is: 12H00 on 29/10/2025 F.2.16 The tender offer validity period is ninety (90) days. F.2.20 The Tenderer is required to submit with the tender a letter of intent from an approved guarantor undertaking to provide a guarantee in the format included in Part T2.2 of this document.

BMH AFRICA ENGINE	ERS				12	

Employer

Witness 1

Witness 2

Witness 2

Witness 1



F.2.23.1 Evidence of tax compliance Tenderers shall be registered with the South African Revenue Service (SARS) and their tax affairs must be in order and they must be tax compliant. In this regard, it is the responsibility of the Tenderer to submit evidence in the form of a valid Tax Clearance Certificate issued by SARS to the Employer at the Supplier Management Unit located within the Supplier Management / Registration Office, 2nd Floor (Concourse Level), Civic Centre, 12 Hertzog Boulevard, Cape Town (Tel 021 400 9242/3/4/5), or included with this tender. The tenderer must also provide its Tax Compliance Status PIN number on the **Compulsory Enterprise Questionnaire** Each party to a Consortium/Joint Venture shall submit a separate Tax Clearance Certificate. Tenderers are to note that the Employer will not award a contract to a Tenderer whose tax matters are not in order. F.2.23 The Tenderer is required to submit with his tender the following documents: Tax clearance certificate with status PIN JV Agreement and Power of Attorney (if applicable) VAT registration certificate Workmen's Compensation registration certificate (or proof of payment of contribution in terms of the COID Act no. 130 of 1993) Company / cc / Trust / Partnership registration certificate Certified copy of identity document in the case of one-man concerns Project completion certificates. F.3 The Employer's undertakings Opening of tender submissions F.3.4 The time and location for opening of tender offers: Tenders will not be opened in public due to the Covid-19 Regulations. The closing bid prices can however be requested from the SCM Directorate of Naledi Local Municipality, 19A Market Street, Vryburg, 8601. The Employer shall reject a non-responsive tender offer and not allow it to be subsequently made F.3.8.2 responsive by correction or withdrawal of non-conforming deviation or reservation.

BMH AFRICA ENGINE	ERS			13

tractor Witness 1 Witness 2 Employer Witness 1 Witness



#### F.3.11 The procedure for evaluation of responsive tenders is Method 2

The financial offer will be scored using Formula 2 (option 1) where the value of W1 is:

- 90/10 where the financial value inclusive of VAT of all responsive tenders received have a value in excess of R50 million, or
- 2) 80/20 where the financial value inclusive of VAT of one or more responsive tender offers havea value that equals or is between R 500 000 and R50 million.

Financial offers from Tenderers who meet the minimum threshold for functionality will be evaluated.

The Employer adheres to all relevant Acts, including the Black Economic Empowerment Act no. 53 of 2003, Preferential Procurement Policy Framework Act no. 5 of 2000, and Employment Equity Act no. 55of 1998. Tenders shall be awarded on the basis of a principle that work shall be fairly or equitably distributed amongst Contractors/entities that have not been awarded contracts previously.

In terms of Preferential Procurement Regulations of 2011, the 80/20 preference point system is applicable. Broad-Based Black Economic Empowerment (B- BBEE) requires that bidders submit originaland valid B-BBEE Status-Level Verification Certificates or certified copies thereof to substantiate their B-BBEE rating claims. Failure to submit such a certificate will result in the bidder not qualifying for preference points for B-BBEE. The bidders must submit verification certificates that are accredited by

- SANAS (South African National Accreditation System)
- IRBA (Independent Regulatory Board of Auditors)

B-BBEE Status Level of Contributor	Number of Points (80/20 System)
1	20
2	18
3	16
4	10
5	8
6	6
7	4
8	2
Non-compliant contributor	0

Trust, Consortium or Joint Venture must obtain and submit a consolidated B- BBEE Status Level Verification Certificate with their bids

Eligibility for preference points is subject to the following conditions

Tenderer's scorecard shall be based on the Construction Sector Codes of Practice promulgated in Government Gazette 32305 of 5 June 2009;

The certificate shall be in accordance with Government Notice 754 issued by the Naledi LocalMunicipality of Trade and Industry on 23 September 2011 under Government Gazette 34612;

The date of issue of the certificate must be less than 12 (twelve) months prior to the advertised tenderclosing

Failure to submit a valid verification certificate will result in the award of 0 (zero) points for preference; In the event of a joint venture (JV), a consolidated B-BBEE verification certificate in the name of the JVshall be submitted.

A Trust, Consortium or Joint Venture must obtain and submit a consolidated B-BBEE Status Level Verification Certificate with their bids.

BMH AFRICA ENGIN	NEERS				14
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Witness 1 Witness 2 Employer



\_\_\_\_\_

#### **COMPULSORY/MANDATORY TENDER REQUIREMENTS:**

Failure to submit the following required documents will render the bidders tender disqualified:

- Fully complete and submit the compulsory MBD documents, i.e. MBD 4, MBD 6, MBD 8 and MBD 9 which form part of the tender document.
- Required CIDB grading of 5CE or higher.
- Bidders must attend the compulsory site briefing as indicated above.
- Founding Statement/ Proof of Registration as a Legal Entity
- Valid Tax Clearance Certificates
- Company Profile CV's, References
- Certified ID Copies of all Directors
- Proof of business address
- Proof of payment of Municipal services for both the business properties and residential properties of Directors
  of the company
- B-BBEE certificated obtained from accredited agencies by SANAS or registered auditors approved by IRBA (Independent Regulatory Board of Auditors) or in case Micro Enterprises, The B-BBEE certificate may be issued by registered Accountant as well

NB: Bidders who are listed on the National Treasury's register of defaulters and restricted suppliers will be automatically disqualified.

BIMH AFRICA ENGII	NEEKS				15
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



\_\_\_\_\_

### **FUNCTIONALITY CRITERIA**

If the details are not provided in the Returnable Schedules zero "0" points will be awarded for quality criteria and the Bid will be considered to be inexperienced.

Table	A1: PREVIOUS PROJECT EXPERIENCE	NO OF POINTS CONTRACTOR	POINTS AWARDED CONTRACTOR
1	Three (3) Similar projects > R5 million completed successfully (5 points each)	15,0	
2	Four (4) Similar projects > R5 million completed successfully (5 points each)	20,0	
3	Three (3) Similar projects > R7,5 million completed successfully (7,5 points each)	22,5	
4	Four (4) Similar projects > R7,5 million completed successfully (7,5 points each)	30,0	
	SUB-TOTAL:	30	

N.B: BIDDERS TO SUBMIT VALID CONTACT DETAILS OF COMPLETED PROJECTS. NON-SUBMISSION WILL RESULT IN LOSS OF POINTS.

TABL	TARGETED GOALS E A2: FINANCIAL CAPACITY	NO OF POINTS CONTRACTOR	POINTS AWARDED CONTRACTOR
1	Bidder submitted only proof of banking details	2	
2	Bank rating worse than a "C"	5	
3	Bank rating of "C"	7	
4	Bank rating better than a "C"	10	
	SUB-TOTAL:	10	

N.B: BIDDERS TO SUBMIT PROOF, NON-SUBMISSION WILL RESULT IN LOSS OF POINTS.

TABL	E A3: LOCATION TARGETED GOALS	NO OF POINTS CONTRACTOR	POINTS AWARDED CONTRACTOR
1	Bidder located outside North West Province	6	
2	Bidder located inside North West Province	9	
3	Bidder located inside Dr Ruth S Mompati DM area	12	
4	Bidder located inside Naledi LM area	15	
	SUB-TOTAL:	15	

N.B: THE REGISTERED ADDRESS AS PER THE COMPANY REGISTRATION DOCUMENTS CIPC (COMPANY INTELLECTUAL PROPERTY COMMISSION) WILL BE USED, ONLY THE SINGLE HIGHEST POINT ALLOCATION WILL APPLY TO ANY BIDDER.

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 1			Witness 2



#### **TABLE A4: KEY PERSONNEL**

	TARGETED GOALS	NO OF POINTS CONTRACTOR	POINTS AWARDED CONTRACTOR
1	Contract Director / Manager must as a minimum have a BTech Eng. / B Eng.  Degree – Civil and relevant experience in road construction and labour-intensive techniques to qualify for any points –	5	
	> 5 years' experience = 5 points > 3 years' experience = 3 points < 3 years' experience = 2 points	3	
2	Site Agent must as a minimum have a NDip: Engineering – Civil and relevant experience in road construction and labour-intensive techniques to qualify for any points –  > 5 years' experience = 4 points	4	
3	> 3 years' experience = 3 points < 3 years' experience = 1 points		
3	Site Foreman must have relevant experience in road construction and labour- intensive techniques to qualify for any points —  > 5 years' experience = 3 points  > 3 years' experience = 2 points  < 3 years' experience = 1 points	3	
4	Safety Officer must have relevant experience in road construction or similar works to qualify for any points –  > 5 years' experience = 3 points  > 3 years' experience = 2 points  < 3 years' experience = 1 points	3	
	SUB-TOTAL:	15	

N.B: BIDDERS TO SUBMIT CURRICULUM VITAE & CERTIFICATES OF KEY PERSONNEL. NON-SUBMISSION WILL RESULT IN LOSS OF POINTS.

#### **TABLE A5: PLANT AND EQUIPMENT**

	TARGETED GOALS	NO OF POINTS CONTRACTOR	POINTS AWARDED CONTRACTOR
1	1 x Grader	6	
2	1 x Excavator (≥ 20 tons)	4	
3	4 x Tipper Trucks (2 points each)	8	
4	2 x Loaders (Skid steer, Front end or TLB) (2.5 points each)	5	
5	2 x Water Carts	3	
6	1 x Vibrating Rollers (≥ 10 tons)	3	
7	1 x LDV	1	
	SUB-TOTAL:	30	

N.B: BIDDERS TO SUBMIT VEHICLE/EQUIPMENT OWNERSHIP PROOF OR COMMITMENT OF RENTAL. NON-SUBMISSION WILL RESULT IN LOSS OF POINTS.

BMH AFRICA ENGINE	EERS				17
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

<sup>\*</sup> The tenderer will score the full allocated points for vehicles/equipment owned; however, they will only qualify for 50% of the points for rental vehicles/equipment.



### **THE MINIMUM SCORE FOR FUNCTIONALITY IS 70**

For the purpose of comparison and in order to ensure a meaningful evaluation, bidders are requested to furnish detailed information on substantiation of compliance to the evaluation criteria. The service provider should at least score a minimum of 70 points out of the 100 points in order to be considered in the next evaluation phase

#### Bidders should note the following:

- Material should be sourced locally (within South African borders).
- The bidder should include completion certificates.
- Bidders are requested to submit contactable references for verification.
- Where the proposed prices of critical materials to be supplied to the Naledi Local Municipality are considerably
  less than the expected market price or rates, the Naledi Local Municipality reserves the right to verify the
  proposed prices by requesting quotations directly from the supplier(s) cited in the compilation of the bid.
- Naledi Local Municipality reserves the right to conduct site visits and interview officials whose academic and professional qualifications have been submitted for verification.
- Proof of registration on the National Centralized Supplier Database (CSD). Only suppliers who are registered
  on the CSD will be considered for appointment.
- Recommended bidders will be subjected to supplier security screening processes. Only suppliers who obtain security clearance will be considered for appointment.
- Potential suppliers must note that in terms of Naledi Local Municipality policy, the Naledi Local Municipality reserves the right to cancel and blacklist any supplier for a period of at least 12 months if the supplier fails to adequately perform in terms of the awarded contract.
- Prospective bidders should be represented at the compulsory site meeting by suitably qualified and experienced individuals who can fully comprehend the scope and complexities of the work involved.

NB. BIDDERS WHO FAIL TO MEET THE MINIMUM THRESHOLD OF <u>70 POINTS</u> FOR FUNCTIONALITY WILL NOT BE CONSIDERED FOR FURTHER EVALUATION. BIDDERS WHO QUALIFY FOR FUNCTIONALITY WILL BE EVALUATED FURTHER FOR PRICE AND B-BBEE COMPLIANCE ONLY.

#### Note to Bidders:

- Functionality will be scored out of 100 and bidders who fail to meet the minimum threshold of 70 will not be considered for further evaluation.
- Where the tendered amounts of critical materials are considerably less than the expected market rate
  the Employer reserves the right to request quotations from the suppliers used in the compilation of the
  hid.
- Bidders are requested to submit contactable references for verification.
- The Naledi Local Municipality reserves the right to conduct site visits and to interview officials whose Curriculum Vitae have been submitted for verification.
- Bidders who are listed in the National Treasury register of defaulters will automatically be disqualified.
- It is compulsory to complete all applicable MBD forms which are attached as returnable documents.

Tenders will be evaluated for Functionality. Tenderers who qualify for Functionality will be evaluated further for Price and Preference only. Points for Functionality will not contribute to further evaluation. Tenderers who do not qualify will not be evaluated further.

BMH AFRICA ENGINEERS							
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2		



F3.13.1	Tender offers will only be accepted on condition that:
	a) the Tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation;
	b) the Tenderer or any of its directors is not listed in 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;
	c) the Tenderer has not over the last five years failed to satisfactorily perform a contract for the Employer and has been issued with a written notice to this effect, and has not abused the Employer's Supply Chain Management System;
	d) the Tenderer submits an original valid Tax Clearance Certificate issued by the South African Revenue Service;
	e) the Tenderer has completed the compulsory Enterprise Questionnaire and there are no conflicts of interest which may impact on the Tenderer's ability to perform the contract in the best interests of the Employer or potentially compromise the tender process. Persons in the employ of the State are not permitted to submit tenders or participate in the contract;
	f) the Tenderer is registered and in good standing with the Compensation Fund or with a licensed Compensation Insurer; and
	g) the Employer is reasonably satisfied that the Tenderer has, in terms of the Construction Regulations 2014 issued in terms of the OHS Act 1993, the necessary competencies and resources to carry out the works safely.
	h) the Employer is reasonably satisfied that the Tenderer has, in terms of the Construction the tenderer has properly and comprehensively completed the information required in the Project Document and the Addenda, and has, inter alia properly completed the offer in the "Form of Offer and Acceptance" and the Bill of Quantities.
F.3.17	The number of paper copies of signed contract to be provided by the Engineer is one (1).
F.4	Additional Conditions of Tender

BMH AFRICA ENGINE	ERS				19
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Witness 2



### F.4.1 Compliance with Occupational Health and Safety Act, 85 of 1993 Tenderers are to note the requirements of the Occupational Health and Safety Act, 85 of 1993

Tenderers are to note the requirements of the Occupational Health and Safety Act, 85 of 1993 and the Construction Regulations, 2014 issued in terms of Section 43 of the Act. The Tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the Tenderer shall submit with his tender, appended to Schedule: Health and Safety Plan in Returnable Schedules, a Health and Safety Plan in respect of the Works in sufficient detail to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act, Regulations and Health and Safety Specification in Part C3.5 Management in the Scope of Work. Such Health and Safety Plan shall cover, *inter alia*, the following details:

- a) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- b) Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
- c) Health and safety method statements and procedures (inclusive of PPE requirements) to be adhered to in order to ensure compliance with the Act, Regulations and the project specific Health and Safety Specification.
- d) Regular monitoring procedures to be performed.
- e) Regular liaison, consultation and review meetings with all parties.
- f) Site security, welfare facilities and first aid.
- g) Site rules and fire and emergency procedures.

### F.4.2 Claims arising after submission of tender

No claim for any extras arising out of any doubt or obscurity as to the true intent and meaning of anything shown on the Contract Drawings or contained in the Conditions of Contract, Scope of Work and Pricing Data, will be admitted by the Employer after the submission of any tender and the Tenderer shall be deemed to have:

- a) Inspected the Contract Drawings and read and fully understood the Conditions of Contract.
- b) Read and fully understood the whole text of the Scope of Work and Pricing Data and thoroughly acquainted himself with the nature of the works proposed and generally of all matters which may influence the Contract.
- c) Visited the site of the proposed works, carefully examined existing conditions, the means of access to the site, the conditions under which the work is to be done, and acquainted himself with any limitations or restrictions that may be imposed by the Municipal or other Authorities in regard to access and transport of materials, plant and equipment to and from the site and made the necessary provisions for any additional costs involved thereby.
- d) Requested the Employer or his duly authorised agent to make clear the actual requirements of anything shown on the Contract Drawings or anything contained in the Scope of Work and Pricing Data, the exact meaning or interpretation of which is not clearly intelligible to the Tenderer.
- e) Received any Addenda to the tender documents which have been issued in accordance with the Employer's Supply Chain Management Policy.

Before submission of any tender, the Tenderer should check the number of pages, and if any are found to be missing or duplicated, or the figures or writing indistinct, or if the Pricing Data contain any obvious errors, the Tenderer must apply to the Employer's agent at once to have the same rectified, as no liability will be admitted by the Employer in respect of errors in any tender due to the foregoing.

BMH AFRICA ENGINEERS 20

Contractor Witness 1 Witness 2 Employer Witness



Imbalance in tendered rates F.4.3 In the event of tendered rates or lump sums being declared by the Employer to be unacceptable to it because they are not priced, either excessively low or high, or not in proper balance with other rates or lump sums, the Tenderer may be required to produce evidence and advance arguments in support of the tendered rates or lump sums objected to. If, after submission of such evidence and any further evidence requested, the Employer is still not satisfied with the tendered rates or lump sums objected to, it may request the tenderer to amend these rates and lump sums along the lines indicated by it. The Tenderer will then have the option to alter and/or amend the rates and lump sums objected to and such other related amounts as are agreed on by the Employer, but this shall be done without altering the tender offer as tendered or, if applicable, the corrected total of prices in accordance with F.3.9.3. Should the Tenderer fail to amend his tender in a manner acceptable to and within the time stated by the Employer, the Employer may reject the tender. F.4.4 Targeted labour It is a requirement of the Contract that the work be executed in such a manner as to maximize the use of labour-intensive construction methods in order to provide low and semi-skilled and unskilled employment opportunities F.4.6 Community liaison officer It is a requirement of the Contract that a Community Liaison Officer (CLO) shall be appointed by the Contractor. The primary functions of the CLO shall be to assist the contractor with the selection and recruitment of targeted local labour, to represent the local community in matters concerning the use of targeted local labour (and/or enterprises) on the works, and to assist with and facilitate communication between the Contractor, the Engineer and the local communities. The Community Liaison Officer (CLO) will be selected by the Ward Councilor and the Contractor. An amount of R 6000.00 per month is provisionally allowed for the Community Liaison Officer (CLO) in the schedule of quantities together with an extra-over item for the Contractor's cost, profit, etc. The Contractor must pay the Community Liaison Officer (CLO) at the end of each month and includethe amount in his progress claim for payment Invalid tenders F.4.7 Tenders shall be considered invalid by the Bid Evaluation Committee if: the tender offer (including the tender price/amount) is not submitted on the Form of Offer and b) the returnable document is not completed in non-erasable handwritten, or printed, ink or toner: the Form of Offer and Acceptance has not been signed with an original signature; c) the Form of Offer and Acceptance is signed, but the name of the tenderer is not stated or is d) indecipherable: In a two-envelope system, the tenderer fails to submit a separately sealed financial offer. e) F.4.8 **Negotiations with preferred tenderers** The Employer may negotiate the final terms of a contract with tenderers identified through a competitive tendering process as preferred tenderer provided that such negotiation: does not allow any preferred tenderer a second or unfair opportunity; b) is not to the detriment of any other tenderer; and c) does not lead to a higher price than the tender as submitted. If negotiations fail to result in acceptable contract terms, the Employer may terminate the negotiations and invite the next ranked tenderer for negotiations. The original preferred tenderer will be informed of the reasons for termination of the negotiations. Once negotiations are commenced with the next ranked tenderer, the Employer will not re-open earlier negotiations. Minutes of any such negotiations shall be kept for record purposes.

BMH AFRICA ENGINEERS								
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2			

Employer



F.4.9	General supply chain management conditions applicable to tenders In terms of its Supply Chain Management Policy, the Employer may not consider a tender unless the provider who submitted the tender:  a) has furnished the Employer with that provider's:  i) full name;  ii) identification number or company or other registration number; and  iii) tax reference number and VAT registration number, if any.  b) has indicated whether:  i) the provider is in the service of the state, or has been in the service of the state in the previous twelve months;  ii) if the provider is not a natural person, whether any of the directors, managers, principal shareholders or stakeholders is in the service of the state, or has been in the service of the state in the previous twelve months; or
	<ul> <li>iii) whether a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to above is in the service of the state, or has been in the service of the state in the previous twelve months.</li> <li>c) has attended a compulsory site inspection, where applicable.</li> </ul>
	Irrespective of the procurement process followed, the Employer is prohibited from making an award to:  d) a person who is in the service of the state; e) a juristic entity of which any director, manager, principal shareholder or stakeholder is in the service of the state; f) an advisor or consultant contracted with the Employer; or g) a person, advisor or corporate entity involved with the bid specification committee, or a director of such corporate entity. "Involved with the bid specification committee" includes where a person, advisor or corporate entity (or its director) was involved in the initial stages of the project which resulted in the specification; and they are therefore prohibited from tendering for resulting contracts.
	In this regard, tenderers shall complete Returnable Schedules: Compulsory Enterprise Questionnaire. Failure to complete this schedule may result in the tender not being considered.
F.4.10	Combating abuse of the Supply Chain Management Policy In terms of its Supply Chain Management Policy, the Employer may reject the tender of any tenderer if that tenderer or any of its directors has:  a) failed to pay municipal rates and taxes or municipal service charges and such rates, taxes and charges are in arrears for more than three months:  b) failed, during the last five years, to perform satisfactorily on a previous contract with the Employer or any other organ of state after written notice was given to that tenderer that performance was unsatisfactory; c) abused the supply chain management system of the Employer or has committed any improper conduct in relation to this system; d) been convicted of fraud or corruption during the past five years; e) willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or f) been listed with the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act, 12 of 2004 or has been listed on National Treasury's Database of Restricted Suppliers as a person or juristic entity prohibited from doing business with the public sector.  In this regard, tenderers shall complete Returnable Schedules: Certificate of Independent Tender Determination and Declaration of Tenderer's past Supply Chain Management Practices, respectively. Failure to complete these schedules may result in the tender not being considered
F.4.11	UIF payments  The Tenderer shall submit to the Employer a letter from the Industrial Council indicating his or her good standing with regard to UIF payments upon being requested to do so.

BMH AFRICA ENGINEERS							
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2		

Witness 2



4.12	Requests for contract documents, or parts thereof, in electronic format
	The Employer shall not formally issue tender documents in electronic format as contemplated in
	F.2.13.2 and F.2.13.3 and shall only issue tender documents in hardcopy. An electronic version
	of the issued tender documents may be made available to the tenderer, upon written request in

n n terms of this clause, subject to the following:

- Electronic copies of the issued tender documents, or parts thereof, will only be provided to tenderers who have been issued with the tender documents as contemplated in F.1.2 in
- b) The electronic version shall not be regarded as a substitute for the issued tender documents.
- The Employer shall not accept tenders submitted in electronic format. Only those tenders that c) have been completed on the issued hard copy tender document shall be considered, provided that printed Bills of Quantities, in the same format (that is, layout, billed items and quantities) as those issued electronically by the Employer, may be submitted with the tender as stated in F.2.13.2. Where Addenda have been issued which amend the Bills of Quantities, then the printed Bills of Quantities shall take these into account. The pages of the issued Bills of Quantities should not be removed from the tender document.
- The Employer accepts no responsibility or liability arising from any reliance on or use of the electronic version provided in terms of this clause. The Employer further does not guarantee that the electronic version corresponds with the issued tender documents in all respects. Tenderers are alerted to the fact that electronic versions of the tender documents may not reflect any notices or addenda that amend the tender document.
- Any non-compliance with these provisions, including effecting any unauthorized alterations to the tender documents as contemplated in F.2.11, shall render the tender non-responsive. The Employer reserves the right to take any action against such tenderer allowed in law including, in circumstances where the tender had already been awarded, the right to cancel the contract.
- f) In requesting the electronic version of the tender documents or parts thereof, the tenderer is deemed to have read, understood and accepted all of the above conditions.

BMH AFRICA ENGINEERS							23		

Witness 1 Witness 2 Witness 1 Contractor Employer



PART	T2: LIST OF RETURNABLE DOCUMENTS	Page
T2.1	RETURNABLE SCHEDULES FOR TENDER EVALUATION	25
T2.2	OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION	51
T2.3	RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT	68

BMH AFRICA ENGINE	EERS				24
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Witness 1 Witness 1 Contractor Witness 2 Employer



T2.1 Returnable schedule for tender

T2.1 A	CERTIFICATE OF AUTHORITY	26
T2.1 B	SCHEDULE OF PROPOSED SUBCONTRACTORS	29
T2.1 C	SCHEDULE OF PLANT AND EQUIPMENT	30
T2.1 D	SCHEDULE OF THE TENDERER'S RECENTLY COMPLETED AND CURRENT PROJECTS	
T2.1 E	RECORD OF ADDENDA TO TENDER DOCUMENTS	32
T2.1 F	DEVIATIONS OR QUALIFICATIONS BY THE TENDERER	33
T2.1 G	PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2011	34
T2.1 H	DECLARATION FOR MUNICIPAL SERVICES AND PAYMENTS TO SERVICE PROVIDER	41
T2.1 I	CONFIRMATION OF CSD DATABASE REGISTRATION	42
T2.1 J	QUALITY MANAGEMENT QUESTIONNAIRE	43
T2.1 K	OCCUPATIONAL HEALTH AND SAFETY QUESTIONNAIRE	44
T2.1.L	KEY PERSONNEL	47
T2 1 M	COMPLIESORY ENTERPRISE OLIESTIONNAIRE	48

BMH AFRICA ENGINEERS 25

Witness 1 Witness 2

Contractor

Employer

Witness 1

Witness 2



T2.1 A CERTIFICATE OF AUTHORITY

Indicate the status of the tenderer by ticking the appropriate box hereunder. The tenderer mu	ıst
produce the certificate on his letterhead using the template below and attach to his bid.	

А	В	С	D	E
Company	Partnership	Joint Venture	Sole Proprietor	Close Corporation

	Certificate for comp	any								
	I,		, chairperson o	of the board of dire	ectors of					
			, hereby confi	rm that by resoluti	on of the board					
	(copy attached) taker	n on	.20, Mr/Mrs		acting in the					
	capacity of		,w	as authorized to s	ign all documents					
	in connection with this tender and any contract resulting from it on behalf of the company.									
	As witness									
	1									
	2		Dit							
	Date  Certificate of partnership									
	We, the undersigned	. being the kev pa	rtners in the busine	ess trading as						
	We, the undersigned, being the key partners in the business trading as									
	hereby authorized Mr/Mrs, acting in the capacity									
	-		to sign all documents in connection with the tender fo							
	Contract		-							
	on our behalf.			and any contra	act resulting from					
	NAME	ADDRI	ESS	SIGNATURE	DATE					
_										

BMH AFRICA ENGI	INEERS				26
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



C.

**Certificate for Joint Venture** 

			ments in connection with the tender					
			and any other contract resulting from it					
	on our behalf.							
	This authorization is evider authorized signatories of a		r of attorney signed by legally /enture.					
	NAME OF FIRM	ADDRESS	AUTHORISING SIGNATURE, NAME & CAPACITY					
	Lead partner							
٠.	Certificate for sole propri	etor						
	I,, hereby confirm that I am the sole owner of the							
	business trading as							
	A - NAVita							
	As Witness:							
	4							
	1Signature: Sole owner							
	Signature: Sole owner 2							
	Signature: Sole owner  2  Certificate for Close Corp	ooration	Date					
	Signature: Sole owner  2  Certificate for Close Corp  We, the undersigned, being	<b>poration</b> g the key members in the b	Date usiness trading					
	Signature: Sole owner  2  Certificate for Close Corp  We, the undersigned, being as	ooration g the key members in the bhereby authorize	Date usiness trading					
	Signature: Sole owner  2  Certificate for Close Corp  We, the undersigned, being as  Mr/Mrs	poration  g the key members in the bhereby authorize	Date usiness trading					
	Signature: Sole owner  2  Certificate for Close Corp  We, the undersigned, being as  Mr/Mrs  Acting in the capacity of	poration  g the key members in the bhereby authorize	Date susiness trading, to sign all documents					
-	Signature: Sole owner  2  Certificate for Close Corp  We, the undersigned, being as  Mr/Mrs  Acting in the capacity of  in connection with the tenders	oration  g the key members in the bhereby authorize	Date usiness trading					
-	Signature: Sole owner  2  Certificate for Close Corp  We, the undersigned, being as  Mr/Mrs  Acting in the capacity of	oration  g the key members in the bhereby authorize	Date susiness trading, to sign all documents					
	Signature: Sole owner  2  Certificate for Close Corp  We, the undersigned, being as  Mr/Mrs  Acting in the capacity of  in connection with the tenders	oration  g the key members in the bhereby authorize	Date susiness trading, to sign all documents					
	Signature: Sole owner  2  Certificate for Close Corp  We, the undersigned, being as  Mr/Mrs  Acting in the capacity of  in connection with the tenders	oration  g the key members in the bhereby authorize	Date susiness trading, to sign all documents					



NAME	ADDRESS	SIGNATURE	DATE

NOTE: This certificate is to be complete and signed by all the key members upon whom rests the direction of the affairs of the Close Corporation as a whole

BMH AFRICA ENGIN	EERS				28
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



T2.1 B SCHEDULE OF PROPOSED SUBCONTRACTORS OTHER THAN LOCAL SMME'S

## Tenderers are referred to Clause 3.3 of the Scope of Works for the minimum Procurement requirements for subcontractors

We notify you that it is our intention to employ the following subcontractors for work in this contract.

If we are awarded a contract, we agree that this notification does not change the requirement for us to submit the name of proposed subcontractors in accordance with requirements in the contract for such appointments. If there are no such requirements in the contract, then your written acceptance of this list shall be binding between us

betv	veen us.		
	Name and address of proposed Subcontractor	Company Registration No & CIDB Classification	Description of Work to be executed by Subcontractor
1.			
2.			
3.			
4.			
5.			
6.			
7.			
	Signed	Date	
	Name	Position	
	Tenderer		

BMH AFRICA EN	GINE	ERS				29	

actor Witness 1 Witness 2 Employer Witness 1



\_\_\_\_\_

#### T2.1 C SCHEDULE OF PLANT AND EQUIPMENT

The following are lists of major items of relevant equipment that I/we presently own or lease and will have available for this contract or will acquire or hire for this contract is my/our tender is accepted.

Quantity	Description, size, capacity, etc.
Attach additional pages if more space is require	∍d.
(h) Details of maries a main mark that will be	him do no no notice de familie a contra a le constant de contra de
b) Details of major equipment that will be acceptable	hired, or acquired for this contract if my/our tender is
,	
Quantity	Description, size, capacity, etc.
Attach additional pages if more space is require	ed
Signed	
- 9	Date
Name	
	Position
-	
Tenderer	



# T2.1 D SCHEDULE OF THE TENDERER'S RECENTLY COMPLETED AND CURRENT PROJECTS

The following is a statement of similar work successfully executed or currently being executed by myself/ourselves in the last five years:

Employer, contact person and telephone number	Consulting Engineer: contact person & tel. no.	Description of project	Value of work Inclusive of VAT (R million)	Contract period (months)	Date completed/ date of expected completion*
ttach additional pag	es if more space is	s required			
Signed			Date		
lame			Position		
enderer					

BMH AFRICA ENGINEERS					3
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



T2.1 E RECORD OF ADDENDA TO TENDER DOCUMENTS

Name.....

We confirm 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 tender offer:

	Date	Title	of Details		
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
Attach additional pages if more space is required.					
Sign	Signed				

Tenderer.....

BMH AFRICA ENGINEERS 32

Witness 2

Employer Witness 1 Witne

Position.....



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

#### T2.1 F DEVIATIONS OR QUALIFICATIONS BY THE TENDERER

**Note:** Tenderers will be declared to be non-responsive should any proposed deviation or qualification, save for where alternative tender offers are permitted in terms of the Tender Data, in the employer's opinion:

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

PAGE		DESCRIPTION		
Signed		. Date		
Name				
Tenderer				

BMH AFRICA ENGINEERS					3
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



# T2.1 G PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2011 (MBD 6.1)

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

NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2011.

#### 1. GENERAL CONDITIONS

- 1.1 The following preference point systems are applicable to all bids:
  - the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
  - the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).
- 1.2 The value of this bid is estimated to exceed/ R1 000 000 (all applicable taxes included) and therefore the...80/20...system shall be applicable.
- 1.3 Preference points for this bid shall be awarded for:
  - (a) Price; and
  - (b) B-BBEE Status Level of Contribution.
- 1.3.1 The maximum points for this bid are allocated as follows:

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

- Failure on the part of a bidder to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or a Registered Auditor approved by the Independent Regulatory Board of Auditors (IRBA) or an Accounting Officer as contemplated in the Close Corporation Act (CCA) 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.

BMH AFRICA ENGINEERS					34
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2. **DEFINITIONS**

2..1 **"all applicable taxes"** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;

- 2.2 **"B-BBEE"** means broad-based black economic empowerment as defined in section 1 of the Broad -Based Black Economic Empowerment Act;
- 2.3 **"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;
- 2.4 **"bid"** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- 2.5 **"Broad-Based Black Economic Empowerment Act"** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- 2.6 **"comparative price"** means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;
- 2.7 "consortium or joint venture" means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract;
- 2.8 "contract" means the agreement that results from the acceptance of a bid by an organ of state;
- 2.9 "EME" means any enterprise with an annual total revenue of R5 million or less.
- 2.10 **"Firm price"** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- 2.11 **"functionality"** means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- 2.12 "non-firm prices" means all prices other than "firm" prices;
- 2.13 **"person"** includes a juristic person;
- 2.14 **"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;
- 2.15 "sub-contract" means the primary contractor's assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract;

BMH AFRICA ENGINEERS					35
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



"total revenue" bears the same meaning assigned to this expression in the Codes of Good 2.16

> Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the Government Gazette on 9

February 2007;

2.17 "trust" means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and

2.18 "trustee" means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

#### 3. ADJUDICATION USING A POINT SYSTEM

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

#### POINTS AWARDED FOR PRICE 4.

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

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

80/20 90/10

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right)$$
 or  $Ps = 90\left(1 - \frac{Pt - P\min}{P\min}\right)$ 

Where

Points scored for comparative price of bid under consideration Ps

Pt Comparative price of bid under consideration Pmin = Comparative price of lowest acceptable bid

36 BMH AFRICA ENGINEERS

Contractor Witness 2 Employer

Witness 1

Witness 2



## 5. Points awarded for B-BBEE Status Level of Contribution

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

B-BBEE Status Level of Contributor	Number of points (90/10 system)	Number of points (80/20 system)
1	10	20
2	9	18
3	8	16
4	5	12
5	4	8
6	3	6
7	2	4
8	1	2
Non-compliant contributor	0	0

- 5.2 Bidders who qualify as EMEs in terms of the B-BBEE Act must submit a certificate issued by an Accounting Officer as contemplated in the CCA or a Verification Agency accredited by SANAS or a Registered Auditor. Registered auditors do not need to meet the prerequisite for IRBA's approval for the purpose of conducting verification and issuing EMEs with B-BBEE Status Level Certificates.
- 5.3 Bidders other than EMEs must submit their original and valid B-BBEE status level verification certificate or a certified copy thereof, substantiating their B-BBEE rating issued by a Registered Auditor approved by IRBA or a Verification Agency accredited by SANAS.
- 5.4 A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- 5.5 A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.
- 5.6 Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice
- 5.7 A person will not be awarded points for B-BBEE status level if it is indicated in the bid documents that such a bidder intends sub-contracting more than 25% of the value of the contract to any other enterprise that does not qualify for at least the points that such a bidder qualifies for, unless the intended sub- is an EME that has the capability and ability to execute the sub-contract.

BMH AFRICA ENGIN	EERS				37
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



\_\_\_\_\_

5.8 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. 6. **BID DECLARATION** Bidders who claim points in respect of B-BBEE Status Level of Contribution must complete 6.1 the following: B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 7. 1.3.1.2 AND 5.1 B-BBEE Status Level of Contribution: = ..... (maximum of 10 or 20 points) 7.1 (Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 5.1 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or a Registered Auditor approved by IRBA or an Accounting Officer as contemplated in the CCA). 8 SUB-CONTRACTING 8.1 Will any portion of the contract be sub-contracted? YES / NO (delete which is not applicable) If yes, indicate: 8.1.1 what percentage of the contract will be subcontracted?.....% the name of the sub-contractor? (iii) the B-BBEE status level of the sub-contractor? (iv) whether the sub-contractor is an EME? YES / NO (delete which is not applicable) 9 **DECLARATION WITH REGARD TO COMPANY/FIRM** 9.1 Name of company/firm 9.2 VAT registration number 9.3 Company registration number 9.4 TYPE OF COMPANY/ FIRM Partnership/Joint Venture / Consortium One-person business/sole propriety Close corporation Company (Pty) Ltd [TICK APPLICABLE BOX]

BMH AFRICA ENGIN	EERS				38
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



9.5	ESCRIBE PRINCIPAL BUSINESS ACTIVITIES
9.6	OMPANY CLASSIFICATION
	☐ Manufacturer
	<ul><li>☐ Supplier</li><li>☐ Professional service provider</li></ul>
	Other service providers, e.g. transporter, etc.
	TICK APPLICABLE BOX]
9.7	otal number of years the company/firm has been in business?
9.8	we, the undersigned, who is / are duly authorized to do so on behalf of the ompany/firm, certify that the points claimed, based on the B-BBE status level of ontribution indicated in paragraph 7 of the foregoing certificate, qualifies the company/ firm or the preference(s) shown and I / we acknowledge that:
	The information furnished is true and correct;
	) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form.
	i) In the event of a contract being awarded as a result of points claimed as shown in paragraph 7, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
	If the B-BBEE status level of contribution has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
	<ul> <li>(a) disqualify the person from the bidding process;</li> <li>(b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;</li> <li>(c) cancel the contract and claim any damages which it has suffered as a result of having to make less favorable arrangements due to such cancellation;</li> <li>(d) restrict the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, from obtaining business from any organ of state for a period not exceeding 10 years, after the</li> </ul>
	audi alteram partem (hear the other side) rule has been applied; and  (e) forward the matter for criminal prosecution

BMH AF	RICA ENGINE	ERS							39	
Cont	actor	Witness 1	J	Witness 2	J	Employer	ı	Witness 1	Witness 2	





BMH AFRICA ENGINE	ERS				40
	Me.	Miles		Mi	Mir
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



### T2.1 H CERTIFICATE FOR MUNICIPAL SERVICES AND PAYMENTS TO SERVICE PROVIDER

The purpose of this form is to obtain proof that municipal services, rates and taxes of the service provider are not more than three months in arrears with the relevant municipality / landlord in the municipal area where the service provider conduct his / her business. This form is to be completed only if the service provider's rates and taxes are not in arrears for more than three months. Bidders to attach a copy of the latest rate and taxes account of the relevant local authority not older than three months.

PART A - to be completed by the relevant municipality in the case where the service provider is the registered owner of the site/ owner pays for municipal services / tenant pays for municipal services. The tenderer to attach a copy of the latest rate and taxes account of the relevant local authority not older than three months.

PART B - to be completed by the landlord in the case where the service provider is renting the premises / rental paid by tenant include municipal services. The tenderer to attach a landlord copy of the latest rate and taxes account of the relevant local authority not older than three months.

lame of the Municipality:			
Property Physical Address:	:		
Registers Name:			
Signature:		Municipality	Stamp Here
Date:	<del></del>		
	ompany/owner/directors in arrears for more th		
Rates and taxes:	Up-to date/ in arrears for more than		
Nater:	Up-to date/ in arrears for more than		
Electricity:	Up-to date/ in arrears for more than		
Refuse:	Up-to date/ in arrears for more than		
Other services:	Up-to date/ in arrears for more than	1 3 months	
•	TED BY THE LANDLORD)		
Name of the Landlord:			
Property Physical Address:			
Landlord Signature:			
Deter		l an alland'a busin assantana	m I I ama
Date:	Lin to data/in arrage for more than	Landlord's business stam	p Here
Rental: Municipal Services:	Up-to date/ in arrears for more than Up-to date/ in arrears for more than		
nameipai eei viees.	Op-to date/ in arrears for more than	1 0 111011113	
ertify that the information	(full name in block letters) on furnished on this declaration form i		e undersigned, have no undisput
ommitments for municipa overdue for more than 3	on furnished on this declaration form i al services towards a municipality or othe 0 days or 3 (three) months.	s correct and that I/we	have no undisput
ommitments for municipa	on furnished on this declaration form i al services towards a municipality or othe 0 days or 3 (three) months.	s correct and that I/we	have no undisput
ommitments for municipa overdue for more than 30 Signature	on furnished on this declaration form i al services towards a municipality or othe 0 days or 3 (three) months.	s correct and that I/we r service provider in resp	have no undisput
ommitments for municipal overdue for more than 30 Signature  HUS DONE AND SIGNED	on furnished on this declaration form in all services towards a municipality or othe to days or 3 (three) months.  The services towards a municipality or othe to days or 3 (three) months.	s correct and that I/we r service provider in resp	have no undisput
ommitments for municipals overdue for more than 30 Signature  HUS DONE AND SIGNED	on furnished on this declaration form in all services towards a municipality or othe to days or 3 (three) months.  for and on behalf of the Tenderer/Contractor	s correct and that I/we r service provider in resp	have no undispute ect of which payme
ommitments for municipal overdue for more than 30 Signature  HUS DONE AND SIGNED	on furnished on this declaration form in all services towards a municipality or othe to days or 3 (three) months.  The services towards a municipality or othe to days or 3 (three) months.	s correct and that I/we r service provider in resp	have no undispu
Signature HUS DONE AND SIGNED (PLACE) Ven if the requested inform	for and on behalf of the Tenderer/Contractor  on the contractor contractor on the contractor contract	s correct and that I/we r service provider in resp	have no undisput sect of which paymo
Signature HUS DONE AND SIGNED (PLACE)	for and on behalf of the Tenderer/Contractor  on the Tenderer on the Contractor  on the Contractor  on the	s correct and that I/we r service provider in resp	have no undisput sect of which paymo
Signature HUS DONE AND SIGNED (PLACE)  ven if the requested inform	for and on behalf of the Tenderer/Contractor  on the contractor contractor on the contractor contract	s correct and that I/we r service provider in resp	have no undisput sect of which paymo
Signature HUS DONE AND SIGNED (PLACE)  ven if the requested inform	for and on behalf of the Tenderer/Contractor  on the contractor contractor on the contractor contract	s correct and that I/we r service provider in resp	have no undisput sect of which paymo
Signature HUS DONE AND SIGNED (PLACE) ren if the requested information and THIS Discontinuous and THIS Discontinuo	for and on behalf of the Tenderer/Contractor  on the contractor contractor on the contractor contract	s correct and that I/we r service provider in resp	have no undisput sect of which paymo
Signature Signature HUS DONE AND SIGNED (PLACE) ren if the requested information Applicable and THIS Di	for and on behalf of the Tenderer/Contractor  on the contractor contractor on the contractor contract	s correct and that I/we r service provider in resp	have no undisput sect of which paymo
Signature HUS DONE AND SIGNED (PLACE)  ven if the requested inform	for and on behalf of the Tenderer/Contractor  on the contractor contractor on the contractor contract	s correct and that I/we r service provider in resp	have no undisput sect of which paymo



## T2.1 I CONFIRMATION OF CSD DATABASE REGISTRATION

CENTRAL SUPPLIER DATABASE FOR GOVERNMENT					
COMPANY NAME	REGISTERED YES/NO	REGISTRATION NUMBER IF APPLICABLE			

Tenderers who are not registered on the **CSD Database** are not precluded from submitting tenders, but must however be registered prior to the evaluation of tenders in order for their tenders to be responsive (the evaluation of tenders takes place when the Employer's Bid Evaluation Committee meets to make a final recommendation to the Bid Adjudication Committee).

In this regard it is the sole responsibility of tenderers to ensure that this requirement is complied with. In the case of Joint Venture Partnerships this requirement will apply to each party to the Joint Venture.

Signed	
	Date
Name	
Trainio	Position
	1 0311011
•	
Tenderer	

BMH AFRICA ENGIN	EERS				4:
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Contractor

## T2.1 J QUALITY MANAGEMENT QUESTIONNAIRE

1.	Does the Tenderer have a Quality Control Plan in p	olace?		
			YES	NO
	If "yes", tenderer to supply and attach generic conf	trol plan.	I	I
2.	Does the Tenderer have a Project Plan in place?			
	, , , , , , , , , , , , , , , , , , ,		YES	NO
	If "yes", tenderer to supply and attach Gantt Chart	of construction programn	ne.	
	case of Joint Venture Partnerships, at least the Lea ging the project must submit proof of his quality mar		ponsib	e for
Signo	ed	Date		
Nam	e	Position		
Tend	erer			
BMH AFRICA	ENGINEERS			43
	<u> </u>			

Employer



......

## T2.1 K OCCUPATIONAL HEALTH AND SAFETY QUESTIONNAIRE AND SAFETY PLAN

1.	Does your company have an updated copy of the Occupational Health and Safety Act and the relevant Regulations, (Act 85, of 1993) readily available?	YES/NO
2.	Have you and your supervisors received any training on the requirements of the Act and the relevant regulations?	YES/NO
	If YES, please provide proof.	Attach Proof
3.	Are you, your supervisors and permanent employees aware, informed, instructed or trained in your respective legal liabilities with regard to Occupational Health and Safety Legal Liabilities?	YES/NO
	If YES, please provide explanatory proof.	Attach information
4.	How do you ensure that the requirements of the Occupational Health and Safety Act are complied with by yourself and every person in your employment?	
	Provide an overview	Attach information
5.	Have you identified as far as reasonably practical all Health and Safety hazards and assessed all associated risks related to your activities and work environment?	YES/NO
	If YES, please provide evidence.	Attach information
6.	If YES, how and what reasonably practical steps do you take to eliminate or mitigate the hazards and associated risks identified? How do you provide and maintain Health and Safety in your work environment for your employees and persons other than those in your employment that may be directly affected by your activities?	Attach information
7.	Do you provide for and maintain systems of work, plant and machinery that, as far as is reasonably practical, are safe and without risk to health?	YES/NO
	If so, what are they? Please provide evidence	Attach information
8.	Do you have a clearly defined scope of authority for your organization, including all supervisors and employees?	YES/NO
	If YES, please provide a copy of the latest valid organogram and scope of authority (Submit proof).	Attach information
9.	Do you have a first aid and emergency procedure or standard and trained first aid employees?	YES/NO
	If YES, please provide evidence	Attach information
10.	Do you provide your employees with personal protective equipment and facilities?	YES/NO
	If yes, please attach a list of PPE per occupation	Attach information

BMH AFRICA ENGINE	ERS				44
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Do you assess the OH&S Performance of any potential subcontractor? YES/NO If YES provide a copy of a sub-contractor assessment. Attach information 12. Who is responsible and accountable for the Occupational Health and Safety of your employees and those persons other than your Attach information employees that may be affected by your activities? 13 Please list three (3) recent similar projects and references with regard to your company's safety performance? Attach information 14. Please advise us of the following with regard to your company's current Workers Compensation Policy: Attach information -Name of insurer: -Policy Number: -Insurance premium as a percentage of payroll: -Attach a letter of good standing from your insurer. 15. Are records of your Workers Compensation premiums over the last year available to us upon request? YES/NO Attach information 16. Does your company have a Safety, Health & Environmental (SHE) YES/NO policy? Attach information If YES, please provide an overview. 17. Does your company have a recognized/auditable Health and Safety management system? YES/NO If YES, please provide an overview. Attach information 18. Do you have active Health and Safety Representatives & Committees in place for each project? YES/NO If YES, please provide copies of the latest minutes. Attach information 19. Does your company conduct: YES/NO a) Annual medical examinations? YES/NO b) Entry and exit medical examinations? Attach information 20. Does your company keep records for the measurement of Health and Safety performance? YES/NO If YES, what indicators are used for this performance Attach information measurement? Please provide copies of the Health and Safety incident Attach information register (synopsis) for the past 12-month period. (Refer Annexure A). Provide the number of employees per month as well as the number of man-hours worked per month for the last 12 Attach information months. (Refer Annexure B). 21. Does your company set Health and Safety targets and objectives? YES/NO If so, what are they for the current year and indicate how they Attach information compare with the previous year

BMH AFRICA ENGIN	EERS				45
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



22. Has your Health and Safety system been assessed/ audited by an independent party? YES/NO If YES, please provide a copy of the latest valid assessment/audit for a construction site. (Submit proof). 23. Does your company employ permanent Health and Safety Officers YES/NO and or a health and Safety Manager/Coordinator? 24. Does your company carry out training for personnel in Health and YES/NO Safety related issues pertaining to your area of capability? Attach information If YES, please attach the Health and Safety training requirements for all job categories. 25. Does executive management attend health and Safety meetings and carry out executive management safety audits? YES/NO Was a health risk assessment done to identify and evaluate health 26. risks due to the potential exposure in conducting their work? YES/NO

Tenderers are to note the requirements of the Occupational Health and Safety Act No. 85 of 1993 and the Construction Regulations 2014 issued in terms of Section 43 of the Act. The tenderer shall be deemed to have read and fully understood the requirements of the above Act and Regulations and to have allowed for all costs in compliance therewith.

In this regard the tenderer shall prepare and attach a Health and Safety Plan in respect of the Works in order to demonstrate the necessary competencies and resources to perform the construction work all in accordance with the Act and Regulations. Such Health and Safety Plan shall cover inter-alia the following details:

- (1) Management Structure, Site Supervision and Responsible Persons including a succession plan.
- (2) Contractor's induction training programme for employees, sub-contractors and visitors to the Site.
- (3) Health and safety precautions and procedures to be adhered to in order to ensure compliance with the Act, Regulations and Safety Specifications.
- (4) Regular monitoring procedures to be performed.
- (5) Regular liaison, consultation and review meetings with all parties.
- (6) Site security, welfare facilities and first aid.
- (7) Site rules and fire and emergency procedures.

Tenderers are to note that the Contractor is required to ensure that all sub-contractors or others engaged in the performance of the contract also comply with the above requirements.

The tenderer shall also take into account the additional requirements stated in the Scope of Work when drawing up the Health and Safety Plan for the contract.

Details of the Health and Safety Plan shall be appended to this Schedule.

#### Agreement:

I declare that all information provided in the health and safety selection criteria questionnaire and safety plan, are accurate and true. I do realize that the information given by me will be verified and false information will lead to automatic disqualification.

	Signed			Date			
	Name			Posi	tion		
	Tenderer						
BMH A	AFRICA ENGINEE	RS					46
Cor	ntractor	Witness 1	Witness 2	Employ	/er	Witness 1	Witness 2



**T2.1 KEY PERSONNEL** 

In terms of the Project Specification and the Conditions of Tender, unskilled workers may only be brought in from outside the local community if such personnel are not available locally.

The Tenderer shall list below the personnel which he intends to utilize on the Works, including key personnel which may have to be brought in from outside if not available locally.

Category of employee		Number of persons				
		Personnel, part of the Contractor's organization		Personnel to be contracted if not available within the employ of the company		
# Site Agent					····· <b>y</b>	
# Foremen / Supervisor						
# Safety officer						
Technicians, surveyors, etc.						
Artisans and other skilled wo	rkers					
Plant operators						
Unskilled workers						
Notes: The categories mar	ked are	Key Personnel		I		
DIRECTOR / MANAGER	I NAM	IE:		NOE	EVEI	
DIRECTOR / WANAGER	INAIV	IE	·····	NQF I		
<b>CONTRACT &amp; CLIENT</b>	NA	TURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED	
					1 30	
SITE AGENT	+	E:	POSITION	VALUE OF	EVEL	
CONTRACT & CLIENT	NA	TURE OF WORK	HELD	WORK	COMPLETE	
FOREMAN / SUPERVISOR	NAM	E:		NQF L	EVEL	
FOREMAN / SUPERVISOR	NAM	E:				
FOREMAN / SUPERVISOR  CONTRACT & CLIENT		E:	POSITION HELD	VALUE OF WORK	YEAR	
			POSITION	VALUE OF		
	NA		POSITION HELD	VALUE OF WORK	YEAR COMPLETED	
CONTRACT & CLIENT	NAT	TURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED	
CONTRACT & CLIENT  SAFETY OFFICER	NAT	TURE OF WORK	POSITION HELD	VALUE OF WORK  NQF L	YEAR COMPLETED	
CONTRACT & CLIENT  SAFETY OFFICER	NAM NAM	TURE OF WORK	POSITION HELD  POSITION HELD	VALUE OF WORK  NQF L	YEAR COMPLETED  EVEL  YEAR COMPLETED	
SAFETY OFFICER CONTRACT & CLIENT	NAM NAM	TURE OF WORK  TURE OF WORK	POSITION HELD  POSITION HELD	VALUE OF WORK  NQF L  VALUE OF WORK	YEAR COMPLETED  EVEL  YEAR COMPLETED	

Witness 2

Employer

Witness 2



\_\_\_\_

## T2.1 M COMPULSORY ENTERPRISE QUESTIONNAIRE

	non 1. Name of enter	prise:		
Sect	tion 2: VAT registrati	on number, if any:		
Sect	tion 3: CIDB registrat	tion number, if any:		
Sect	tion 4: Particulars of	sole proprietors and partners	n partnerships:	
Na	me*	Identity no.*	Personal i	ncome tax no.*
		-		
* C	complete only if sole p	roprietor or partnership and attac	n separate page if mo	ore than 3 partners
Clos	e corporation number:			
	•			
Taxı	reference number:			
Tax i	reference number:	vice of the State:		director manager
Tax i <b>Sect</b> Indic	reference number: tion 6: Record of ser cate by marking with a		 ner in a partnership o	•
Tax i Sect Indic	reference number:  tion 6: Record of ser  cate by marking with a  cipal shareholder or sta	vice of the State: cross, if any sole proprietor, part	 ner in a partnership o	•
Fax I	reference number:  tion 6: Record of ser  cate by marking with a  cipal shareholder or sta	vice of the State: cross, if any sole proprietor, part akeholder in a company or close of any of the following:	 ner in a partnership o	•
Sectindic oring the later	reference number:  tion 6: Record of serente by marking with a sipal shareholder or state ast 12 months in the state armember of any marking with a member of any marking state.	vice of the State: cross, if any sole proprietor, part akeholder in a company or close of any of the following:	 ner in a partnership o	•
Fax indicate or in	reference number:  tion 6: Record of servate by marking with a cipal shareholder or state ast 12 months in the state as member of any manufacture a member of any part a member of the National states.	vice of the State:  cross, if any sole proprietor, part akeholder in a company or close of service of any of the following: nunicipal council rovincial legislature ational Assembly or the National	er in a partnership of orporation is currently	-
Tax I	reference number:  tion 6: Record of serence by marking with a cipal shareholder or state ast 12 months in the serence a member of any manufacture a member of the National member of the book a member of the book a member of the book at the serence and the serence	vice of the State:  cross, if any sole proprietor, part akeholder in a company or close of service of any of the following: nunicipal council rovincial legislature ational Assembly or the National pard of directors of any municipa	er in a partnership of orporation is currently	-
Section of the latest	reference number:  tion 6: Record of serence by marking with a sipal shareholder or state ast 12 months in the serence a member of any manual member of the National and a member of the both an official of any member of any member of the both and serence and serenc	vice of the State: cross, if any sole proprietor, part akeholder in a company or close of service of any of the following: nunicipal council rovincial legislature ational Assembly or the National pard of directors of any municipal unicipality or municipal entity	 ner in a partnership or orporation is currently Council of Provinces entity	y or has been within
Section of the latest terms of the latest term	reference number:  tion 6: Record of serence by marking with a sipal shareholder or state ast 12 months in the serence a member of any man member of the National and a member of the both an official of any man employee of any employee of an	vice of the State:  cross, if any sole proprietor, part akeholder in a company or close of service of any of the following: nunicipal council rovincial legislature ational Assembly or the National bard of directors of any municipa	ner in a partnership or orporation is currently Council of Provinces entity ality, national or prov	y or has been within
Tax i <b>Sect</b> Indic	reference number:  tion 6: Record of servate by marking with a cipal shareholder or state ast 12 months in the state ast 12 months in the state and a member of any properties and a member of the National and a member of the both an official of any member of the both and a member of the bot	vice of the State: cross, if any sole proprietor, part akeholder in a company or close of service of any of the following: nunicipal council rovincial legislature ational Assembly or the National pard of directors of any municipal unicipality or municipal entity y provincial Naledi Local Municip	mer in a partnership or orporation is currently Council of Provinces entity  ality, national or provublic Finance Manag	y or has been within vincial public entity o ement Act, 1999 (A
Tax I	reference number:  tion 6: Record of servate by marking with a cipal shareholder or state ast 12 months in the state ast 12 months in the state and a member of any man member of the National and an employee of any constitutional institutional institutional and an employee of any man employee of any constitutional institutional institutional and employee of Paragraphics in the constitutional institutional and employee of Paragraphics in the constitutional institutional institutional and employee of Paragraphics in the constitution in t	vice of the State: cross, if any sole proprietor, part akeholder in a company or close of service of any of the following: nunicipal council rovincial legislature ational Assembly or the National bard of directors of any municipal unicipality or municipal entity by provincial Naledi Local Municipal ution within the meaning of the F counting authority of any national	mer in a partnership or orporation is currently Council of Provinces entity  ality, national or provublic Finance Manag	y or has been within vincial public entity o ement Act, 1999 (A
Tax I	reference number:  tion 6: Record of servate by marking with a cipal shareholder or state ast 12 months in the state ast 12 months in the state and a member of any man member of the National and an employee of any constitutional institutional institutional and an employee of any man employee of any constitutional institutional institutional and employee of Paragraphics in the constitutional institutional and employee of Paragraphics in the constitutional institutional institutional and employee of Paragraphics in the constitution in t	vice of the State: cross, if any sole proprietor, part akeholder in a company or close of service of any of the following: nunicipal council rovincial legislature ational Assembly or the National bard of directors of any municipal unicipality or municipal entity y provincial Naledi Local Municipal ution within the meaning of the F	mer in a partnership or orporation is currently Council of Provinces entity  ality, national or provublic Finance Manag	y or has been within vincial public entity o ement Act, 1999 (Ad



Name of sole proprietor, partner,	Name of institution, public office, board or organ of state	Status of service (tick appropriate column)		
director, manager, principal shareholder or stakeholder	and position held	Current	Within last 12 months	

## Section 7: Record of spouses, children and parents in the service of the State

principal shareholder or stakeholder in a company or close corporation is currently or has been within the last 12 months in the service of any of the following:

a member of any municipal council

a member of any provincial legislature

a member of the National Assembly or the National Council of Provinces

a member of the board of directors of any municipal entity

Indicate by marking with a cross, if any sole proprietor, partner in a partnership or director, manager,

□ an official of any municipality or municipal entity
 □ an employee of any provincial Naledi Local Municipality, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act 1 of 1999)

□ a member of an accounting authority of any national or provincial public entity

□ an employee of Parliament or a provincial legislature

BMH AFRICA ENGINEERS

49

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

<sup>\*</sup> Insert separate page if necessary



If any of the above are marked, disclose the following:

Name of spouse, child or parent	Name of institution, public office, board or organ of state and position held	Status of service (tick appropriate column)	
	and position field	Current	Within last
			12 months

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

- authorizes the Employer to obtain a tax clearance certificate from the South African Revenue Service that my/our tax matters are in order;
- confirms that neither the name of the enterprise or the name of any partner, manager, director or other person, who wholly or partially exercises, or may exercise, control of the enterprise appears on the Register of Tender Defaulters established in terms of the Preventing and Combating of Corrupt Activities Act of 2004;
- 3. confirms that no partner, member, director or other person, who wholly or partly exercises, or may exercise, control of the enterprise, has within the last five years been convicted of fraud or corruption;
- 4. 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;
- 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
Tenderer	

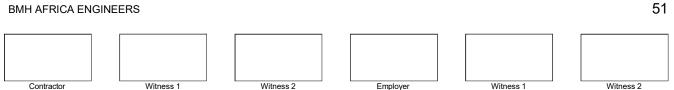
BMH AFRICA ENGINEERS	50
BINITAL MOA ENGINEERO	_
Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2	

<sup>\*</sup> Insert separate page if necessary



## T2.2 OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION

T2.2 A DECLARATION OF GOOD STANDING REGARDING TAX (MBD 2)	52
T2.2 B CONSTRUCTION INDUSTRIES DEVELOPMENT BOARD REGISTRATION	54
T2.2 C COMMISSIONER OF OATH CERTIFICATION	55
T2.2 D DECLARATION OF INTEREST (MBD 4)	56
T2.2 E DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (SDB 8)	59
T2.2 F CERTIFICATE OF INDEPENDENT BID DETERMINATION (MBD 9)	61
T2.2 G FORM OF INTENT TO PROVIDE GUARANTEE	64
T2.2 H LETTER OF INTENT TO PROVIDE INSURANCE	67



Witness 2 Employer Witness 1



## T2.2 A DECLARATION OF GOOD STANDING REGARDING TAX (MBD 2)

	JTH AFRICAN REVENUE SERVICES	Tender No:
		Closing Date:
	DECLARATION OF GOOD STANDI	
	PARTICULARS	
1. 2.	Name of Taxpayer/Tenderer: Trade Name:	
3.	Identification Number: (If applicable)	
4.	Company / Close Corporation registration number:	
5.	Income Tax reference number:	
6.	VAT registration number: (If applicable)	
7.	PAYE employer's registration number: (If applicable)	
8.	Monetary value of tender:	
	DECLARATIO	N
(ii)	to satisfy them.*	Receiver of Revenue,
		Receiver of Revenue,  DATE
SIGI	to satisfy them.*  NATURE CAPACITY  SASE NOTE:* The declaration (ii) cannot be made unl	DATE  less formal arrangements have been
SIGI PLE with	to satisfy them.*  NATURE CAPACITY  SASE NOTE:* The declaration (ii) cannot be made unled the Receiver of Revenue with regard to any outstandere to complete the above information will result in the lerer to submit an ORIGINAL, COMPLETED FORM FRO	DATE  less formal arrangements have been a  nding revenue/outstanding tax returns  e disqualification of the tender.
SIGI PLE with Failu Tend	to satisfy them.*  NATURE CAPACITY  SASE NOTE:* The declaration (ii) cannot be made unled the Receiver of Revenue with regard to any outstandard to complete the above information will result in the left to submit an ORIGINAL, COMPLETED FORM FROTHS)	DATE  less formal arrangements have been in the second sec
SIGI PLE with Failu (Tend MONT	NATURE CAPACITY  SASE NOTE:* The declaration (ii) cannot be made unled the Receiver of Revenue with regard to any outstandard to complete the above information will result in the letter to submit an ORIGINAL, COMPLETED FORM FROTHS)  Date	DATE  dess formal arrangements have been in the desired standing revenue/outstanding tax returns the desired standing tax returns th
SIGI PLE with Failu (Tend MONT	TASE NOTE:* The declaration (ii) cannot be made unled the Receiver of Revenue with regard to any outstandard to complete the above information will result in the lerer to submit an ORIGINAL, COMPLETED FORM FROUTHS)  Date  Position	DATE  less formal arrangements have been in the design of the tender.  DM SARS NOT OLDER THAN 4
SIGI PLE with Failu (Tend MONT	NATURE CAPACITY  SASE NOTE:* The declaration (ii) cannot be made unled the Receiver of Revenue with regard to any outstandard to complete the above information will result in the letter to submit an ORIGINAL, COMPLETED FORM FROTHS)  Date	DATE  less formal arrangements have been in the design of the tender.  DM SARS NOT OLDER THAN 4
SIGI PLE with Failu (Tend MONT	TASE NOTE:* The declaration (ii) cannot be made unled the Receiver of Revenue with regard to any outstandard to complete the above information will result in the lerer to submit an ORIGINAL, COMPLETED FORM FROUTHS)  Date  Position	DATE  less formal arrangements have been in the design of the tender.  DM SARS NOT OLDER THAN 4
SIGI PLE with Failu (Tend MONT Signed	TASE NOTE:* The declaration (ii) cannot be made unled the Receiver of Revenue with regard to any outstandard to complete the above information will result in the lerer to submit an ORIGINAL, COMPLETED FORM FROUTHS)  Date  Position	DATE  less formal arrangements have been in the design of the tender.  DM SARS NOT OLDER THAN 4
SIGI PLE with Failu (Tend MONT Signed	NATURE CAPACITY  SASE NOTE:* The declaration (ii) cannot be made unled the Receiver of Revenue with regard to any outstandard to complete the above information will result in the letter to submit an ORIGINAL, COMPLETED FORM FROUTHS)  Date  Position	DATE  less formal arrangements have been in the design of the tender.  DM SARS NOT OLDER THAN 4



·····

### TAX CLEARANCE CERTIFICATE REQUIREMENTS

It is a condition of bid that the taxes of the successful bidder <u>must</u> be in order, or that satisfactory arrangements have been made with South African Revenue Service (SARS) to meet the bidder's tax obligations.

1	In order to meet this requirement bidders are required to complete in full the attached form TCC 001
	"Application for a Tax Clearance Certificate" and submit it to any SARS branch office nationally. The Tax
	Clearance Certificate Requirements are also applicable to foreign bidders / individuals who wish to submit
	bids.
2	SARS will then furnish the hidder with a Tay Clearance Certificate that will be valid for a period of 1 (one) year

- SARS will then furnish the bidder with a Tax Clearance Certificate that will be valid for a period of 1 (one) year from the date of approval.
- The original Tax Clearance Certificate must be submitted together with the bid. Failure to submit the original and valid Tax Clearance Certificate will result in the invalidation of the bid. Certified copies of the Tax Clearance Certificate will not be acceptable.
- In bids where Consortia / Joint Ventures / Sub-contractors are involved, each party must submit a separate Tax Clearance Certificate.
- 5 Copies of the TCC 001 "Application for a Tax Clearance Certificate" form are available from any SARS branch office nationally or on the website <a href="www.sars.gov.za">www.sars.gov.za</a>.
- Applications for the Tax Clearance Certificates may also be made via eFiling. In order to use this provision, taxpayers will need to register with SARS as eFilers through the website <a href="www.sars.gov.za">www.sars.gov.za</a>.

Signed	Date
Name	Position
Tenderer	

BMH AFRICA ENGINEERS

53

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



-----

#### T2.2 B CONSTRUCTION INDUSTRIES DEVELOPMENT BOARD REGISTRATION

The tenderer is to affix to this page either:

• Written proof of his registration with the CIDB as a Category 5CE or higher

CIDB REGISTRATION			
REGISTERED YES/NO	CIDB REGISTRATION NUMBER		

#### Note:

- Failure to affix such documentation as prescribed to this page shall result in this tender not being further considered for the award of the contract.
- Should this tender be considered for award of the contract, based on proof of submission of application for registration in the appropriate category with the CIDB, and should proof of such subsequent registration not be forthcoming to the employer by the time of award of the contract, then this tender will no longer be considered for the award of the contract.

Signed	Date
Name	Position
Tenderer	

BMH AFRICA ENGINEERS

54

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



-----

T2.2 C	COMMISSIONER OF OATH CE	OMMISSIONER OF OATH CERTIFICATION		
	SIGNATURE .			
	DULY AUTHORISED TO SIG	SN		
	ON BEHALF OF			
	ADDRESS			
	TELEPHONE No.			
	DATE			
	COMMISSIONER OF OATHS:			
	SIGNATURE:			
	DATE:			
	STAMP:			

## MUST BE DATE STAMPED AND SIGNED BY A COMMISSIONER OF OATHS

BMH AFRICA ENGIN	IEERS				55
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



2.

#### T2.2 D DECLARATION OF INTEREST (MBD 4)

- 1. Any legal person, including persons employed by the state<sup>1</sup>, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes an advertised competitive bid, a limited bid, a proposal or written price quotation). In view of possible allegations of favoritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorized representative declare his/her position in relation to the evaluating/adjudicating authority where-
  - the bidder is employed by the state; and/or
  - the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

In order to give effect to the above, the following questionnaire must be completed and

	submitted with the bid.
2.1	Full Name of bidder or his or her representative:
2.2	Identity Number:
2.3	Position occupied in the Company (director, trustee, shareholder², member):
2.4	Registration number of company, enterprise, close corporation, partnership agreement or trust:
2.5	Tax Reference Number:
2.6	VAT Registration Number:
2.6.1	The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 3 below.
¹"State"	means –
	(a) any national or provincial Naledi Local Municipality, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
	(b) any municipality or municipal entity;
	(c) provincial legislature;
	<ul><li>(d) national Assembly or the national Council of provinces; or</li><li>(e) Parliament.</li></ul>
	(e) Parliament.

BMH AFRICA ENGINEERS 56

Employer

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



2.7	Are you or any person connected with the bidder presently employed by the state?	YES / NO
2.7.1	If so, furnish the following particulars:	
	Name of person / director / trustee / shareholder/ member: Name of state institution at which you or the person connected to the bidder is employed :	
	Position occupied in the state institution:	
	Any other particulars:	
2.7.2	If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector?	YES / NO
2.7.2.1	If yes, did you attach proof of such authority to the bid document?	YES / NO
	(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.	
2.7.2.2	If no, furnish reasons for non-submission of such proof:	
2.8	Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?	YES / NO
2.8.1	If so, furnish particulars:	
2.0	De very an any name and an interest with the hidden base.	VEC / NO
2.9	Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	YES / NO
2.9.1	If so, furnish particulars.	
AFRICA E	NGINEERS	5
ontractor	Witness 1 Witness 2 Employer	Witness 1 Witness 2



2.10	Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between any other bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?			YES/NO
2.10.1	If so, furnish particu	lars.		
2.11	of the company hav	e directors / trustees / s /e any interest in any ot r or not they are bidding		YES/NO
2.11.1	If so, furnish particu	lars:		
3 I	FULL DETAILS OF	DIRECTORS / TRUSTE	EES / MEMBERS / SHAREHO	OLDERS.
Full	Name	Identity Number	Personal Income Tax Reference Number	State Employee Number
			<u> </u>	
	DECLARATION			
4.				
4.	I, THE UNDERSIG	,		
4.	I, THE UNDERSIGN CERTIFY THAT TH CORRECT.	HE INFORMATION FUR	RNISHED IN PARAGRAPHS	2 and 3 ABOVE IS
4.	I, THE UNDERSIGN CERTIFY THAT THE CORRECT. I ACCEPT THAT T	HE INFORMATION FUR		2 and 3 ABOVE IS
4.	I, THE UNDERSIGN CERTIFY THAT THE CORRECT. I ACCEPT THAT TO DECLARATION PR	HE INFORMATION FUR HE STATE MAY REJEC ROVE TO BE FALSE.	RNISHED IN PARAGRAPHS	2 and 3 ABOVE IS
4.	I, THE UNDERSIGN CERTIFY THAT THE CORRECT. I ACCEPT THAT T	HE INFORMATION FUR HE STATE MAY REJEC ROVE TO BE FALSE.	RNISHED IN PARAGRAPHS	2 and 3 ABOVE IS ST ME SHOULD THIS
4.	I, THE UNDERSIGN CERTIFY THAT THE CORRECT. I ACCEPT THAT TO DECLARATION PR	HE INFORMATION FUR HE STATE MAY REJEC ROVE TO BE FALSE.	RNISHED IN PARAGRAPHS	2 and 3 ABOVE IS ST ME SHOULD THIS
4.	I, THE UNDERSIGN CERTIFY THAT THE CORRECT. I ACCEPT THAT TO DECLARATION PR	HE INFORMATION FUR HE STATE MAY REJEC ROVE TO BE FALSE.	RNISHED IN PARAGRAPHS	2 and 3 ABOVE IS ST ME SHOULD THIS
4.	I, THE UNDERSIGN CERTIFY THAT THE CORRECT. I ACCEPT THAT THE DECLARATION PROCESSION OF SIGNATURE	HE INFORMATION FUR HE STATE MAY REJEC ROVE TO BE FALSE.	RNISHED IN PARAGRAPHS CT THE BID OR ACT AGAIN  Date	2 and 3 ABOVE IS ST ME SHOULD THIS
	I, THE UNDERSIGN CERTIFY THAT THE CORRECT. I ACCEPT THAT THE DECLARATION PROCESSION OF SIGNATURE	HE INFORMATION FUR HE STATE MAY REJEC ROVE TO BE FALSE.	RNISHED IN PARAGRAPHS CT THE BID OR ACT AGAIN  Date	2 and 3 ABOVE IS ST ME SHOULD THIS
	I, THE UNDERSIGN CERTIFY THAT THE CORRECT. I ACCEPT THAT THE DECLARATION PROBLEM. Signature Position	HE INFORMATION FUR HE STATE MAY REJEC ROVE TO BE FALSE.	RNISHED IN PARAGRAPHS CT THE BID OR ACT AGAIN  Date	2 and 3 ABOVE IS ST ME SHOULD THIS



\_\_\_\_\_

# T2.2 E DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES (MDB 8)

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

ltem	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?  (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the audi alteram partem rule was applied).  The Database of Restricted Suppliers now resides on the National Treasury's website (www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.	Yes	No
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?  The Register for Tender Defaulters can be accessed on the National	Yes	No 🗆
	Treasury's website ( <u>www.treasury.gov.za</u> ) by clicking on its link at the bottom of the home page.		
4.2.1	If so, furnish particulars:		

BMH AFRICA ENGIN	EERS				59
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



	Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?	Yes	No.
	past live years?		
4.3.1	If so, furnish particulars:		
4.4	Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with	Yes	Nc □
4.4.1	the contract?  If so, furnish particulars:		
	CERTIFICATION		
	INDEDGIONED (EURI MANE)		
I, THE C	JNDERSIGNED (FULL NAME)		
		S TRUE	AND
CERTIF	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I	S TRUE	AND
CERTIF	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I		
CERTIF	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I		
CERTIF CORRE	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I		
CERTIF CORRE	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT. PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA		
CERTIF CORRE	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'  ST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.		
CERTIF CORRE I ACCE AGAINS	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'  ST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.		
CERTIF CORRE I ACCE AGAINS	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'S ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  TO Date	Y BE TA	
CERTIF CORRE I ACCE AGAINS	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'S ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  TO Date	Y BE TA	
CERTIF CORRE I ACCE AGAINS	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'S ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  TO Date	Y BE TA	
CERTIF CORRE I ACCE AGAINS	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'S ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  TO Date	Y BE TA	
CERTIF CORRE I ACCE AGAINS	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'S ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  TO Date	Y BE TA	
CERTIF CORRE I ACCE AGAINS	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'S ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  TO Date	Y BE TA	
CERTIF CORRE I ACCE AGAINS	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'S ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  TO Date	Y BE TA	
CERTIF CORRE I ACCE AGAINS  Signatu	THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'  ST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  THE Date  Name of Bidder	Y BE TA	
CERTIF CORRE I ACCE AGAINS  Signatu	FY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM I ECT.  PT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MA'S ME SHOULD THIS DECLARATION PROVE TO BE FALSE.  TO Date	Y BE TA	



## T2.2 F CERTIFICATE OF INDEPENDENT BID DETERMINATION (MBD 9)

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

<sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

Signed	Date
Name	Position
Tenderer	

BMH AFRICA ENGINE	EERS				61
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

<sup>&</sup>lt;sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.



\_\_\_\_\_

MBD9

#### CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:	
(Bid Number and Description)	
in response to the invitation for the bid made by:	
(Name of Institution)	
do hereby make the following statements that I certify to be true and complete in ev	ery respect:
I certify, on behalf of:	that:
r cordity, on Borian or.	
(Name of Bidder)	

- 1. I have read and I understand the contents of this Certificate;
- 2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
- 3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
- 4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
- 5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - a. has been requested to submit a bid in response to this bid invitation;
  - b. could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - c. provides the same goods and services as the bidder and/or is in the same line of business as the bidder
  - d. 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.
- 6. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - a. prices;
  - b. geographical area where product or service will be rendered (market allocation)
  - c. methods, factors or formulas used to calculate prices;
  - d. the intention or decision to submit or not to submit, a bid;
  - e. the submission of a bid which does not meet the specifications and conditions of the bid; or
  - f. bidding with the intention not to win the bid.
- In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

BMH AFRICA ENGINE	ERS				62
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

<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.



NALEDI LOCAL MUNICIPALITY TENDER
NLM2025-016A
REHABILITATION OF HUHUDI SPORTS FACILITY: PHASE 2

**8.** 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.

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

Signature	Date
Position	 Name of Bidder

BMH AFRICA ENGINEERS

63

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



Contractor

Witness 1

Witness 2

Employer

T2.2 G FORM OF INTENT TO PROVIDE GUARANTEE AND A BANK RATING LETTER

With reference to Clause C3.3 of the contact, The Tenderer must attach hereto a letter from the bank or institution with whom he has made the necessary arrangements, to the effect **that the said bank or institution will be prepared to provide a completed guarantee in the format below, without any amendments** when asked to do so. The Pro-forma below is for the tenderers use

PRO-FORMA	OF A FORM OF G	UARANTEE	
Employer' nan	ne and address:	NALEDI LOCAL MUNICIPALITY 19A MARKET STREET, VRYBURG, 8601	
Contract No:		TENDER No. NLM2025-016A	
At:		VRYBURG	
Contract title:		REHABILITATION OF HUHUDI SPORT FACILI	TY: PHASE 2
PERFORMAN	CE GUARANTEE		
WHEREAS			
(hereinafter re	ferred to as "the Em	nployer") entered into, a contract with	
(hereinafter ca	alled the "the Contra	actor") on theday of	20
•		JHUDI SPORT FACILITY: PHASE 2	
AND WHERE, by way of a gu	uarantee for the due	such Contract that the Contractor shall provide the Ene and faithful fulfillment of such Contract by the Contr	ractor;
AND WHERE, by way of a gu AND WHEREAS_	iarantee for the due	•	ractor;(hereinafter
AND WHERE, by way of a gu AND WHEREAS_	rarantee for the due	e and faithful fulfillment of such Contract by the Contr	ractor;(hereinafter
AND WHERE, by way of a gu AND WHEREAS_ referred to and the second of the	s "the Guarantor"). EFORE WE, and bind ourselves journed der renunciation of the by the Contractor of	e and faithful fulfillment of such Contract by the Contr	hereinafter give such guarantee Do hereby betors to the
AND WHERE AND  WHEREAS_ referred to an NOW THER  guarantee and Employer underformance following cores of the	s "the Guarantor").  EFORE WE,  Ind bind ourselves juder renunciation of by the Contractor additions:  Employer shall, with y manner authorized y modifications, values under the said addiced nor our liability under such Contractors.	e and faithful fulfillment of such Contract by the Contract  Has/have at the request of the Contractor, agreed to bointly and severally as Guarantor and Co-principal Defithe benefits of division and exclusion for the due and	(hereinafter give such guaranteeDo hereby bettors to the d faithful ubject to the perty of action to act ract, and/or to agree mpletion Data of the shall in no way be the Completion Data



\_\_\_\_\_

3.	This quarantee	shall be limited	to the payme	ent of a sum of mone

- 4. The Employer shall be entitled, without reference to us, to release any guarantee held by it, and to give time to or compound or make any other arrangement with the Contractor. However, upon receipt by us of an authenticated copy of the Certificate of Completion in terms of the Contract, the amount of liability shall be reduced by 50%, which shall be in force until the issue of the Final Approval Certificate at expiry of the Defects Liability Period.
- 5. This guarantee shall remain in full force and effect until the issue of the Certificate of Completion in terms of the Contract, unless we are advised in writing by the Employer before the issue of the said Certificate of his intention to institute claims, and the particulars thereof, in which event this guarantee shall remain in full force and effect until all such claims have been paid or liquidated.

	(in words)
R	(in figures)
(10% of the	ender sum) that amount I/we agree to hold at your disposal.
	or reserves the right to withdraw from this guarantee by depositing the Guarant beneficiary, whereupon the Guarantor's liability hereunder shall cease.
guarantor ar	that I/we, on behalf of the Guarantor, waive the legal exceptions available d undertake to pay the said amount or such portion thereof as may be demand on receipt of a written demand from you.
Guarantor's	nder your hand shall be sufficient and satisfactory evidence as to the amount of iability for the purpose of enabling provisional sentence or any similar relief the Guarantor.
	ee is neither negotiable nor transferable, and must be surrendered to the Guara he full amount of the Guarantee being paid to the Employer
I/We hereby	hoose our address for the serving of all notices for all purposes arising here from
I/We hereby	hoose our address for the serving of all notices for all purposes arising here from

BMH AFRICA ENGINEERS

65

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



#### NALEDI LOCAL MUNICIPALITY TENDER NLM2025-016A HABILITATION OF HUHUDI SPORTS FACILITY: PHASE 2:

		REHABILITATION OF HUHUDI SPORTS FACILITY: PHASI
		s at
on this	day of	20
As witnesses:		
1.	Signature	
2.	Signature	
Duly authorized to sign or	n behalf of (Guarantor)	
	Address	



Ι,

Contractor

T2.2 H LETTER OF INTENT TO PROVIDE INSURANCE & INDEMNITY

The Contractor hereby agrees to indemnify, hold harmless and defend Naledi Local Municipality and their officers, employees, agents and representatives, from and against the following liabilities arising as a result of the execution of the work:

- 1.1 Any liability with regard to claims by governmental authority's or others for non-compliance by Contractor of any Act of Parliament law, ordinance, regulation or by-law made by a lawful authority provided that such compliance therewith was required for the execution of the Contract or at Law.
- 1.2 Any liability arising from actual or alleged public or private nuisance arising out of negligent acts or omissions to act of Contractor or its Subcontractors, or of their employees.
- 1.3 Any liability arising from loss or damage to Contractor and/or Subcontractor's equipment and their other property onsite.
- Any liability arising from claims with regard to the death of/or injury or sickness or disease to 1.4 Contractor' employees or the death of/or injury or sickness or disease to third parties.
- Any liability arising from any loss of/or damage to property belonging to a third party. 1.5
- 1.6 Any liability arising from actual or asserted infringement or improper appropriation or use of patents, copyrights, proprietary information or know- how in respect of the work designed by/or under the responsibility of the Contractor.
- 1.7 Any liability arising from the death or injury or loss or damage to property of third parties or Naledi Local Municipality's property as a result of the negligent acts or omissions of contractors or its subcontractor's employees.
- Contractor shall indemnify Naledi Local Municipality against all claims, proceedings, damages and 1.8 costs of whatsoever nature arising out of contravention of environmental legislation.

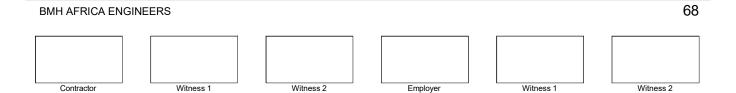
COMPANY:			
ADDRESS:			
TEL:			
CELL:			
Signed	 Date		
lame	 Positio	າ	
- enderer			

Employer



# T2.3 RETURNABLE SCHEDULES THAT WILL BE INCORPORATED IN TO THE CONTRACT

T2.3 A ORGANOGRAM AND CURRICULA VITAE OF KEY PERSONNEL	69
T2.3 B PROJECT PROGRAMME AND METHOD STATEMENT	70
T2.3 C ADDITIONAL DOCUMENTS	71





T2.3 A ORGANOGRAM AND CURRICULA VITAE OF KEY PERSONNEL

The Tenderer shall supply an organogram for the management of the contract and include form below of key personnel according to the format on the following page. These forms shall provide evidence of relevant experience of the key staff in the organogram. The personnel included here shall be used on the project unless otherwise agreed by the Engineer.

DIRECTOR / MANAGER	NAME:		NQF	LEVEL
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR EXPERIENCE
SITE AGENT	NAME:		NQF	LEVEL
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR EXPERIENCE
FOREMAN / SUPERVISOR	NAME:		NQF	LEVEL
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED
SAFETY OFFICER	NAME:		NQF	LEVEL
SAFETY OFFICER CONTRACT & CLIENT	NAME:	POSITION HELD	VALUE OF WORK	YEAR COMPLETED
		POSITION	VALUE OF	YEAR
		POSITION	VALUE OF	YEAR
CONTRACT & CLIENT	NATURE OF WORK	POSITION HELD	VALUE OF	YEAR COMPLETED
CONTRACT & CLIENT  Signed	NATURE OF WORK	POSITION HELD	VALUE OF WORK	YEAR COMPLETED
CONTRACT & CLIENT  Signed	NATURE OF WORK	POSITION HELD  Date	VALUE OF WORK	YEAR COMPLETED
	NATURE OF WORK	POSITION HELD  Date	VALUE OF WORK	YEAR COMPLETED
CONTRACT & CLIENT  Signed  Name  Tenderer	NATURE OF WORK	POSITION HELD  Date	VALUE OF WORK	YEAR COMPLETED



\_\_\_\_\_

#### T2.3 B PROJECT PROGRAMME AND METHOD STATEMENT

Tenderer to supply project programme, using acceptable software, in sufficient detail to cover the various facets of the work.

This programme is to be supported by a method statement indicating the tenderer's proposed work plan for the construction of the works.

This programme shall be in the form of a bar chart (Gantt chart) or similar acceptable time/activity form reflecting the proposed sequence and tempo of the various activities and the quantities that will be carried out every week under each of the elements, comprising the work for this contract. The programme shall also indicate the point where the tenderer intends to commence work operations and the direction in which the work will proceed. The working hours shall be indicated.

The tenderer shall also take into account the additional requirements stated in the Project Specifications when drawing up the programme.

Details of the preliminary programme and method statement shall be submitted with the bid as an annexure.

Signed	Date
Name	Position
Tenderer	

•

BMH AFRICA ENGIN	EERS				70
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### T2.3 C ADDITIONAL SUPPORTING DOCUMENTS

enders	shall attach additional supporting documentation, i	п аррисаріе
1.		
2.		
3.		
Ciere e e	d	Date
		Date
		Position
Tende	rer	

71 BMH AFRICA ENGINEERS Contractor

Witness 2 Employer Witness 1



\_\_\_\_\_

## THE CONTRACT

PART C1 AGREEMENT AND CONTRACT DATA

PART C2 PRICING DATA

PART C3 SCOPE OF WORKS

PART C4 SITE INFORMATION

BMH AFRICA ENGINEERS 72

Contractor Witness 1 Witness 2 Employer Witness 1



\_\_\_\_\_

## PART C1: AGREEMENT AND CONTRACT DATA

C1.1	FORM OF OFFER AND ACCEPTANCE	74
C1.2	AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO. 85 OF 1993) AND CONSTRUCTION REGULATIONS, 2014	81
C1.3	PERFORMANCE GUARANTEE	82
C1.4	CONTRACT DATA	87

BMH AFRICA ENGINEERS 73

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



#### C1.1 FORM OF OFFER AND ACCEPTANCE

#### **OFFER**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract in respect of the following works:

#### **REHABILITATION OF HUHUDI SPORT FACILITY: PHASE 2**

The Tenderer, identified in the Offer signature block below, has examined the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the Tenderer, deemed to be duly authorized, 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 OF	FERED TOTAL OF THE	PRICES INCLUSIV	E OF VALUE ADDI	ED TAX IS	
		Rand (in wo	rds); R	(ir	n figures).
Acceptar validity s	er may be accepted by to nce and returning one co stated in the Tender Data conditions of Contract ider	opy of this docume , whereupon the Te	nt to the Tenderer	before the end of	the period of
For the <sup>-</sup>	Tenderer:		As witness:		
Signatu	ure		Signature		
Name			Name		
Capaci	ity		Date		
 Name ar	nd address of organizatio	n:			
BMH AFRICA EI	NGINEERS				74
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
Join actor					



.....

#### **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 1 Agreements and Contract Data, (which includes this Agreement)

Part 2 Pricing Data

Part 3 Scope of Work.

Part 4 Site Information

and drawings and documents or parts thereof, which may be incorporated by reference into Parts 1 to 4 above.

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 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 Agreement. No amendments to or deviations from said documents are valid unless contained in this Schedule, which must be duly signed by the authorized representative(s) of both parties.

The Tenderer shall within two weeks after 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 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 fulfill any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five 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,

BMH AFRICA ENGINEERS

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



\_\_\_\_\_

For the Employer:	
	As witness:
Signature	Signature
Name	Name
Capacity	Date
Name and address of organization:	

BMH AFRICA ENGINEERS

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



------

#### Schedule of Deviations

#### Notes:

Contractor

Witness 1

- 1. 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,
- A Tenderer's covering letter shall not be included in the final contract document.
   Should any matter in such, letter, which constitutes a deviation as aforesaid become the subject of agreements reached during the process of, offer and acceptance, the outcome of such agreement shall be recorded here,
- Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the contract shall also be recorded here,
- 4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

1	Subject	
	Details	
2	Subject	
	Details	

By the duly authorized representatives signing this Schedule of Deviations, the Employer and the Tenderer agree to and accept the foregoing Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the Tender Schedules, as well as any confirmation, clarification or change to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

BMH AFRICA ENGINEERS	3			77

Employer

Witness 1

Witness 2

Witness 2



Contractor

.....

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 Agreement 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	
Name and address of organization:		Name and address of organization:
	Witness Si	gnature
	Witness Na	ame
	Date	

BMH AFRICA ENGINEERS 78

Employer

Witness 2

Witness 2



C1.2	AGREEMENT IN TERMS OF THE OCCUPATIONAL HEALTH AND SAFETY
	ACT, 1993 (ACT NO. 85 OF 1993) AND CONSTRUCTION REGULATIONS, 2014

O 1.2	ACT, 1993 (	(ACT NO. 85 OF	1993) AND CO	ONSTRU	CTION	REGULA	ATIOI	NS, 2014	ı	
THIS A	AGREEMENT	made at			OI	n this the			day of	
		in the year.		betwe	en <b>NAL</b>	EDI LOCA	L MU	NICIPAL	.ITY,	
(herein	after called "th	ne Employer") on t	the one part, here	ein repres	ented b	ру				
					in	his	С	apacity	as	
					and	delegate	of	the		
					Emplo	oyer				
and										
(herein	after called	"the Principal	Contractor")	of the	other	part, her	ein	represen	ited by	
							in	his capa	icity as	
SPOR1 comple agreed Contra	F FACILITY: Fetion & mainte to certain arractor with the p	loyer is desirous PHASE 2 and has enance of such we angements and pro- provisions of the tion, February 201	s accepted a ten orks and wherea ocedures to be fo Occupational He	der by the as the En ollowed in	e Princi nployer order to	pal Contraction and the Property consured consure cons	ctor for rincipa mpliar	or the cor al Contra nce by the	nstruction, ictor have e Principal	, ;
NOW T	HEREFORE	THIS AGREEMEN	NT WITNESSED	AS FOLL	.OWS:					
1.	•	al Contractor sha this contract.	Ill execute the w	vork in ad	ccordan	ice with the	e con	tract dod	cuments	
2.	_	ent shall hold god								

- notice from the employer or Employer's agent requiring him to commence the execution of the Works, to either:
  - the date of the final certificate issued in terms of clause 6.1 of the General Conditions of a) Contract for Construction Works 2014 (3rd Edition) as issued by the South African Institution of Civil Employer's agenting (hereinafter referred to as "the GCC 2015"),
  - as contained in the contract documents pertaining to this contract, or b)
  - the date of termination of the contract in terms of clauses 9.1, 9.2 or 9.3 of the GCC 2015.
- 3. The Principal Contractor declares himself to be conversant with the following: -
  - All the requirements, regulations and standards of the Occupational Health and Safety Act a) (Act 85 of 1993), hereinafter referred to as "The Act", together with its amendments and with special reference to the following Sections of The Act.
    - i) Section 8: General duties of employers to their employees.

BMH AFRICA ENGINE	ERS				79
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



- ii) Section 9: General duties of employers and self-employed persons to persons other than employees.
- iii) Section 37: Acts or omissions by employees or mandatories and
- iv) Sub-section 37(2) relating to the purpose and meaning of this Agreement.
- v) Construction Regulations February 2014, and other safety regulations, as applicable.
- b) The procedures and safety rules of the employer as pertaining to the Principal Contractor and to all his sub-contractors.
- 4. The Principal Contractor is responsible for the compliance with the Act by all his sub-contractors, whether or not selected and/or approved by the employer.
- 5. The Principal Contractor warrants that all his and his sub-contractors' employees are covered in terms of the Compensation for Occupational Injuries and Diseases Act 1993 which cover shall remain in force whilst any such employees are present on site. A letter of good standing from the Compensation Commissioner to this effect must be produced to the Employer upon signature of the agreement.
- 6. The Principal Contractor undertakes to ensure that he and/or his sub-contractors and/or their respective employees will at all times comply with the following conditions:
  - a) The Principal Contractor shall assume the responsibility in terms of Section 16.1 of the Occupational Health and Safety Act. The Principal Contractor shall not delegate any duty in terms of Section 16.2 of this Act without the prior written approval of the Employer. If the Principal Contractor obtains such approval and delegates any duty in terms of section 16.2 a copy of such written delegation shall immediately be forwarded to the Employer.
  - b) All incidents referred to in the Occupational Health and Safety Act shall be reported by the Principal Contractor to the Naledi Local Municipality of Labour as well as to the Employer. The Employer will further be provided with copies of all written documentation relating to any incident.

In witness thereof, the parties hereto have set their signatures hereon in the presence of the subscribing witnesses:

SIGNED FO	OR AND ON BEHAL	F OF THE EMPLC	YER:		
WITNESS:	1		2		
NAME (IN CAPITA	LS) 1		2		
SIGNED FO	OR AND ON BEHAL	F OF THE CONTR	RACTOR:		
WITNESS:	1		2		
NAME (IN CAPITA	LS) 1		2		
BMH AFRICA ENGI	NEERS				80
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### C1.3 PERFORMANCE GUARANTEE

For use with the General Conditions of Contract for Construction Works, Third Edition, 2014.

<b>GUARANTOR DETAIL</b>	S AND	<b>DEFINITIONS</b>
-------------------------	-------	--------------------

"Guarantor" means:
"Physical" address:
"Employer" means:
"Contractor "means:
"Employer's Agent" means:
"Works" means:
"Site" means:
"Contract" means: The Agreement made in terms of the Form of Offer and Acceptance and such amendments or additions to the Contract as may be agreed in writing between the parties.
"Contract Sum" means: The accepted amount inclusive of tax of R
Amount in words:
"Guaranteed Sum" means: The maximum aggregate amount of R
Amount in words:
Type of Performance Guarantee(Insert Variable or Fixed)
"Expiry Date" means(Give date) or any other later date set by the Contractor and/or Employer provided such instruction is received prior to the Expiry Date as indicated here
CONTRACT DETAILS
Employer's Agent issues: Interim Payment Certificates, Final Payment Certificate and the Certificate of Completion of the Works as defined in the Contract.

BMH AFRICA ENGINEERS 81

Employer

Contractor Witness 1

Witness 2

Witness 1

Witness 2



\_\_\_\_

#### 1. VARIABLE PERFORMANCE GUARANTEE

1.1	Where a Variable Performance Guarantee has been selected, the Guarantor's liability shall be limited during the following periods of diminishing amounts of the Guaranteed Sum as follows:
1.1.1	From and including the date of signing the Performance Guarantee up to and including the date of the interim payment certificate certifying, for the first time, more than 50% of the
	Contract Sum:
	R
	(Amount in words)
1.1.2	From the day following the date of the said interim payment certificate up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, whichever occurs first:
	R
	(Amount in words)
1.2	The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the interim payment certificate certifying, for the first time, more than 50% of the Contract

#### 2. FIXED PERFORMANCE GUARANTEE

issued.

2.1 Where a Fixed Performance Guarantee has been selected, the Guarantor's liability shall be limited to the amount of the Guaranteed Sum.

Sum, has been issued and the date on which the Certificate of Completion of the Works has been

- 2.2 The Guarantor's period of liability shall be from and including the date on which the Performance Guarantee is signed, up to and including the Expiry Date, or the date of issue by the Employer's Agent of the Certificate of Completion of the Works, or the date of payment in full of the Guaranteed Sum, whichever occurs first.
- 2.3 The Employer's Agent and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

BMH AFRICA ENGINE	ERS				82
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 3. CONDITIONS APPLICABLE TO VARIABLE AND FIXED PERFORMANCE GUARANTEES

- 3.1 The Guarantor hereby acknowledges that:
- 3.1.1 Any reference in this Performance Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship;
- 3.1.2 Its obligation under this Performance Guarantee is restricted to the payment of money.
- 3.2 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor hereby undertakes to pay the Employer the sum certified upon receipt of the documents identified in 3.2.1 to 3.2.3:
- 3.2.1 A copy of a first written demand issued by the Employer to the Contractor stating that payment of a sum certified by the Employer's Agent in an Interim or Final Payment Certificate has not been made in terms of the Contract and failing such payment within seven (7) calendar days, the Employer intends to call upon the Guarantor to make payment in terms of 3.2.2;
- 3.2.2 A first written demand issued by the Employer to the Guarantor at the Guarantor's physical address with a copy to the Contractor stating that a period of seven (7) days has elapsed since the first written demand in terms of 3.2.1 and the sum certified has still not been paid;
- 3.2.3 A copy of the aforesaid payment certificate which entitles the Employer to receive payment in terms of the Contract of the sum certified in 3.2.
- 3.3 Subject to the Guarantor's maximum liability referred to in 1.1 or 2.1, the Guarantor undertakes to pay to the Employer the Guaranteed Sum or the full outstanding balance upon receipt of a first written demand from the Employer to the Guarantor at the Guarantor's physical address calling up this Performance Guarantee, such demand stating that:
- 3.3.1 the Contract has been terminated due to the Contractor's default and that this Performance Guarantee is called up in terms of 3.3; or
- 3.3.2 a provisional or final sequestration or liquidation court order has been granted against the Contractor and that the Performance Guarantee is called up in terms of 3.3; and
- 3.3.3 the aforesaid written demand is accompanied by a copy of the notice of termination and/or the provisional/final sequestration and/or the provisional liquidation court order.
- 3.4 It is recorded that the aggregate amount of payments required to be made by the Guarantor in terms of 3.2 and 3.3 shall not exceed the Guarantor's maximum liability in terms of 1.1 or 2.1

BMH AFRICA ENGINE	ERS				83
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Contractor

- 3.5 Where the Guarantor has made payment in terms of 3.3, the Employer shall upon the date of issue of the Final Payment Certificate submit an expense account to the Guarantor showing how all monies received in terms of this Performance Guarantee have been expended and shall refund to the Guarantor any resulting surplus. All monies refunded to the Guarantor in terms of this Performance Guarantee shall bear interest at the prime overdraft rate of the Employer's bank compounded monthly and calculated from the date payment was made by the Guarantor to the Employer until the date of refund.
- Payment by the Guarantor in terms of 3.2 or 3.3 shall be made within seven (7) calendar days upon receipt of the first written demand to the Guarantor.
- 3.7 Payment by the Guarantor in terms of 3.3 will only be made against the return of the original Performance Guarantee by the Employer.
- 3.8 The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Performance Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.
- 3.9 The Guarantor chooses the physical address as stated above for the service of all notices for all purposes in connection herewith.
- 3.10 This Performance Guarantee is neither negotiable nor transferable and shall expire in terms of 1.1.2 or 2.2, where after no claims will be considered by the Guarantor. The original of this Guarantee shall be returned to the Guarantor after it has expired.
- 3.11 This Performance Guarantee, with the required demand notices in terms of 3.2 or 3.3, shall be regarded as a liquid document for the purposes of obtaining acourt order.
- 3.12 Where this Performance Guarantee is issued in the Republic of South Africa the Guarantor hereby consents in terms of Section 45 of the Magistrate's Courts Act No 32 of 1944, as amended, to the jurisdiction of the Magistrate's Court of any district having jurisdiction in terms of Section 28 of the said Act, notwithstanding that the amount of the claim may exceed the jurisdiction of the Magistrate's Court.

BMH AFRICA ENGINEERS 84

Employer

Witness 1

Witness 2

Witness 2



Signed at
Date
Guarantor's signatory (1)
Capacity
Guarantor's signatory (2)
Capacity
Witness signatory (1)
Witness signatory (2)

BMH AFRICA ENGINEERS 85

Contractor Witness 1 Witness 2 Employer

Witness 1

Witness 2



### C1.4 CONTRACT DATA

#### C1.4.1 Conditions of Contract

The Conditions of Contract applicable are the General Conditions of Contract for Construction Works 3<sup>rd</sup> Edition (2014) published by the South African Institution of Civil Employer's agenting, Private Bag X200, Halfway House, 1685.

#### C1.4.2 Contract Specific Data

The following Contract Specific data, referring to the General Condition of Contract for Construction Works, 3<sup>rd</sup> Edition 2014 apply to this contract

#### Section 1: Data provided by the Employer

Clause									
1.1.1.5	The "Commencement date" shall be the date the site is handed over to the Contractor and after the guarantees have been delivered.								
1.1.1.15	The Employer is the NALEDI LOCAL MUNICIPALITY.								
1.1.1.16	The Employer's agent is BMH AFRICA ENGINEERS								
1.2.1	The employer's address for receipt of communication is: Telephone: 053 928 2200 Facsimile: 053 927 3482 Address: Naledi Local Municipality 19A Market Street Vryburg 8601								
1.2.1	The Employer's agent's contact details are as follows:  Telephone: 018 294 5052 e-mail: admin.p@bmhconsult.co.za  Address: 66 Peter Mokaba Street  Potchefstroom 2520								
2.5.1	Cession payments will be considered, but must be approved by the Employer prior to and purchases be made.								
3.1.1	The Employer's agent is required in terms of his appointment with the employer to obtain the following specific approvals from the Employer:  1. Nominating the Engineer's Representative 2. Delegation of Engineer's authority 3. Providing consent for subcontracting part of the contract 4. The issuing of instructions for dealing with fossils 5. The issuing of an instruction to accelerate progress 6. Granting permission to work during non-working times 7. The issuing of further drawings or instructions 8. Suspend the progress of the works. 9. The approval of any extension of time for completion 10. The reduction of apenalty for delay								

BMH AFRICA ENGINEERS							
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2		



\_\_\_\_\_

Clause	
	11. The issuing of a variation order 12. Issuing of instructions to carry out work on a day work basis 13. The determination of additional or reduced costs arising from changes in legislation 14. The agreeing of the adjustment of the sums for general item 15. Authorizing the Contractor to repair and make good excepted risks 16. The giving of a ruling on a contractor's claim 17. The agreeing of an extension to the 28-day period 18. The inclusion of credits in the next payment certificate
3.1.3	The Engineer is required to obtain the specific approval of the Employer in order to authorize any expenditure in excess of the Tender Sum
4.4.3	The <b>minimum Procurement requirements</b> , regarding the portions of the Contract Price to be spent on sub-contractors and labour, are set out in clause C3.3 "Procurement" of the Scope of the Work.
5.1.1	The year-end break commences on 12 December 2025 and ends on 5 January 2026.
5.3	The Works are to be commenced within 14 days of the Commencement Date.
5.5	The Works shall be completed within six (6) months, including the year-end break and special non-working days, as envisaged by the employer.
5.6.1	The Works detail programme is to be delivered within the tender document.
5.8.1	The non-working days are Sundays.
	The special non-working days are: a) Public Holidays
	b) The year-end break traditionally commencing on 15 December and ending the first week of January
5.13.1	The penalty for delay is R4500.00 per calendar day or part thereof plus all the Employer's agent's costs including VAT as invoiced to the Employer for maintaining a presence on the site, from the day after the Due Completion Date up to and including the certified date of Practical Completion.
5.16.3	The latent defect Period is <b>10</b> years after the issue of Final Approval Certificate.
6.2	The <b>Guarantee</b> is to contain the <b>same wording</b> as the document included as the proforma referred to in Clause C1.3 in part C1 of the contract and as per the GCC.
6.2	The amount of the Guarantee is to be 10% of the Contract Price.
6.2 and 8.6	The <b>Performance Guarantee and Insurance</b> are to be delivered within delivered 14 days after the request to do so and the Form of Acceptance will not be signed before receipt of Guarantee that is acceptable to the Employer. Failure to submit the guarantee within the 14 days will lead to the cancellation of the appointment.

BMH AFRICA ENGINE	ERS				87
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Clause 6.10.1.5 The percentage limit on materials not yet built into the Permanent Works is 80%. 6.10.3 The percentage **retention** is **10%** of the work completed (excluding VAT). 6.10.3 The **limit of retention** money is **5%** of the tender sum (excluding VAT) 6.10.4 The first payment certificate will only be processed after the completion of section A: P&G: Item 1.1 & 1.2 in the Bill of Quantities, to the satisfaction of the Employer and/or the Employer's agent. 7.8.1 The **Defects Liability Period** is twelve (12) calendar months after final completion date. The **amount to be included in the sum insured** to cover the value of: 8.6 8.6.1 a) Materials supplied by the employer for incorporation into the works: nil. 8.6.1 b) Professional fees: nil. 8.6.1.2 South African Special Risks Insurance Association (SASRIA) cover must be arranged on motor vehicles, plant, site accommodation, tools and equipment. 8.6.1.3 The **limit of the liability insurance** is equal to the contract amount. 8.6.1.5 The following additional and varied insurances are required: Not applicable. 10.4/10.5/10.6 **Disputes** are to be referred to **Amicable Settlement**. 10.7 Disputes are to be referred for **final settlement** to **arbitration**. T2.1 M The additional Conditions of Contract are: Penalty for failure to comply with labour content and jobs created: Labour Content: C3.3.1.1 Penalty = Tender sum (excluding VAT) x (tenderer labour content % – actual labour content %) BEEE Content: Penalty = Tender sum (excluding VAT) x (tendered BEE content % - actual BEE content Geographical area for labour recruitment: in Vryburg: (Naledi Local Municipality)

BMH AFRICA ENGINEERS								88	}	

ctor Witness 1 Witness 2 Employer Witness 1 Witness 1



Section 2. Da	ata provided by the Contractor
Clause	
1.1.1.9	The <b>contractor</b> is
1.2.1.2	The contractor's address for receipt of communication is:
	Contact Person:
	Telephone: Facsimile:
	e-mail:
	Address:
5.5.1	The Works shall be completed within months as proposed by the contractor
Signed at	
Date	
Capacity .	
Signature	
Witness sig	natory (1)
Nitness sigi	natory (2)

BMH AFRICA ENGINEERS							
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2		

Witness 1 Witness 2



#### C1.4.3 Variations to the General Conditions of Contract

The following amendments of the General Conditions of Contract 2014 apply to this contract. The headings in these Special Conditions of Contract shall not be deemed to be part thereof nor be taken into consideration in the interpretation or construction thereof or of the Contract.

#### 1.1 DEFINITIONS

- 1.1.1.2 "Bill of Quantities" and "Schedule of Quantities" shall have the same meaning.
- **1.1.1.15** "Employer" means the Naledi Local Municipality represented by the Head of the Electrical Naledi Local Municipality and/or such other person or persons duly authorized by the Employer in writing.
- **1.1.1.16** "Employer's agent" means BMH Africa Engineers as represented by a Director, Manager or other person duly authorized thereto by BMH Africa Engineers.

#### 3. EMPLOYER'S AGENT

#### 3.1.2 Employer's agent to consult with contractor and Employer

Replace the word "Employer's agent" in the last sentence with the word "Employer".

3.2.6 Add the following to Sub clause 3.2.6:

"The time limit for referring the matter to the Employer's agent by the Contractor shall be fourteen (14) days after the decision in question was given by the Employer's agent's Representative."

Add the following:

#### "3.2.7 Authority of the Employer

Notwithstanding any provisions to the contrary in the Contract, the Employer shall have the right to reverse and, should he deem it necessary, to amend any certificate, direction, decision or valuation of the Employer's agent and to issue a new one, and such certificate, direction, decision or valuation shall for the purpose of the Contract be deemed to be issued by the Employer's agent, provided that the Contractor shall be remunerated in the normal manner for work executed in good faith in terms of an instruction issued by the Employer's agent and which has subsequently been rescinded."

#### 4. CONTRACTORS' GENERAL OBLIGATIONS

#### 4.1 EXTENT OF OBLIGATIONS AND LIABILITY

Add the following sub clause:

- 4.1.1.1 The Contractor shall, save in so far as it is legally or physically impossible,
- (a) Provide all superintendence, labour, materials, Constructional Plant, Temporary Works, including the design thereof, all requisite transport and all other things, whether of a temporary

BMH AFRICA ENGIN	EERS				90
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



or permanent nature, required in and for such design, execution and completion of the Works

and for the remedying of any defects, so far as the necessity for providing the same is specified in or reasonably to be inferred from the Contract.

(b) After award of the Contract, the Contractor shall be obligated to ensure that at least the Constructional Plant stated on the prescribed form in the Tender Documents, or Constructional Plant equivalent thereto, are on the site when required."

#### "4.1.3 Contractor deemed to have inspected the Site

The Contractor shall be deemed to have inspected and examined the Site and its surroundings and information available in connection therewith and to have satisfied himself before submitting his tender (as far as practicable) as to

- (a) the form and nature of the Site and its surroundings, including subsurface conditions,
- (b) the hydrological and climatic conditions.
- (c) the extent and nature of work and materials necessary for the execution and completion of the Works.
- (d) the means of access to the Site and the Accommodation he may require and, in general, shall be deemed to have obtained all information (as far as is practicable) as to risks, contingencies and all other circumstances which may influence or affect his tender.

No subsequent claims by the Contractor arising from his lack of knowledge of perceptible conditions on the site or its surroundings or of information available in connection therewith shall be entertained."

(c) **4.11.1** To carry out and complete the Works, the Contractor shall employ on the Site only such persons are a careful, competent and efficient in their various trades and professions

#### 4.3 LEGAL PROVISION

Add the following on 4.3.1

**4.3.1** . The Contractor shall, in fulfilling the Contract, comply with all applicable laws, *with regard to Health, Safety, Wages and Condition of Work*, regulations, statutory provisions and agreements, and shall, at the request to the Employer's agent, provide proof that he has complied therewith.

#### 8. TERMINATION OF CONTRACT

#### 9.3 Termination by Contractor

Delete the wording of sub clause 9.3.1.1.2 and replace this clause with the following:

**9.3.1.1.2** "Failing to pay the contractor the amount due in terms of any payment certificate issued by the Employer's agent, provided that such payment certificate is acceptable to the Employer and further more subject to the provision of sub-clause 3.2.7, within the time of payment provided in the contract."

BMH AFRICA ENGINE	EERS				91
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 9. CLAIMS AND DISPUTES

Add the following

#### 10.12 Joint ventures

"If the Contractor is in a joint venture of two or more parties or persons, the parties or persons shall be jointly and severally bound to the Employer for fulfilment of the Contractor's obligations and terms of this Contract. The formation and/or conditions of agreement of the joint venture shall not be altered without the consent of the Employers. Should such a change be acceptable to the Employer then two notarially certified copies of the revised Joint Venture Agreement shall be submitted to the Employer's agent within fourteen (14) days of signature thereof by the parties to the Joint Venture."

Signed	at			 	 	 		
Date				 	 	 	•••••	
Capacity	,			 	 	 		
Signatur	e			 	 	 		
Witness	sigr	natory	(1)	 	 	 		
Mitnooo	oia	actory	(2)					

BMH AFRICA ENGINEERS							

rtor Witness 1 Witness 2 Employer Witness 1 Witness 1



### C1.4.4 Protection of the Environment Declaration

CONTRACT NO.: NLM2025-016A

### PROTECTION OF THE ENVIRONMENT DECLARATION

The Contractor will not be given right of access to the Site until this form has been signed

CONTRACT TITLE: REHABILITATION OF HUHUDI SPORT FACILITY: PHASE 2

I/ we,							
1.	I/ we, the undersigned, do hereby declare that I/ we am/ are aware of the increasing requirement by society that construction activities shall be carried out with due regard to their impact on the environment.						
2.	In view of this requirement of society and a corresponding requirement by the Employer with regard to this Contract, I/ we will, in addition to complying with the letter of the terms of the Contract dealing with protection of the environment, also take into consideration the spirit of such requirements and will, in selecting appropriate employees, plant, materials and methods of construction, in-so-far as I/ we have the choice, include in the analysis not only the technical and economic (both financial and with regard to time) aspects but also the impact on the environment of the options. In this regard, I/ we recognize and accept the need to abide by the "precautionary principle" which aims to ensure the protection of the environment by the adoption of the most environmentally sensitive construction approach in the face of uncertainty with regard to the environmental implications of construction.						
3.	I/ we declare that I/ we have read and understood the contents of the Environmental Management Programme (which is comprised of the Environmental Management Specification and its Annexures) for this Contract, and that I/ we understand my/our responsibilities in terms of enforcing and implementing the Environmental Management Programme. I/ we also declare that I/ we have made appropriate provision in my/ our pricing of the Bills of Quantities items for the Environmental Management Programme.						
4.	I/ we acknowledge and accept the right of the Employer to deduct, should he so wish, from any amounts due to me/ us, such amounts (hereinafter referred to as fines) as the Employer's Agent shall certify as being warranted in view of my/ our failure to comply with the terms of the Contract dealing with protection of the environment, subject to the following:						
4.1	The Employer's Agent, in determining the amount of such fine, shall take into account, <i>inter alia</i> , the nature of the offence, the seriousness of its impact on the environment, the degree of prior compliance/non-compliance, the extent of the Contractor's overall compliance with environmental protection requirements and, in particular, the extent to which he considers it necessary to impose a sanction in order to eliminate/reduce future occurrences						
detail	Employer's Agent shall, with respect to any fine imposed, provide me/ us with a written statement giving s of the offence, the facts on which the Employer's Agent has based his assessment and the terms of ontract (by reference to the specific clause) which has been contravened.						
Signe	contractor						
RMH AF	RICA ENGINEERS 93						
DIVILITAL	MOA ENGINEERO						
Contr	actor Witness 1 Witness 2 Employer Witness 1 Witness 2						



.....

#### C1.4.5 Insurance Broker's Warranty

#### Pro Forma

Letterhead of Contractor's Insurance Broker

Date

NALEDI LOCAL MUNICIPALITY Municipal Manager 19A Market Street Vryburg 8601

Dear Sir

CONTRACT NO.: NLM2025-016A

CONTRACT TITLE: REHABILITATION OF HUHUDI SPORT FACILITY: PHASE 2

#### NAME OF CONTRACTOR:

Yours faithfully

I, the undersigned, do hereby confirm and warrant that all the insurances required in terms of the abovementioned contract have been issued and/or in the case of blanket/umbrella policies, have been endorsed to reflect the interests of the NALEDI LOCAL MUNICIPALITY with regard to the abovementioned contract, and that all the insurances and endorsements, etc., are all in accordance with the requirements of the contract.

I furthermore confirm that all premiums in the above regard have been paid.

Signed: \_\_\_\_\_

BMH AFRICA ENGINEERS	S				94
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



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

#### C1.4.6 Contract of Temporary Employment as Community Liaison Officer

Construction Contract No.: NLM2025-016A
PROJECT: REHABILITATION OF HUHUDI SPORT FACILITY: PHASE 2
AGREEMENT made between the CONTRACTOR
and the Community Liaison Officer, hereafter referred to as the CLO, for the appointment and employment of a CLO for the duration of the work in respect of the above-named construction contract.

#### 1. THE PARTIES HAVE AGREED THAT

The CLO will be employed by the CONTRACTOR on a temporary basis for the duration of the work from the date of signing this agreement to the date of practical completion as defined in the Contract, subject to all the conditions set out below.

#### 2. THE DUTIES OF THE COMMUNITY LIAISON OFFICER SHALL BE:

- 1. to keep the community informed on the progress of the project;
- 2. to keep the Contractor informed on relevant Community affairs and possible grievances;
- 3. to manage the recruitment of workers from the Sub-Council Job-Seekers Database;
- 4. to assist the Contractor's supervisory staff in the management of the workers.

#### 3. THE FOLLOWING CONDITIONS OF EMPLOYMENT SHALL APPLY:

The Conditions of Temporary Employment as applicable on this Contract for the workers recruited from the Community shall apply equally to the CLO, except that the rate of remuneration shall be R6000.00 per month. These conditions that apply are listed below as they appear in the Contract of Temporary Employment:

- 3.1 If required to work on a statutory public holiday or Sunday the payment will be double the amount stated in the previous paragraph.
- 3.2 Maximum hours of work:
  - (i) 91/4 hours per day
  - (ii) 45 hours per week;
  - (iii) 5 days per week;
  - (iv) 5 hours without an interval, whereupon there shall be an interval of at least 30 minutes;
  - (v) A spread-over period of 12 hours.
  - 3.3 The CLO shall be entitled to payment where he is prevented from working by reasons which are within the control of the Contractor.
  - 3.4 On days when it is raining the Contractor may, before 9 a.m., decide not to open the site and there will be no pay.

If the Contractor closes the site between 9 a.m. and 1 p.m., the CLO will be paid half the daily wage.

BMH AFRICA ENGIN	EERS				95
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



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

If the site works later than 1 p.m., the CLO will be paid the full daily wage.

- 3.5 Workers and the CLO will not be permitted to work under conditions of:
  - (i) undisciplined or unruly behaviour;
  - (ii) insubordination to Team Leader, Supervisors or Management;
  - (iii) abuse of intoxicating substances;
  - (iv) criminal actions by the employee;
  - (v) strike action or political stay-aways.
- Workers, including the CLO, may be dismissed after two official written warnings for the following behaviour:
  - (i) undisciplined or unruly behaviour;
  - (ii) insubordination to Team Leader, Supervisors or Management;
  - (iii) abuse of intoxicating substances;
  - (iv) willful or negligent damage to or loss of machines or equipment.

The Contractor shall ensure that he has statements from at least two witnesses concerning any of the above situations.

The Contractor shall inform the CLO within 24 hours of any warning issued to workers employed from the Job-Seekers Database.

- 3.7 The CLO will be paid on monthly basis, on the same date as the rest of the workers on site.
- 3.8 The CLO shall be given a statement with each payment on which is recorded:
  - (i) the name of the Contractor;
  - (ii) the CLO's name;
  - (iii) the number of days worked by the CLO;
  - (iv) the rate per day;
  - (v) the details of any deductions made;
  - (vi) the actual amount paid to the CLO.
- 3.9 No deduction shall be made from the remuneration except where the CLO consents in writing or unless the Contractor is permitted or required to do so by law or the order of any competent court.
- 3.10 The CLO shall be supplied free of charge with all health and safety equipment required by the Occupation Health and Safety Act. The equipment shall remain the property of the Contractor.
- 3.11 The Contractor must give the CLO at least one week's notice of the termination of the Contract of Temporary Employment. If this is not done, the CLO must be paid earnings for five days. This condition does not apply if the CLO is dismissed.
- 3.12 At the end of the period of temporary employment, the Contractor shall provide a Certificate of Service recording the Contractor's name, the CLO's name and address, the period of service, the type of work on which the CLO was engaged and the rate of remuneration on termination.

BMH AFRICA ENGINE	EERS				96
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



.....

4	TERM	ΙΝΔΤ	ION OF	AGREEMEN	Т
4.	I TIZIV			ACIVELIME	

4.1 If the CLO can no longer perform and execute his/her duties as detailed in this agreement, this agreement will be terminated without prejudice to any rights under this agreement.

### 5. THE CONDITIONS OF THIS AGREEMENT

5.1 The parties expressly declare that this agreement contains all the conditions negotiated between them, and no condition or stipulation not contained herein shall be binding upon the parties.

#### 6. THUS AGREED AND SIGNED BY THE PARTIES:

Contractor:		 	 
Community Liaison	officer:	 	 
Date:		 	 

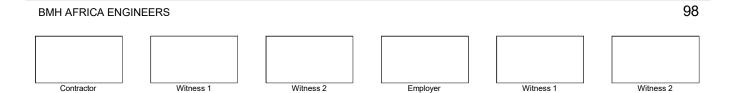
BMH AFRICA ENGINEERS 97

Employer



### **PART C2: PRICING DATA**

C2.1	PRICING INSTRUCTIONS	99
C2.2	BILL OF QUANTITIES	10





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

#### C2.1 PRICING INSTRUCTIONS

- Measurement and payment shall be in accordance with the relevant provisions of Clause 8 of each of the SANS 1200 Specifications for Civil Engineering Construction referred to in the Scope of Work. The Preliminary and General items shall be measures in accordance with the provisions of SANS 1200-A, General:
- 2. The units of measurement described in the Bill of Quantities are metric units. Abbreviations used in the Bill of Quantities are as follows:

mm	=	millimetre	h	=	hour
m	=	metre	kg	=	kilogram
km	=	kilometre	t	=	ton (1000 kg)
m²	=	square metre	No.	=	number
m²-pass	=	square metre-pass	sum	=	lump sum
ha	=	hectare	MN	=	meganewton
m³	=	cubic metre	MN.m	=	meganewton-metre
m³-km	=	cubic metre-kilometre	P C sum	=	Prime Cost sum
1	=	litre	Prov sum	=	Provisional sum
kl	=	kilolitre	%	=	per cent
MPa	=	megapascal	kW	=	kilowatt
LJ	=	refer to sub-clause 12 of	W/day	=	Work day

3. For the purpose of the Bill of Quantities, the following words shall have the meanings hereby assigned to them:

Unit: The unit of measurement for each item of work as defined in the Scope of Works

and Specifications.

Quantity: The number of units of work for each item.

Rate: The agreed payment per unit of easurement.

Amount: The product of the quantity and the agreed rate for an item.

Lump sum: An agreed amount for an item, the extent of which is described in the Bill of

Quantities but the quantity of work of which is not measured in any units.

4. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance is made for waste.

BMH AFRICA ENGINEERS 99

Contractor Witness 1 Witness 2 Employer Witness 1 Witness



.....

- 5. The prices and rates to be inserted in the Bill of Quantities are to be fully inclusive prices for the work described under the various items. Such prices and rates shall cover all costs and expenses that may be required in and for the execution of the work described, and shall cover the cost of all general risks, liabilities, and obligations set forth or implied in the Contract Data, as well as overhead charges and profit. Reasonable prices shall be inserted as these will be used as a basis for assessment of payment for additional work that may have to be carried out.
- 6. A price or rate is to be entered against each item in the Bill of Quantities, whether the quantities are stated or not. An item against which no price is entered will be considered to be covered by the other prices or rates in the Bill of Quantities.
- 7. Reasonable compensation will be received where no pay item appears in respect of work required in terms of the Contract which is not covered in any other pay item.
- 8. The short descriptions of the items of payment given in the Bill of Quantities are only for the purposes of identifying the items. More details regarding the extent of the work entailed under each item appear in the Scope of Work.
- 9. The quantities set out in these Bill of Quantities are approximate and do not necessarily represent the actual amount of work to be done. The quantities of work accepted and certified for paymentwill be used for determining payments due and not the quantities given in this Bill of Quantities.
- 10. The Contractor shall bear all the costs and charges for special and temporary rights of way required by him in connection with access to the Site. The Contractor shall also provide at his own cost any additional facilities outside the Site required for the purposes of the Works.

BMH AFRICA ENGINEERS

100

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2



.....

### C2.2 BILL OF QUANTITIES

### **SECTION DESCRIPTION**

Schedule 1 - Preliminary and General	BoQ-1
Schedule 2 - Soccer Field A	BoQ-2
Schedule 3 - Gymnasium and Kiosk	BoQ-3
Schedule 4 - Referee Change Room	BoQ-4
Schedule 5 - Store Room	BoQ-5
Schedule 6 - Pavilion with Ablution	BoQ-6
Schedule 7 - Multi-Courts	BoQ-7
Schedule 8 - Team Change Rooms	BoQ-8
Schedule 9 - Ancillary	BoQ-9
Schedule 10 - Electrical	BoQ-9
SUMMARY TO SCHEDULES	Summ-

BMH AFRICA ENGINEERS		101

#### NALEDI LOCALMUNICIPALITY

#### **REHABILITATION OF HUHUDI SPORT FACILITY: PHASE 2**

#### NLM2025-016A

#### **SCHEDULES OF QUANTITIES**

#### **INDEX**

### **DESCRIPTION**

#### SCHEDULES:

Schedule 1 - Preliminary and General	. BoQ-1
Schedule 2 - Soccer Field A	BoQ-2
Schedule 3 - Gymnasium and Kiosk.	. BoQ-3
Schedule 4 - Referee Change Room	. BoQ-4
Schedule 5 - Store Room	BoQ-5
Schedule 6 - Pavilion with Ablution	BoQ-6
Schedule 7 - Multi-Courts	. BoQ-7
Schedule 8 - Team Change Rooms	. BoQ-8
Schedule 9 - Ancillary	BoQ-9
Schedule 10- Electrical	BoQ-10
SUMMARY TO SCHEDULES	. Summ-1
Contractor Witness 1 Witness 2 Employer Witness 1	Witness 2

Schedule 1
Preliminary & General

SCHEDULE 1 : PRELIMINARY & GENERAL

Item	Payment	Description	Unit	Qty	Rate	Amount
	Ref.				(R)	(R)
1.	SANS					
	1200A	PRELIMINARY & GENERAL				
1.1	8.3	FIXED-CHARGE ITEMS				
1.1.1	8.3.1	Contractual Requirements	Sum	1		
1.1.2	8.3.2	Establish Facilities on Site				
	8.3.2.1	i) Facilities for Engineer				
		a) Nameboards	no.	2		
	8.3.2.2	ii) <u>Facilities for Contractor</u>				
		a) Offices and storage sheds	Sum	1		
		b) Workshops	Sum	1		
		c) Laboratories	Sum	1		
		d) Living accommodation	Sum	1		
		e) Ablution and latrine facilities	Sum	1		
		f) Tools and equipment	Sum	1		
		g) Water supplies, electric power and communications	Sum	1		
		h) Dealing with water (Subclause 5.5)	Sum	1		
		i) Access (Subclause 5.8)	Sum	1		
		j) Plant	Sum	1		
1.1.3	8.3.3	Other fixed-charge obligations	Sum	1		
1.1.4	8.3.4	Remove Contractor's site establishment on completion	Sum	1		
1.2	SI 1.4	OCCUPATIONAL HEALTH AND SAFETY				
1.2.1	1.4.2.1(a)	Notification of Construction Work	sum	1		
1.2.2	1.4.2.1(b)	Preparation and Provision of Health and Safety Plan	sum	1		
1.2.3	1.4.2.1(c)	Proof of Registration with the Compensation Fund	sum	1		
1.2.4	1.4.2.1(d)	Health and Safety File	sum	1		
	-		Ca	rried Forw	ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 1
Preliminary & General

#### SCHEDULE 1: PRELIMINARY & GENERAL

Item	Payment	Description	Unit	Qty	Rate	Amount
	Ref.				(R)	(R)

			Bro	ought Forw	/ard
1.2.5		Appointment of Construction Supervisor and Construction Safety Officer	sum	1	
1.2.6	1.4.2.1(f)	Risk Assessment and Safety Policy	sum	1	
1.2.7		Significant hazards identified and risk assessment prepared by the Design Consultants	sum	1	
.2.8	1.4.2.1(h)	Additional Financial Provision	sum	1	
.2.9	1.4.2.1(i)	Fall Protection Plan (Regulation 8)	sum	1	
.2.10	1.4.2.1(j)	Physical and Psychological Fitness (Regulation 8.2(b))	sum	1	
.2.11	1.4.2.1(k)	Construction Vehicles and Mobile Plant	sum	1	
.2.12	1.4.2.1(I)	Health and Safety training	sum	1	
.2.13	1.4.2.1(m)	Personal protective clothing and equipment	Sum	1	
.2.14	1.4.2.1(n)	Fences, signs and barricades	Sum	1	
3	8.4	TIME-RELATED ITEMS			
.3.1	8.4.1	Contractual requirements	month	6	
3.2	8.4.2	Operate and maintain facilities on the site:			
3.3	8.4.2.1	i) Facilities for Engineer			
		a) Nameboards     b) Survey assistants	month month	6 6	
			Ca	rried Forwa	ard

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 1
Preliminary & General

		SCHEDULE 1 : PRELIMINARY & GENERAL				
Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
			Bro	ought Forw	vard	
				9		
1.3.4	8.4.2.2	Facilities for Contractor				
		a) Offices and storage sheds	month	6		
		b) Workshops	month	6		
		c) Laboratories	month	6		
		d) Living accommodation	month	6		
		e) Ablution and latrine facilities	month	6		
		f) Tools and equipment	month	6		
		g) Water supplies, electric power and communications	month	6		
		h) Dealing with water (Subclause 5.5)	month	6		
		i) Access (Subclause 5.8)	month	6		
		j) Plant	month	6		
1.3.5	8.4.4	Company and head office overhead costs	month	6		
1.3.6	8.4.5	Other time related obligations	month	6		
1.4	SI 1.4	OCCUPATIONAL HEALTH AND SAFETY				
1.4.1	1.4.2.2(a)	Implementation and Maintenance of Health and Safety Plan	month	6		
1.4.2	1.4.2.2(b)	Salary of Construction Supervisor and Safety Agent	month	6		
1.4.3	1.4.2.2(c)	Risk Assessment and Safety Policy	month	6		
1.4.4	1.4.2.2(d)	Fall Protection Plan	month	6		
1.4.5	1.4.2.2(e)	Physical and Psychological Fitness	month	6		
1.4.6	1.4.2.2(f)	Construction Vehicles and Mobile Plant	month	6		
1.4.7	1.4.2.2(g)	Health and Safety training	month	6		
1.4.8	1.4.2.2(h)	Personal protective clothing and equipment	month	6		
1.4.9	1.4.2.2(i)	Fences, signs and barricades	month	6		

Contractor	,	Witness 1	ļ	Witness 2	Employer	Witness 1	 Witness 2	•

**Carried Forward** 

Schedule 1
Preliminary & General

**SCHEDULE 1: PRELIMINARY & GENERAL** 

Item	Payment	Description	Unit	Qty	Rate	Amount
	Ref.				(R)	(R)

	1	Brought Forward						
1.5	PSA8	SUMS STATED PROVISIONALLY BY THE ENGINEER Provisional Sums						
1.5.1	PSA8.3	Royalties for Borrow Materials	Sum	-	-	15 000.00		
1.5.2	PSA8.4	Relocation of existing services	Sum	-	-	15 000.00		
1.5.3		Overheads, charges and profit on Item 1.5.2	%					
1.6	PSA9	PRIME COST ITEMS						
1.6.1	PSA9.1	Acceptance control testing	sum	-	-	5 000.00		
1.6.2		Overheads, charges and profit on Item 1.6.1	%					
1.6.3		Remuneration of Community Liaison Officer for duration of the Construction	month	6	6 000.00	36 000.00		
1.6.4		Overheads, charges and profit on item 1.6.3	%					
1.6.5		PSC 3 Members (Seating one per month)	month	6	1 500.00	9 000.00		
1.6.6		Overheads, charges and profit on item 1.6.5	%					
		TOTAL SCHEDULE 1 CA	ARRIED F	L ORWARD 1	L ΓΟ SUMMARY			

		i .		ľ		ı			
								l.	
Contractor	Witness 1		Witness 2		Employer		Witness 1		Witness 2
CODITACION	WWITH PSS 1		vviiness /		HIDDOVAR		VVIII 229 TIIVV		VVIIDESS

Schedule 2
Preliminary & General

SCHEDULE 2 : SOCCER FIELD A (SOCCER/RUGBY)

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
	Kei.				(K)	(K)
2.1	PSA 8.8	ARTIFICIAL SOCCER/RUGBY PITCH (NOMINATED SUB CONTRACTOR FOR ITEM 2.1.1)				
2.1.1	PSA 8.8.1	a) Provide all labour, materials and plant for earthworks, drainage and artificial turf system to the sports field, including ripping the in-situ layer, laser levelling and compaction to 97% MOD AASHTO; construction of a 150 mm imported base course from commercial aggregate, laser levelled to falls and compacted to 97% MOD AASHTO; and a hand-levelled final aggregate layer with ≤6 mm deviation over a 3 m straight edge. Execute stormwater works comprising trench excavation in all materials, pipe bedding, backfilling and compaction to 95% MOD AASHTO; supply, lay and bed 375 mm dia class 75D concrete pipes on Class C bedding; install 110 mm dia uPVC sub-soil drains in 300 × 300 mm 19 mm washed stone wrapped in Grade 3 geotextile; construct 450 × 450 mm single grid field inlets; construct manholes per details complete with HD ductile hinged covers, frames and step irons; and connect to the existing stormwater system. Supply and install Artificial Carpet Supreme 60 (IRB/FIFA approved) including SBR base layer, artificial carpet, seaming and inlaid line markings for soccer and rugby, required infill to system specification, and Fig 10/12 kerbing.	PC Sum	1	8 546 050.00	8 546 050.00
2.1.2	PSA 8.2	b) Overheads, charges and profit on Item 2.1.1	%			
2.2	PSA 8.8	SUPPLY, DELIVER AND INSTALL COMBINED SOCCER AND RUGBY GOALPOST STRUCTURE, INCLUDING:				
		All steel components hot-dip galvanized and powder-coated white. Sleeved or flange base system for demountable installation.				
2.2.1	PSA 8.8.2	a) Supply, deliver and install combined soccer and rugby goalpost structure comprising heavy-duty tubing steel frame with integrated soccer goal (7.32m wide x 2.44m high x 2m deep, 80 mm tubing and rugby uprights extending 10 m high above ground (100mm tubing), anchored in 600 mm x 600 mm x 1.5m, 25MPa reinforced concrete footings.	no	2		
				rried Forw	ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 2
Preliminary & General

SCHEDULE 2 : SOCCER FIELD A (SOCCER/RUGBY)

Item	Payment Ref.		Description	Unit	Qty	Rate (R)	Amount (R)	
		Brought Forward						
2.2.2	PSA 8.8.3	b)	Heavy-duty UV-stabilised polyethylene net (white) with supporting rope and hooks	no	2			
2.2.3	PSA 8.8.4	c)	Supply and install UV-stabilised nylon catch netting (mesh 100 mm x 100 mm) supported on 100 mm Ø galvanised steel CHS posts, 8 m high above ground, embedded in 600 mm x 600 mm x 1.5m, 25 Mpa reinforced concrete footings.	no	2			
2.3	PSA 8.8	FE	NCE					
2.3.1	PSA 8.8.5	a)	Remove existing chain-link mesh and binding/tension wires; stockpile/dispose	m	396			
2.3.2	PSA 8.8.6	b)	Cut down existing steel posts from 1.8m to 1.2m grind smooth	no.	132			
2.3.3	PSA 8.8.7	c)	Reposition and fix existing round-tube top rail at new height incl. sleeves/couplers	m	396			
2.3.4	PSA 8.8.8	d)	Corrosion protection to cut/weld areas (zinc-rich primer + matching topcoat)	sum	1			
2.3.5	PSA 8.8.9	e)	Supply & fix green PVC-coated chain-link mesh, 1.2m high, 50×50 mm, core 2.5mm (≈3.15mm overall) incl. top & bottom tension wires, ties @ 300 mm c/c	m	396			
2.3.6	PSA 8.8.10	f)	Straining/tension assemblies (turnbuckles/strainers) at ends, corners and gates	no	12			
			TOTAL SCHEDULE 2 CA	RRIED F	ORWARD T	O SUMMARY		
	Contractor		Witness 1 Witness 2 Employer		Vitness 1	Witne	ss 2	

Schedule 3
Preliminary & General

SCHEDULE 3: GYMNASIUM AND KIOSK

Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
SANS 1200C	SITE CLEARANCE				
8.2.1	a) Clear and grub	m²	300		
8.2.2	b) Remove and grub large trees and tree stumps of girth over 1m and up to 2 m	no.	5		
8.2.9	c) Transport of material and debris to unspecified site and dump. Rate to include for loading, transporting dumping and any charges for the use of the dumping site	m³.km	320		
BB 04	ALTERATIONS				
	Safely remove existing damaged door frames     and damaged doors and dispose of	no.	2		
	b) Remove all damaged plaster and dispose - internal	m²			
	c) Sanding down, surface preparation and painting of all exposed steel, including burglar screens (rate to include one coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint)	sum	1		
BB 04	ROOF				
	Inspect roof and fix loose corrugated metal sheeting with additional roof screws	sum	1		
BJ 02	PAINTING				
	Plaster Walls				
	Wash down well with sugar soap, rinse with clean water and allow to dry, remove loose and flaking paint, make good cracks and defects with an interior filler, allow to dry and sand smooth, spot prime bare and repaired areas with plaster primer thinned 20% with mineral turpentine and apply universal undercoat to repaired areas and apply two full coats acrylic PVA paint on previously painted surfaces in fair condition.				
	SANS 1200C 8.2.1 8.2.2 8.2.9 BB 04	SANS 1200C 8.2.1 a) Clear and grub 8.2.2 b) Remove and grub large trees and tree stumps of girth over 1m and up to 2 m 8.2.9 c) Transport of material and debris to unspecified site and dump. Rate to include for loading, transporting dumping and any charges for the use of the dumping site  BB 04 ALTERATIONS a) Safely remove existing damaged door frames and damaged doors and dispose of b) Remove all damaged plaster and dispose - internal c) Sanding down, surface preparation and painting of all exposed steel, including burglar screens (rate to include one coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint)  BB 04 ROOF a) Inspect roof and fix loose corrugated metal sheeting with additional roof screws  BJ 02 PAINTING Plaster Walls  Wash down well with sugar soap, rinse with clean water and allow to dry, remove loose and flaking paint, make good cracks and defects with an interior filler, allow to dry and sand smooth, spot prime bare and repaired areas with plaster primer thinned 20% with mineral turpentine and apply universal undercoat to repaired areas and apply two full coats acrylic PVA paint on previously painted surfaces	SANS 1200C 8.2.1 a) Clear and grub m² 8.2.2 b) Remove and grub large trees and tree stumps of girth over 1m and up to 2 m no. 8.2.9 c) Transport of material and debris to unspecified site and dump. Rate to include for loading, transporting dumping and any charges for the use of the dumping site m³.km  BB 04 ALTERATIONS a) Safely remove existing damaged door frames and damaged doors and dispose of no. b) Remove all damaged plaster and dispose - internal m² c) Sanding down, surface preparation and painting of all exposed steel, including burglar screens (rate to include one coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint)  BB 04 ROOF a) Inspect roof and fix loose corrugated metal sheeting with additional roof screws sum  BJ 02 PAINTING Plaster Walls  Wash down well with sugar soap, rinse with clean water and allow to dry, remove loose and flaking paint, make good cracks and defects with an interior filler, allow to dry and sand smooth, spot prime bare and repaired areas with plaster primer thinned 20% with mineral turpentine and apply universal undercoat to repaired areas and apply two full coats acrylic PVA paint on previously painted surfaces	SANS 1200C 8.2.1 a) Clear and grub	SANS 1200C 8.2.1 a) Clear and grub move 1 mand up to 2 m move 2 move

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 3
Preliminary & General

SCHEDULE 3: GYMNASIUM AND KIOSK

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)		
		Brought Forward						
3.4.1.1		a) Internal walls	m²	75				
3.4.2		Wood Surfaces						
		Protective and decorative solvent based polyurethane alkyd semi gloss non-drip enamel paint.						
3.4.2.1		a) Doors, fittings, etc.	m²	3				
3.5		PLUMBING AND SANITARY WARE						
3.5.1		Supply and install wall mounted hand wash basin complete with cobra water taps, bends, fittings and collars	no.	1				
3.6	BD 04	MIRRORS						
3.6.1		a) 2000mm x 1800mm wall mounted	no.	2				
3.7.	BD 03	DOORS						
		Supply, deliver and install rollup garage door     Aluzinc to match frame	no.	1				
3.7.1.1		b) Supply and install hollow core single door with frame, hinges, and 3 lever lockset. Including Paint	no.	1				
3.8	BD 04	GLAZING						
3.8.1		Supply and install 4mm clear glazing to window frame     (including removal of broken glazing and painting     of frames						
3.8.1.1		a) NE4 Window	no.	6				
			Ca	rried Forwa	ard			

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 3
Preliminary & General

SCHEDULE 3: GYMNASIUM AND KIOSK

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
			Bro	ught Forw	ard	
3.9	BD 02	DRYWALL				
3.9.1		a) Construct a gypsum drywall partition ±12m × ±2.7m separating the kiosk from the gymnasium, comprising galvanised stud-and-track @ 600 mm c/c, 12.5 mm boards both sides, 50 mm mineral-wool acoustic infill, taped/skimmed joints and perimeter acoustic sealant, prepare and paint (1× sealer/primer + 2× acrylic PVA finish, colour tbc), make good to adjacent finishes—no doors—complete.	sum			
3.1	SANS 1200 G	SCREED  Remove damaged floor screed				
3.10.1	8.1	a) Carefully break out and remove existing defective screed to the concrete substrate, grind/shot-blast to sound surface, vacuum clean, dispose of rubble and prepare substrate for bonding - complete	m²			
3.10.2	8.1	b) Screed/topping				
		Supply, place and finish a structural screed/topping (50mm, 35 MPa) cement, cementitious bonding slurry to prepared substrate, saw-cut/control joints to match substrate, and make good around penetrations.	m²			
		TOTAL SCHEDULE 3 CA	ARRIED FO	DRWARD T	O SUMMARY	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 4
Preliminary & General

#### SCHEDULE 4 : REFEREE CHANGE ROOM

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
4.1	SANS 1200C	SITE CLEARANCE				
4.1.1	8.2.1	a) Clear and grub	m²	1125		
4.1.2	8.2.2	b) Remove and grub large trees and tree stumps of girth over 1m and up to 2 m	no.	1		
4.1.3	8.2.9	c) Transport of material and debris to unspecified site and dump. Rate to include for loading, transporting dumping and any charges for the use of the dumping site	m³.km	480		
4.2	BB 04	ALTERATIONS				
4.2.1		Sanding down, surface preparation and painting of all exposed steel, including burglar screens (rate to include one coat alkyd based zinc phosphate primer and two coats premium quality polyurethane				
		enamel paint)	sum	1		
4.2.2		b) Remove all damaged Facia Boards and dispose of	m	6		
4.2.3		c) Remove all damaged floor and wall tiles and dispose of	m²	22		
4.2.4		d) Remove all damaged ceilings and corniche and dispose	m²	16		
4.2.5		e) Supply and fit welded metal burglar bars with flatex. metal screen to exterior of windows:To match existing	no.	6		
4.3		PLASTER 15mm THICK				
4.3.1		a) On brick walls internaly	m²	8		
4.4	BB 04	ROOF				
		Supply and fit ceilings including including repair or replacement of damaged brandering.				
4.4.1		a) 6mm hollow core PVC Ceilings including all fittings	m²	16		
4.4.2		b) 75mm Coved corniches including paint	m	16		
	<u>I</u>	1	Ca	rried Forw	l ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

### Schedule 4 Preliminary & General

### NALEDI LOCALMUNICIPALITY REHABILITATION OF HUHUDI SPORT FACILITY: PHASE 2 NLM2025-016A

SCHEDULE 4 : REFEREE CHANGE ROOM

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
			Bro	ought Forw	ard	
4.4.3		c) Supply and install fibre cement facia board (12 x 225mm). Rate to include paint.	m	6		
4.4.4		d) Inspect roof and fix loose corrugated metal sheeting with additional roof screws	sum	1		
4.5	BE 03	TILING AND FINISHES				
4.5.1		Supply and install ceramic floor tile to     Engineers specifications. Rate to include material,     grouting, labour, transport and complete installation     (PC sum for tiles: R200.00/m²)	m²	16		
4.5.2		b) Supply and install ceramic wall tile to Engineers specifications. Rate to include material, grouting, labour, transport and complete installation (PC sum for tiles: R200.00/m²)	m²	16		
4.5.3		c) 100mm ceramic tile skirting	m	16		
4.6	BJ 02	PAINTING				
4.6.1		Plaster Walls				
		Wash down well with sugar soap, rinse with clean water and allow to dry, remove loose and flaking paint, make good cracks and defects with an interior filler, allow to dry and sand smooth, spot prime bare and repaired areas with plaster primer thinned 20% with mineral turpentine and apply universal undercoat to repaired areas and apply two full coats acrylic PVA paint on previously painted surfaces in fair condition.				
4.6.1.1		a) Internal walls	m²	36		
4.6.2		Wood Surfaces				
		Protective and decorative solvent based polyurethane alkyd semi gloss non-drip enamel paint.				
4.6.2.1		a) Doors, fittings, etc.	m²	2		
4.6.2.2		b) Timber and eaves overhang	m²	26		
4.6.2.3		c) Rails, skirtings, etc	m	8		
		Water Resistant polyurethane clear matt varnish				
4.6.2.4		a) Doors, fittings, etc.	m²	2		
4.7		PLUMBING AND SANITARY WARE				
	l	<u> </u>	Ca	rried Forw	l ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 4
Preliminary & General

#### SCHEDULE 4: REFEREE CHANGE ROOM

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
			Bro	ought Forw	ard	
4.7.1		a) Remove existing damaged sanitary ware and fittings for possesion by client or dispose if damaged	no.	1		
4.7.2		b) Supply and install wall mounted hand wash basin complete with cobra water taps, bends, fittings and collars	no.	1		
4.7.3		c) WC pan with double flap heavy duty plastic seat (including plumbing fittings)	no.	1		
		d) Supply and Install Shower pipes with fittings	no.	1		
4.8	BD 04	MIRRORS				
4.8.1		a) 450 x 600mm wall mounted	no.	1		
4.9.	BD 03	DOORS				
4.9.1		Supply and install 1.6 mm mild steel pressed metal door frame for double door to suit 110 mm wall thickness, including fixing lugs and primer finish, complete as per SANS 193.	no.	1		
4.9.2		Supply and install 1.6 mm mild steel pressed metal door frame for double door to suit 220 mm wall thickness, including fixing lugs and primer finish, complete as per SANS 193.	no.	1		
4.9.3		c) Supply and install hollow core single door with frame, hinges, and 3 lever lockset. Including Paint	no.	1		
4.9.4		d) Supply and install solid meranti single door with frame, hinges, and 3 lever lockset.	no.	1		
4.9.5		e) Apply 2 coats varnish to new timber doors 813 x 2100mm to external meranti door.	no.	2		
4.10.	BD 04	GLAZING				
		Supply and install 4mm clear glazing to window frame     (including removal of broken glazing and painting     of frames				
4.10.1 4.10.2		a) NE1 Window b) NE2 Window	no. no.	2 1		
		TOTAL SCHEDULE 4 CA	ADD:== =	0014455		

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
Contractor	VVIII 1033 1	VVIII ICGG Z	Liployei	VVIII 1033 I	VVIII ICSS Z

Schedule 5
Preliminary & General

SCHEDULE 5 : STORE ROOM

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
5.1	SANS	SITE CLEARANCE			, ,	
	1200C					
5.1.1	8.2.1	a) Clear and grub	m²	630		
5.1.2	8.2.2	b) Remove and grub large trees and tree stumps of girth over 1m and up to 2 m	no.	1		
5.1.3	8.2.9	c) Transport of material and debris to unspecified site and dump. Rate to include for loading, transporting dumping and any charges for the use of the dumping site	m³.km	360		
5.2	BB 04	ALTERATIONS				
5.2.1		Sanding down, surface preparation and painting of all exposed steel, including burglar screens (rate to include one coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint)	sum	1		
5.2.2		b) Remove all damaged Facia Boards and dispose of	m	4		
5.2.3		c) Supplu and install Flat Steel to be welded onto a Metal-frame of 0.685 x 0.685 mm (To match existing)	no.	1		
5.3	BB 04	ROOF				
		Supply and fit ceilings including including repair or replacement of damaged brandering.				
5.3.1		Supply and install fibre cement facia board (12 x 225mm). Rate to include paint.	m	4		
5.3.2		b) Inspect roof and fix loose corrugated metal sheeting with additional roof screws	sum	1		
			Ca	rried Forwa	ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 5
Preliminary & General

SCHEDULE 5 : STORE ROOM

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
			Brought Forward			
5.4	BJ 02	PAINTING				
5.4.1		Plaster Walls				
		Wash down well with sugar soap, rinse with clean water and allow to dry, remove loose and flaking paint, make good cracks and defects with an interior filler, allow to dry and sand smooth, spot prime bare and repaired areas with plaster primer thinned 20% with mineral turpentine and apply universal undercoat to repaired areas and apply two full coats acrylic PVA paint on previously painted surfaces in fair condition.				
5.4.1.1		a) Internal walls	m²	33		
5.4.1.2		b) External Walls	m²			
5.4.2		Wood Surfaces				
		Protective and decorative solvent based polyurethane alkyd semi gloss non-drip enamel paint.				
5.4.2.1		a) Doors, fittings, etc.	m²	2		
5.4.2.2		b) Timber and eaves overhang	m²	5		
5.4.2.3		c) Doors, fittings, etc.	m²	2		
5.5.	BD 03	DOORS				
		Supply and install 1.6 mm mild steel pressed metal door frame for double door to suit 220 mm wall thickness, including fixing lugs and primer finish, complete as per SANS 193.	no.	1		

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
			1 /		

Schedule 6
Preliminary & General

**SCHEDULE 6 : PAVILION WITH ABLUTION** 

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
6.1	SANS 1200C	SITE CLEARANCE				
6.1.1	8.2.1	a) Clear and grub	m²	480		
6.1.2	8.2.2	b) Remove and grub large trees and tree stumps of girth over 1m and up to 2 m	no.	3		
6.1.3	8.2.9	c) Transport of material and debris to unspecified site and dump. Rate to include for loading, transporting dumping and any charges for the use of the dumping site	m³.km	576		
6.2	BB 04	ALTERATIONS				
6.2.1		a) Safely remove existing damaged door frames     and damaged doors and dispose of	no.	1		
6.2.2		b) Remove all damaged plaster and dispose - internal	m²	25		
6.2.3		c) Remove all damaged plaster and dispose - external	m²	15		
6.2.4		d) Sanding down, surface preparation and painting of all exposed steel, including burglar screens (rate to include one coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint)	sum	1		
6.2.5		e) Remove all damaged Facia Boards and dispose of	m			
6.2.6		f) Remove all damaged floor and wall tiles and dispose of	m²	52		
6.2.7		g) Remove all damaged ceilings and corniche and dispose	m²	39		
6.2.8		h) Supply and fit welded metal burglar bars with flatex. metal screen to exterior of windows:To match existing	no.	2		
6.3		PLASTER 15mm THICK				
6.3.1		a) On brick walls internaly	m²	15		
6.3.2		b) On brick walls externally	m²	25		
		1	Ca	rried Forw	l ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 6
Preliminary & General

**SCHEDULE 6 : PAVILION WITH ABLUTION** 

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
			Bro	ought Forw	ard	
6.4	BB 04	ROOF				
		Supply and fit ceilings including including repair or replacement of damaged brandering.				
6.4.1		a) 6mm hollow core PVC Ceilings including all fittings	m²	45		
6.4.2		b) 75mm Coved corniches including paint	m	39		
6.4.3		c) Inspect roof and fix loose corrugated metal sheeting with additional roof screws	sum	1		
6.5	BE 03	TILING AND FINISHES				
6.5.1		Supply and install ceramic floor tile to     Engineers specifications. Rate to include material,     grouting, labour, transport and complete installation     (PC sum for tiles: R200.00/m²)	m²	45		
6.5.2		b) Supply and install ceramic wall tile to Engineers specifications. Rate to include material, grouting, labour, transport and complete installation (PC sum for tiles: R200.00/m²)	m²	16		
6.5.3		c) 100mm ceramic tile skirting	m	42		

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Carried Forward

Schedule 6
Preliminary & General

**SCHEDULE 6: PAVILION WITH ABLUTION** 

ſ	Item	Payment	Description	Unit	Qty	Rate	Amount
		Ref.				(R)	(R)

		Brought Forward							
6.6	BJ 02	PAINTING							
6.6.1		Plaster Walls							
		Wash down well with sugar soap, rinse with clean water and allow to dry, remove loose and flaking paint, make good cracks and defects with an interior filler, allow to dry and sand smooth, spot prime bare and repaired areas with plaster primer thinned 20% with mineral turpentine and apply universal undercoat to repaired areas and apply two full coats acrylic PVA paint on previously painted surfaces in fair condition.							
6.6.1.1		a) Internal walls	m²	15					
6.6.1.2		b) External Walls	m²	25					
6.6.2		Wood Surfaces							
		Protective and decorative solvent based polyurethane alkyd semi gloss non-drip enamel paint.							
6.6.2.1		a) Doors, fittings, etc.	m²	7					
6.6.2.2		b) Rails, skirtings, etc	m	4					
		2) Water Resistant polyurethane clear matt varnish							
6.6.2.3		a) Doors, fittings, etc.	m²	7					
6.7		PLUMBING AND SANITARY WARE							
6.7.1		a) Remove existing damaged sanitary ware and fittings for possesion by client or dispose if damaged	no.	11					
6.7.2		b) Supply and install wall mounted hand wash basin complete with cobra water taps, bends, fittings and collars	no.	6					
6.7.3		c) WC pan with double flap heavy duty plastic seat (including plumbing fittings)	no.	7					
6.7.4		d) Wall urinal with spreader and waste union (including all plumbing fittings)	no.	5					
			Ca	rried Forw	ard				

			-		
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 6
Preliminary & General

**SCHEDULE 6 : PAVILION WITH ABLUTION** 

Item	Payment	Description	Unit	Qty	Rate	Amount
	Ref.				(R)	(R)

	Γ		Bro	ought Forw	ard	
6.8	BD 04	MIRRORS				
6.8.1		a) 1 600 x 1 000mm wall mounted	no.	2		
6.90	BD 03	DOORS				
6.9.1		Supply and install hollow core single door with frame, hinges, and 3 lever lockset. Including Paint	no.	7		
6.9.2		b) Supply and install solid meranti single door with frame, hinges, and 3 lever lockset.	no.	2		
6.9.3		c) Apply 2 coats varnish to new timber doors 813 x 2100mm to external meranti door.	no.	9		
6.10.	BD 04	GLAZING				
		Supply and install 4mm clear glazing to window frame     (including removal of broken glazing and painting     of frames				
6.10.1		a) NE2 Window	no.	2		
6.10.2		b) NE4 Window	no.	2		
		TOTAL SCHEDULE 6 CA	 ARRIED F	 ORWARD T	O SUMMARY	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 8
Preliminary & General

SCHEDULE 8 : TEAM CHANGE ROOMS

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
	1101.				(10)	(11)
8.1	SANS 1200C	SITE CLEARANCE				
8.1.1	8.2.1	a) Clear and grub	m²	168		
8.1.2	8.2.2	b) Remove and grub large trees and tree stumps of girth over 1m and up to 2 m	no.	2		
8.1.3	8.2.9	c) Transport of material and debris to unspecified site and dump. Rate to include for loading, transporting dumping and any charges for the use of the dumping site	m³.km	200		
8.2	BB 04	ALTERATIONS				
8.2.1		a) Remove all damaged plaster and dispose - internal	m²	36		
8.2.2		b) Sanding down, surface preparation and painting of all exposed steel, including burglar screens (rate to include one coat alkyd based zinc phosphate primer and two coats premium quality polyurethane enamel paint)	sum	1		
8.2.3		c) Remove all damaged floor and wall tiles and dispose of	m²	126		
8.2.4		d) Remove all damaged ceilings and corniche and dispose	m²	76		
8.2.5		Supply and fit welded metal burglar bars with flatex.     metal screen to exterior of windows:To match existing	no.	2		
8.3		PLASTER 15mm THICK				
8.3.1		a) On brick walls internaly	m²	20		
8.4	BB 04	ROOF				
		Supply and fit ceilings including including repair or replacement of damaged brandering.				
8.4.1		a) 6mm hollow core PVC Ceilings including all fittings	m²	76		
8.4.2		b) 75mm Coved corniches including paint	m	59		
8.4.3		c) Inspect roof and fix loose corrugated metal sheeting with additional roof screws	sum	1		
	l		Ca	rried Forw	ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 8
Preliminary & General

**SCHEDULE 8 : TEAM CHANGE ROOMS** 

Ref.     (R)   (R)	Item	Payment	Description	Unit	Qty	Rate	Amount
		Ref.				(R)	(R)

			Bro			
3.5	BA 03	RAINWATER GOODS				
		0,6mm Chromadek coated rainwater goods				
.5.1		a) 150 x 150mm Eaves gutter	m	46		
.5.2		b) Extra for closed ends	no.	2		
.5.3		c) Extra for outlet for rainwater pipe	no.	2		
5.5.4		d) 100 x 100mm Rainwater down pipe	m	4		
3.4.6		e) Extra for shoe	no.	4		
3.6	BE 03	TILING AND FINISHES				
3.6.1		Supply and install ceramic floor tile to     Engineers specifications. Rate to include material,     grouting, labour, transport and complete installation     (PC sum for tiles: R200.00/m²)	m²	76		
.6.2		b) Supply and install ceramic wall tile to Engineers specifications. Rate to include material, grouting, labour, transport and complete installation (PC sum for tiles: R200.00/m²)	m²	52		
3.6.3		c) 100mm ceramic tile skirting	m	49		
3.7	BJ 02	PAINTING				
3.7.1		Plaster Walls				
		Wash down well with sugar soap, rinse with clean water and allow to dry, remove loose and flaking paint, make good cracks and defects with an interior filler, allow to dry and sand smooth, spot prime bare and repaired areas with plaster primer thinned 20% with mineral turpentine and apply universal undercoat to repaired areas and apply two full coats acrylic PVA paint on previously painted surfaces in fair condition.				
3.7.1.1		a) Internal walls	m²	20		
			Ca	rried Forw	ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Preliminary & General

Schedule 8

**SCHEDULE 8: TEAM CHANGE ROOMS** 

ſ	Item	Payment	Description	Unit	Qty	Rate	Amount
		Ref.				(R)	(R)

			Bro	ught Forw	ard	
8.7.2		Wood Surfaces				
		Protective and decorative solvent based polyurethane alkyd semi gloss non-drip enamel paint.				
8.7.2.1		a) Doors, fittings, etc.	m²	6		
8.7.2.2		b) Timber and eaves overhang	m²	26		
		c) Rails, skirtings, etc	m	5		
		2) Water Resistant polyurethane clear matt varnish				
8.7.2.3		a) Doors, fittings, etc.	m²	6		
8.8		PLUMBING AND SANITARY WARE				
8.8.1		a) Remove existing damaged sanitary ware and fittings for possesion by client or dispose if damaged	no.	4		
8.8.2		b) Supply and install wall mounted hand wash basin complete with cobra water taps, bends, fittings and collars	no.	6		
		c) WC pan with double flap heavy duty plastic seat (including plumbing fittings)	no.	4		
8.8.3		d) Supply and Install Shower pipes with fittings	no.	1		
8.9	BD 04	MIRRORS				
8.9.1		a) 1 040mm X 1 790 wall mounted	no.	2		
8.10	BD 03	DOORS				
8.10.1		Supply and install hollow core single door with frame, hinges, and 3 lever lockset. Including Paint	no.	4		
8.10.2		b) Supply and install solid meranti single door with frame, hinges, and 3 lever lockset.	no.	2		
8.10.3		c) Apply 2 coats varnish to new timber doors 813 x 2100mm to external meranti door.	no.	6		
		1	Ca	rried Forw	ard	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 8
Preliminary & General

**SCHEDULE 8: TEAM CHANGE ROOMS** 

Item	Payment	Description	Unit	Qty	Rate	Amount	
	Ref.				(R)	(R)	
			Bro	ught Forv	vard		
8.11	BD 04	GLAZING					
		Supply and install 4mm clear glazing to window frame					
		(including removal of broken glazing and painting					
		of frames					
8.11.1		a) NE1 Window	no.	10			
		TOTAL SCHEDULE 8 C	ARRIED FO	DRWARD '	TO SUMMARY		

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 9
Preliminary & General

SCHEDULE 9 : ANCILLARY WORKS

Item	Payment	Description	Unit	Qty	Rate	Amount
	Ref.				(R)	(R)
8	PSA 8	ANCILLARY WORKS				
8.1		Elevated Photographers Stand				
8.1.2	PSA 8.8.20	Sanding down of identified areas, surface preparation and painting of existing structure (rate to include primer, undercoating and final paint)	sum	1		
8.2		Elevated Steel Stand				
8.2.1	PSA 8.8.21	Bent or deformed steel elements of the pavilion shall be carefully straightened and corrected to restore alignment; thereafter the pavilion structure shall be thoroughly cleaned beneath to remove all debris and voids, ensuring that it sits evenly and securely on the existing				
		concrete base	sum	1		
8.2.3	PSA 8.8.22	b) Sanding down, surface preparation and painting of existing structure (rate to include primer, undercoating and final paint)	sum	1		
8.3		Athletics Track				
8.3.1	PSA 8.3.1	a) Paint 8 lines of the athelics track. Lines 50mm wide. Layer 1 to be Sigmacover 280 diluted with 20% v/v thinners and final coat Sigmadur Polyurethane 550 280. Paint colour white.	sum	1		
8.4		10 000l Jo-Jo Tank Foundation				
8.4.1	PSA 8.4.1	<ul> <li>a) Construct a circular brick-and-concrete footing for a     10 000 L Jo-Jo tank comprising excavation to 600 mm,     150 mm compacted G5 sub-base, 220 mm thick     brickwork ring wall (Ø 3.0 m outside, Ø 2.6 m inside)     on 250mm deep x 300 mm wide 25 MPa Concrete.     Fill inside with 100mm thick 25MPa reinforced plinth     slab (Ref 193 mesh) on 250 μm DCP, finished level     and cured complete.</li> </ul>	sum	3		
		·				
			Ca	rried Forw	ard	

ſ								
-	Contractor	Witness 1	-	Witness 2	Employer	ı	Witness 1	Witness 2

Schedule 9
Preliminary & General

SCHEDULE 9 : ANCILLARY WORKS

Item	Payment	Description	Unit	Qty	Rate	Amount
	Ref.				(R)	(R)

	1		Bro	ought Forw	ard	0.0
8.5	PSA 8	BOREHOLE				
8.5.1	PSA 8.8.23	a) Replace submersible borehole pump: Supply, install and commission a submersible borehole pump with associated mechanical fittings and wellhead—including removal of remnants/debris, borehole cleaning, rising main, non-return and isolating valves, torque arrestors, safety cable, wellhead seal/cap, reinstatement, functional testing and handover—complete.	sum	1		
8.6	SANS 1200D	EARTHWORKS				
8.6.1	8.3.2a)	a) Excavation in all materials and use for embankment or backfill or dispose, as ordered	m³	33		
8.7	SANS 1200MF	BASE				
8.7.1		Construct the base course and compact to 95 %     MOD. AASHTO with G7 material from commercial sources	m³	22		
8.7	SABS 1200MJ	SEGMENTED PAVING				
		Supply and construct paving walkway as per detail drawings, (including supply all materials for the paving, layers and bedding, jointing, excavation, compaction, testing and for all labour): 1.5m wide				
8.7.1	8.2.1	Provision of edge restraints	m	254		
8.7.2	8.2.2	Construction of Paving Complete	m²	220		
8.7.3	8.2.3	Cutting Units to Fit Edge Restraints	m	254		
8.7.4	8.2.4	Rolling to Locked-up Condition as Specified in 8.7.2.	m²	200		

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 9
Preliminary & General

SCHEDULE 9 : ANCILLARY WORKS

Item	Payment	Description	Unit	Qty	Rate	Amount
	Ref.				(R)	(R)

	,		Bro	ught Forv		
8.8	PSA 8	EXTERNAL WORK: NEW ABLUTION FACILITY				
8.8.1		Provide the sum of R 772 560.00 for New Ablution Facility	PC Sum	1	772 560.00	772 560.00
8.8.1		Overheads, charges and profit on Item 8.8.1	%			
8.9		WATER SUPPLY				
8.9.1	PSA 8.8.23	a) Supply, deliver and install 10 000 L vertical polyethylene water storage tank(s) (JoJo or equal), compliant with SANS 1731:2017 for polyethylene water tanks, UV-stabilised with food-grade inner layer, complete with screened inlet, Ø110 mm overflow with insect screen, te Ø50 mm outlet with union ball valve, set leven on the prepared RC plinth, connect to existing pipework, supply and insall inline booster pump, fill, test and commission — comple	sum	2		
8.9.2	PSA 8.8.24	a) Lay and join 75mm HDPE pressure pipe to SANS 4427, in trenches excavated to level and width, provide selected granular bedding (≥100 mm below pipe + 150 mm cover), backfill and compact in ≤150 mm layers to ≥95% Mod AASHTO, place marker/warning tape 300 mm above crown, make connections to existing main with approved couplings, pressure-test, flush/disinfect (if potable), commission and reinstate surfaces, all in accordance with SANS1200 LB/LD and SANS 2001-DP2, maximum 1.5m depth, complete with connection to municipal.	m	100		
		TOTAL SCHEDULE 9 CA	DDIED F	DDWARD.	TO SHIMMADY	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 10
Preliminary & General

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
10.1		RETICULATION KIOSK			, ,	, ,
		Supply and install Kiosk with following:				
10.1.		a) Indoor kiosk enclosure	no.	1		
10.1.2		b) DB Busbars 1000A 10kA 400-230V	no.	1		
10.1.3		c) 200A 3p 10kA Circuit Breaker[with electronic tripping with range(adjustable)] Incoming from Eskom)	no.	1		
10.1.4		d) 40 Ampere 10kA 3 Pole MCB (flood lights control boxes)	no.	1		
10.1.5		e) Class 2 Surge Arrestors 10kA 3ph+N	no.	1		
10.1.6		f) 100A 3p 10kA Circuit Breaker[with electronic tripping with range(adjustable)] (Field B Kiosk)	no.	1		
10.1.7		g) 80A 3p 10kA Circuit Breaker[with electronic tripping with range(adjustable)] (Gymnasium/ Kiosk DB)	no.	1		
10.1.8		h) 80A 3p 10kA Circuit Breaker[with electronic tripping with range(adjustable)] (Change rooms DB)	no.	1		
10.1.9		i) 80A 3p 10kA Circuit Breaker[with electronic tripping with range(adjustable) ( Pavilion and security light DB)	no.	1		
10.1.10		j) Kamstrup Omnipower 5A 3-phase meters or equivalent	no.	1		
10.1.11		k) CT's 600:5 Class 1	no.	3		
10.1.12		l) Labelling etc	no.	1		
10.1.13		j) Locking mechanism	no.	1		
10.1.14		k) Installation and Connecting Up	no.	1		
		I .	Ca	rried Forw	ard	

Contractor	\\ \( \) \(	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	\\/\limbox
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Schedule 10
Preliminary & General

SCHEDULE 10: ELECTRICAL WORKS

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
	•		Bro	ought Forw	ard	
10.2		FEEDER CABLES (SUPPLY AND INSTALL)				
10.2.1		a) 150mm² x 4-Core PVC Cable (Incoming from Eskom supply pole.)	m	50		
10.2.2		b) 16mm² x 3-Core PVC Cable (flood lights control boxes)	m	50		
10.2.3		c) 16mm² x 3-Core PVC Cable with 8mm2 with BECW (Gymnasium / kiosk DB)	m	50		
10.2.4		d) 16mm² x 3-Core PVC Cable with 8mm2 with BECW (Change rooms DB)	m	50		
10.2.5		e) 16mm² x 3-Core PVC Cable with 8mm2 with BECW (Pavilion and security light DB)	m	50		
		EXCAVATIONS AND ASSOCIATED WORKS				
10.2.7		Excavate for cable and sleeve trench including temporary support of sides, keeping excavations dry, backfilling and compacting to 93% MOD AASHTO to the Engineer's specification, 400 wide x 600 deep; measured per m length (Provisional sum)	PC Sum	1	50 000.00	50 000.00
10.2.8		b) Overheads, charges and profit on Item 10.2.1.1	%			
10.3		CHANGE ROOMS (DB1: 12 way flush DB Change-rooms)				
10.3.1		a) 12-way Surface mounted DB	no.	1		
10.3.2		b) 63A 1p Earth leakage isolator (30mA)	no.	1		
10.3.3		c) 60A 2p 10kA Circuit Breaker[with electronic tripping with range(adjustable)]	no.	1		
10.3.4		d) 10 Ampere 10 kA 1 Pole MCB	no.	3		
10.3.5		e) 20 Ampere 10kA 1 Pole MCB	no.	3		
10.3.6		f) 32 Ampere 10kA 1 Pole MCB	no.	3		
10.3.7		g) Class 2 Surge Arrestors 10kA 1ph+N	no.	1		
10.3.8		h) Labelling etc	no.	1		
10.3.9		j) Locking mechanism	no.	1		

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

Carried Forward

Schedule 10
Preliminary & General

**SCHEDULE 10: ELECTRICAL WORKS** 

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)	
					Brought Forward		
10.3.10.		k) Installation and Connecting Up	no.	1			
10.3.11		I) Plug Wiring - complete	m	200			
10.3.12		m) Plug Wiring - complete	m	200			
10.3.2		A) LUMINARIES					
		All luminaires to be installed or used must be IP65 standard to SANS specification with the SABS label					
10.3.2.1		Metropolis 1200mm 48W 4000K LED Flourescent light fittings or similar	no.	3			
10.3.2.2		Metropolis 1200mm 48W 4000K LED Water tight     Flourescent light fittings or similar	no.	2			
10.3.2.3		3) Wall Mounted Bulkhead 17W LED Fittings or similar	no.	8			
10.3.2.4		4) Schreder 100W security light (wall mounted) or similar	no.	4			
10.4		KIOSK/GYMNASIUM/STORE-ROOM (DB1: 12 way flush DB Change-rooms)					
10.4.1		a) 12-way Surface mounted DB	no.	1			
10.4.2		b) 63A 1p Earth leakage isolator (30mA)	no.	1			
10.4.3		c) 60A 2p 10kA Circuit Breaker[with electronic tripping with range(adjustable)]	no.	1			
10.4.4		d) 10 Ampere 10 kA 1 Pole MCB	no.	4			
10.4.5		e) 20 Ampere 10kA 1 Pole MCB	no.	7			
10.4.6		f) 32 Ampere 10kA 1 Pole MCB	no.	1			
10.4.7		g) Class 2 Surge Arrestors 10kA 1ph+N	no.	1			
10.4.8		h) Labelling etc	no.	1			
10.4.9		j) Locking mechanism	no.	1			
			Ca	rried Forwa	ard		

Witness 2

Witness 1

Employer

Witness 1

Witness 2

Schedule 10
Preliminary & General

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
			Brought Forward			
10.4.10.		k) Installation and Connecting Up	no.	1		
10.4.11		I) Plug Wiring - complete	m	400		
10.4.12		m) Plug Wiring - complete	m	400		
10.4.2		A) LUMINARIES				
		All luminaires to be installed or used must be IP65 standard to SANS specification with the SABS label				
10.4.2.1		Metropolis 1200mm 48W 4000K LED Flourescent light fittings or similar	no.	10		
10.4.2.2		Metropolis 1200mm 48W 4000K LED Water tight     Flourescent light fittings or similar	no.	3		
10.5		PAVILION WITH ABLUTION (DB1: 12 way flush DB Change-rooms)				
10.5.1		a) 12-way Surface mounted DB	no.	1		
10.5.2		b) 63A 1p Earth leakage isolator (30mA)	no.	1		
10.5.3		c) 60A 2p 10kA Circuit Breaker[with electronic tripping with range(adjustable)]	no.	1		
10.5.4		d) 10 Ampere 10 kA 1 Pole MCB	no.	5		
10.5.5		e) 20 Ampere 10kA 1 Pole MCB	no.	3		
10.5.6		f) 32 Ampere 10kA 1 Pole MCB	no.	2		
10.5.7		g) Class 2 Surge Arrestors 10kA 1ph+N	no.	1		
10.5.8		h) Labelling etc	no.	1		
10.5.9		j) Locking mechanism	no.	1		
10.5.10.		k) Installation and Connecting Up	no.	1		
			Ca	arried Forwa	ard	

Schedule 10
Preliminary & General

Item	Payment Ref.	Description	Unit	Qty	Rate (R)	Amount (R)
	Nei.				(K)	[ (K)
			Bro	ought Forw	ard	
10.5.11		I) Plug Wiring - complete	m	250		
10.5.12		m) Plug Wiring - complete	m	250		
10.5.2		A) LUMINARIES				
		All luminaires to be installed or used must be IP65 standard to SANS specification with the SABS label				
10.5.2.1		Metropolis 1200mm 48W 4000K LED Flourescent light fittings or similar	no.	3		
10.5.2.2		Metropolis 1200mm 48W 4000K LED Water tight     Flourescent light fittings or similar	no.	2		
		3) Wall Mounted Bulkhead 17W LED Fittings or similar	no.	8		
		Schreder 100W security light (wall mounted) or similar	no.	4		
10.6		SOCCER FIELD FLOODLIGTHS				
		All luminaires to be installed or used must be IP65 standard.a to SANS specification with the SABS label. Luminaire to be connected on existing cable and connector boxes (subject to testing and confirmation of existing cable integrity) - supply and install				
10.6.1		a) Beka Schreder Briteline Gen 3 2000W LED Flood lite     or similar	no.	16		
10.6.2		b) Disconnect and remove existing luminaires from all four masts	no.	28		
		]	Ca	rried Forwa	ard	
· · · · · · · · · · · · · · · · · · ·						
	Contractor	Witness 1 Witness 2 Employer		Vitness 1	Witnes	

Schedule 10
Preliminary & General

Item	Payment	Description	Unit	Qty	Rate	Amount
	Ref.				(R)	(R)

Brought Forward							
10.7	SANS 10142-1	TENNIS COURT LIGHTS					
		All luminaires to be installed on new poles utilising new cabling					
10.7.1		a) Disconnect and remove existing luminaires from all six wooden Poles and remove poles.	no.	28			
10.7.2		b) Supply and install 15m fibreglass light pole (beka shredder or equivalent)	no.	6			
10.7.3		c) Install existing luminaires on the new poles	no.	6			
10.7.3		d) Remove existing over head cabling	no.	1			
10.7.4		e) 6mm² x 2-core surfix	m	350			
		TOTAL SCHEDULE 10 0	CARRIED F	ORWARD 1	O SUMMARY		

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2

### **SCHEDULE OF QUANTITIES**

### Summary

Schedule No.	Description	Amount
1	Preliminary and General	
2	Soccer Field A	
3	Gymnasium and Kiosk	
4	Referee Change Room	
5	Store Room	
6	Pavilion with Ablution	
7	Multi-Courts	
8	Team Change Rooms	
9	Anchillary Works	
10	Electrical	
	Sub-Total A	
Plus	Contingencies 5% of Sub Total A	
	Sub-Total B	
Plus	Value Added Tax at 15% of Sub Total B	
TOTAL AM	OUNT OF TENDER CARRIED FORWARD TO FORM OF TENDER	
	Signed on behalf of Tenderer:	
	Date:	

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



.....

.\_\_\_\_\_

### PART C3: SCOPE OF WORK

C3.1	PROJECT SPECIFICATION	135
C3.2	CONTRACT / STANDARDS/TECHNICAL SPECIFICATION	143
C3.3	MANAGEMENT OF THE WORKS	151
C3.4	PLANNING AND PROGRAMMING	151
C3.5	GENERAL ALLOWANCE	151
C3.6	LIST OF APPLICABLE SPECIFICATIONS	146
C3.7	COMMUNITY LIAISON OFFICERS & LOCAL LABOUR	181
C3.8	OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION	185

BMH AFRICA ENGINEERS 134





#### C3.1 PROJECT SPECIFICATIONS

In the event of any discrepancy between the Scope of Works and a part or parts of the SANS 1200 Standardized Specifications, the Bill of Quantities or the Drawings, the Project Specifications shall take precedence and prevail in the Contract.

#### **C3.1.1. SCOPE OF THE WORKS**

**Naledi Local Municipality** intends to do rehabilitation work at the Huhudi Sport Facility. This contract covers all work in connection with the construction of civil services and road construction work.

#### **C3.1.2. DESCRIPTION OF THE WORK**

The project scope of work entails the upgrading of the Huhudi Sports Complex.

The upgrading of the Huhudi Sports Facility will be executed through a series of coordinated construction activities, ensuring compliance with design specifications, safety standards, and stakeholder expectations. The service to be provided will consist of the professional services for the refurbishment/construction of the following:

- Sport Field (Soccer/Rugby) Artificial Turf
- Athletic Track Marking
- High-Mast Lights
- Team Ablution & Changing Facility
- Main Change Room, Storeroom, Pavilion & Kiosk
- Photographers Elevated Steel Stand
- Tennis Court Fence & Lights
- Walkways
- Electrical Works
- Testing & Handover

#### C3.1.3.1. WORKMANSHIP AND COMPLIANCE WITH REGULATIONS, STANDARDS AND CODES

The Civil Works Contractor shall adhere to all the relevant regulations, standards and codes specified in the tender document.

Any items not specified, but reasonably assumed to be necessary, for the completion of the works to recognized standards of workmanship and practice, shall be deemed to be included in the contract.

The workmanship throughout the Works shall be to the satisfaction of the Employer and relevant codes of practice. Any materials or workmanship considered to be faulty or incorrectly or inadequately erected or repaired shall be substituted, altered or rectified to the satisfaction of the Employer without additional costs to the Employer.

#### C3.1.3.2. DEFINITIONS

Supply : To purchase, procure and deliver complete with all related specified

accessories

Erect : To place or mount and fix in position

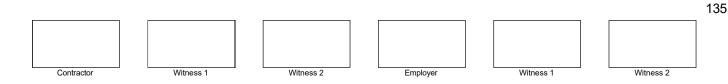
Install : To erect, connect up and commission, complete with related

accessories

Indicated, shown, noted : As indicated or shown on drawings

Approved alternative : Approved in writing by the Project Engineer

Similar, equal : Equal or better in efficiency of performance and compatibility





------

#### C3.1.3.3. CONFLICT BETWEEN SPECIFICATIONS AND DRAWINGS

Should there be conflict between the Project Specifications, Standard Technical Specifications, Schedule of Quantities and Drawings, the sections shall be considered in the following order of priority:

- 1. Project Specifications
- 2. Schedule of Quantities
- 3. Drawings

Should the Contractor note an inconsistency between the Project Specifications, Standard Technical Specifications, Schedule of Quantities and Drawings, he shall notify the Consulting Engineer immediately and obtain clarification or instructions prior to ordering or installing equipment.

BMH AFRICA ENGINEERS							
Queta de	NACTOR OF A	Mita and O		Notice and	With and O		

ctor Witness 1 Witness 2 Employer Witness 1 Witness 1



LE

#### **C3.1.3.4. SITE INSTRUCTION & SITE VISIT BOOK**

The Contractor must make provision for a site instruction (triplicate pages) & site visit book, which shall be kept in the site office at all times. All instructions and variations shall be written in this site instruction book by the Engineer & Client while attending the site. The onus will be on the Contractor to confirm such instructions and variations in writing and save keeping of site instruction book. The site instruction book will be submitted to the Engineer after Practical Completion.

#### C3.1.3.5. PROGRAMME

This tender must be accompanied by a detailed programme based on prior experience and accounting for site conditions. The Contractor must base his programme on a site handover date. The programme must also make provision for delivery dates of material as quoted by their suppliers. The Contractor must take note of the fact that the contractor will be responsible for late delivery of material. The Engineer and the Employer reserves the right to alter the programme to meet the priorities of the client. These amendments will be such, that the Contractor will still be able to complete the works within the tendered construction time.

The Contractor must submit a progress report at each monthly, scheduled site meeting based on this original programme. The actual and scheduled progress must be clearly indicated in the report. The Contractor must also indicate his labour force and equipment on site in this report

#### **C3.1.3.6. MEASUREMENTS**

The Civil Works Contractor shall not scale drawings or make any assumptions regarding measurements/ dimensions. If in doubt, the Civil Works Contractor is to obtain clarification from the Consulting Civil Engineer. Before ordering of the construction material, the quantities and lengths must be measured and verified on site and must be confirmed to the Civil Engineer. The accuracy or inaccuracy of the Bill of Quantities will not influence the validity of the tender. The quantities in the Bill are measured from a drawing and serve only as an indication to obtain a unit rate. At the end of the Contract period a final re-measurement, based on actual quantities, will be done and no payment for excessive material will be made.

#### C3.1.3.7. OPERATING INSTRUCTIONS, MAINTENANCE MANUALS AND RECORD DRAWINGS

The Civil Works Contractor shall supply, after approval by the Civil Engineer, three (3) bound sets of operating instructions, maintenance manuals and record drawings for the complete Civil engineering services installation.

The provision of operation instructions, maintenance manuals and record drawings shall be inclusive of the demonstration of the specific portions of the Civil engineering services installations by the Civil Works Contractor to and the training of the Employer's representatives and staff members.

The Contract will not be accepted as complete until these have been supplied, and approved by the Civil Engineer.

#### C3.1.3.8. CONSTRUCTION DRAWINGS

Drawings shall be submitted in triplicate as soon as possible after the signing of the Contract Agreement, but in sufficient time to allow the Civil Engineers to examine and approve before Construction is started, or material delivered to site.

Should the Civil Engineers require that any drawing be amended, the Civil Works Contractor shall make the necessary alterations and re-submit the drawing within two weeks.

The Civil Works Contractor shall provide the Civil Engineers with complete layout, installation and shop drawings, together with any necessary descriptions and specifications. Sufficient details shall be given to permit a full appraisal of all parts of the installation and their relation to the building structure.

Drawings shall give full details of all foundations, ducts, chases, pits and openings and shall set out all lines and levels for the work.

Delays caused by the submission of drawings or by an error, omission or inadequacy in these drawings, shall not be considered a reason for an extension of the Contract period.

BMH AFRICA ENGINEER	RS				137
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



\_\_\_\_\_

#### **C3.1.3.9. SITE ESTABLISHMENT**

It shall be expected from the Civil Works Contractor to erect a site office with surrounding fence at a suitable place which will be pointed out by the Engineer/Client. The surrounding fence to be 1.8 m high, with Y shape frame on top of equipment with barbed wire. Gates which can be locked must all form part of the surrounding fence. This site yard must therefore provide adequate security to all material stored. The site office must be equipped with furniture for meeting purposes and the Contractor must make arrangements to have full time security, keeping close watch over all material stored in this yard. The Contractor must also provide for all the necessary sanitary toilets, water, rain gauge, etc.

The Contractor must also erect a name board, as per the drawing, at a suitable place to be pointed out by the Client/Engineer. The name board form part of this specification.

#### C3.1.3.10. SITE CONDITIONS

The onus will be on the Contractor to acquaint himself with the site conditions before tender closing date.

#### C3.1.3.11. TIME FOR COMPLETION

The Contractor must allow sufficient time on his contract working period for delays due to in climate weather according to the average rainfall for **Naledi Local Municipality** area. It shall be expected from the Contractor to keep record of all rainfall on site with an approved rain meter and to record all the results in the site diary. Extensions of time will only be granted if evidence can be provided that the delays was caused by abnormal weather conditions or reasons beyond the control of the Contractor and shall be submitted, in writing prior to appropriate following scheduled site meeting.

The penalty for late completion of the works is indicated in the tender Contract Data

#### C3.1.3.12. SAFEGUARDING AND ACCOMMODATION OF TRAFFIC

The Electrical Contractor shall, in cooperation with, and in accordance with any instruction from the relevant traffic authorities take precautions for the protection of the Works and the safety of the public and private vehicles and pedestrians. Temporary traffic signs shall be erected at diversions.

#### **C3.1.4. ENVIRONMENTAL MANAGEMENT PLAN**

The Civil Works Contractor shall comply with the Construction Environmental Management Plan, relating to his activities during the implementation of the Works, if specified by the Employer

#### C3.1.5. QUALIFIED PERSONNEL

The Contractor must submit proof of the qualifications and experience of his site agent regarding the construction and erection of civil construction works.

The Contractor must also submit a certificate issued by the Inspector of Occupational Health and Safety. indicating that he is fully competent in doing civil construction work and will therefore be fully responsible for the construction of the works. No work will be allowed before submission of these documents.

The Contractor will also provide the Engineer with the names of the supervisory personnel on site before commencement of the contract works. If the Contractor, during any stage of the contract for whatever reason, desire to change the supervisory personnel on site, he will do so in wring to the Engineer. Failure to do this will result in the Engineer stopping the contract works until such time that the necessary documentation is provided. Any such delays will not be considered by the Engineer for late completion of the contract.

#### **C3.1.6. FINAL INSPECTION**

After completion of each section or Assessment Stage of the project, the Contractor must do a thorough inspection on all the work done, to satisfy himself that the work complies with the specifications, and then apply in writing to the Engineer for a final inspection. The Contractor will be liable for a penalty of R5000.00 for every re-inspection. The application for the final inspection must be accompanied by the as-built drawings of the particular Assessment Stage. The practical/works completion stage will not be approved before submission of the as-built drawings and all documentation expected by the Engineer/Client.

BMH AFRICA ENGINEERS					138
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



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

#### C3.1.7. ACCEPTANCE, TESTING AND COMMISSIONING

The Civil Works Contractor shall carry out all tests required in terms of the relevant Acts, SABS Codes of Practice, Local Authority requirements, and as detailed in the Specifications. The Civil Works Contractor shall provide all the equipment and apparatus required for the purpose of carrying out all necessary tests.

If any part of the Works fails the test, the Civil Works Contractor shall be responsible for rectifying, at his own cost, the defective Works and the re-testing thereof to ensure compliance. If in consequence, the Civil Engineers are obliged to attend the further acceptance tests the additional costs incurred by the Engineers shall be payable by the Civil Works Contractor.

The Works shall be deemed to be practically complete only when the Civil Engineer has approved all tests and inspections, and a Completion Advice Notice or other relevant completion notice is issued.

#### **C3.1.8. EXISTING SERVICES AND EXCAVATION**

Special care must be taken, not to damage any other services, as the Contractor will be responsible for reparations at own expense.

The Civil Works Contractor shall accept full responsibility for any damages caused by excavation work, whether caused directly or indirectly and whether written permission has been granted for machine excavation or blasting, or not.

The Contractor shall report any damaging of existing services immediately to the Engineer as well as the owner of the service, irrespective of whether the damage is considered a minor damage or not. Apart from reporting damage, an entrance shall be made in the site diary, indicating the time of occurrence, extent of damage, time reported and names of the persons reported to Engineers as well as Owners of the service.

#### C3.1.9. MISCELLANEOUS

#### C3.1.9.1. Labels

Labels shall be installed as required in terms of the relevant codes of practice and as further specified in this Tender Document. All labels shall be in English with capital letters, in black and on a white background, and a minimum of 4 mm in height. All labels shall be of ivorine or plastic construction and riveted / screwed in place.

#### C3.1.9.2. Safety Signage

The Civil Works Contractor shall supply and install all danger, sub-station and safety notices and signs in terms of the relevant regulations. All safety signage installed shall be in accordance with SABS 1186.

#### C3.1.9.3. Access roads

Temporary access roads, which may be required to reach various parts of his Site, will be the Contractor's responsibility.

#### Protection of existing works or services

The Contractor shall take all necessary steps to ascertain the location of existing services before commencing any section of the works and shall protect and exercise the greatest care when working in the vicinity of such services.

#### C3.1.9.4. Contract work

This project will be conducted as a labour-intensive project and emphasis will be placed on job creation as well as on training. A minimum of 30% of the contract value must therefore be subcontracted to a locally based SMME'(s), where successful bidder is not based within the Naledi Local Municipality. Proof indicating the work to be subcontracted and the value thereof to be presented to the municipality with the acceptance letter.

BMH AFRICA ENGINEERS	3				139
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



-----

#### C3.1.9.5. Completion of document

The tenderer's attention is drawn to the fact that if the Schedules and/or the Bill of Quantities of this specification are not completed. The tender cannot be adjudicated and will be disqualified.

#### C3.1.9.6. Test

After completion of the works and before first delivery is taken, a full test will be carried out on the installation for a period of sufficient duration to determine the satisfactory working thereof. During this period the installations will be inspected and the Contractor shall make good, to the satisfaction of the Representative/Agent, any defects which may arise. The Contractor shall provide all instruments and equipment required for testing and any water, power and fuel required for the commissioning and testing of the installations at completion.

#### C3.1.9.7. Maintenance of Installations

With effect from the date of the Works Completion Certificate the Contractor shall at his own expense undertake the regular servicing of the installation during the maintenance period and shall make all adjustments necessary for the correct operation thereof. If during the said period the installations is not in working order for any reason for which the Contractor is responsible, or if the installations develops defects, he shall immediately upon being notified thereof take steps to remedy the defects and make any necessary adjustments.

Should such stoppages however be so frequent as to become troublesome, or should the installations otherwise prove unsatisfactory during the said period the Contractor shall, if called upon by the Representative/Agent or the Director-General, at his own expense replace the whole of the installations or such parts thereof as the Representative/Agent or the Director-General may deem necessary with apparatus specified by the Representative/Agent or the Director-General.

#### C3.1.9.8. Regulations

The installation shall be erected and tested in accordance with the Acts and Regulations as indicated in the scope of works

#### C3.1.9.9. Notices and Fees

The Contractor shall give all notices required by and pay all necessary fees, including any inspection fees, which may be due to the local Supply Authority. On production of the official account, only the net amount of the fee charged by the Supply Authority for connection of the installation to the supply mains, will be refunded to the Contractor by the Naledi Local Municipality. The Contractor shall issue all notices and make the necessary arrangements with Supply Authorities, the Postmaster-General, S.A. Transport Services, Provincial or National Road Authorities and other authorities as may be required with respect to the installation

#### C3.1.9.10. Balancing of Load

The Contractor is required to balance the load as equally as possible over the multiphase supply

#### C3.1.9.11. Service of Conditions

All plant shall be designed for the climatic conditions appertaining to the service

#### C3.1.10.1. Facilities for contract personnel:

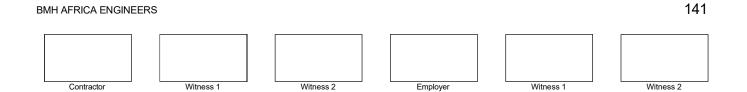
#### C3.1.10.2. Toilet facilities

The Contractor shall provide for the supply and erection of proper temporary latrines for the use of his

BMH AFRICA ENGINEER	S				140
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



employees, to the satisfaction of the engineer's representative. The Contractor shall maintain the latrines in a thoroughly clean and hygienic condition for the duration of the contract. On completion of the contractthe Contractor shall remove these temporary latrines from site





L &

#### C3.1.10.3. Electrical power for construction

The Contractor shall provide all electricity required for the execution of the works at his own expense

#### C3.1.10.4. Water for construction

The Contractor shall provide water required for the execution of the works at his own expense.

#### C3.1.10.5. Construction camp:

The Contractor will negotiate his own site for the establishment of a site office and store. The Contractor shall be responsible for keeping the area neat, tidy and clean. On completion of the contract all temporary buildings, roofs, fencing, etc., shall be removed from the site at the Contractor's expense and the camp site restored to the satisfaction of the Engineer.

#### C3.1.10.6. Storage accommodation

The Contractor shall at his own cost provide and maintain adequate and suitable storage of all perishable or corrodible materials and fittings on sites to be approved by the Employer. Such storage accommodation. particularly in the case of cement stores. Shall be ventilated weather and waterproof, with raised off the ground so as to keep the materials perfectly dry and fully aerated and shall be subject to the approval of the Employer, who shall have free access at all times to the storage sheds.

#### C3.1.10.7. Clearing the site

During progress and upon completion of the Works and before acceptance and final payment is made, the Contractor at his own expense shall fill pits and clear the Works and all ground occupied by him in connection with the Works, of rubbish, excess materials, false work, temporary structure and equipment, and all parts of the Works shall be left in a neat, presentable condition. All excess materials, soil, rocks, etc., shall be removed by the Contractor.

#### C3.2: CONTRACT / STANDARDS SPECIFICATION

The following specifications are applicable to this Contract.

#### **C3.2.1 WORKS SPECIFICATIONS**

#### C3.2.1.2 Applicable SANS 1200 Standardized Specifications

The SANS 1200 Standardized Specifications that apply to this Contract are listed in Part C3.6.1. All data and variations to these specifications are given in Part C3.6.2, Specification Data.

#### C3.2.1.3 Particular / Generic specifications

The Particular / Generic specifications that apply to this Contract are listed in Part C3.6.1. All data and variations to these specifications are given in Part C3.6.2, Specification Data.

#### **C3.2.2 PLANT AND MATERIALS**

#### C3.2.2.1 Plant and materials supplied by the Employer

The Employer will not supply any plant or materials.

#### **C3.2.3 CONSTRUCTION EQUIPMENT**

#### C3.2.3.1 Requirements for equipment

All equipment shall be maintained in a good running order and will be safe for the use of all staff and operators.

#### C3.2.3.2 Equipment provided by the Employer

The Employer will not provide any equipment.

BMH AFRICA ENGINEERS	3				142
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



\_\_\_\_\_

#### **C3.2.4 EXISTING SERVICES**

#### C3.2.4.1 Known services

An existing water line is situated on the outskirts of town and will be used to supply the development with water.

#### C3.2.4.2 Treatment of existing services

All services found on Site shall be protected during the construction period and care shall be taken not to discontinue or stop the service delivery of these services.

#### C3.2.4.3 Damage to services

The Contractor shall take the necessary care not to damage any of the known services and shall institute any required measurements to protect these services.

#### C3.2.4.4 Reinstatement of services and structures damaged during construction

The Contractor shall notify the Engineer as well as the relevant authorities of any damage to existing services.

The cost of repairing or reinstating the services will be for the Contractor.

#### **C3.2.5 SITE ESTABLISHMENT**

#### C3.2.5.1 Services and facilities provided by the Employer

#### **C3.2.5.1.1 Water supply**

Water is not available on the Site for use by the Contractor. The Contractor will be charged at normal Municipal rates and should make his own arrangements for connection and related fees. The Contractor will be held accountable for any misuse or unnecessary spillage of the water.

The Contractor shall install at his own cost a bulk water meter to measure his own water consumption. Records should be kept of the consumption and made available to the Engineer on request.

The flow of water might not be sufficient for the Contractor's needs at all times. The Employer does not guarantee the continuous and sufficient supply of water and no claims by the Contractor with regard to a shortage of water will be considered.

#### **C3.2.5.1.2 Power supply**

There is no electrical supply on the Site.

The Contractor shall make all arrangements and pay all installation and consumption charges for the supply of power required.

The Contractor shall negotiate directly with Eskom to arrange a power supply as he requires.

Any distribution network that the Contractor may require shall be carried out

#### C3.2.5.1.3 Camps and depot

The Contractor may erect his site offices and storage depot within the boundaries of the area indicated by the Engineer.

No housing is available and the Contractor shall make his own arrangements to house his employees and transport them to and from the Site. All arrangements for housing workmen shall be made in accordance with and subject to applicable regulations and requirements.

BMH AFRICA ENGINEER	S				143
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



\_\_\_\_\_

### C3.2.5.1.4 Disposal sites

The Contractor shall locate suitable sites, off site, for the disposal of cleared vegetation, rubble, unsuitable material or surplus material.

The Contractor shall inform the Engineer of any site he proposes to use.

### C3.2.5.2 Facilities provided by the contractor

### C3.2.5.2.1 Facilities for the Engineer

The Contractor shall provide for the use of the Engineer, maintain and service, as applicable, the following facilities as specified in SANS 1200 AB and SDAB:

- a) one nameboard,
- b) survey equipment,
- c) laptop computer (see specifications as part of B14.03),
- d) one survey assistant,
- e) medical facilities,
- f) a site instruction book,
- g) protective clothing, and
- h) safety equipment.

Unless specified otherwise, on completion of the Works these facilities shall revert to the Contractor who shall remove them from the Site.

The term "use of the Engineer" will be deemed to include, as appropriate, use by the Engineer's staff and the Engineer's Representative and his staff.

### C3.2.5.3 Other facilities required

The Contractor shall make medical facilities and safety equipment available, in accordance with SDA4-1.

### C3.2.5.4 Contractor's storage facilities

In terms of Sub clause 4.2 of SANS 1200 A, the Contractor shall provide sufficient suitable storage facilities on site.

Perishable materials shall be protected against moisture, direct sunlight and contact with harmful chemicals, as applicable.

The Contractor shall take steps to prevent damage to or the theft of any materials on site. No extension of time will be considered in respect or delays due to such damage or theft occurring.

### C3.2.5.5 Notice boards

One notice board will be required for this project.

The board shall be placed at positions as confirmed by the Engineer and shall be removed by the Contractor on completion of the retention period of the contract.

The layout of the board will be as specified on the drawings.

# **C3.2.6 PERMITS AND WAY LEAVES**

The Contractor will be required to obtain any way leaves that may be required from the relevant authorities in order to do construction work within the area of the existing services.

The contract will provide compensation to the Contractor for this service.

BMH AFRICA ENGINEERS									
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2				



· L & ·

### C3.2.7 ALTERATIONS, ADDITIONS, EXTENSIONS AND MODIFICATIONS TO EXISTING WORKS

The Contractor will be required to confirm the position and levels of all existing services before construction or alterations to these services may take place.

If it is found that any discrepancies exist with the construction drawings, the Engineer should be notified as soon as possible and before any construction with regard to the service takes place.

### C3.2.8 SURVEY CONTROL AND SETTING OUT OF THE WORKS

The Contractor will be required to do all survey control and setting out of the services as per the construction drawings.

The cost for this function will be deemed to be included in his tender price and no separate amount will be payable.

### **C3.2.9 TRAINING**

### C3.2.9.1 General

An aspect of the aim of this Contract is to provide training for the local labour employees. (See also C3.4.11).

### C3.2.9.2 Training of local labour

All local labour employed on this Contract shall receive in-service training.

### **C3.2.10 LABOUR INTENSIVE CONSTRUCTION METHODS**

### C3.2.10.1 General

Except as allowed for in C3.4.10.2, all restricted excavation, trimming of excavations, backfilling around structures, trench excavations and similar tasks shall be carried out using labour intensive construction methods. The Employer's aims in using such methods are:

- to provide employment for as many of the unemployed people in the area as possible. The Contractor shall, therefore, only employ people who have been unemployed for at least 6 months and shall not employ farm labourers, etc., who are not unemployed.
- to provide the labour force with in-service training which will be of use on similar projects in the future. See C3.4.11.
- to develop and encourage private initiative and entrepreneurship in this manner. The Contractor shall, therefore, recruit labour from the local community on an informal subcontract basis and will only be allowed to use his own personnel in respect of activities such as setting out, marking positions of trenches, delivery of materials and the use and control of plant as set out in C3.4.10.2.

The Contractor is at liberty to employ specific "subcontractors" for specific tasks, or to employ such "subcontractors" for a variety of tasks.

Equipment such as picks and spades shall be supplied by the Contractor on a "lease-lend" basis to each "subcontractor". All manufactured materials such as pipes and fittings shall be purchased by the Contractor and supplied to the "subcontractors" as necessary.

The proposed tariffs, method of payment and any other necessary agreement between the Contractor and his "subcontractors" shall be drawn up by the Contractor himself. The remuneration of workmen under this Contract shall not be less than the minimum wage payable to workers in the civil engineering industry for the relevant magisterial district, as published in Annexure A of the Statistical Release (P0142.2) of the Central Statistical Service.

BMH AFRICA ENGINEER:	S				145
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



------

Although certain aspects of the work will therefore be carried out by means of manual labour, this will not in any way limit or detract from the Contractor's contractual responsibilities in respect of quality or correctness, nor will it imply that the prescribed quality specified in this document will be waived.

### C3.2.10.2 Labour intensive aspects of the Works

Labour intensive means that, with the exception of the following activities, all work associated therewith shall be carried out by hand:

- a) Excavation of "hard rock" and "intermediate material", as defined in Sub clause 3.1.2 of SANS 1200 D: Mechanical equipment such as trench excavators and jack hammers or air drills for blasting work may be used. For measurement and payment purposes this "intermediate material" will be classified as soft material.
- b) Compaction of the trench bottom, pipe bedding, fill blanket and backfill material: Equipment such as plate compactors may be used.
- c) Watering of bedding and backfill material for compaction purposes: A water cart may be used.
- d) Importation of bedding and selected backfill material from approved sources and the removal of surplus/unsuitable material to spoil sites: Digger-loaders and trucks may be used.
- e) Mixing of concrete: Concrete mixers may be used.
- f) Loading, transportation including that portion of the trip on site, and off-loading of all materials which have to be imported to the site from sources off the Site or which have to be removed from site and taken to destinations off the site: Trucks and mechanical lifting equipment may be used.
- g) Loading, transportation on Site and placing of heavy components such as precast concrete manhole slabs, valves and the like: Digger-loaders, trucks and mechanical lifting equipment may be used.
- h) Earthworks for roads: Conventional Road building plant may be used.
- i) Placement and compaction of selected layers, subbase and base: Conventional road building plant may be used.

### C3.2.10.3 Documentation

Every month the Contractor shall submit to the Engineer a schedule listing all the local labour employed on the project and giving the wages earned. (See C3.4.14).

### C3.2.10.4 Measurement and payment

The labour-intensive tasks and production rates shall be determined by the Contractor in accordance with C3.4.10.1 and C3.4.10.2.

The rates for labour intensive items shall cover all overheads and the Contractor's profit, additional supervision, all setting out and the cost of any other operation necessary to complete the work in accordance with the specification. In addition, the rates for labour intensive items shall cover the tariff paid directly to the labourers in respect of the relevant task.

### **C3.2.11 TRAINING OF LOCAL LABOUR**

### C3.2.11.1 General

The Contractor shall provide in-service training for labourers recruited from the local community. The training shall cover semi-skilled labour activities such as pipelaying, bricklaying, etc.

### C3.2.11.2 Method of training

The training for pipelaying, etc. (see Item A9) shall commence without delay. Although the other training can take place in-service, it is advised that all training programmes be initiated in the pre-construction period.

The Tenderer shall indicate how such training is to be done on the schedule bound into this document, and which accredited training scheme will be used.

BMH AFRICA ENGINEERS					146
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



### C3.2.11.3 Method of payment

SDA8-13 shall apply.

### **C3.2.12 NORMAL WORKING HOURS**

If the Contractor is given permission, in terms of Clause 5.8.2 of GCC 2015, to work outside the working hours, he shall arrange with the Engineer, in good time, for watching and supervision of the Works, he shall be responsible for paying the additional costs of watching and supervising incurred by the Engineer and he shall provide adequate lighting for the construction area and access (es) as necessary at his own expense.

### C3.2.13 LIGHTING

Should the Contractor wish to work when the natural light is inadequate for the type of work to be undertaken, he shall, at his own expense, provide and maintain in good condition, adequate high-powered flood lighting for all portions of the work over which he is operating.

If, in the opinion of the Engineer, the resulting illumination is not adequate for the safe and efficient execution of the work, additional lighting plant shall be provided at the Contractor's expense. Failing this, night work will be prohibited.

### **C3.2.14 EMPLOYMENT OF LOCABL LABOUR**

### C3.2.14.1 General

Details of the labour from local areas to be employed, shall be entered in the Personnel Schedule. The area for the employment of "local labour" shall be deemed to include the greater Taung area. The Contractor shall also state in this Schedule the description and numbers of key personnel that he wishes to bring to the Site. Key personnel shall include foremen, artisans, clerks and skilled supervisors.

The Contractor shall submit with each statement of payment, a monthly labour report to the Engineer, indicating the number of temporary and permanent local employees employed on the Works, and the activities on which they were engaged. Formal up to date records shall be kept of all payments made to subcontractors and labourers.

### C3.2.14.2 Monthly labour returns

The returns shall be similar to the format given in the Pro Forma: Monthly Labour Returns bound in the document, or as approved by the Engineer.

The following conditions of work, in addition to statutory requirements, shall apply:

- a) The Contractor shall give to a temporary employee, at the earliest possible opportunity, notice of the termination of the project and/or the requirements of that employee's participation in the project; provided that such notice shall not be less than 2 days. Payment may be made in lieu of such notice.
- b) The temporary employee shall, upon termination of his services, be entitled to a certificate of service showing the full names of the employer and the employee, the type of work done by the employee, the date of commencement, a record of training received and the date of termination of the contract.

# **C3.2.15 CONTINUANCE OF OPERATION OF EXISTING SERVICES**

All existing services shall be maintained in operation, unless prior arrangements have been made with the relevant authority and written permission for an interruption of the service has been granted and adequate notice has been given to the affected residents.

BMH AFRICA ENGINEER	S				147
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Apart from the provision made in the Bill of Quantities for payments to cover the extra cost of hand excavation in locating and crossing various services, no additional payment for preliminary or hand excavation will be made.

It is likely that further services not shown on the drawings may exist along the routes of the pipelines. The Contractor shall take all possible care to ensure that such services are not damaged.

### **C3.2.16 CONNECTION TO EXISTING SERVICES**

All connections to the existing water reticulation systems shall be undertaken in a manner and at times to be approved by the Engineer. It is anticipated that the contractor will have to supply drinking water at strategic points in the village during the down-time. No claims for additional payment will be considered in this regard.

### **C3.2.17 NEATNESS OF THE SITE**

The Works are in an environmentally sensitive area. The Contractor shall, therefore, on a day to day basis, keep the area of the Works in a condition acceptable to the Engineer.

### **C3.2.18 CORROSION PROTECTION FACILITITES**

No corrosion protection systems other than the "Denso" protection and repairs to systems and decorative finishes shall be applied on Site. The corrosion protection shall be applied in an off-site, properly operated paint shop. A certificate shall be issued by the supplier, confirming that the interior and exterior coatings of the pipework items are pinhole-free and up to the required standard indicated on the Drawings.

### **C3.2.19 PROTECTION OF THE ENVIRONMENT**

The Contractor shall comply with the following requirements:

The Contractor shall ensure that no damage whatsoever is caused as a result of his operations or otherwise by his workmen in the areas adjacent to the Site.

The movement of plant and workmen shall be restricted to the construction areas and essential access routes. No Contractor's workmen will be permitted in any area which is designated by the Employer as "Restricted".

Within the Site the Contractor shall take steps to protect all property, landscaping, vegetation and soil not directly affected by the works and shall ensure that no avoidable damage or disturbance is caused, and that no erosion is allowed to occur.

No trees shall be felled without the written permission of the Engineer. Trees that are not to be felled shall not be mutilated in any way. No firewood may be collected.

No fires may be lit except at places approved by the Engineer. The Contractor shall ensure that the fire hazard on and near the site is reduced to a minimum and shall take immediate and effective steps to extinguish any fire that may break out. Burning of vegetation and trees cleared from the site and/or any other material may only be done on site if permitted in writing by the Engineer, and shall then be strictly controlled by a competent supervisor, shall be carried out strictly in accordance with any directions given and shall be carried out solely at the risk of the Contractor.

The Contractor shall remove rejected and surplus material, debris and rubbish at the earliest opportunity and shall on a day-to-day basis keep the site neat and tidy to the satisfaction of the Engineer.

All scarred areas, borrow and spoil areas, cut and fill slopes, all temporary haul and access roads and tracks and any other areas where the vegetation has been removed or damaged, shall be reinstated to restore the area as nearly as possible to its original state. Such reinstatement shall include the removal of refuse, debris and construction infrastructure and materials, the scarifying of all hardened surfaces, the replacement and spreading of unused material, the correction of drainage deficiencies to provide free drainage, the flattening of cut and fill slopes and the shaping and trimming of surfaces, all as necessary or as directed by the Engineer.

The Contractor shall ensure that his workmen are properly instructed and carry out the requirements of this clause. The Contractor will be held liable for all unauthorized damage caused by him or any of his workmen.

BMH AFRICA ENGINEERS	S				148
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



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

### **C3.2.20 FENCES**

Where, in the opinion of the Engineer, it is necessary to remove existing fences or portion of fences, the Contractor shall dismantle and stack the various components of the fence at a safe place for later re-erection. No gate, fence or portion of fence shall be removed without the prior, written approval of the Engineer. On completion of the Contractor's operations in an area, the existing fence line shall be either replaced with new fencing to the identical type or reinstated to at least the standard of the original fence by using the materials which were dismantled and stacked together with new materials to make up any shortfall, all as ordered by and to the approval of the Engineer.

The Contractor is strongly advised to make sketches and, where applicable, take photographs of existing fences before they are removed so as to minimize possible arguments that may arise between himself and the property owner concerning the quality of the original and re-erected fences.

Removal of fences and re-instatement will be measured separately per linear meter.

### **C3.2.21 SURVEY BEACONS AND ERF BOUNDARY PEGS**

The Contractor shall also protect all bench marks and reference pegs provided by the Engineer, and shall replace these at his own cost if they are disturbed during construction.

### **C3.2.22 EXISTING SERVICES**

### C3.2.22.1 General

A number of services, inter alia water pipelines and sewers, Telkom cables, LT and HT electric power cables may be encountered in the vicinity of the Site.

No guarantee can be given that all affected services are indicated on the drawings, or that, if they are shown, they are shown exactly in the correct location. Once located, the exact location, level and nature of the service shall be recorded and given to the Engineer's Representative in writing.

The Contractor shall, subject to the provisions of C3.4.15, expose all services by hand in advance of his trenching operation in order to reduce the risk of damage to existing services.

The Contractor shall take special care not to damage any existing services and shall comply with all the requirements of the relevant authorities during construction. The Contractor will be held solely responsible for the protection of all known services and for any claims for damages arising from damage to any such service. (See also SDA5-4).

The Contractor shall give assistance to other authorities as required when the authority concerned undertakes to locate and protect their service.

### C3.2.22.2 Telkom and power cables

Before any excavation is carried out within 10 m of the approximate position of an underground Telkom, electric power cable or any other control cables, the Contractor shall notify the Engineer in writing, giving 5 working days' notice, and shall ascertain and comply with any conditions that have been imposed for such work. No excavation shall be carried out within 10 m of the cable until the cable has been exposed and protected by the owner or by the Contractor with the prior written approval of the owner.

				]			
Contractor	 Witness 1	Witness 2	Employer	J	Witness 1		Witness 2



(0)

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

### **C3.2.3: TECHNICAL SPECIFICATIONS**

CONTENTS

# BA ROOF COVERINGS

(a)	CONTENTS
BA 01	SCOPE
BA 02	STANDARD SPECIFICATIONS
BA 03	VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS
BA 04	DETAIL OF REPAIR WORK
BA 05	MAINTENANCE
BA 06	MEASUREMENT AND PAYMENT

# (b) <u>BA 01</u> <u>SCOPE</u>

This specification covers the repair/removal and the maintenance of existing roof coverings. This specification also covers the supply, delivery, installation and maintenance of new roof coverings for various types of buildings.

Roof coverings shall mean the scope of work for related to the repair/removal and maintenance of existing roof coverings, side wall cladding and ancillary items, and maintaining materials and components. Roof coverings shall also mean the installation and maintenance of new roof sheeting and side wall cladding, roofing screws, purlins, flashings, rainwater goods, fascias and barge boards. This specification does not include work related to trusses, ceilings and paintwork specified elsewhere.

The complete scope of repair work shall be as described in BA 04: Detail of repair work.

Maintenance of this part of the installation (the works) shall be performed in accordance with Additional Specification SA: General Maintenance, and the specific requirements included in this Technical Specification.

### (c) <u>BA 02</u> <u>STANDARD SPECIFICATIONS</u>

# BA 02.01 GENERAL STANDARD SPECIFICATIONS

The latest edition, including all amendments up to date of tender, of the following specifications, publications and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof:

OW 371 - Specification of materials and methods to be used

(Fourth revision, October 1993)

SANS 1200 HB - Cladding and sheeting

SANS 653 - Softwood brandering and battens

SANS ISO 1461 - Hot-dip galvanised coatings on fabricated iron and steel articles

SANS 1273 - Fasteners for sheet roof and wall coverings

# BA 02.02 ADDITIONAL SPECIFICATIONS

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



.....

Technical Specification BB: Carpentry and joinery

Technical Specification BC: Waterproofing of concrete roofs

Technical Specification BJ: Painting

# BA 03 VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS

# BA 03.01 <u>ADDITIONAL REQUIREMENTS FOR REPAIR OF PROFILED ROOF SHEETING</u> (NON-CONCEALED AND CONCEALED FIXING)

### BA 03.01.01 Roof cladding

Existing roof sheeting shall either be replaced or repaired in accordance with the Schedule of Quantities. Where new sheeting is specified, the existing roof sheeting must be removed. Each day's work shall be fully covered with new sheeting at the end of the day. Plastic sheeting or approved equivalent protection shall be used to minimise the possibilities of damage caused by the rain, etc, and to protect the personnel occupying the buildings. The new roof sheeting shall be 0,6 mm thick galvanised (or Chromadek) IBR or approved equivalent for roof slopes exceeding 15 °. Concealed fixed type Chromadek roof sheeting will generally be used to cover roofs with slopes not exceeding 15 °. The sheeting must be laid in long lengths without end overlaps. The broad flutes must be turned up at the apex to form a dam, and turned down at the eaves and valley gutters to form a drip. Metal closers 0,8 mm thick galvanised (or Chromadek), complete with polyclosers set in one run of silicone sealant, are required at apexes, ridges, side and head walls. etc.

The Contractor shall take all necessary measurements and dimensions on site prior to manufacturing and installation. Z275 galvanising spelter shall be used and the Contractor shall provide SANS certificates of compliance to the Engineer. Various standard dark colours shall be used for Chromadek-finished roof sheeting, flashings, gutters and down pipes. The Contractor shall provide a guarantee for the Chromadek materials obtained from the manufacturer. In all cases the roof sheeting must be laid strictly in accordance with the manufacturer's specifications.

In certain cases the removed existing roof sheeting can be reused to repair agricultural sheds and similar types of structures.

The following paragraphs in specification OW 371 must be read in conjunction with this technical specification:

- Paragraph 7.6, excluding 7.6.1(i), 7.6.2(a) and 7.6.2(e)
- Paragraph 7.7, excluding 7.7.1, 7.7.5 and 7.19.1(a).

# BA 03.01.02 <u>Main fasteners to timber purlins: Galvanised/Chromadek IBR sheeting (or approved equivalent)</u>

No. 12 (5,5 mm) x 90 mm type 17 hexagon head (H/H) carbon steel (C/S) zinc-plated self-drilling roofing screws shall be used for timber. The roofing screws with no.12 x 25 mm diameter x 1,0 mm thick low carbon EPDM/galvanised bonded washers are used as main fixing for the roof sheeting to timber purlins. 65 mm long x no 14 H/H C/S Topspeed or Posidriv main fasteners for steel purlins with the same washers are to be used. Fasteners shall be provided at alternating ribs, excluding side lap ribs.

# BA 03.01.03 Side lap fasteners: Galvanised/Chromadek IBR sheeting (or equivalent approved)

Stitching shall be done with Leak King plugs for IBR roof sheeting @ 600 c/c maximum. Provide an approved 8 x 3 mm thick butyl rubber sealer strip (PG Sealer Strip or approved equivalent) with nylon cord between sheets.

	_		_		_				_	
	1				1					
Contractor	,	Witness 1		Witness 2	,	Employer	'	Witness 1		Witness 2
Contractor		Williess		Williess 2		Lilipioyei		Williess I		WILLIESS 2



### BA 03.01.04 Flashings

Flashings must be 0,8 mm thick Chromadek/galvanised flashings at ridge caps, side and head walls, drips, corners, etc, as described elsewhere. The minimum length of an overlap between flashings is 150 mm. Apply two runs of silicone sealant between flashings. Flashings are to be stitched together with no. 10 (4,8 mm) x 16 mm x H/H C/S zinc-plated self-drilling stitching screws. The stitching screws with no. 12 x 19 mm diameter x 1,0 mm thick low carbon EPDM/galvanised bonded washers are to be used at end laps and longitudinally @ 400 c/c maximum at ribs, etc. The Contractor shall take all necessary measurements and dimensions on site prior to manufacturing and installation.

# BA 03.01.05 **Sealant**

Silicone sealant with an amine cure system with primer shall be used to waterproof all flashings and rainwater goods, viz gutters and down pipes. Two runs of silicone shall be provided at end overlaps.

### BA 03.01.06 Pipe flashings

Dektite or equivalent approved pipe flashings shall be used to waterproof pipe protrusions through the roof sheeting. Installation shall be done strictly in accordance with the manufacturer's specification and shall include the application of Dektite silicone sealant and fastening of flashing to the surface with TEKS or approved equivalent self-drilling fasteners.

### BA 03.01.07 Insulation

No insulation repairs are required. In certain cases insulation may be necessary to reduce heat load or to comply with hygiene requirements as in abattoirs. Refer to section 7 part 7.6.3 of OW 371.

# (a) <u>Specification for non-visible roof insulation material:</u>

Super Sisalation 420 RSA or equivalent approved reinforced reflective aluminium foil (heavy grade) laid on 1,6 mm diameter galvanised (unless noted otherwise) straining wires 300 mm centres to the manufacturer's specification. The insulation shall be laid longitudinally over the purlins and lapped 150 mm at joints.

# (b) Specification for visible roof insulation material:

White Alucushion (code 2906) or equivalent approved white bubble foil on aluminium foil backing laid on 1,6 mm diameter white plastic (PVC) coated straining wires at 383 mm centres to the manufacturer's specification. The insulation shall be laid longitudinally over the purlins and lapped at joints.

# BA 03.02 <u>ADDITIONAL REQUIREMENTS FOR REPAIR OF PROFILED SIDE WALL CLADDING</u> (NON-CONCEALED AND CONCEALED FIXING)

# BA 03.02.01 Side wall cladding

Existing side wall cladding shall either be repaired or replaced in accordance with the Schedule

of Quantities. Where new cladding is specified, the existing side wall cladding must be removed. Each day's removed cladding shall be fully covered with new cladding at the end of the day. The new side wall cladding shall be 0,6 mm thick galvanised (or Chromadek) IBR or approved equivalent. The sheeting must be laid in long lengths without end overlaps. Metal closers 0,8

mm thick galvanised (or Chromadek), complete with polyclosers set in one run of silicone sealant, are

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



required at apexes, gables, side and head walls, etc.

The Contractor shall take all necessary measurements and dimensions on site prior to manufacturing and installation. Z275 galvanising spelter shall be used and the Contractor shall provide SANS certificates of compliance to the Engineer. Heavy-duty profiled polycarbonate sheets shall be used for translucent sheeting. Various standard dark colours for Chromadek finished side wall cladding, flashings, and gutters and down pipes shall be used. In all cases the cladding must be laid strictly in accordance with the manufacturer's specifications.

# BA 03.02.02 <u>Main fasteners to timber girts: Galvanised/Chromadek IBR (or approved equivalent)</u> and profiled translucent sheeting

No. 12 (5,5 mm) x 90 mm type 17 hexagon head (H/H) carbon steel (C/S) zinc-plated self-drilling roofing screws for timber. The roofing screws with no.12 x 25 mm diameter x 1,0 mm thick low carbon EPDM/galvanised bonded washers are used as main fixing for the roof sheeting to timber girts. 65 mm long x no 14 H/H C/S Topspeed or Posidriv main fasteners for steel girts with the same washers are to be used. Fasteners shall be provided at alternating ribs, excluding side lap ribs. Correct installation procedures must be followed, especially in respect of the drilling speed and torque settings of the drill for various materials.

# BA 03.02.03 Side lap fasteners: Galvanised/Chromadek IBR (or approved equivalent) sheeting

Stitching shall be done with Leak King plugs for IBR roof sheeting @ 600 c/c maximum. Provide an approved 8 x 3 mm thick butyl rubber sealer strip (PG Sealer Strip or approved equivalent) with nylon cord between sheets.

# BA 03.02.04 End overlaps

If unavoidable, the end overlap shall be 300 mm minimum between sheeting and sealed with two rows of silicone sealant between the sheeting. Bolt the ribs in the overlap region with the (polycarbonate) translucent sheeting with galvanised no. 14 gutter bolts, bonded washers and nuts through every alternative rib.

# BA 03.02.05 Side overlaps: Vertical profiled translucent sheeting

Stitching shall be done with 6 mm cadmium-plated cladding bolts and nuts x 25 mm long @  $\pm$  300 c/c with no. 12 x 19 mm diameter x 1,0 mm thick low-carbon EPDM/galvanised bonded washers.

# BA 03.03 RAINWATER GOODS

# BA 03.03.01 **Gutters**

### (d) Standard size for houses:

Gutters shall be  $100 \times 75 \times 0.6$  thick standard Chromadek/galvanised non-supporting beaded gutter. Galvanised brackets are to be provided at every second truss. Brackets shall be painted with water-based pure acrylic emulsion paint to Technical Specification BJ 03.01.03(g). Alternatively, standard 140 x 127 x 83 x 0.6 mm thick Brownbuilt or similar continuous rolled approved Chromadek fascia gutter with galvanised gutter clips can be used.

# (e) Typical size for other buildings:

125 x 100 x 0,8 thick standard Chromadek self-supporting beaded gutter to detail.



.....

Dark colours shall be used where indicated by the Engineer.

The following paragraphs in specification OW 371 must be read in conjunction with this technical specification:

7.15, 16.12 and 16.13.

The Contractor shall take all necessary measurements and dimensions on site prior to manufacturing and installation.

# BA 03.03.02 Joints in gutters, valleys, etc

150 mm overlap sealed with an approved silicone and riveted together with two rows of sealed pop rivets. Linings to valleys and secret gutters, etc, shall have an overlap of 225 mm.

# BA 03.03.03 Accessories and ancillary items

### (a) End stops:

0,6 mm thick Chromadek/galvanised finished end stop shall be joined to gutter on site and sealed as for joints in gutters. Thickness to be the same as for gutter.

# (b) Outlets:

0,6 mm thick Chromadek/galvanised finished outlets shall be fixed to gutter with pop rivets and sealed with an approved silicone. Outlet to slip into down pipe. Thickness shall be the same as for gutter.

### (c) <u>Fascia straps</u>:

25 mm wide x 1,0 mm thick galvanised straps at +/- 686 mm c/c.

### (d) Corner joints:

Overlaps are to be neatly mitred, pop riveted together and sealed with an approved silicone.

### (e) Sealant:

Clear silicone sealant with amine cured system and primer shall be used to waterproof gutters and down pipes.

### **BA 03.03.04** Down pipes

Standard sizes:

100 x 75 x 0,6 thick Chromadek/galvanised down pipes 100 x 100 x 0,8 thick Chromadek/galvanised down pipes

Dark colours shall be used where indicated by the Engineer.

Down pipes are to have double-seamed joints. Down pipes, shoes, offsets, etc, shall be joined together by means of 100 mm slip joints and pop riveted together.

The Contractor shall take all necessary measurements and dimensions on site prior to manufacturing and installation.

### BA 03.03.05 Down pipe accessories



\_\_\_\_\_

### (a) Brackets:

Standard galvanised brackets shall be spaced at centres not exceeding 2,4 metres.

Brackets shall be primed and painted with water-based pure acrylic emulsion paint as specified in Technical Specification BJ 03.01.03(g).

# (b) Shoes, offsets and spreaders:

Shoes, offsets and spreaders must be manufactured from 0,8 mm thick Chromadek/galvanised material, cut and mitred to suit. All joints are to be sealed with an approved silicone sealant.

# BA 03.04 GENERAL

The Contractor shall be responsible to ensure the stability of the supporting structure during and after the removal of existing roof cladding and sheeting.

SANS 1200 HB: Cladding and Sheeting, shall be applicable for the erection of all new roofs.

The Contractor shall submit a 3-year guarantee for the watertightness of the roofs and for workmanship. The Contractor shall make arrangements with the manufacturer to inspect the workmanship at regular intervals during the construction period. On completion of the work the manufacturer shall issue a certificate of acceptance and compliance with specifications to the Employer.

# BA 04 DETAIL OF REPAIR WORK

The detail of the work is described in the Schedule of Quantities.

### BA 05 MAINTENANCE

This specification must be read in conjunction with Additional Specification SA: General Maintenance.

All components forming part of the repaired/replaced work for roof coverings shall be maintained as part of the maintenance of installations as defined in Additional Specification SA: General Maintenance.

Maintenance shall include all repair work, replacing of components, routine inspections, fixing of defects or any other actions or rectifying measures necessary to maintain the perfect functional condition of the roof coverings in accordance with the operation and maintenance manuals and as specified. All roofs and rainwater goods shall be kept leak free.

Maintenance on the repaired/replaced work shall also include all other actions related to (or resulting from) maintenance, such as tightening or replacing of loose roof fasteners, premature corrosion of galvanising, replacing of sealant that has failed, and cleaning of gutters and down pipes of leaves and other rubbish.

Remuneration for maintenance of the roof coverings work shall be deemed included in the

tendered monthly payment for maintenance of the applicable installation.

### BA 06 MEASUREMENT AND PAYMENT

	]			]					
Contractor	J	Witness 1	Witness 2	J	Employer	ı	Witness 1	l	Witness 2



.....

### BA 06.01 MEASUREMENT AND RATES

# BA 06.01.01 General inclusion of costs and specific specifications

### Notes:

Where applicable, standard SANS 1200 measurement and payment items shall be used for Structural Steelwork (1200 H) and Cladding and Sheeting (1200 HB).

All sheeting, cladding and accessories are to be supplied by a South African based manufacturer and are subject to a three year written guarantee for watertightness and workmanship.

All material scheduled to be removed shall be deemed to be existing damaged material. All such redundant material shall become the property of the Contractor and must be removed from site immediately.

All new material shall be deemed to be in patchwork and shall be of approved equal quality, colours, profiles, thickness, etc and shall in all cases match the existing materials and shall be fixed to existing material or surfaces.

All removal and repair work shall be done carefully as to not damage any adjacent or other material or work. Any damage to other or adjacent materials or areas caused by the negligence of the Contractor shall be repaired by him free of charge.

All work scheduled to be removed or taken out shall be deemed to include the cleaning and perforation of the remaining sections, areas, or work to receive the new material or work specified.

Repair work shall also include all cutting, grinding, cutting into, welding, bending, strengthening, drilling, etc to repair or to improve the items or areas as new and to match the existing.

Work scheduled to be realigned and refixed shall be deemed to include all necessary new additional materials, brackets, connector plates, bolts, pip rivets, nails, screws, spacer blocks, clamps, timber, and labour, etc to leave the items as new and totally functional.

All new work are measured net and shall include all cutting, lapping, waste, bending, fixing, corners, mitres, fixing screws, pip rivets, nails, adhesive, grout, putty, etc, as well as cleaning and preparation of surfaces not already prepared as part of removed items, etc.

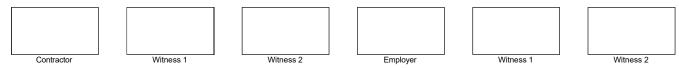
# BA 06.03 <u>SCHEDULED ITEMS</u>

Standard measurement and payment items shall be used for Structural steelwork (1200H) and Cladding and sheeting (1200HB)

# BA 06.03.01 Rainwater goods

"BA.01	Supply and install rainwater goods:	
BA.01.01	Description of material to be used:	
BA.01.01.01	Description of item	Unit: m, No
The unit of me	easurement for rainwater goods installed shall be metre	or number.
	<del>-</del>	

Sundry items such as stop-ends, bends, shoes, etc are deemed to be included in the tendered





\_\_\_\_\_

rates per metre.

Separate items will be scheduled for each type, finish, shape, and when relevant, profile of rainwater goods. The rates shall cover the cost of supplying, delivery, storing on Site, handling, moving installing and fixing the goods complete with all necessary fasteners, etc as specified in BA.03.03 (all complete and subject to a three year written guarantee on watertightness and workmanship). The rates shall also cover the cost of cutting, notching and waste, and of all scaffolding, temporary supports, hoisting facilities and safety precautions (see Subclause 8.1.1 of SANS 1200 HB)."

# BA 06.03.02 Alteration work

"BA.0	2	Alterations and repairs to existing structures:	
BA.02	2.01	Indicate if repairs, alterations, removal or sealing, etc:	
BA.02	2.01.01	Description of individual items to be repaired,	
		altered, removed, sealed, etc	Unit:
m <sup>3</sup> , m <sup>2</sup> , No			

The unit of measurement for items repaired, altered, removed, sealed, etc shall be cubic metre, square metre, metre or number as scheduled.

The tendered rates shall include full compensation for all costs to repair, refix, remove, cutting into, realign, taking off, temporary store, etc as specified in the Standard and Technical Specifications and shall allow for all necessary labour, plant and new material needed to leave the scheduled items as new and to the approval of the Engineer. Refer also to the general inclusion of costs in BA.06.01."



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

# **TECHNICAL SPECIFICATION**

# 2. <u>BB CARPENTRY AND JOINERY FOR ROOFS AND CEILINGS</u>

# 3. CONTENTS

- BB 01 SCOPE
- BB 02 STANDARD SPECIFICATIONS
- BB 03 VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS
- BB 04 DETAIL OF REPAIR WORK
- BB 05 MAINTENANCE
- BB 06 MEASUREMENT AND PAYMENT

### 4. BB 01 SCOPE

Carpentry and joinery shall mean the scope of work to repair and maintain materials and components such as removal of existing timber roof trusses, purlins, ceilings, etc, and the installation of new timber trusses and other timber roof members, structural beams, purlins, battens and ceilings. This specification does not include work related to roof coverings and paintwork, which are specified elsewhere.

This specification covers the repair of existing timber members in roof trusses, the removal and replacement of existing timber members from roof trusses and associated timber roof members and ceilings. This specification also covers the supply, delivery and installation of new timber trusses, purlins, battens and beams for various types of timber related structures and ceilings.

The complete scope of repair work shall be as described in BB 04: Detail of repair work.

Maintenance of this part of the installation (the works) shall be performed in accordance with Additional Specification SA: General Maintenance, and the specific requirements included in this Technical Specification.

### 5. BB 02 STANDARD SPECIFICATIONS

# BB 02.01 GENERAL STANDARD SPECIFICATIONS

The latest edition, including all amendments up to date of tender, of the following specifications, publications and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof:

OW 371 - Specification of Materials and Methods to be used (Fourth revision, October 1993)

SANS 0243 - The design, manufacture and erection of timber trusses

SANS 266 - Gypsum plasterboard

SANS 563 - Stress-graded softwood: general structural timber

SANS 653 - Softwood brandering and battens

SANS 803 - Fibre-cement boards

SANS 1245 - Stress-graded softwood engineering timber

# BB 02.02 ADDITIONAL SPECIFICATIONS

Technical Specification BA: Roof coverings

						1		
Contractor	'	Witness 1	•	Witness 2	Employer	•	Witness 1	Witness 2



Technical Specification BD: Walls Technical Specification BJ: Paintwork

# **BB 03 VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS**

#### **BB 03.01** ADDITIONAL REQUIREMENTS FOR REPAIR OF TIMBER ROOF STRUCTURES

#### BB 03.01.01 Timber trusses

#### (a) Replacing timber trusses

The Engineer shall inspect timber trusses for defects and establish which timber trusses must be replaced.

Reasons for replacing trusses will include but not be limited to the following:

- Deflection exceeding acceptable limits:
- (ii) Inadequacy in design, eg structural strength, structural instability, load conditions;
- (iii) Decay of large portions of truss members (defective timber);
- (iv) Large portions of truss members having so many defects, eg cracked timber, corroded connector nail plates, etc, that it will be uneconomical to repair the defects.

#### (b) Repair of timber trusses

Repair work shall include but not be limited to the following:

- Strengthening of truss members, connections, splices and anchorage at supports;
- (ii) Strengthening of truss members due to unforeseen loads, notching and cutting for services by other contractors;
- (iii) Repair of truss members where large knots and wanes occur;
- (iv) Replacing metal plate connectors in cases of corrosion, incorrect application of connector plates, incorrect size of connector plates, unsymmetrically fitted connector plates, connector plates with teeth flattened, minimum bite of 65 mm of a connector plate of a truss member;
- (v) Replacing of decayed timber, particularly rafter ends at roof overhangs and at roofing screws. Timber subjected to insect attack and fungal decay should be treated with an appropriate preservative. Where there is a low risk of decay or insect attack, two coats of Creosote may be applied to the timber. Refer to clauses 8.1 and 8.2 in OW 371 for the preservation of wood in high-risk regions;
- (vi) Replacing and/or repair of cracked timber members. Galvanised connector plates and metal straps may be considered:
- (vii) Maximum slenderness ratio must be less than 180 for compression members that carry forces resulting from dead and live loads. Compression members 36 mm thick and longer than 1,8 m must have a continuous longitudinal runner centrally placed (or T-bracing) and properly connected and braced. For members that resist loads caused by wind, the slenderness ratio must be less than 250;
- (viii) Plumb of trusses should not exceed 100 mm or total span/20 whichever is the least;
- (ix) Exposed portions of the trusses shall be painted to match existing appearance.

The roof trusses shall be fully braced. The Engineer shall give instructions regarding the provision of bracing members to the roof system.

				]						
		l		J		l				
Contractor	Witness 1		Witness 2		Employer		Witness 1		Witness 2	



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

# BB 03.01.02 Purlins (for sheeted roofs, battens for tiled roofs)

# (a) Replacing timber purlins

The Engineer shall inspect timber purlins for defects and possible reuse. The Engineer shall establish which timber purlins need to be replaced.

Reasons for replacing purlins will include but not be limited to the following:

- (i) Decayed timber, particularly at gable overhangs;
- (ii) Broken, warped and brittle timber;
- (iii) Worn-out roof screw holes;
- (iv) Inadequacy in design, eg structural strength and excessive deflection due to large spans;
- (v) Inappropriate spacing of purlins for the specific roof covering.

### (b) Repair of timber purlins

Repair work shall include but not be limited to the following:

- (i) For roof pitches under 45° the purlins shall be erected on edge (narrow edge).
- (ii) All purlins shall be secured to rafters at each intersection in addition to nails.

In roof voids a single 3,2 mm diameter galvanised wire tie bound twice with twisted ends or a galvanised bent plate connector shall be used for securing purlins to rafters. On roof overhangs only galvanised bent plate connectors shall be used for securing purlins to rafters.

- (iii) Splices shall be staggered. Splices that do not conform to the requirements of clause 8.8 of OW 371, or clauses 8.5.1 and 8.5.2 of SANS 0234, must be repaired. Nailed galvanised plate connectors on either side of purlins are also acceptable.
- (iv) Exposed portions of the purlins shall be painted to match existing appearance.

Skew nailing of purlins to trusses shall not be closer than 30 mm from the edge of the member.

### BB 03.01.03 Structural timber

### (a) Replacing structural timber

The Engineer shall inspect members of structural timber, ie beams and columns, for defects and shall establish which of these members must be replaced. Reasons for replacement will include but not be limited to the following:

- (i) Deflection exceeding acceptable limits;
- (ii) Inadequacy in design, eg structural strength, structural instability, load conditions;
- (iii) Decay of a large portion of the member (defective timber);
- (iv) Replacing of decayed timber, particularly at ends of beams.

### (b) Repair of structural timber

Repair work shall include but not be limited to the following:

(i) Strengthening of members, connections, splices and anchorage at supports;

(iv) Bolt connections shall be in accordance with the requirements of SANS 0163.

(ii) Strengthening of members due to unforeseen loads, notching and cutting for services by other contractors;

/ .	•••			4.							
<i>/</i> 1		-	n - n - n - n	nortiono	at atrijatijra	I timbor	· ahali ha	nointed to	motob	OVIOTION	appearance;
		- т			OI SILLICILII A			0	)		addealance
٠.	,	^	pooda	POLICITO '	oi oti aotai a		oriun bo	panitoa te	, illatoli	CAICHING	appoulation,



#### BB 03.01.04 Ceilings

New ceilings shall be installed in accordance with section 9 of OW 371.

#### (a) Brandering to ceilings

Brandering to ceilings shall be replaced where:

- Ceiling boards are replaced;
- (ii) Brandering is broken, rotten and beyond any further use.

New brandering shall be provided in accordance with clause 9.4 of OW 371. The brandering shall continue over at least three bays and shall be staggered to ensure that splices do not all occur in one line. Brandering must be provided for light fitting support.

#### Gypsum ceiling boards (b)

Repairs to existing ceilings shall include the installation of new 6.4 mm thick gypsum ceiling boards with metal H-section jointing strips. The new ceiling boards shall be nailed to brandering with galvanised or cadmium-plated clout-headed nails.

Gypsum ceiling boards shall not be used in wet areas such as in ablutions, abattoirs, kitchens and bathrooms.

Ceiling boards shall be in long lengths, symmetrically arranged with smaller panels, closely butted and secured at 150 mm centres to brandering as specified.

Gypsum cove cornices 76 mm wide shall be provided where existing cornices are to be replaced.

Existing trap doors in ceilings shall be reused. If required, new 650 x 650 mm trap doors shall be installed.

No ceiling insulation must be provided unless specified.

Painting of the ceiling shall be done in accordance with Technical Specification BJ: Paintwork.

#### (c) Fibre cement ceiling boards

Fibre cement ceiling boards shall be installed in wet areas such as in ablutions, abattoirs, kitchens and bathrooms.

Fibre cement ceiling boards shall be 6 mm thick, complying with the requirements of SANS 803 and of the flat pressed type.

The boards shall be nailed to the brandering with 2 mm diameter galvanised or cadmium-plated cloutheaded nails, spaced at 100 mm centres at edges of boards and 150 mm centres along the intermediate brandering. Ceiling boards shall be in long lengths, symmetrically arranged with smaller panels as required and closely butted.

Fibrous plasterboard cove cornices to ceilings shall be of 100 mm girth, provided by an

approved manufacturer. Gypsum cove cornices 76 mm wide can be used in kitchens and bathrooms of houses. Powder-coated wall angles 25 mm wide shall be used for cornices in abattoirs.

Existing trap doors in ceilings shall be reused. If required, new 650 x 650 mm trap doors shall be installed.

Witness 1

Contractor

Witness 2

Employer

Witness 1

Witness 2

161



.....

Painting of the ceiling shall be done in accordance with Technical Specification BJ: Paintwork.

# (d) <u>Exposed T-system suspended ceilings</u>

Repairs to existing suspended ceilings will include but not be limited to the following:

- (i) Replace damaged panels with new ceiling boards;
- (ii) Replace sections of damaged T-strips or H-strips;
- (iii) Replace cornices;
- (iv) Tension, fix and realign existing hangers;
- (v) Install new hangers as required;
- (vi) Clean ceiling boards, including washing of the ceiling boards with a mixture of water and sugar soap and wiping dry, or painting the ceiling boards.

### (e) External gable fibre cement boards for side cladding

External tongued and grooved boarding shall be removed and replaced with 6 mm thick flat pressed fibre cement boarding. The boarding shall be fixed to new brandering as specified in this section. Provide painted 25 x 25 mm meranti quarter rounds at edges as required.

The boarding shall be painted in accordance with Technical Specification BJ: Paintwork.

### BB 03.01.05 Fascia and barge boards

Repairs to fascia and barge boards shall include but not be limited to the following:

- (a) Replace damaged and broken fibre cement fascia and barge boards.
- (b) Replace missing, corroded and damaged H-profile jointing strips.
- (c) Replace all nails with suitable length and diameter brass screws. Provide nylon plugs to timber where necessary.
- (d) Align and fix existing fascia and barge boards.
- (e) Paint fascia and barge boards in accordance with Technical Specification BJ: Paintwork. All sides including the edges must be painted.
- (f) The roof covering shall cover the top edge of the fascia on gables.

### BB 03.01.06 <u>Timber trusses, purlins and battens</u>

- (a) Existing timber trusses and roof structure
- (i) General
- (1) The Contractor shall establish proper access and install adequate lighting to the roof voids to enable detailed inspections of structural deficiencies by the Engineer. Temporary scaffold planks shall be laid across bottom chords to allow access to all critical areas. After inspection, the extent of repairs is to be agreed with the Engineer.
- (2) All completed work shall be inspected and approved by the Engineer.
- (3) All new timber work shall comply with SANS 0163 (1980).
- (4) Timber grade shall be S5 and replacement sizes are to match existing unless otherwise agreed.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Repair details on attached sheets R1 to R3 shall form the basis for repairs. Any deviations from or variations to these details are to be approved by the Engineer. Any failure cases not covered by these details shall be discussed with the Engineer who will then issue the necessary repair instructions.

(ii) Procedures (watermarked and slightly rotten members)

Watermarked and slightly rotten members need not be replaced or repaired if the following test indicate these members to be satisfactorily:

Using a 3,5 mm nail, make scratch marks in all these members to expose good unaffected timber. If scratch depth is 2 mm or less, it is acceptable and these members need only to be treated as described in (2) below.

The members shall be wire-brush cleaned, free of any loose or deleterious material, then treated with 1 coat of creosote, or similar approved. Apply by brush to affected areas and 200 mm beyond, all to the manufacturer's specifications. Safety precautions shall be taken against possible health or fire hazards as specified by manufacturer.

- (iii) Procedures (cracked and failed members)
- (1) All members that are cracked right through will be regarded as failed members. Members with minor longitudinal cracks shall be repaired, following procedure 5 on sheet R3.
- (2) The Contractor must allow for propping and/or bracing at failed members to ensure complete structural stability during repairs.
- (3) Failed members as indicated in details 1 to 4 on sheets R1 to R3 shall be realigned by means of clamping with temporary backing pieces, after which repairs can proceed.
- (4) Members that are damaged too badly to effect repairs will have to be replaced or doubled up to suit the circumstances.
- (5) Once all repair work has been completed the Contractor must clean out the ceiling void, free of all rubbish, excess building material and all other foreign matter and make good any damage caused to ceilings, etc.
- (6) Any alternative repair proposal shall be submitted in writing to the Engineer.

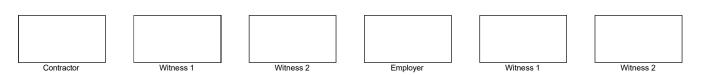
### BB 04 DETAIL OF REPAIR WORK

The detail of the work is described in the Schedule of Quantities.

# BB 05 MAINTENANCE

[Note: There will be no maintenance work required for carpentry and joinery for roofs and ceilings in this contract.]

This specification shall be read in conjunction with Additional Specification SA: General Maintenance.





.....

All components forming part of this specification for carpentry and joinery for roofs and ceilings shall be maintained as part of the maintenance of installations as defined in Additional Specification SA: General Maintenance.

Maintenance shall include all repair work, replacing of components, routine inspections, fixing of defects or any other actions or rectifying measures necessary to maintain the perfect functional condition of carpentry and joinery for roofs according to the operation and maintenance manuals and as specified in this specification.

All timber trusses and members of timber roofs shall be preserved in a good condition, ie failure free, free from insect attack and decay due to exposure to moisture.

Maintenance on the carpentry and joinery for roofs shall also include all other actions related to (or resulting from) maintenance, such as:

- Cleaning of the site and ceiling voids of rubbish and dirt;
- replacing any element that has failed;
- tightening, fixing or replacing of loose fasteners, premature corrosion of galvanised items like screws, nail plates, etc.

Remuneration for maintenance of the complete carpentry and joinery for roofs shall be deemed included in the tendered monthly payment for maintenance of the applicable installation.

### **BB 06 MEASUREMENT AND PAYMENT**

# BB 06.01 MEASUREMENT AND RATES

### BB 06.01.01 General inclusion of costs

### Notes:

All material scheduled to be removed shall be deemed to be existing damaged materials in small or large sections. All such redundant material shall become the property of the Contractor and must be removed from site immediately.

All new material shall be deemed to be in patchwork and shall be of approved equal quality, colours, profiles, thickness, etc and shall in all cases match the existing materials and shall be fixed (internally or externally) to existing material or surfaces.

All replacement, removal and repair work shall be done carefully as to not damage any adjacent or other material or work. Any damage to other or adjacent materials or areas caused by the negligence of the Contractor shall be repaired by him free of charge.

All work scheduled to be removed or taken out shall be deemed to include the cleaning and preparation of the remaining sections, areas, or work to receive the new material or work specified.

Repair work shall also include all cutting, grinding, cutting into, welding, bending, strengthening, drilling, etc to repair or to improve the items or areas as new and to match the existing.

Work scheduled to be realigned and refixed shall be deemed to include all necessary new additional

					I
					I
					I
					I
					I
					I
					I
					I
					I
					I
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
Contractor	WILLIESS I	Williess 2	Employer	WILLIESS I	Williess 2



.....

materials, brackets, connector plates, bolts, pip rivets, nails, screws, spacer blocks, clamps, timber, and labour, etc to leave the items as new and totally functional.

All new work are measured net and shall include all cutting, lapping, waste, bending, fixing, corners, mitres, fixing screws, pip rivets, nails, adhesive, grout, putty, etc, as well as cleaning and preparation of surfaces not already prepared as part of removed items, etc.

Unless scheduled otherwise, new ceilings and ceilings in patchwork shall be fixed to existing brandering and the Contractor must take special care not to damage the existing brandering when removing damaged ceiling boards.

# BB 06.02 SCHEDULED ITEMS

# **NEW WORK**

Structural timber:

_			
(a)	Plates (sizes indicated)	Unit: m	
(b)	Beams (sizes indicated)	Unit: m	
(c)	Joists (sizes indicated)	Unit: m	
(d)	Rafters (sizes indicated)	Unit: m	
(e)	Purlins (sizes indicated)	Unit: m	
(f)	Roof trusses complete (drawing number in	ndicated)	Unit: number

(g) Etc

**BB.01** 

The unit of measurement shall be the metre of individual types of timber elements or number of complete trusses installed.

The tendered rates shall include full compensation for the supply of all materials, manufacture, cutting, waste, jointing, scaffolding, temporary supports, hoisting facilities and installation of the timber as specified, scheduled or shown on the Drawings.

			]		1			
Contractor	Witness 1	Witness 2	,	Employer	1	Witness 1	ı	Witness 2



# BB.02 Ceilings:

- a) <u>Ceiling boards, trapdoors, cornices, cover strips, etc</u> (type and/or thickness indicated):
  - (i) Thickness, shape and description of applications.....Unit: m², m, number
  - (ii) Etc for other thicknesses, shapes, etc

The unit of measurement shall be the number, metre or square metre of ceiling boards, trapdoors, cornices, etc installed complete as specified and scheduled.

The tendered rates shall also include full compensation for the construction of the ceilings, trapdoors, cornices, cover strips, etc including jointing strips, insulation blankets and brandering as specified.

BB.03	Joinery:
(a)	Items measured by number:
	(i) Doors, etc (type and size indicated)
	(ii) Etc for other items measured by number
(b)	Items measured by linear metre:
	(i) Skirtings, rails, cover strips, quadrant beads, etc (size indicated) . Unit: m
	(ii) Etc for other items measured by length
(c)	Items measured by area:
	(i) Eaves covering, etc (type and thickness indicated)Unit: m²
	(ii) Etc, for other items measured by area

The units of measurement shall be the number, metre or square metre of each type and/or size of joinery item specified and installed complete.

The tendered rates shall include full compensation for the supply of all materials, manufacture, cutting, waste, fixing, scaffolding, temporary supports, hoisting facilities and installation of the joinery items.

Ironmongery to be included in the rates tendered for doors shall be as specified in the Technical Specification BD: Walls.

New joinery, will except where otherwise specified, be fixed or hung to existing material or surfaces.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



------

# **ALTERATION WORK**

# BB.04 Alterations and repairs to existing structures:

- (a) <u>Indicate if repairs, alterations, removal or sealing, etc:</u>
  - (i) Description of individual items to be repaired, replaced, altered, removed, sealed, etc......Unit: m³, m², m, number

The unit of measurement for items repaired, replaced, altered, removed, sealed, etc shall be cubic metre, square metre, metre or number as scheduled. No destinction between sizes or profiles will be made for the removal of structural timber elements.

The tendered rates shall include full compensation for all costs to repair, refix, remove, cutting into, realign, taking off, handling, temporary store, scaffolding, temporary supports, hoisting facilities and preparing existing remaining material or surfaces where applicable to receive new items as well as for credit for the redundant material becoming the property of the Contractor, etc as specified in the Standard and Technical Specifications and shall allow for all necessary labour, plant and new material needed for the repairs, replacement or alterations, etc to leave the scheduled items as new and to the approval of the Engineer. Refer also to the general inclusion of costs in BB.06.01.01."

Contractor	Wit	ness 1	Witness 2	 Employer	J	Witness 1	Witness 2



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

# 6. <u>TECHNICAL SPECIFICATION</u>

# 7. BD WALLS

# 8. <u>CONTENTS</u>

BD 01	SCOPE
BD 02	STANDARD SPECIFICATIONS
BD 03	VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS
BD 04	DETAIL OF REPAIR WORK
BD 05	MAINTENANCE
BD 06	MEASUREMENT AND PAYMENT

# 9. <u>BD 01 SCOPE</u>

This specification covers the repair and maintenance of existing interior and exterior walls including all related building elements such as plastering, partitioning, wall tiling, windows, doors, etc, which form an integral part of an installation.

In determining the remedy for any repair work, the Engineer must take the climatic conditions in which all building elements have to function into consideration. Allowance should be made accordingly for the strength and durability of all components in relation to their purpose and application.

This specification does not include any work related to paintwork as this is specified elsewhere.

The complete scope of repair work shall be in accordance with the section: Detail of repair work.

Maintenance of this part of the installation (the works) shall be performed in accordance with Additional Specification SA: General Maintenance, and the specific requirements included in this Technical Specification.

# 10. BD 02 STANDARD SPECIFICATIONS

# BD 02.01 GENERAL STANDARD SPECIFICATIONS

The latest edition, including all amendments up to date of tender of the following specifications, publications and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof. All other relevant and applicable SANS regulations are also to be considered as minimum requirements, and in particular SANS 0400: The Application of the National Building Regulations.

OW 371	l <b>-</b>		Specification of materials and methods to be used (Fourth revision, October 1993)
SANS	022	-	Glazed ceramic wall tiles and fittings
SANS	227	-	Burnt clay masonry units
SANS	545	-	Wooden doors
SANS	622	-	Gypsum cove cornice
SABC	680	-	Glazing putty for wood and steel sashes
SANS	727	-	Windows and doors made from rolled mill steel sections
SANS	0107	-	The fixing of glazed wall tiles



**SANS 1236** 

Silvered glass mirrors for general use Safety and security glazing materials for buildings SANS 1263

Witness 1 Witness 2 Witness 1 Witness 2 Contractor Employer



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

### BD 02.02 ADDITIONAL SPECIFICATIONS

Technical Specification BG: Metalwork
Technical Specification BH: Fittings
Technical Specification BJ: Paintwork

# 11. BD 03 VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS

# BD 03.01 <u>ADDITIONAL REQUIREMENTS FOR REPAIR OF PLASTERED AND UNPLASTERED WALL SURFACES</u>

# BD 03.01.01 Introduction

A detailed survey of all existing building elements may reveal the necessity for remedial work of varying degree. The Engineer shall make an assessment of all aspects that need to be addressed.

### BD 03.01.02 Plastering: General

All plaster shall comply with the requirements of SANS Standard Specification 523 and section 14 of OW 371. All plastering shall be painted in accordance with Technical Specification BJ: Paintwork, or tiled according to this specification BD.

The Engineer shall inspect the plaster surfaces and establish which wall plastering must be repaired. Reasons for replacing existing plastering will include, but not limited to the following:

- (a) Excessive plaster cracking
- (b) Loose (delaminated) and spalling plaster
- (c) Dusting
- (d) Scaling and flaking
- (e) Defective plaster mix.

All chases shall be marked out in straight lines and neatly cut on either side of the recess for the pipe/conduit with an angle grinder. The width of the removed plastering must extend at least 30 mm beyond the edge of the chasing. Pipes or conduits shall be fixed before commencing grouting and plastering.

After the pipe has been put in place, the void shall be filled with a non-shrink cement grout of 60 MPa compressive strength at 28 days. The chases shall then be covered by fixing with shot-fired nails a weld mesh strip (30 mm longway x 10 mm shortway x 0,5 mm thick expanded metal lath) before applying the final plaster.

# BD 03.01.03 Plastering: Walls of wet areas

Where necessary, hack off and remove existing internal plaster to walls. The substrates must be prepared to be sound, free from cement, grout, laitance, loose or segregated materials, voids or flaws and substances that could interfere with bonding of the new plaster. This preparation work can be done by means of clipping away with a chisel, steel-wire brush and angle grinders to the satisfaction of the Engineer. Smooth concrete must be chipped mechanically to prepare for bonding of new plaster. Before plastering commences, the substrates must be well wetted with clean water.

Only approved ready-mixed or pre-mixed bagged plaster mortar with 10 MPa compressive strength or equivalent may be used for plastering. Mix a liquid waterproofing admixture in a dilution of one part by

			1		1		1		l	
					1		l .			1
					1		l .			1
										1
					1		l .			1
					1		l .			1
					1		l .			1
					1		l .			1
					1		l .			1
					1		l .			1
										1
	,						,		,	
Contractor		Witness 1		Witness 2		Employer		Witness 1		Witness 2



.....

volume with ten parts by volume of clean water. The diluted admixture is added to the appropriate dry cement/sand mixture. The mortar shall be produced in such quantities that will be used within one hour after mixing. The finished plasterwork shall be of an even and smooth towel surface finish.

When dry, apply two coats of an approved water dispersed epoxy resin coating to the plastered surfaces of the walls that are to be painted.

# BD 03.01.04 External plastering

The Engineer shall mark out areas that need to be renovated. The Contractor shall neatly cut with an angle grinder in straight lines the edges of the poor patches of plaster that must be removed.

The substrate of the brick walls must be prepared to be sound, free from cement grout, laitance, loose or segregated material, voids or flaws and substances that might interfere with the bonding of the new plaster.

The surface must not be powdery or crumbly, and must exhibit adequate tensile strength. The preparation work can be done by means of chipping away with a chisel, steel-wire brush and angle grinders to the satisfaction of the Engineer.

Smooth surfaces must be chipped to provide mechanical bonding for new plaster. Before plastering commences the substrate must be well wetted with clean water.

Only approved ready-mixed or pre-mixed bagged plaster mortar with 5 MPa compressive strength or approved equivalent may be used for plastering. The Contractor shall submit the design mix with the volume of water to be added to the mortar mix for approval by the Engineer. An approved bonding agent must be added to the mortar mix.

The mortar shall be produced in quantities that will be used within one hour after mixing. Care shall be taken not to mix old mortar into any new batch.

The finished plasterwork shall be of an even and smooth wooden trowel (surface finish with rounded edges at sharp corners) to the satisfaction of the Engineer. The plasterwork shall be cured for seven days by any approved method to prevent loss of moisture.

Three (3) test cubes per sampling shall be taken at a frequency for every 15 m² plaster area. Cube moulds for nominal size 100 mm complying with the requirements of SANS Method 863 must be used. Final instructions for sampling, moulding, cutting and testing will be issued to the Contractor on site.

### BD 03.01.05 Rough-cast plaster

Rough-cast plaster shall be applied in two coats. The undercoat shall be composed of one part cement and five parts sand finished with a wooden float. The finishing coat shall be composed of one part cement and three parts stone aggregate that will pass through a 4 mm sieve. The finishing coat shall be flicked on with a machine before the undercoat has set to obtain an even texture to match the existing rough-cast plaster.

Where the undercoat has already been plastered, the undercoat shall be prepared to receive the finishing coat. The surface of the undercoat plaster shall be chipped adequately to form a key and wetted before the finishing coat is applied.

### BD 03.01.06 Fine rough-cast plaster

Fine rough-cast plaster shall be as for rough-cast plaster but the finishing coat shall be composed of one part cement and three parts coarse sand.

ſ					1		1		1	
- 1										
- 1										
- 1										
- 1										
- 1										
- 1										
	0	 \A/64 4	l .	\A/:4 O		FI	,	14/24		\A/:4 O
	Contractor	Witness 1		Witness 2		Employer		Witness 1		Witness 2



### BD 03.01.07 Internal plastering

The surface of internal plaster shall be steel trowelled to a smooth, even and true finish. External plaster shall be finished to a true and even surface with a wood float. All plaster surfaces shall be free from blemishes, cracks, blisters or other defects. Plaster shall return into reveals and soffits of openings, and all angles shall be true and straight with salient angles slightly rounded.

Plastering of a surface shall be executed in one operation, as no joint marks will be allowed. Plaster on walls shall not be less than 12 mm or more than 20 mm thick and plaster on concrete shall be not less than 10 mm or more than 15 mm thick, except where specifically specified otherwise.

Only approved ready-mixed or pre-mixed bagged plaster mortar with 5 MPa compressive strength or approved equivalent may be used for plastering. The Contractor must submit the design mix with the volume of water that will be added to the mortar mix to the Engineer for approval.

### BD 03.02 PARTITIONS

All internal non-load-bearing walls shall be inspected and the Engineer shall determine whether partitioning such as laminated plastic particleboard, polyester painted steel, vinyl clad gypsum panels or any other demountable partitioning should be replaced.

Where partitioning must be relocated or replaced, such new partitioning shall be non-combustible, provide acoustical privacy and comply with SANS 0400.

All new partitions shall assemble into a rigid structure and all units shall be readily removable from either side without disturbing adjacent units.

All exposed trims for doorframes, glazing and skirting are to be of aluminium, or alternatively be painted in accordance with Technical Specification BJ: Paintwork.

The type of boarding and jointing or cover strips shall be in accordance with the Schedule of Quantities.

### BD 03.03 WALL CRACKS

Wall cracks shall be evaluated to determine the nature and severity of the occurrence of the cracks. The Engineer shall inspect all plastered and unplastered walls and identify the underlying factors causing cracks. Repairs shall be carried out in accordance with the Particular Specifications.

### BD 03.04 FACE BRICKS

Face bricks shall be inspected for dirt, efflorescence, staining, oil, paint, lichens and mosses, water, smoke and soot, rust, or damage caused by chemical reaction.

Where efflorescence appears, light brushing and hosing down with clean water is recommended for most cases. The brickwork must be saturated with clean water before applying any chemical and washed down with clean water afterwards. Cleaning can also be achieved with scrubbing, water jetting with cleaning agents and soaps, etc. Staining caused by non-water-soluble salts, such as vanadium, manganese and iron, shall be treated as follows:

(a) Remove vanadium staining by washing the wall with a solution of 100 g to 1 litre of water using caustic soda. (Use the corresponding secondary potassium salts where available, as these will be less likely to cause visible secondary efflorescence.) If secondary efflorescence occurs, wash it off with clean water



.....

- (b) Manganese stains must be removed using proprietary brand chemical compounds based on hydrochloric acid with modifiers and sodium fluoride. These solutions should be applied using full strength as recommended by the manufacturer.
- (c) Where rust/iron stains occur, wash the affected area with a solution of 50 g oxalic acid, 20 g sodium fluoride, 15 g citric acid in 1 litre of fresh, clean water. Apply the solution to a dry wall and leave it on the wall until the stain has dissolved. Wash down using a solution of 50 g bicarbonate of soda in one litre of water.

External environmental stains and smears caused by soot, smoke, industrial pollution and spillage of oil, paint and other compounds, including micro-organic growths such as fungi, lichens and mosses on brickwork, must be identified and dealt with in an appropriate and approved way.

Care shall be taken to test the effect of some of the chemicals and compounds for possible harmful effects on the colours of the brickwork and on adjacent materials, as well as for possible toxicity to human, animal and plant life. All cleaning procedures shall be carried out with full knowledge of all the potential dangers to human and animal health, and the appropriate safeguarding and precautionary measures shall be put in place.

### BD 03.05 WALL TILING

# **BD 03.05.01** General

Tiling shall comply with the requirements of SANS Standard Specification 22 and section 15 of OW 371. The code of practice for the fixing of glazed wall tiles, SANS 0107 and the recommendations of the South African Ceramic Tile Manufacturer's Association (SACTMA) must be adhered to.

All tiled areas must be checked for damaged surfaces or to determine where tile adhesion to subsurface proves to be of non-satisfactory standard. In cases where tiled surfaces need to be redone, proper care shall be taken in removing all damaged tiles, as well as any adhesive remains on the subsurface.

Matching of existing size and colour should be pursued wherever possible.

# BD 03.05.02 Glazed wall tiling

White glazed tiles  $150 \times 150 \times 5$  mm thick, first grade, must be laid in a cement-based powder adhesive, strictly in accordance with the manufacturer's specification. Drying periods for backgrounds and substrates must be strictly adhered to. All tiles must be correctly bedded. This can be achieved by using a 6 mm square notched wall trowel to spread the fixative to the required thickness of 6 mm. Bed the tiles dry and move them firmly into position, ensuring that they are in proper overall contact with the bed and form an even surface.

A minimum of 2 mm grouting joints shall be allowed between tiles. Under no circumstances should the tiles be butt-jointed. Do not fill joints between tiles until at least 24 hours after the tiles have been bedded. Ensure that the joints are free of tile adhesive residue and any foreign matter. Fill joints with waterproofed white cement. Existing joints must be cleaned and refilled with new white cement.

### BD 03.05.03 Ceramic wall tiling

Glazed ceramic wall tiles 230 x 115 x 11, 5 mm thick, with grade 1 acid resisting quality finish are to be used. Apply an approved epoxy grout into the tile joints and finish off with a wetted nosing tool to a smooth glazed finish. Ceramic tiles include special tiles, such as bull nose and corner tiles. Repairs include

0	\A/24	1A/24 O		1AC+	\A(\frac{1}{2} + \frac{1}{2} +
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



\_\_\_\_\_

replacing damaged tiles and pointing between tiles with an approved epoxy grout.

# BD 03.05.04 Corner protectors

Install  $75 \times 75 \times 5$  mm thick aluminium angle corner protectors to external vertical wall corners for protection with 8 mm diameter impact nails  $\times 80$  mm long @ 300 mm c/c to a maximum height of 1,6 m. Seal the interface gap with approved silicone.

Install for abattoirs and dairies 75 x 75 x 3 mm thick stainless steel grade 304 angle corner protectors, polished to a No 2B finish with a grit 180, to external vertical wall corners. Fix the corner protectors with 8 mm diameter impact nails x 80 mm long @ 300 mm c/c to a height of 1,8 m. The interface gap must be sealed with an approved polyurethane sealant.

### BD 03.05.05 Expansion joints

Expansion joints for glazed wall tiling shall be provided at 3,5 m centres maximum (vertically and horizontally). The joints shall be 5 mm wide. Prepare the joints by cleaning them thoroughly. The joints shall be primed and sealed with an approved one component 5 x 5 mm white polyurethane joint sealant.

Expansion joints for ceramic wall tiling shall be provided at 4 m centres maximum (vertically and horizontally). The joints shall be 10 mm wide maximum. Prepare the joints by cleaning them thoroughly. The joints shall be primed and sealed with approved one component 10 x 10 mm white polyurethane joint sealant.

### BD 03.06 WINDOWS

### **BD 03.06.01** General

All windows shall be inspected to assess the level of workability, paying special attention to hinges, handles, stays, catches, etc. Should any window be found unsuitable due to damage to the frame, opening section or any other part thereof, such window shall be replaced.

The Engineer shall take great care to make sure that the appropriate waterproofing details are applied strictly to ensure adequate protection against any water penetration.

# BD 03.06.02 Steel windows

The Engineer shall inspect for any deficiencies in residential and industrial type steel windows and cell windows. Where necessary, windows shall be serviced and repainted in accordance with Technical Specification BJ: Paintwork.

# BD 03.06.03 Burglar bars to steel windows

Where manganese bars are incorporated in the fixed mullions of the windows, this shall be done in such a way that the bars are not wider apart than 15 cm/centre. The bars shall have at least a section of 30 x 16 mm, penetrating at least 100 mm in the lintels and sills. Heavy duty burglar bars shall be 15 mm diameter or 12 mm square. Loose burglar bars shall be site welded to the window frames.

### BD 03.06.04 Timber windows

All wooden windows are to be inspected and treated according to the condition of the timber as stipulated in Technical Specification BJ: Paintwork.

					]						
Contractor	l	Witness 1	I	Witness 2	,	Employer	ı	Witness 1	ı	Witness 2	



# BD 03.06.05 <u>Aluminium windows</u>

When working with mortar or plaster great care shall be taken to protect all aluminium sections from staining by applying a film protector or motor oil on the aluminium surface.

BD 03.07 GLAZING

BD 03.07.01 Glass

Cracked and broken glazing shall be replaced. The glazing and fixing of glass in buildings shall be carried out strictly in accordance with SANS Code of Practice 0137.

### BD 03.07.02 Putty

Care shall be taken to remove all chipped, flaked or damaged putty. The Engineer shall indicate on site which putty must be replaced.

All new putty shall comply with the requirements of the SANS Standard Specification 680. The putty shall be delivered on the site in sealed containers marked with the SANS mark.

Type I putty as specified shall only be used for glazing in wood sashes and Type II only in steel sashes.

Paintwork on putty shall not commence until putty has properly dried out, which may necessitate the addition of an accelerating agent. The Contractor shall therefore take programming of trades in prison areas into consideration.

BD 03.08 DOORS

**BD 03.08.01** General

All existing doors shall be inspected for the general condition and integrity of hinges, locking mechanisms, etc.

All steel doors shall comply with the requirements of SANS Standard Specifications 727 and 1129 and section 13 of OW 371.

All new external doors are to be fitted with  $1\frac{1}{2}$  pair heavy duty hinges.

Door signage, such as door numbers, etc, shall be in accordance with Technical Specification BH: Fittings, and the Schedule of Quantities.

Special attention shall be given to the condition of striker plates and hinges that need to be replaced, or properly secured where possible. Doors shall be painted to the requirements of

Technical Specification BJ: Paintwork.

# BD 03.08.02 <u>Doors, sidelights and fanlights</u>

All wooden stock doors shall comply with the requirements of SANS Standard Specification 545 and section 8, clauses 8.33 and 8.34 of OW 371.



.....

### BD 03.08.03 Flush doors

The Contractor shall inspect all doors, internal and external. Where any door needs to be replaced, such door shall be a 40 mm thick solid laminated door as specified for interior or exterior use and shall be capable of withstanding the raking, deflection, puncture and moisture resistance tests for the desired application.

Unless otherwise specified, face veneer shall be rotary cut, and shall be of the timber specified, or where doors are to be painted, shall be of timber suitable for painting. Painting shall be done in accordance with Technical Specification BJ: Paintwork, and the Schedule of Quantities.

Edge strips for concealing the vertical edges of doors shall be of the same timber as the face veneer and for single doors and hinge edges of double doors not be less than 10 mm thick, and for rebated meeting edges of double doors not less than 20 mm thick. The top and bottom edges of doors showing end grain shall be sealed with lacquer or other suitable material if the edges were disturbed in any way.

### BD 03.08.04 <u>Toilet doors in ablutions</u>

Doors showing signs of erosion due to water penetration shall be either replaced or cut short 150 mm from finished floor level. If the existing semi-solid door panel is to be retained, it should be cut short 150 mm from the floor level. A  $38 \times 50$  mm SAP insert must be glued and nailed in at the bottom edge. The steel frame must also be cut short and filled in with grout at the cut edges and fixed to the wall with  $2 \times 8$  mm diameter heavy duty impact nails.

### BD 03.08.05 Doors for abattoirs and dairies

Doors in abattoirs and dairies shall be made of 0,5 mm white Chromadek sheet-metal glued onto 40 mm thick 16 kg/m³ density polystyrene core with chemical glue.

The door leaf shall be finished off around the edges with 46 x 30 x 2,5 mm thick anodised aluminium channels and sealed with white silicone sealant.

The doorframe shall be manufactured from 1,6 mm thick grade 430 stainless steel, polished to No 2B finish.

The existing timber door panels must be replaced with the above-mentioned type door panels. Where instructed the steel door frames will only be replaced if they are severely corroded and/or damaged. The new steel frames must be built into the brick walls with the necessary steel lugs (3 per side) and the core of the frame must be filled with mortar. All other requirements shall be complied with as specified in clause 13.6 of OW 371.

# BD 03.09 IRONMONGERY

# BD 03.09.01 <u>General</u>

All ironmongery shall comply with the requirements of section 11 of OW 371. All ironmongery shall be approved by the agent/representative before fixing. Articles shall be fixed with screws of similar metal and shall be eased, oiled, adjusted and left in perfect working order on completion.

All ironmongery shall be inspected to assess the level of workability, paying special attention to door handles, locks, door closers, door stops, door catches, fixing of these fittings, etc. Should any of these fittings be found unsuitable due to damage, corrosion, etc, they shall be replaced. Where existing holes in wood are worn out, these holes must be plugged with wood to receive the screws.



Toilet doors in ablutions must be fitted with approved D-type natural anodised aluminium pull handles and 150 x 150 mm plate. Install 15 mm diameter concealed steel roller ball catch with chromium-plated striker plate with circular hole for roller ball catch. Fix this plate to door frame with two aluminium pop rivets.

# BD 03.09.02 Door locks

Each lock shall be provided with two keys and no key shall pass a second lock. All mortice locks, mortice latches and night latches, rim and cylinder rim night latches, and escutcheon for locks shall comply with the requirements of the SANS. The Contractor shall supply all screws, etc, required for completion of the work.

# BD 03.09.03 Cupboard doors

Where required according to the Schedule of Quantities, built-in cupboard doors in sleeping quarters are to be provided with 2 x angle iron sections of 35 x 80 x 3 mm thick x 10 mm diameter hole for a padlock that must be fixed to the inside of the cupboard door.

Locker doors shall be provided with a 50 x 50 x 5 mm thick mild steel angle x 10 mm diameter hole for a padlock site welded to the locker.

### BD 04 DETAIL OF REPAIR WORK

The detail of the work is described in the Schedule of Quantities.

### BD 05 MAINTENANCE

[Note: There will be no maintenance work required for walls in this contract.]

This specification must be read in conjunction with Additional Specification SA: General Maintenance.

All components forming part of any wall structure shall be maintained as part of the maintenance of installations as defined in Additional Specification SA: General Maintenance.

Maintenance shall include all repair work, replacing of components, servicing, fixing of defects or any other actions or rectifying measures necessary to maintain the perfect functional condition of any wall structure.

Remuneration for maintenance of the walls shall be deemed included in the tendered monthly payment for maintenance of the installation under which it falls.

# BD 06 MEASUREMENT AND PAYMENT

BD 06.01 <u>MEASUREMENT AND RATES</u>

BD 06.01.01 General inclusion of costs and specific specifications

### Notes:

Where applicable, standard SANS 1200 measurement and payment items shall be used for Earthworks (Small Works) (1200 DA), Site Clearance (1200 C) and Concrete (Structural) (1200 G).



.....

All material scheduled to be removed shall be deemed to be existing damaged materials in small or large sections. All such redundant material shall become the property of the Contractor and must be removed from site immediately.

All new material shall be deemed to be in patchwork and shall be of approved equal quality, colours, profiles, thickness, etc and shall in all cases match the existing materials and shall be fixed (internally or externally) to existing material, frames or surfaces.

All replacement, removal and repair work shall be done carefully as to not damage any adjacent or other material or work. Any damage to other or adjacent materials or areas caused by the negligence of the Contractor shall be repaired by him free of charge.

All work scheduled to be replaced shall be deemed to include for the careful removal of the damaged existing material as a whole or partly, as specified, for the cleaning and preparation of the remaining surface(s), frames, etc as well as for the new material scheduled or specified to replace the damaged material.

All work scheduled to be removed, hacked off, or taken out shall be deemed to include the cleaning and preparation of the remaining surfaces, areas where material were removed, or remaining work to receive new material or work specified.

Repair and service work shall also include all removing, cutting, grinding, cutting into, welding, bending, strengthening, drilling, tightening, fastening, oiling, greasing, adjusting and providing missing or damaged screws or bolts, etc to repair and service or to improve the items or areas as new and to match the existing. The servicing of windows will be measured in number irrespective of the type of window or the amount of opening sashes present in the overall window size. The rates tendered for this or similar items shall be deemed to include for servicing all opening sashes and the total overall frame.

Work scheduled to be realigned and refixed shall be deemed to include all necessary new additional materials, brackets, connector plates, bolts, pip rivets, nails, screws, spacer blocks, clamps, timber, and labour, etc to leave the items as new and totally functional.

All new work are measured net and shall include all cutting, lapping, waste, bending, fixing, corners, mitres, fixing screws, pip rivets, nails, adhesive, grout, putty, etc, as well as cleaning and preparation of surfaces not already prepared as part of removed items, etc. The supply and installation of new window handles, pegs, stays, etc as well as the service of windows shall include for sealing all bolts and screws of handles, stays, etc with epoxy after fixing or tightening into positions.

The removal of doors, gates or windows shall include for the removal of all existing locks, handles, striking plates, etc but exclude the hinges, etc, which shall be used for the new replaced items. All repair work (excluding paintwork) around and in the thresholds of new door frames, gates or windows build into existing brickwork in new or existing positions shall be deemed to be included in either the rates tendered for the new replacement item or the removal payment item of the frame, window, etc.

The new doors to toilets and wet areas as specified shall be fitted with rubber door stops, D-profiled pull handle and backplate sets, 15 mm roller ball catches with striking plates and all other ironmongery needed to install the doors complete. All new ironmongery shall be measured and paid for separately.

The new doors to offices, etc, as specified shall be fitted with rubber door stops, 4 lever mortice locksets with handle sets to match existing, striking plates and all other ironmongery needed to install the doors complete. All new ironmongery shall be measured and paid for separately.

All ironmongery installed on the project shall bear the SANS approved trademark and codes. Samples of all ironmongery scheduled must be according to the samples of the Department of Public Works and samples must be handed to the engineer for approval before ordering the material.

			1		1		1	
1								
1								
1								
1								
1								
1								
1								
Contractor	Witness 1	Witness 2	•	Employer	•	Witness 1	•	Witness 2



\_\_\_\_\_

All brickwork shall include for damp proofing membranes, galvanized brickwork reinforcement to every third course, wire ties and wall anchors as needed.

Tilework to walls shall include all cutting, spacers, waste, jointing, mitres, corners, epoxy grout and joint filler.

Ordering of certain specified material ie NCI industrial type wall tiles needs special and urgent attendance and should be ordered timeously as to prevent any construction delays.

All new glass mirrors shall be silvered float glass copper backed mirrors with polished edges all round and shall, unless otherwise scheduled, be fixed to walls with chromium plated dome capped mirror screws with rubber buffers.

# Specific specification: Welding of thin steel plates

Thin steel plates covering the external side of doors must be welded to the door frame members. The existing paint must be removed from the welding areas prior to site welding. A coded or experienced welder must submit the proposed welding procedure to the Engineer for approval. The aim of the site welding is two fold, viz to fix the steel plate to the frame and secondly, to prevent water ingress into the inside of the door. The perimeter of the individual plate sections of the door must be sealed with continuous impervious welds.

# Specific specification: Repairs and replacements to calve kraals

# Replace diamond mesh fence:

Existing diamond mesh shall be removed and replaced with new diamond mesh fence. The new galvanized fence wires and properly bed to the fencing wire. The diamond mesh or wire netting shall be secured by means of soft binding wire at 1,2 m centres along the top and bottom straining wires and at 3 m centres along each of the other fencing wires unless otherwise specified.

### Diamond mesh

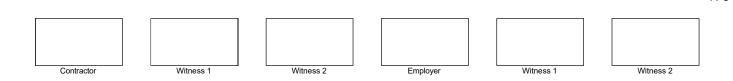
- (a)Diamond mesh (chain-link) fencing shall comply with the requirements of SANS 1373. The edge-finish shall be both sides clinched or barbed.
- (b) The nominal diameter of the wire shall be 2,5 mm and the mesh size shall be 40 mm x 40 mm.
- (c)The wire shall be fully galvanized

# Tensioning fence wires:

All fencing wire shall be carefully strained and hung without sag, and with true alignment, care being exercised not to strain the wire so tightly that it will break, or that end, corner, straining or gate posts will be pulled up. Each strand of fencing wire shall be securely fastened in the correct position to each post with soft galvanised binding wire.

# Smooth wire:

- (a) Smooth wire shall comply with the requirements of SANS 675 and shall be of the types specified below:
- (b)Straining wire shall be 4,0 mm diameter and fully galvanized.





(c)Fencing wire shall be high tensile grade, 2,24 mm diameter wire fully galvanized.

(d)Tying wire shall be 2,5 mm diameter, mild steel, galvanized wire for tying fencing wire to standards a droppers, and 1,6 mm diameter, mild steel, galvanized wire for tying netting and mesh wire to fencing wire to fencin									
BD 06.02	SCHEDULED ITEMS								
NEW WORK									
BD.01	Doors and windows:								

(a) (Type of doors, windows, locks, etc and material indicated):

The unit of measurement shall be the number of doors, windows, locks, etc installed complete as specified.

The tendered rates shall include full compensation for the manufacturing and installation of the steel doors, windows, locks, frames, etc complete with hinges, handles, locks, barrel bolts, retaining devices, door stops, stays and any other work necessary to complete the work as specified, scheduled or as shown on the Drawings. The tendered rates for windows shall also include full compensation for glazing, window sills and damp-proof sheeting as specified or to match existing.

### BD.02 Wall panelling:

(a) Description of material to be use
(a) Description of material to be use

(i)	Description of item and/or position to
	be fixed

The unit of measurement shall be the number, metre, etc for each item as scheduled.

The tendered rates shall include full compensation for all costs of material, waste, labour, plant, transport, delivery, access, scaffolding, fuel, etc to install the material as specified and to match the existing to the Engineer's approval.

BD.03	<u>Joi</u>	nery:
(a)	<u>Iter</u>	ns measured by number:
	(i)	Doors, etc (type and size indicated)
	(ii)	Etc for other items measured by number
(b)	<u>Iter</u>	ns measured by linear metre:
	(i)	Skirtings, etc (type and size indicated)
	(ii)	Etc for other items measured by length

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

180



Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

1 LEN	RENABILITATION OF NUNUUI SPORTS FAUILITT. PHASE 2
(c)	Items measured by area:
	(i) Eaves covering, etc (type and thickness indicated)
	(ii) Etc, for other items measured by area
The unitem sp	its of measurement shall be the number, metre or square metre of each type and/or size of joiner ecified.
	ndered rates shall include full compensation for the supply of all materials, manufacture, cutting fixing and installation of the joinery items.
BD.04	Ironmongery, steelwork, glass, wall finishings, etc:
(a)	Measured by number:
	(i) (Description of item)
	(ii) Etc
(b)	Measured by linear metre:
	(i) (Description of item)
	(ii) Etc
(c)	Measured by area:
	(i) (Description of item)
	(ii) Etc
The un	it of measurement shall be the number, metre or square metre as applicable to each item.
new or or as t	idered rates shall include full compensation for manufacturing, providing and installing each item to existing steel, wood or plaster complete as per specifications, drawings, descriptions as scheduled he existing and shall include for all labour, material, waste, plant, transport, delivery, access ling, fuel, etc to the Engineer's approval.
	ALTERATION WORK
BD.05	Alterations and repairs to existing structures:
(a)	Indicate if repairs, replace, alterations, removal or sealing, etc:
	(i) Description of individual items to be repaired, altered, removed, sealed, etc
	it of measurement for items repaired, replaced, altered, removed, sealed, etc shall be the cubic square metre, metre or number for each item as scheduled.
	ndered rates shall include full compensation for all costs to repair, replace, refix, remove, cutting align, taking off, temporary store, etc as specified in the Standard and Technical Specifications and



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

shall allow for all necessary labour, plant and new material needed to do the specified work and to leave the scheduled items as new and to the approval of the Engineer. Refer also to the general inclusion of costs in BD 06.01.01."

# 12. TECHNICAL SPECIFICATION

# 13. BE FLOORS

# 14. CONTENTS

BE 01	SCOPE
BE 02	STANDARD SPECIFICATIONS
BE 03	VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS
BE 04	DETAIL OF REPAIR WORK
BE 05	MAINTENANCE
BE 06	MEASUREMENT AND PAYMENT

# 15. <u>BE 01 SCOPE</u>

Floors shall mean the scope of work to repair and maintain materials and components such as removal of existing floors and installation of new floor coverings, skirtings, screeds, concrete floors and paving. This specification does not include work related to metalwork and paintwork, which are specified elsewhere.

This specification covers the removal of existing floor coverings, screeds and concrete surface beds, the repair of existing floor coverings, screeds and concrete surface beds. This specification also covers the supply, delivery and installation of new floor coverings, screeds and concrete surface beds for various types of buildings.

The complete scope of repair work shall as described in BE 04: Detail of repair work.

Maintenance of this part of the installation (the works) shall be performed in accordance with Additional Specification SA: General Maintenance, and the specific requirements included in this Technical Specification.

## 16. BE 02 STANDARD SPECIFICATIONS

# BE 02.01 GENERAL STANDARD SPECIFICATIONS

The latest edition, including all amendments up to date of tender of the following specifications, publications and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof:

OW 371 -		Specification of Materials and Methods to be used (Fourth edition, October 1993)										
SANS 281	`	Hardwood block and strip flooring										
SANS 581	- Semi-fle	Semi-flexible vinyl floor tiles										
SANS 786	- Flexible	vinyl flooring										
SANS 978		Wood mosaic flooring										
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2							



.....

SANS 070 - The laying of thermoplastic and similar types of flooring

SANS 043 - The laying of wood floors

SANS 0186 - The laying of textile floor coverings

SANS 1449 - Ceramic wall and floor tiles

# BE 02.02 <u>ADDITIONAL SPECIFICATIONS</u>

Technical Specification BF: Structural concrete

Technical Specification BG: Metalwork

# BE 03 VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS

# 17. BE 03.01 ADDITIONAL REQUIREMENTS FOR REPAIR OF FLOORS

# BE 03.01.01 Floor coverings

Existing floors shall be inspected to determine the extent of any damaged floor areas. The existing floors and other building elements shall be protected from damage during the progress of any repair work and on completion shall be cleaned and handed over in a perfect condition. Only skilled workmen experienced in laying any type of floor finishes shall carry out the work.

## BE 03.01.02 Preparation of floor slab and surface beds for new floor screeds

The existing concrete screed shall be removed in patches designated by the Engineer.

All laitance on the surface of the existing surface bed must be removed completely. Mechanised plant such as scabblers or abrasive blasters must be used. The Contractor shall take all necessary precautions to keep dust pollution to a minimum inside the building during the breaking out and removing of existing concrete screeds, as well as during the preparation of the existing concrete surface bed.

After the mechanical cleaning of the slab surface to expose the coarse aggregate, all dust and debris must be removed, and the surface must be thoroughly wetted and kept wet for at least 12 hours before application of the new concrete screed.

## BE 03.01.03 Surface preparation of existing floor screeds for new floor coverings

The following procedure is suggested where vinyl tiles were laid with bitumen adhesive:

- (a) The Engineer will specify the where existing vinyl tiles are to be removed.
- (b) The bitumen must be removed mechanically and/or chemically. Remove as much bitumen and other contamination as possible by scraping. Bitumen can be heated to soften it.
- (c) Sweep or vacuum sub-floor thoroughly to remove dust and grit.
- (d) An approved solvent based degreasing and cleaning compound can be used to remove the bitumen chemically. The Contractor shall ensure the safety of the workers and the building against possible fire.
- (e) The concrete surface must be smoothened. Even the surface with Pavelite or approved equivalent before laying the new vinyl tiles. The Pavelite must be applied in accordance with the manufacturer's specifications.

1				1		1		1	
-									
-									
-									
1									
-									
-									
1									
•	Contractor	Witness 1	Witness 2		Employer	•	Witness 1		Witness 2



\_\_\_\_\_

(f) Vacuum clean the floor surface again before the adhesive is applied to lay the vinyl tiles.

# BE 03.01.04 Cement screed

Cement screed shall be carried out in accordance with clause 14.18 of OW 371. The Engineer shall determine which existing cement screeds are to be replaced. The cement screed shall have a maximum thickness of 30 mm. Where required the cement screed shall be modified with an approved alkali compatible acrylic emulsion by preparing the cement screed with a mixture of the latex and water in the required ratio.

Before the new screed is applied, remove all surface water from the slab. Apply a bond coat to the slab/surface bed, consisting of a 1:1 mix of cement and clean fine sand with just enough water to provide the consistency of slurry. Mix in equal parts an approved alkali compatible acrylic emulsion specially modified for use in cement mortars with water, and add Portland cement to form the slurry. Spread the bond coat evenly using a stiff fibre brush. Do not leave standing pools. Place screed in good time (before the bond coat dries out). The screed must be laid and compacted in one layer.

Curing should commence as soon as the finishing operations have been completed and should be continued for at least 7 days. The Engineer must approve the method of curing.

Joints must be formed in the screed at all existing contraction and expansion positions, as well as at intermediate positions at 3 m spacing maximum.

# BE 03.01.05 Concrete screeds

## (a) General

Concrete screeds shall have a minimum thickness of at least 50 mm. The Engineer shall determine the areas of which the concrete screeds need to be replaced.

Only ordinary Portland cement, CEM 1 42,5 in accordance with SANS ENV 197-1, shall be used.

Coarse aggregate maximum size: 10 mm 28-day cube strength: 35 MPa.

The use of an approved plasticizer is recommended to reduce the water content of the mix to the absolute workable minimum.

The mix design must be submitted to the Engineer in advance for approval.

Four sets of six test cube samples shall be taken for every factory for the testing of the compressive strength of the concrete.

## (b) Concrete floor hardener

Concrete natural non-ferrous aggregate floor hardeners shall strictly be applied in accordance with the manufacturer's specification and under his supervision. <u>Note</u>: The Contractor shall furnish a certificate of compliance, together with a written guarantee after completion.

## (c) Compressive strength

At 7 days: 50 MPa At 28 days: 70 MPa

All other aspects of the construction of new concrete screeds shall be adhered to as specified in Technical Specification BF: Structural concrete.

	]				]				
Contractor	•	Witness 1	•	Witness 2	•	Employer	•	Witness 1	Witness 2



.....

# BE 03.01.06 Laying of material (ceramic excluded)

The laying of vinyl and similar flooring material in tile and sheet form and the fixing of plastic skirtings, nosings, etc, shall be carried out in accordance with SANS 043 and section 10, clause 10.3 of OW 371.

The laying of wood block and wood mosaic flooring shall be carried out in accordance with SANS 043 and section 10, clause 10.2 of OW 371.

The laying of textile floor coverings shall be done in accordance with SANS 0186.

Vinyl floor tiles shall be laid with continuous joints in both directions. Tiles shall be cut with a "jointer" at saw and expansion joints. Tiles laid over these types of joints will not be permitted. Only latex-resin type adhesive shall be allowed to glue tiles to the concrete screed or surface bed.

## BE 03.01.07 Granolithic screed finish

Granolithic screed finish to floors, treads of steps, thresholds and similar surfaces, unless otherwise specified, shall not be less than 25 mm thick. The granolithic screed shall be composed of three parts granite, or other approved hard stone chips, or approved hard, coarse sharp washed granitic or quartzite sand, half part clean sand and one part of cement, hand or mechanically trowelled to a true and smooth surface. No dry cement powder, grout or wet slurry mix shall be applied to the surface.

New granolithic screed shall be laid before the concrete surface bed or floor matures in order to allow for proper binding. If this is not possible, then the top of the surface bed or floor shall be hammered, chipped and then cleaned with a wire brush and a coat of neat cement grout applied immediately before the granolithic is laid.

The granolithic shall be laid in panels not exceeding 6 m<sup>2</sup> in area and jointed to lines of panels with V-joints. The joints between the panels shall coincide with joints in the concrete surface bed or floor.

Granolithic finish to stair risers, sides of curbs and other vertical surfaces shall, unless otherwise specified, not be less than 12 mm thick.

All granolithic work shall be done by experienced workmen only and shall be protected from damage caused by rain or other extreme weather for 12 hours after being laid. Protection shall be provided against too rapid drying whilst hardening by means of covering with wet sacks or other suitable material. The screed shall also be protected from damage and discoloration during the progress of the remaining work.

Edges of granolithic floor butting against different floor finishes and edges of margins, etc, shall be true and sharp, and shall be protected by fixing temporary wood strips which shall remain in position until the laying of the adjoining floor has commenced.

Where a non-slip granolithic floor finish is required, the granolithic shall be laid as specified above. Alundum grit shall then be sprinkled over the surface at the rate of 1 kilogram per square meter, lightly tamped in and allowed to set.

## BE 03.01.08 Vinyl floor finishes

Existing floors should be inspected and where vinyl tiles need to be replaced, such tiles shall comply with the requirements of SANS 786, and be  $300 \times 300 \times 2$  mm thick unless otherwise specified. The flooring shall be of marbled pattern and of an approved colour (to be specified by the Engineer).

Vinyl floor tiles or sheets shall be laid with an adhesive recommended by the manufacturer. All the preparation and work in connection with the laying and fixing of the specified flooring and vinyl skirtings

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



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

shall be done in accordance with SANS 070 and to the satisfaction of the Engineer.

The flooring shall, where necessary, be cut and neatly fitted against adjoining floors, thresholds, etc. Where required the Contractor shall carefully remove existing timber floor skirtings and/or quarter rounds for re-use where vinyl tiles are laid against walls. Reinstate skirtings and/or quarter rounds.

Vinyl floor tiles shall, unless otherwise specified, be laid with continuous joints in both directions and vinyl floors shall, unless otherwise specified, be in standard widths with cut sheets at sides of floors as necessary, all to the entire satisfaction of the Engineer.

The vinyl flooring and skirtings shall be covered up and protected from damage during the progress of remaining work and on completion be cleaned and, unless otherwise specified, polished with the type of polish recommended by the manufacturer of the vinyl flooring.

## **BE 03.01.09 Skirtings**

Loosened hardwood skirtings must be cleaned and where necessary removed and/or replaced by 76 x 19 (or 25 mm) mm thick hardwood skirting with one rounded top edge plugged to the wall.

Painting shall be in accordance with Technical Specification BJ: Painting.

In selected areas skirtings shall be 100 mm high x 6 mm thick unglazed ceramic tiles glued to walls with an approved cement grout. The Engineer shall specify these areas.

Vinyl cove skirtings shall be of approved manufacture and colour and, unless otherwise specified, be 70 mm high.

# BE 03.01.10 Sealing of vinyl flooring

The newly laid tiles shall, after four days, be scrubbed with a diluted neutral detergent/stripper complying with SANS 825 and rinsed thoroughly. After the floor has dried, apply two coats polymer/acrylic sealer combination containing a minimum of 22 % solids using an applicator pad. Ensure that the surface has set hard before allowing traffic on the floors.

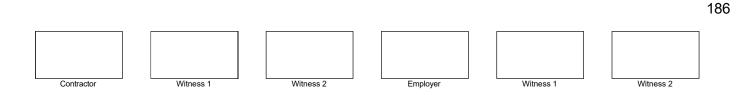
# BE 03.01.11 Wood block floors

## (a) Replacement of wood block floors

Where required, wood blocks that must be replaced shall, unless otherwise specified, be Clear Grade, Class H with nominal sizes of 75 mm wide, 225 mm long and 20 mm thick, and shall comply with the requirements of SANS 281. Wood blocks that are loose must be re-laid using an approved hot or cold adhesive after the old bitumen has been removed and the surface prepared.

The moisture content of the blocks shall be as specified in the above-mentioned specification, and the blocks shall be treated with timber preservative as specified. The blocks shall, unless otherwise specified, be laid to a basket pattern with an approved hot or cold adhesive and shall be sanded on completion all in accordance with the SANS Code of Practice, SANS 043 and to the satisfaction of the Engineer

Wood block floors shall be covered up and protected from damage during the progress of the remaining work, and unless otherwise specified, a sealer shall be applied to the final sanded surface and then polished all in accordance with the above-mentioned Code of Practice.





\_\_\_\_\_

## (b) Partial repairs to parquet floors

Only severely loose wood blocks identified by the Engineer shall be repaired. The Contractor shall carefully remove the wood blocks for re-use. Scraping and any other suitable means shall be used to remove the old bitumen. The concrete surface bed or cement screed shall be cleaned from dust and bitumen residue as specified in BE 03.01.02. If the concrete or cement screed is in a poor condition, the poor patches shall be removed according to BE 03.01.04. The Contractor will be allowed to use rapid hardening cement grouts to reduce drying time of concrete and cement screeds in order to suit the working programme. The screeds must be laid at such a level as to enable the workmen to lay the cleaned wood blocks at the same level as the surrounding wood flooring blocks. The cleaned blocks shall be laid in a basket pattern (or the same existing pattern) with approved hot or cold bitumen at the same level as the surrounding blocks. Missing blocks must be replaced.

# BE 03.01.12 Sealing of timber floors

Existing timber floors must be mechanically belt-sanded to remove all traces of existing sealer in

strict compliance with SANS 043. Where necessary, existing flooring, skirtings and quarter rounds should be temporarily removed. Before applying the new wooden floor sealer, ensure that the surfaces are dry, sanded smooth and free from varnish or oil. Vacuum the dust from the prepared floor surfaces.

Apply three coats of clear, lead free wooden floor sealer with preservative and anti-fungicidal properties according to the manufacturer's specification.

Apply the first coat until an even glossy, wet surface is achieved. Leave to dry thoroughly. Apply at least two other coats in the same way, and finally a fourth and final coat. It is proposed that the Contractor first do a trial section to satisfy himself that he can handle this procedure. The final appearance of the wooden floor must be smooth and have a uniform non-gloss finish.

Reinstate skirtings and quarter rounds.

## BE 03.01.13 Tiling (general)

Tiles shall be solidly bedded and jointed in cement mortar and, unless otherwise specified, joints shall be 6 mm wide.

The joints in all tiling are to be continuous in both directions. The pointing is to be carried out by well pressing in half-dry cement mortar. Under no circumstances may liquid cement grout be used for pointing.

All tiling shall be properly covered and shall be protected against any possibility of staining, discolouring or any other damage.

At completion, all tiling is to be exposed, checked for damage, repaired where necessary and cleaned off with soft soap and cold water and left in a perfect condition. The application of oil on tiling is not allowed.

## BE 03.01.14 Ceramic and quarry floor tiles

## (a) General requirements

The Engineer shall determine which tiles need replacement. The existing floor screed and floor tiles must be removed in patches and/or areas as determined by the Engineer.

Ensure that the base for floor tiling is rigid, stable and level unless required to have a fall in one or more

						1		1	
Contractor	ı	Witness 1	Witness 2	ı	Employer	J	Witness 1	1	Witness 2



-direction(s). The surface preparation and cement screed (if required) are described in BE-03.01.03 and

BE 03.01.04 respectively. When proprietary brand adhesives are being used for fixing ceramic floor tiles it is essential that the surface to which the tiles are to be fixed is clean, dry, flat and true.

Lay approved unglazed ceramic split floor tiles ( $230 \times 115 \times 11,5$  mm thick and of a selected or matching colour) in professional floor grouting with 8 - 10 mm wide joints. The floor grout must be applied with a 10 mm square notched floor trowel evenly over an area not exceeding 1 metre at a time. Coved skirting tiles including external and internal skirting corners must be laid against walls in abattoirs. Setting out must be done correctly. The finished installation must be level plumb and true unless specified otherwise. In abattoirs the floor tiles must be laid to specified falls.

Mortar beds for dust-pressed tiles and quarry tiles shall be formed with a slurry of 1:1 cement and clean fine sand to a thickness of about 3 mm on an area not exceeding 1 metre at a time. The joints will be 6 - 8 mm wide depending on the size of the tile.

The tiles must be laid in professional cement-based powder adhesive, strictly in accordance with the manufacturer's specifications. The Code of Practice for the fixing of tiles in accordance with SANS 1449 and the recommendations of the South African Ceramic Tile Manufacturer's Association (SACTMA) shall be followed. Important points to be taken into consideration is are summarised below:

- (i) Sufficient time must be allowed between building operations.
- (ii) Drying periods for backgrounds and substrates must be strictly adhered to.
- (iii) No tiling may commence prior to the prescribed time.
- (iv) All tiles must be correctly bedded. The tiles must be properly bedded into a fixative that is spread evenly to the required thickness using a square notched rubber mallet (10 mm for ceramic tiles). Bed the tiles dry and move firmly into position, ensuring that they are in proper overall contact with the bed, and form an even surface.
- (v) A minimum of 6 10 mm grouting joints must be allowed between extruded and split tiles (3 mm minimum for pressed tiles). Ensure that the joints are free of tile adhesive and any foreign matter.
- (vi) Tiling installation: Setting out and finished installation must be done correctly.

# (b) Filling of joints

Do not fill joints between tiles until at least 24 hours after the tiles have been bedded. Before applying the joint epoxy grout ensure that the joints are free of tile adhesive residue and any foreign matter. Apply the approved epoxy grout into the tile joints. The finishing-off must be completed with a wetted nosing tool or spatula so that a smooth glazed surface finish can be achieved. Application of the epoxy grout must be done strictly in accordance with the manufacturer's specifications. Finally, the tiles must be thoroughly cleaned.

# BE 03.01.15 Movement joints in tiling

## (a) General requirements

Movement joints are to be provided in tile work due to moisture expansion, thermal expansion and contraction, and crack control at existing expansion joints in the surface bed.

(i) Provide movement joints in the tile work, screed and bedding down to the concrete surface bed or slab. The spacing of these joints depends on the position of existing joints, column and wall layouts and slab thickness. The maximum spacing of joints should be limited to 30 times the slab (surface bed) thickness or 4,5 m, whichever is the lesser. The length-to-width ratio of tile panels should be limited to between 1,0 and 1,5.

			_				_	
			1		1		1	
			J		l		]	
Contractor	Witness 1	Witness 2		Employer		Witness 1		Witness 2
001111110101	************	***************************************		p.oyo.		***********		***************************************



- ---(ii) Provide\_isolation\_joints\_around\_the\_perimeter\_of\_the\_floor,\_around\_columns,\_walls\_and\_other\_fixed structural elements.
  - (iii) Joints shall be aligned with no offsets. Irregular shape tile panels must be avoided. Where included angles are unavoidable, it should be less than 60 degrees.
  - (iv) The width of the joint shall be 6 mm minimum and 10 mm maximum. Provide an approved closed-cell expanded polyethylene foam joint filler with a hinged temporary blocking piece in the movement joints. The size of the blocking piece must be the same as the joint width.

# (b) <u>Joint sealing</u>

The joints shall be prepared and primed prior the application of the joint sealant.

The liquid sealant in joints shall be an approved one part grey polyurethane sealant with a shore hardness of A45 and an elongation of 400 %. The manufacturer's specifications must be strictly followed.

# (c) <u>In abattoirs</u>

Clean and dry all tile surfaces. All loose material must be removed by means of a wire brush or by water while all tile adhesives are cleaned from the edges of the tiles.

Ensure that all traces of release agents, curing compounds and existing joint sealant compounds are removed. Install a suitable closed-cell expanded polyethylene bond breaker cord in the expansion and isolation joints after which the complete substrate is primed with a component solvent free primer which penetrate into the tile and pull all dust particles with it. Proceed with the final application of an approved one part grey polyurethane sealant with a shore hardness of A45 and an elongation of 400 %. The manufacturer's specifications must be strictly followed.

### BE 02.02 PAVING

Repairs to paving shall include the improvement of existing paving, drainage channels and the replacement of paving that can not be repaired. Different paving types exist, eg concrete, precast paving segmental and regular blocks, bricks and slasto. This specification only covers pedestrian paving around buildings.

The Engineer shall identify the paving areas that are to be repaired. Defects to paving will include but not be limited to the following aspects:

- (a) Failure of subbase material and subsidence of sub-soil due to excessive water erosion;
- (b) Broken and severely damaged paving;
- (c) Distorted and disturbed paving;
- (d) Drainage problems, eg ponding of water on the paving and in drainage channels, incorrect falls, etc;
- (e) The omission of edge restraint;
- (f) Intrusion of weed or hostile root penetration.



## BE 03.02.01 Preparing foundation

If the subbase and/or subgrade have failed, this soft and unstable material shall be replaced. Existing paving must be carefully removed and stack for re-use. The new earth filling shall be of inert material, having a maximum plasticity of 10, free from large stones, etc, spread, levelled, watered and compacted in layers not exceeding 150 mm thick to a density of 95% of modified AASHTO density. Cement stabilization to improve the existing subgrade may be considered to improve the characteristics of the material. The blocks shall be laid true to line, levels and grade on a 25 mm thick layer of approved bedding sand. The bedding sand must not be used to fill hollows in an uneven subgrade or subbase surface. Where specified, plastic sheeting must be provided below the bedding sand layer. Refer also to BE 03.02.06.

The Contractor shall be responsible for carrying out all necessary process control tests on the density and moisture content of the completed subgrade, subbase, etc, to ensure that the required compaction is being attained.

## BE 03.02.02 Laying of segmental block paving

The existing blocks shall be preselected for re-use. Broken and severely damaged paving blocks shall be replaced. New paving blocks shall comply with SANS 1058 Class 30 compressive strength. All blocks shall be laid true to line and level. Care shall be taken to ensure that joint lines are straight and square. The blocks shall have a minimum thickness of 60 mm.

After laying the blocks, the paving shall be compacted by means of vibrating plate compactor with joints between the blocks filled in, after compaction, by sweeping in fine sand. The jointing sand shall have a pass of 1,18 mm sieve and contain 10-50 % material passing the 75 micron sieve. The sand shall be free of all soluble salts or contaminants likely to cause efflorescence or staining.

Areas against curbs, manholes, etc, that require infilling and which exceed 25 % of a full block unit shall be filled with units cut to size using a mechanical or hydraulic guillotine, bolster or angle grinder. Infill areas constituting less than 25 % of a full block area and are of 25 mm minimum dimension shall be filled with 25 MPa concrete. Smaller areas shall be filled with 1:4 cement mortar.

# BE 03.02.03 Laying face brick pavers, precast concrete blocks and slasto

The existing blocks shall be preselected for re-use. Broken and severely damaged paving blocks shall be replaced. All blocks shall be laid true to line and level. Care shall be taken that joint lines are straight and square. Slasto shall be laid in the same pattern to match existing.

After laying the blocks, the paving shall be compacted by means of vibrating plate compactor. Clean the top of the blocks before and after compaction. Thoroughly wet compacted area after compaction and leave 24 hours to dry. The joints between the blocks must be filled in, after compaction, with a 1:4 cement mortar. The joints shall be pointed with a steel tool to a smooth surface finish.

## BE 03.02.04 Laying of cast in-situ concrete paving and drainage channels

Severely cracked and/or damaged concrete paving and drainage channels shall be replaced. The Engineer shall indicate which panels and sections of drainage channels are to be removed. Cutting out will be done with an angle grinder or saw cutting machine. Concrete panels must be removed in sizes where the ratio of the sides does not exceed 1:1,5. The foundation material must be improved as specified in BE 03.02.01.

new concre	ete p	aneis and	ı drainag	je cnanneis n	nust	be cast	with a	comp	ressive	strengti	1 OT	25 MP	ℷ.
					7								-



.....

Concrete paving to the specified thickness must be finished off with a smooth wood trowel surface finish or must match the existing surface finish. Edges must be finished off with a steel nosing tool with a radius of 5 mm. Expansion joints must be provided where specified. Drainage channels must be cast in lengths not exceeding 1 metre. Channels must be finished off to have a smooth steel trowel finish.

# BE 03.02.05 Precast concrete edge beams, curbs and channels

Edge restraints shall be installed before paving commences. Edge restraints may be cast in-situ, or consist of precast units. Precast edge blocks shall have dimensions of 75 mm wide x 300 mm deep. Cast in-situ beams with 25 MPa concrete shall have dimensions of 300 x 300 mm and cast in lengths on exceeding 1 metre.

Precast concrete curbs and channels shall comply with SANS 927, generally in 1 metre lengths and finished smooth from the mould on exposed surfaces. Curbs and channels shall be bedded

on and jointed in 1:3 cement mortar and pointed with keyed joints. Bases to curbs shall be Class B prescribed mix of unreinforced concrete.

# BE 03.02.06 Weed control

Two types of weed killing shall be carried out:

- (a) Mixing weed killer to subbase for rehabilitated paving;
- (b) Spraying existing paving excluding concrete paving.

After the base course has been approved and the curbing completed, the prepared base must be treated with a weed killer similar or equal to HYVAR X at a rate of 4 kg/m². Plastic sheeting with a thickness of 375 micron shall be laid to prevent the penetration of grass underneath the segmental paving.

## BE 03.02.07 Site clearance

Excess sand and all other debris shall be removed before the pavement is opened to traffic. The site shall be left in a tidy condition.

## **BE 04 DETAIL OF REPAIR WORK**

The detail of the scope of work is described in the Schedule of Quantities.

# **BE 04 MAINTENANCE**

[Note: There will be no maintenance work required for floors in this contract.]

This specification must be read in conjunction with Additional Specification SA: General Maintenance.

All components forming part of the floors shall be maintained as part of the maintenance of installations as defined in Additional Specification SA: General Maintenance.

Maintenance shall include all repair work, replacing of components, fixing of defects or any other actions or rectifying measures necessary to maintain the perfect functional condition of floors in accordance with the operation and maintenance manuals and as specified in this specification. All floors shall be kept in a good condition.

		_			_		_	
					1		1	
1								
1								
1								
1								
Contractor	Witness 1	-	Witness 2	Employer	_	Witness 1	-	Witness 2
Contractor	WILLIOSS I		WILLIGGS Z	Linployer		WILLICSS		**************************************



Maintenance on the floors shall also include all other actions related to (or resulting from) maintenance work, such as:

- (a) Replacing of loose or damaged tiles or blocks and skirtings;
- (b) Premature deterioration of tiles or blocks;
- (c) Cleaning of floor coverings from grime and other dirt that can not be cleaned by normal house holding;
- (d) Maintaining expansion in paved areas.

Remuneration for maintenance of the complete Floors shall be deemed included in the tendered monthly payment for maintenance of the installation under which it falls.

## BE 06 MEASUREMENT AND PAYMENT

# BE 06.01 MEASUREMENT AND RATES

# BE 06.01.01 General inclusion of costs and specific specifications

### Notes:

Where applicable, standard SANS 1200 measurement and payment items shall be used for Earthworks (Small Works) (1200 DA), Site Clearance (1200 C) and Concrete (Structural) (1200 G).

All material scheduled to be removed shall be deemed to be existing damaged materials in small or large sections. All such redundant material shall become the property of the Contractor and must be removed from site immediately.

All new material shall be deemed to be in patchwork and shall be of approved equal quality, colours, profiles, thickness, etc and shall in all cases match the existing materials and shall be fixed (internally or externally) to existing material or surfaces.

All replacement, removal and repair work shall be done carefully as to not damage any adjacent or other material or work. Any damage to other or adjacent materials or areas caused by the negligence of the Contractor shall be repaired by him free of charge.

All work scheduled to be removed, hacked off or taken out shall be deemed to include the cleaning, removing of contact glue or bitumen and preparation of the remaining surfaces, areas where material were removed, or remaining work to receive new material or work specified.

Repair work shall also include all cutting, grinding, cutting into, welding, bending, strengthening, drilling, etc to repair or to improve the items or areas as new and to match the existing.

Work scheduled to be realigned and refixed shall be deemed to include all necessary new additional materials, brackets, connector plates, bolts, pip rivets, nails, screws, spacer blocks, clamps, timber, and labour, etc to leave the items as new and totally functional.

All new work are measured net and shall include all cutting, lapping, waste, bending, fixing, corners, mitres, fixing screws, pip rivets, nails, adhesive, grout, putty, etc, as well as cleaning and preparation of surfaces not already prepared as part of removed items, etc.

Tilework to floors shall include all cutting, spacers, waste, jointing, mitres, corners, epoxy grout and joint filler.



.....

Ordering of certain specified materials ie NCI industrial type floor tiles needs special and urgent attendance and should be ordered timeously as to prevent any construction delays.

# Specific specification: Floor finishings in dining halls, abattoir, etc

Cescodur MMA (methylmethacrylate) 2 mm (3 mm or 4 mm) seamless floor from CES or equavalent approved:

(a) Surface preparation

Degrease floors with a degreasing agent and high pressure wash and vacuum shot blast horizontal, vertical and inclined surfaces to remove surface laitance, paint, etc to produce a sound base for the application of the MMA floor system. The surfaces must be clean, dry, free from oil, grease and fat. Grout in voids with "Pro-Struct Five Star 529" or equal approved fast curing non-shrink grout.

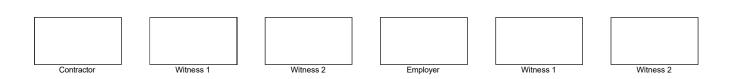
- (b) Ream out existing cracks and joints to ± 60 mm wide x 8 mm deep "V" profile with a diamond blade cutting machine. Remove debris, vacuum blast and prepare joint.
- (c) Fill prepared reamed cracks and joints with Cescodur crack bridging resin and apply a minimum 100 mm wide fibreglass protective scrim over the treated crack.
- (d) Skim surfaces with Cescodur MMA filler coat to fill minor depressions. Seal movement joints and minor cracks with Cescodur flexible MMA sealant and cover with fibreglass scrim.
- (e) Prepare, prime with Cescodur MMA primer and apply Cescodur MMA 2 mm (3 mm or 4 mm) seamless floor grey colour, over the designated areas and apply Broadcast Cape Flats rounded silica aggregates to give a uniform non-slip surface to floors.
- (f) Sweep and vacuum away excess loose or unbonded material or aggregate. Prepare and apply one sealer coat of Cescodur MMA over treated surfaces by rake and porcupine de-airing roller.

### General notes:

- (a) The Cescodur MMA floor system must be laid strictly according to manufacturer's specifications.
- (b) The floor system must be laid in two portions so that serving can still be done at every meal.
- (c) Two to three hours allowance must be made for curing.

## Specific specification: Alternative finishings in dining halls, abattoir, etc

- (a) Preparation
- (i) Wash area down thoroughly with Pro-Struct 109 General Cleaner, diluted 1 litre 109 to 20 litres of warm water. (May require multiple washes). When completed, wash down thoroughly with clean fresh water.
- (ii) Entire area is to be mechanically prepared by means of vacublasting in accordance with manufacturers detailed instructions.





-----

# (b) Application

- (i) Apply Stonclad UT System to a nominal dry film thickness of no less than 4 mm.
- (ii) Apply one sealer coat of Stonclad UT Sealer at a rate of 4 m<sup>2</sup>/litre.
- (iii) Apply Stonclad GS to cove skirting  $\pm$  100 mm high and to a nominal dry film thickness of no less than 4 mm.
- (iv) Cut and seal existing and newly formed joints with a Polysulphide joint sealant.

The above system is a highly specialised application and it is recommended that it be applied by only one of the following approved applicators, namely Indufloor or Floorshield Systems.

# Specific specification: Epoxy paint repairs in abattoir, etc

Remove carefully loose and flaking epoxy paint in rectangular areas from concrete floor. Prepare concrete substrate with acid etching. Apply two coats of high performance epoxy resin floor coating, "Fosroc Nitoflor FC 140" or equivalent approved to these patches. The minimum total dry film thickness must be 100 microns. The epoxy paint must be applied strictly in accordance with manufacturer's specifications. Excessive crevices in the floor must be filled with "Fosroc Patchroc GP" with "Nitobond HAR" bonding agent or equivalent approved. These patches must be painted with the epoxy paint afterwards when it has dried out sufficiently.

## BE 06.02 SCHEDULED ITEMS

Contracto

NEW W	<u>VORK</u>	
BUILDI	NG WORK	
BE.01	Floor screeds:	
	(a) (Thickness indicated)	
	(b) <u>Etc for other thicknesses</u>	
	it of measurement shall be the square metre of floor screed laid, as specified, on floors, step hown on the Drawings or as designated by the Engineer.	S OI
	ndered rates shall include full compensation for the construction of the floor screeds, including of all materials, mixing, laying, finishing, the forming of nosings, readings, skirtings, etc.	the
BE.02	Joinery:	
(a)	Items measured by number:	
	(i) Doors (type and size indicated	
	(ii) Etc for other items measured by number	194

Employe

Witness 2



Contractor

Witness 1

-	1 LED	
-	(b)	Items measured by linear metre:
		(i) Skirtings (size indicated)
		(ii) Etc for other items measured by length
	(c)	Items measured by area:
		(i) Eaves covering (type and thickness indicated)
		(ii) Etc, for other items measured by area
	The uni	ts of measurement shall be the number, metre or square metre of each type and/or size of joinery ecified.
		dered rates shall include full compensation for the supply of all materials, manufacture, cutting, ixing and installation of the joinery items.
	BE.03	Floor tiling and finishes, etc:
	(a)	Measured by number:
		(i) (Description of item) Unit: number
		(ii) Etc
	(b)	Measured by linear metre:
		(i) (Description of item)
		(ii) Etc
	(c)	Measured by area:
		(i) (Description of item)
		(ii) Etc
	The uni	t of measurement shall be the number, metre or square metre as applicable to each item.
	complet	dered rates shall include full compensation for manufacturing, providing and installing each item te as per specifications, drawings, descriptions as scheduled or as the existing and shall include abour, material, waste, plant, transport, delivery, access, scaffolding, fuel, etc to the Engineer's al.
		ALTERATION WORK
	BE.04	Alterations and repairs to existing structures:
		(a) Indicate if repairs, alterations, removal or sealing, etc:
		(i) Description of individual items to be repaired,
		altered, removed, sealed, etc Unit: m³, m², m, number 195

Witness 2

Employer

Witness 1

Witness 2



The unit of measurement for items repaired, altered, removed, sealed, etc shall be cubic metre, square metre, metre or number as scheduled.

The tendered rates shall include full compensation for all costs to repair, refix, remove, cutting into, realign, taking off, temporary store, etc as specified in the Standard and Technical Specifications and shall allow for all necessary labour, plant and new material needed to leave the scheduled items as new and to the approval of the Engineer. Refer also to the general inclusion of costs in BE 06.01.01".

### 18. **TECHNICAL SPECIFICATION**

#### 19. **FITTINGS** BH

### 20. CONTENTS

BH 01	SCOPE
BH 02	STANDARD SPECIFICATIONS
BH 03	VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS
BH 04	DETAIL OF REPAIR WORK
BH 05	MAINTENANCE
BH 06	MEASUREMENT AND PAYMENT

#### 21. BH 01 **SCOPE**

Fittings shall mean the scope of work to repair and maintain materials and components related to cupboards, shelving, signage and counters.

The complete scope of repair work shall be as described in BH 04: Detail of repair work.

Maintenance of this part of the installation (the works) shall be performed in accordance with Additional Specification SA: General Maintenance, and the specific requirements included in this Technical Specification.

#### 22. STANDARD SPECIFICATIONS **BH 02**

#### BH 02.01 **GENERAL STANDARD SPECIFICATIONS**

The latest edition, including all amendments up to date of tender of the following specifications, publications and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof:

OW 371 -Specification of Materials and Methods to be used

(Fourth edition, October 1993)

SANS Plywood and composite board 929 Hardwood furniture timber **SANS 1099** 

**SANS 1359** Softwood timber for industrial use

**SANS 1385** Kitchen cupboards of steel, composite board and timber

#### BH 02.02 ADDITIONAL SPECIFICATIONS

Contractor Witness 2

Witness 1 Witness 2 Employer Witness 1



.....

Technical Specification BD: Walls
Technical Specification BG: Metalwork
Technical Specification BJ: Paintwork

# **BH 06 MEASUREMENT AND PAYMENT**

## BH 06.01 MEASUREMENT AND RATES

# BH 06.01.01 General inclusion of costs

### Notes:

All material scheduled to be removed shall be deemed to be existing damaged materials in small or large sections. All such redundant material shall become the property of the Contractor and must be removed from site immediately.

All new material shall be deemed to be in patchwork and shall be of approved equal quality, colours, profiles, thickness, etc and shall in all cases match the existing materials and shall be fixed (internally or externally) to existing material or surfaces.

All replacement, removal and repair work shall be done carefully as to not damage any adjacent or other material or work. Any damage to other or adjacent materials or areas caused by the negligence of the Contractor shall be repaired by him free of charge.

All work scheduled to be removed or taken out shall be deemed to include the cleaning and preparation of the remaining sections, areas, or work to receive the new material or work specified.

Repair and service work shall also include all removing, cutting, grinding, cutting into, welding, bending, strengthening, drilling, tightening, fastening, oiling, greasing, adjusting, and providing missing or damaged screws or bolts, etc to repair or to improve the items or areas as new and to match the existing. The service of cupboard doors and drawers shall be deemed to include for servicing all locks, hinges, glides, tracks, etc.

Work scheduled to be realigned and refixed shall be deemed to include all necessary new additional materials, brackets, connector plates, bolts, pip rivets, nails, screws, spacer blocks, clamps, timber, and labour, etc to leave the items as new and totally functional.

All new work are measured net and shall include all cutting, lapping, waste, bending, fixing, corners, mitres, fixing screws, pip rivets, nails, adhesive, grout, putty, etc, as well as cleaning and preparation of surfaces not already prepared as part of removed items, etc.

The removal of doors, gates or windows shall include for the removal of all existing locks, handles, striking plates, etc but exclude the hinges, etc, which shall be used for the new replaced items. All repair work (excluding paintwork) around and in the thresholds of new door frames, gates or windows build into existing brickwork in new or existing positions shall be deemed to be included in either the rates tendered for the new replacement item or the removal payment item of the frame, window, etc.

The new doors to toilets and wet areas as specified shall be fitted with rubber door stops, D-profiled pull handle and backplate sets, 15 mm roller ball catches with striking plates and all other ironmongery needed to install the doors complete. All new ironmongery shall be measured and paid for separately.

The new doors to offices, etc, as specified shall be fitted with rubber door stops, 4 lever mortice locksets

1						
1						
1						
1						
1						
Contractor	Witness	1	Witness 2	Employer	Witness 1	Witness 2



with handle sets to match existing, striking plates and all other ironmongery needed to install the doors complete. All new ironmongery shall be measured and paid for separately.

All ironmongery installed on the project shall bear the SANS approved trademark and codes. Samples of all ironmongery scheduled must be according to the samples of the Department of Public Works and

samples	mu	st be	e handed to the engineer for approval before ordering the material.	
BH 06.0	2	SCI	HEDULED ITEMS	
	<u>NE</u> \	W W	<u>'ORK</u>	
BH.01	<u>Joi</u>	nery	<u>:</u>	
(a)	Iten	ns m	easured by number:	
	(i)		ber cupboard doors, shelves, complete boards, etc (type and size indicated)	
	(ii)	Etc	for other items measured by number	
(b)	<u>Iten</u>	ns m	easured by linear metre:	
	(i)		ber rails, planks, frames, shelves, etc e indicated) Unit: m	
	(ii)	Etc	for other items measured by length	
(c)	<u>Iten</u>	ns m	easured by area:	
	(i)	Pinı (typ	ning boards, shelves, work tops, etc be and thickness indicated)Unit: m²	
	(ii)	Etc,	, for other items measured by area	
The unit			surement shall be the number, metre or square metre of each type and/or size of joir	ery
			es shall include full compensation for the manufacturing and supplying of all materials, cutting, waste, fixing, screws, bolts, clamps, etc and installation of the joinery items.	fo
BH.02	Ste	elwo	ork:	
(a)	<u>Iten</u>	ns m	easured by number:	
		(i)	Steel cupboard or locker doors, shelves, complete cupboards, etc (type and size indicated) Unit : number or units	
		(ii)	Etc, for other items measured by number	
(b)	<u>Iten</u>	ns m	easured by linear metre:	198

		_				_		
				1		1		
				J		J		
Contractor	Witness 1		Witness 2		Employer		Witness 1	Witness 2
Contractor	withess		Withess 2		Employer		withess i	withess 2



Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

	NLM2025-016 REHABILITATION OF HUHUDI SPORTS FACILITY: PHASE	
	(i) Steel rails, shelves, frames, etc (size indicated)	
(ii	ii) Etc, for other items measured by length	
(c)	Items measured by area:	
	(i) Shelves, plates, etc (type and thickness indicated) Unit : m²	
	(ii) Etc, for other items measured by area	
	it of measurement shall be the number, metre or square metre of each type and/or size of steel becified.	work
transpo	ndered rates shall include full compensation for the manufacturing, supplying of all materials ort, and for all labour, cutting, welding, waste, fixing and installation of the steelwork items com red oxide or equal approved steelwork primer or baked enamel paint finishing as specified.	
	ALTERATION WORK	
BH.03	Alterations and repairs to existing fittings:	
	(a) Indicate if repairs, alterations, removal or sealing, etc:	
	(i) Description of individual items to be repaired, altered, removed, sealed, etc	
	nit of measurement for items repaired, altered, removed, sealed, etc shall be cubic metre, so metre or number as scheduled.	uare
taking of	ndered rates shall include full compensation for all costs to repair, refix, remove, cutting into, reaction off, temporary store, etc as specified in the Standard and Technical Specifications and shall an eccessary labour, plant and new material needed to leave the scheduled items as new and the Engineer. Refer also to the general inclusion of costs in BH 06.01.01".	allow
	TECHNICAL SPECIFICATION	
23.	BJ PAINTWORK	
24.	CONTENTS	
BJ 01 BJ 02 BJ 03 BJ 04 BJ 05 BJ 06	SCOPE STANDARD SPECIFICATIONS VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS DETAIL OF REPAIR WORK MAINTENANCE MEASUREMENT AND PAYMENT	
25.	BJ 01 SCOPE	
	pecification covers the painting/repainting and maintenance of new and existing building compor aintenance thereafter for various types of buildings and structures.	nent
		1



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

Paintwork shall mean the scope of work related to the preparation, painting and maintenance of new and existing building components. This specification does not include work related to galvanising of steelwork, which is specified elsewhere.

The complete scope of paintwork shall be as described in BJ 04: Detail of repair work.

Maintenance of this part of the installation (the works) shall be performed in accordance with Additional Specification SA: General Maintenance, and the specific requirements included in this Technical Specification.

# 26. BJ 02 STANDARD SPECIFICATIONS

# BJ 02.01 GENERAL STANDARD SPECIFICATIONS

The latest edition, including all amendments up to date of tender of the following specifications, publications and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof:

SANS 515 - Decorative paint with a non-aqueous solvent base for interior use

SANS 630 - Decorative high gloss enamel for interior and exterior SANS 631 - Decorative oil gloss paint for interior and exterior use

SANS 633 - Emulsion paints for interior decorative purposes

SANS 634 - Emulsion paints for exterior use

SANS 678 - Primers for wood for interior and exterior use

SANS 681 - Undercoats for paints

SANS 683 - Roof paints (relevant sections)
SANS 723 - Wash primer (metal etch primer)

SANS 801 - Epoxy-tar paints

SANS 887 - Varnish for interior use

SANS 926 - Two-pack zinc-rich epoxy primer

SANS 1227 - Textured wall coatings, emulsion base, for interior and exterior use

SANS 1319 - Zinc phosphate primers for steel

SANS 064 - Preparation of steel surfaces for coating

OW 371 - Specification of Materials and Methods to be used (Fourth edition, October 1993):

Section 18

## BJ 02.02 <u>ADDITIONAL SPECIFICATIONS</u>

Technical Specification BG: Metalwork

Paint manufacturers' specifications. These specifications shall take precedence over all others.

# 27. BJ 03 VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS

## BJ 03.01 ADDITIONAL REQUIREMENTS FOR PAINTWORK

## **BJ 03.01.01 General**

- (a) Quality control
- (i) Application of all paints must be supported by the relevant paint manufacturer's technical quality control systems with regard to preparation, application, film thickness, colour/pigmentation, mixing, etc.

		_		_				200
Contractor	Witness 1		Witness 2		Employer	Witness 1	Witness 2	



.....

(ii) The Contractor must submit his programme to the Engineer well in advance, particularly where high-risk surface applications (sheet metal roofs, etc) are concerned, in order to keep the manufacturer's technical personnel informed. Paint application may not commence until the

manufacturer has inspected the surface preparation and given written approval thereof to the Engineer.

## (b) Paint systems

- (i) All paint shall be delivered to the site in the unopened containers on which the manufacturer's name and trademark appear.
- (ii) All materials for paintwork shall comply with the requirements for standards from the country from which it originated and shall be approved by the Engineer.
- (iii) The Contractor shall submit copies of the paint manufacturer's specifications, recommendations and datasheets to the Engineer for approval.
- (iv) The coating system shall be from one manufacturer unless otherwise specified. The paint manufacturer's instructions shall be strictly adhered to.
- (v) Paints, etc, shall be suitable for application on the surfaces on which they are to be applied and various coats must be compatible with each other. Those paints used externally shall be of exterior quality or suitable for exterior use.

## BJ 03.01.02 General preparation of new and existing work

All walls and ceilings, etc, shall be thoroughly cleaned prior to commencement of painting and the premises kept clean and free from dust during painting operations. Protect all surfaces not to be painted against spotting and spilling. Clean down and make good as necessary. Locks, door handles and similar fittings or fixtures shall be removed (or masked) and refitted on completion of painting.

### (a) Plaster

- (i) All surfaces, sills, ceilings, etc, shall be thoroughly dry before painting operations are started. Porous surfaces must be sealed with the appropriate sealer, thinned if necessary, before applying the paint system.
- (ii) Exterior surfaces: Any cracks shall be scraped out and filled with an approved filler or patching plaster and rubbed down flush; the whole surface shall be well brushed down to remove all loose dust and powdery material before applying the first coat of the specified paint system.
- (iii) Interior surfaces: All cracks, blow holes, etc, shall be filled with suitable stopping and rubbed down flush. The whole surface shall be smoothed to an even finish and dusted down. Any grease marks, crayon marks, etc, shall be cleaned off with sugar soap and thoroughly rinsed with clean water. The surface shall be thoroughly dry before painting operations are started.
- (iv) Ceilings: Ceilings shall be brushed down and free of all dust and powdery materials. Cover strips and cornices shall be stopped where necessary and rubbed down smooth. All nail heads shall be primed, stopped and rubbed down flush. The surface shall then be wiped or brushed free of all loose or powdery materials before applying the recommended paint system.
- (v) Fibre cement: Fibre cement surfaces shall be cleaned down and primed with an approved sealer and undercoat.

(h)	١ ١	/leta	alwa	٦rk
w	, 1	/10/10	יעעונ	חוכ



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

- (i) Iron and steel: New iron and steel metalwork shall be cleaned with an approved degreaser and the most effective method available (shot or sand blasting, mechanical wire brushing, hand wire brushing) used to remove all rust and millscale. Any salt deposits resulting from a marine or industrial environment shall be removed by washing with water prior to priming.
- (ii) Galvanised surfaces: New galvanised surfaces shall be well cleaned to remove all traces of oil and dirt with galvanised iron cleaner and rinsed with clean water.

# (c) Woodwork

New woodwork shall be brushed down and the surface prepared as follows:

Knots shall be given a coat of an approved patented knotting. The surface shall be primed overall and all holes shall be filled. The surface shall then be rubbed down with glass paper until smooth and even. Woodwork that needs to be oiled, stained or varnished shall be free of all stains, pencil marks and other surface discolourations and blemishes and shall be stopped with tinted stopping and rubbed down.

# (d)General

- (i) Colours: All colours and tints are to be submitted to the Engineer for approval. Sample colours are to be prepared in all cases for the final coat and all work must be finished to colour approved by the Engineer. Where necessary, universal undercoat must be tinted to a shade lighter than the finishing coat.
- (ii) Doors and windows: All doors and opening sections of windows must be left ajar after painting or varnishing until the paint is perfectly dry.
- (iii) Protection and cleaning off: All necessary precautions are to be taken for the protection of all finished work and other trades during painting, and all ironmongery shall be removed where possible prior to the commencement of painting and re-fixed after completion. All paint spots, stains, etc, are to be cleaned off floors, walls, glass, etc, after completion.

## BJ 03.01.03 Paint specifications for various components

- (a) Fibre cement (ceilings)
  - (i) New work
- (1) Interior

# Ceilings to wet areas (ablutions, kitchens and laundries):

Polyurethane alkyd enamel:

Prepare and apply one coat synthetic copolymer primer. Stop with interior crack filler, seal crack filler with above primer. Apply two coats of polyurethane alkyd enamel interior quality paint.

Universal fungicidal additive:

To be added to above in proportions specified by the manufacturer. This additive will only be required in specific cases.

(2) Exterior

Not applicable.

						202
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2	



# (ii) Renovation (existing) work

(1) Interior

## Ceilings previously painted, in good condition:

Preparation: Clean down to remove all dirt and grease, etc, fill nail-heads, cracks and defects with interior crack filler and sand down to a smooth and even surface.

Finishing coat (emulsion): Apply two coats of super acrylic copolymer PVA emulsion or polyurethane alkyd enamel.

Ceilings previously painted, in poor condition (to be finished in an emulsion system):

Preparation:

Remove all loose and flaking paint, clean down to remove all dirt, grease, etc, prime nail-heads with zinc phosphate primer for steel. Apply one coat of primer to existing ceiling boards diluted with 20 % turpentine. Fill nail-heads, cracks and defects with interior crack filler and sand down to a smooth and even surface. Seal all repaired areas with above-mentioned primer.

(2) Exterior

See interior

- (b) Woodwork truss/rafters (overhangs)
  - (i) New work
- (1) Interior

Not applicable.

- (2) Exterior
- Egg-shell/High-gloss enamel:

Prepare and touch up knots with spirit soluble resin type knotting. Apply one coat of primer for wood. Stop with wood filler where necessary. Apply one coat of universal undercoat. Apply two coats of enamel.

Creosote coating:

Prepare surface to be clean, dry and sound Apply on coat of creosote wood treatment coating.

- (iii) Renovation (existing) work
  - (1) Interior

Not applicable.

(2) Exterior

Woodwork truss/rafters (overhangs) previously painted, in good condition (to be painted in egg-shell/high-gloss enamel):

Preparation	. Ci	ean down and	i sand	i to a smooth	ı imisi	i. Spot prim	e wn	ere necessar	y WIL	n primer i	or wood	1.



.....

Allow 24 hours drying. Stop with wood filler.

Undercoat: Apply one coat of universal undercoat. Allow 24 hours drying.

Finishing coat: Apply two coats of enamel paint.

Woodwork truss/rafters (overhangs) previously painted, in poor condition (to be finished in egg-shell/high-gloss enamel):

Preparation: Remove existing paint and sand down thoroughly. Touch up knots and resinous areas with knotting.

Primer: Apply one coat of universal undercoat. Allow 24 hours drying. Stop with wood filler and sand to a smooth finish.

Undercoat: Apply one coat of universal undercoat. Allow 24 hours drying.

Finishing coat: Apply two coats of enamel paint.

Creosote coating:

Preparation: Prepare surface. Apply two coats creosote wood treatment coating.

- (c) Metalwork steelwork and miscellaneous metal work (including general pipework)
- (i) New work

# (1) Interior

## Unpainted:

Prepare and apply one coat zinc phosphate primer for steel. Apply one coat of universal undercoat. Apply two coats of high gloss enamel paint.

## **Shop-primed:**

Touch up damaged primer with zinc phosphate primer for steel. Apply one coat of universal undercoat. Apply two coats of high-gloss enamel paint.

## Cast-iron waste pipes:

Prepare and remove as much bitumen as possible. Apply one coat of aluminium paint. Apply one coat of universal undercoat. Apply two coats of high-gloss enamel paint.

## (2) Exterior

## Unpainted:

Prepare and apply one coat zinc phosphate primer for steel. Apply one coat of universal undercoat. Apply two coats of high-gloss enamel or oleoresinous aluminium paint (where applicable).

## **Shop-primed:**

Touch up damaged primer with zinc phosphate primer for steel. Apply one coat of universal undercoat.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



.....

Apply two coats of high-gloss enamel or oleoresinous aluminium paint (where applicable).

# Cast-iron waste pipes:

Prepare and remove as much bitumen as possible. Apply one coat of universal undercoat. Apply two coats of high gloss enamel or oleoresinous aluminium paint (where applicable).

# (ii) Renovation (existing) work

# (1) Interior

<u>Previously painted metalwork, in good condition (steel windows, door frames, miscellaneous steelwork, etc):</u>

Preparation: Wash down with sugar soap and rise with clean water. Sand lightly and apply one coat universal undercoat.

Finishing: Apply two coats high-gloss enamel.

## Previously painted metalwork, in poor condition:

Preparation: Remove all existing paint by means of scraping or wire brushing and sanding. Tightly adhering paint that cannot be removed may remain and be overcoated. Remove all signs of rust back to bright metal by sanding with emery cloth. Wash down with an approved degreaser, rinse with clean water to remove all traces thereof and allow to dry. Treat rusted areas with a water-based rust converter.

Primer: Apply one coat of zinc phosphate primer for steel. Allow overnight drying.

Undercoat: Apply one coat of universal undercoat. Allow overnight drying.

Finishing coat: Apply two coats high-gloss enamel. Allow overnight drying between coats.

# (2) Exterior

# Previously painted metalwork, in good condition:

Preparation: Wash down with sugar soap, followed by light sand-papering. Rinse with clean water.

Undercoat: Apply one coat of universal undercoat. Allow 24 hours for drying.

Finishing coat: Apply two coats of high-gloss enamel or oleoresinous aluminium paint (where applicable).

## Previously painted metalwork, in poor condition:

Preparation: Remove all existing paint by means of scraping or wire brushing and sanding. Tightly adhering paint that cannot be removed may remain and be overcoated. Remove all signs of rust back to bright metal by sanding with emery cloth. Wash down with an approved degreaser, rinse with clean water to remove all traces thereof and allow to dry. Treat rusted areas with a water-based rust converter.

to remove all t	races thereof and	allow to dry. T	reat rusted areas w	ith a water-based	I rust converter.	
Prime	er: Apply one coat	of zinc phosph	ate primer for steel.	Allow for 24 hou	rs drying.	205
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2	
			, ,			



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

Undercoat: Apply one coat of universal undercoat. Allow for 24 hours drying.

Finishing coat: Apply two coats of high-gloss enamel or oleoresinous aluminium paint (where

applicable).

# (3) Aggressive environments

Not applicable.

- (d) Gypsum board (ceilings, etc)
  - (i) New work
- (1) <u>Interior</u> (dry areas)
- Super acrylic PVA:

Prepare and apply one coat synthetic copolymer primer for gypsum board diluted with 20 % turpentine. Stop with interior crack filler, seal crack filler with above-mentioned primer. Apply two coats of super acrylic copolymer PVA paint.

- (2) <u>Exterior</u> (dry areas)
- Super acrylic PVA:

Prepare and supply one coat of synthetic copolymer primer for gypsum board diluted with 20 % turpentine. Stop with interior crack filler, seal crack filler with above-mentioned primer. Apply two coats of super acrylic copolymer PVA paint.

## (ii) Renovation (existing) work

## (1) Interior

Previously painted gypsum board with PVA in good condition:

Preparation: Wash down with sugar soap to remove all dirt, grease, etc, and rinse

off with clean water. When dry, make good all cracks and defects with interior crack filler and sand to a smooth and even surface.

Finishing coat: Apply two coats super acrylic copolymer PVA.

Previously painted gypsum board, in poor condition:

Preparation: Clean down. Remove all paint by sanding and scraping.

Primer: Allow overnight drying. Make good cracks and holes with crack filler. Seal crack filler with above primer and allow to dry.

Finishing coat (emulsion): Apply two coats of super acrylic copolymer PVA.



# (2) Exterior

See interior.

- (e) Cement plaster (walls) and concrete surfaces
  - (i) New work

# (1) <u>Interior</u>

- Polyurethane alkyd enamel (in wet areas, kitchens, etc):
Prepare and apply one coat bonding liquid, followed by one coat of synthetic copolymer primer for new plaster. Apply one coat of polyurethane alkyd enamel paint.

Acrylic emulsion:

Same as above, but apply acrylic emulsion with smooth velvet sheen interior quality paint.

- Gloss enamel:

Same as for polyurethane alkyd enamel, but apply two coats high-gloss enamel.

- Super acrylic PVA:

Prepare and apply one coat of synthetic copolymer primer. Apply two coats of super acrylic copolymer PVA.

- Semi-gloss pure acrylic finish:

Prepare and apply one coat of synthetic copolymer primer. Apply one coat of pure acrylic paint.

# (2) Exterior

- Pure acrylic:

Prepare and apply one coat of alkali resistant synthetic resins bonding liquid. Stop with exterior crack filler. Apply one coat of copolymer primer. Apply one final coat of pure acrylic paint.

- Pure acrylic with Teflon:

Preparation, priming and application as above.

- Super acrylic PVA:

Prepare and apply one coat of synthetic copolymer primer. Apply two coats of super acrylic copolymer PVA.

Acrylic emulsion (external textured):

Preparation as above, followed by two coats textured exterior acrylic emulsion, allowing one hour drying time between coats.

# (ii) Renovation (existing) work

# (1) <u>Interior</u>

## Previously distempered:

Preparation: Remove all distemper with a peeling agent. Rinse with clean water. Allow 48 hours to dry. Fill cracks and defects with interior crack filler. Sand down to a smooth and even surface.

				] [				[	
Contractor	Witness	<u> </u>	Witness 2		Employer	_	Witness 1		Witness 2



.....

Primer: Apply one coat of bonding liquid, allow a minimum of 24 hours and maximum of 72 hours for drying. Final primers as specified in BJ 03.01.03(e)(i).

Finishing coat: Apply similar paints to suit as specified in BJ 03.01.03(e)(i).

# (2) Exterior

Previously painted cement plaster (walls) and surfaces, in good condition:

Preparation: Wash down thoroughly with sugar soap. Rinse with clean water. Fill with suitable exterior crack filler. Sand smooth.

Prime with one coat bonding liquid

Finishing coat: Apply similar paints to suit as specified in BJ 03.01.03(e)(i).

<u>Previously painted cement plaster (walls) and surfaces, in poor condition (ie peeling, crazing, etc, not previously limewashed):</u>

Preparation: Remove all paint and fill with suitable exterior crack filler.

Priming coat: Prime with one coat bonding liquid, allow to dry for a minimum of 24 hours and a maximum of 72 hours.

Finishing coat: Apply similar paints to suit as specified in BJ 03.01.03(e)(i).

- (f) Fibre cement board (fascias and ceilings)
  - (i) New work

# (1) Interior

New and wet fibre cement sheets shall be allowed to dry out before painting is commenced.

Ceiling boards must be well primed on both sides with an approved sealer/undercoat before fixing.

Super acrylic PVA:

Prepare and apply one coat of sealer/undercoat. Prime nail heads with metal primer. Stop with filler. Apply two coats of super acrylic copolymer PVA.

# (2) Exterior

New and wet fibre cement sheets shall be allowed to dry out before painting is commenced.

Fascia boards and barge boards shall be well primed on both sides and edges painted with sealer/undercoat before fixing.

All sides of fascia boards must receive final coatings.

Super acrylic PVA:

Prepare and apply one coat sealer/undercoat. Prime nail heads with zinc phosphate metal primer. Stop with filler. Apply two coats of super acrylic copolymer PVA.

### (ii) Renovation (existing) work



------

# (1) <u>Interior</u>

# Previously painted fibre cement board with emulsion paint, in good condition:

Preparation: Clean down thoroughly to remove any signs of dirt or grease. Fill all screw heads with a flexible resistant filler after screw heads have been primed.

Finishing: Apply two coats of super acrylic copolymer PVA paint.

## Previously painted fibre cement board in poor condition:

Preparation: Remove previous paint coatings with super paint stripper. Thoroughly wash down with sugar soap and rinse with clean water. Prime nail and screw heads with zinc phosphate metal primer. Allow to dry.

Primer: Apply one coat of synthetic copolymer primer to all surfaces including back and edges, allow to dry. Fill all screw heads with weather resistant filler, allow to dry, sandpaper smooth and touch up with primer.

Finishing: Apply two coats of super acrylic copolymer PVA paint.

# (2) Exterior

## Previously painted fibre cement board with emulsion paint in good condition:

Preparation: Clean down thoroughly to remove any signs of dirt or grease. Fill all screw heads with a flexible weather resistant filler after screw heads have been primed.

Finishing: Apply two coats of super acrylic copolymer PVA paint.

## Previously painted fibre cement board, in poor condition:

Preparation: Remove previous paint coatings with super paint stripper. Thoroughly wash down with sugar soap and rinse with clean water. Prime nail and screw heads with zinc phosphate metal primer. Allow to dry.

Primer: Apply one coat of sealer/undercoat to all surfaces including back and edges, allow to dry. Fill all screw heads with weather resistant filler. Allow to dry and sandpaper smooth. Touch up with primer.

Finishing: Apply two coats of super acrylic copolymer PVA paint.

- (g) Galvanised iron roof (also gutters and rainwater pipes)
  - (i) New work
- (1) Interior

Not applicable.

(2) Exterior

Galvanised iron - roofs: Water-based pure acrylic emulsion paint:

		- 1					
		l l					
Contractor	\A/itmage 1		\A/itmage 2		\Mitmage 1	-	\A/itmage 2
Contractor	Witness 1		Witness 2	Employer	Witness 1		Witness 2



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

Scrub down thoroughly with degreaser, followed by a cleaner for galvanised iron. Rinse off thoroughly and ensure that all traces of cleaner have been removed and that the surfaces are free of any grease and oil. Apply one coat of galvanised metal primer. Allow to dry for 5 hours. (Must be overcoated within 24 hours maximum.) Apply one coat of water-based pure acrylic emulsion paint with non-fading pigment.

# Galvanised iron - roofs: Mat acrylic roof paint:

Scrub down thoroughly with degreaser, followed by a cleaner for galvanised iron. Rinse off thoroughly and ensure that all traces of cleaner have been removed and that the surface is free of any grease and oil. Apply two coats of mat acrylic roof paint.

Galvanised iron - gutters and rainwater pipes: Gloss enamel:

Scrub down thoroughly with degreaser, followed by a cleaner for galvanised iron. Rinse off thoroughly and ensure that all traces of cleaner have been removed and that the surface is free of any grease and oil. Apply one coat of primer for galvanised iron. Allow to dry for 5 hours. (Must be overcoated within 24 hours maximum.) Apply two coats of gloss enamel paint with non-fading pigment.

- (ii) Renovation (existing) work
- (1) <u>Interior</u>

Not applicable.

(2) Exterior

Previously painted galvanised iron, in good condition:

Preparation: Thoroughly scrub down with fibre scrubbing brushes and sugar soap and rinse with clean water.

Finishing coat: Apply one coat water-based pure acrylic emulsion paint with non-fading pigment.

Unpainted or previously painted galvanised iron, in poor condition (ie flaking, peeling and rusting):

Preparation: Remove all previous paint coatings with steel wire brushes, plumber's egg-shaped lead scrapers, and coarse floor sandpaper. Remove all traces of rust with emery cloth back to bright metal and apply approved rust converter. Thoroughly scrub down using galvanised iron cleaner and rinse with clean water.

Primer: Apply one coat of galvanised metal primer. Allow a minimum of 5 hours and a maximum of 72 hours for drying.

Finishing coat: Apply one coat of water-based pure acrylic emulsion paint with non-fading pigment.

- (h) Timber (doors, cornices, window frames, counters, skirtings, etc)
  - (i) New work
- (1) Interior
- Polyurethane alkyd enamel (wet areas, kitchens, etc):

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



.....

Prepare knots with spirit soluble resin type knotting. Prime with primer (sanding sealer) for wood. Fill imperfections where necessary with wood filler. Apply one coat of universal undercoat. Apply two coats of polyurethane alkyd enamel.

High-gloss/egg-shell enamel:

Prepare knots with spirit soluble resin type knotting. Prime with primer (sanding sealer) for wood. Fill imperfections where necessary with wood filler. Apply one coat of universal undercoat. Apply two coats of enamel.

- Gloss/suede varnish (interior quality solvent based):

Prepare knots with spirit soluble resin type knotting. Fill imperfections with wood filler. Sand surfaces to a smooth finish in grain direction and dust off.

Thin first coat down in a ratio of 3 parts varnish to 1 part mineral turpentine and apply. Allow to dry for 24 hours. Apply two full-strength final coats with 24 hours drying time between applications.

# (2) Exterior

High-gloss/egg-shell enamel:

Prepare with spirit soluble resin type knotting. Apply one coat of primer for wood. Fill where necessary with wood filler. Apply one coat of universal undercoat. Apply two coats of high gloss enamel.

- Gloss/suede varnish (exterior quality ultraviolet resistant solvent based): Prepare knots with spirit soluble resin type knotting. Fill imperfections with wood filler. Sand surfaces to a smooth finish in grain direction and dust off.

Thin first coat down in a ratio of 3 parts varnish to 1 part mineral turpentine and apply. Allow to dry for 24 hours. Apply two full-strength final coats with 24 hours drying time between applications.

## (ii) Renovation (existing) work

## (1) Interior

Previously painted woodwork, in good condition (to be finished in polyurethane alkyd enamel):

Preparation: Wash sown with sugar soap to remove all dirt, grease, etc, then rinse off with clean water. Sand down to a smooth and mat surface. Make good cracks and defects with wood filler and after 24 hours drying, sand down again.

Finishing coat: Apply two coats of polyurethane alkyd enamel. Allow 24 hours for drying between coats.

Previously varnished woodwork in good condition (to be finished with interior quality varnish):

Repair defects with wood filler. Sand surfaces to a mat finish and apply two final coats varnish with 24 hours drying time between applications.

Previously painted woodwork in poor condition (to be finished with high-gloss/egg-shell enamel):

Preparation: Remove all paint, varnish and stain with super paint stripper. Wash down thoroughly with sugar soap and rinse with clean water. When surface is completely dry, sand down and apply one coat of spirit soluble resin type knotting to all knots. Fill all cracks and defects with wood filler and after 24 hours of drying, sand down to a smooth and even surface. Apply one coat oleoresinous wood primer. Apply one coat universal undercoat.



.....

Finishing coat: Apply two final coats enamel.

Previously stained and varnished or painted woodwork in poor condition (to be finished in polyurethane alkyd enamel):

Preparation: Remove all paint, varnish and stain with super paint stripper. Wash down thoroughly with sugar soap and rinse with clean water. When surface is completely dry, sand down and apply one coat of spirit soluble resin type knotting to all knots. Fill all cracks and defects with wood filler and after 24 hours of drying, sand down to a smooth and even surface. Apply one coat oleoresinous wood primer.

Finishing coat: Apply one coat polyurethane alkyd enamel.

Previously varnished woodwork in poor condition (to be finished with interior quality varnish):

Remove all varnish with paint stripper. Wash down to dry completely. Further preparation and applications as for BJ 03.01.03(h)(i): New work - interior.

# (2) <u>Exterior</u>

Previously painted woodwork, in good condition (to be repainted with high-gloss/egg-shell enamel):

Preparation: Clean down and sand to a smooth finish. Spot prime where necessary with oleoresinous wood primer. Allow 24 hours for drying. Stop defects with a flexible weather resistant wood filler.

Undercoat: Apply one coat of universal undercoat. Allow 24 hours drying.

Finishing coat: Apply two coats of enamel.

<u>Previously varnished woodwork in good condition (to be finished with exterior quality ultraviolet resistant solvent based varnish):</u>

Preparation and application as for similar interior item above.

<u>Previously stained and varnished or painted woodwork, in poor condition (to be finished in high-gloss/egg-shell enamel):</u>

Preparation: Remove all paint, varnish and stain with super paint stripper. Wash down thoroughly with sugar soap and rinse with clean water. When surface is completely dry, sand down and apply one coat of spirit soluble resin type knotting to all knots. Fill all cracks and defects with wood filler and after 24 hours drying, sand down to a smooth and even surface. Apply one coat oleoresinous wood primer. Apply one coat universal undercoat.

Finishing coat: Apply two final coats of enamel.

<u>Previously stained and varnished or painted woodwork, in poor condition (to be finished in polyurethane alkyd enamel):</u>

As for similar interior item above.

<u>Previously varnished woodwork in poor condition (to be finished with exterior quality ultraviolet resistant</u> solvent based varnish):

Preparation and application as for similar interior item above.



\_\_\_\_\_

# (i) Concrete and cement surfaces - floor paint

# (i) New work

## Exterior and interior

Preparation: Remove laitance, residual cement spillage, etc, by means of carborundum grinding and vacuum clean to remove all dust. Remove oil, grease or any other surface contaminants with degreaser and wash off with clean water. Allow to dry. The floor must have less than 5 % moisture content before painting may be done.

Finishing coats: Apply two coats of an alkali resistant solvent based stoep (modified alkyd) paint. The first coat may be thinned with 25 % mineral turpentine. Sixteen hours drying time must be allowed between coats.

## (ii) Renovation (existing) work

### Exterior and interior

Previously painted concrete and cement surfaces, in good condition:

Preparation: Remove any loose and flaking paint by means of carborundum grinding, back to firm feathered edges. Remove any polish, grease, oil and other contaminants with degreaser, wash clean and allow to dry. Sand old paint to a mat finish and vacuum clean to remove all dust.

Finishing coats: Apply two coats as for new work above.

Previously painted concrete and cement surfaces, in poor condition:

Strip completely by suitable means and treat as for new work above.

- (j) <u>Cement plaster or facebrick walls and concrete surfaces where damp penetration is evident</u>
- (i) Renovation

## Exterior and interior

Preparation: Remove all damaged paintwork, efflorescence, loose friable material, etc, back to bare and sound substrate. Repair all damaged surfaces with suitable approved materials to match original surface.

Surfaces may remain damp and in some cases will require additional wetting, depending on the particular coating used.

Damp sealing coats: Apply two coats approved synthetic polymer modified water barrier coating in strict accordance with the particular product manufacturer's specifications. Allow 24 hours between coats unless otherwise specified.

Finishing coats: Apply decorative finishing coats to suit, as in BJ 03.01.03(e).

## **BJ 04 DETAIL OF REPAIR WORK**

The detail of the scope of work is described in the Schedule of Quantities.

Contractor	•	Witness 1	Witness 2	•	Employer	•	Witness 1	Witness 2



-----

## **BJ 05 MAINTENANCE**

# [Note: There will be no maintenance work required for paintwork in this contract.]

This specification must be read in conjunction with Additional Specification SA: General Maintenance.

All components forming part of the repaired/replaced work shall be maintained during the maintenance phase of the Contract.

Maintenance shall include any repair work, replacing of components, routine inspections or any other actions or rectifying measures necessary for complete operation of the repaired/replaced work in accordance with the operation and maintenance manuals and as specified.

Maintenance on the repaired/replaced work shall also include all other actions related to (or resulting from) maintenance, with respect to rectification of paint failures such as bustering, peeling, chalking, fading, erosion, etc.

Remuneration for maintenance of the complete repaired/replaced work shall be deemed included in the tendered monthly payment for maintenance thereof.

# **BJ 06 MEASUREMENT AND PAYMENT**

# BJ 06.01 MEASUREMENT AND RATES

## BJ 06.01.01 General inclusion of costs and specific specifications

## Notes:

All material scheduled to be removed shall be deemed to be existing damaged material. All such redundant material shall become the property of the Contractor and must be removed from site immediately.

All new material shall be deemed to be in patchwork and shall be of approved equal quality, colours, profiles, thickness, etc and shall in all cases match the existing materials and shall be applied (internally or externally) to existing material or surfaces.

All removal and repair work shall be done carefully as to not damage any adjacent or other material or work. Any damage to other or adjacent materials or areas caused by the negligence of the Contractor shall be repaired by him free of charge.

All work scheduled to be removed or taken out shall be deemed to include the cleaning and preparation of the remaining sections, areas, or work to receive the new material or work specified.

Repair work shall also include all cutting, grinding, cutting into, welding, bending, strengthening, drilling, etc to repair or to improve the items or areas as new and to match the existing.

Work scheduled to be realigned and refixed shall be deemed to include all necessary new additional materials, brackets, connector plates, bolts, pip rivets, nails, screws, spacer blocks, clamps, timber, and labour, etc to leave the items as new and totally functional.

All new work are measured net and shall include all cutting, lapping, waste, bending, fixing, corners, mitres, fixing screws, pip rivets, nails, adhesive, grout, putty, etc, as well as cleaning and preparation of surfaces not already prepared as part of removed items, etc.

Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



All paintwork shall include for surface preparation, cleaning, primer(s), undercoat(s) and final coat(s) as specified by the manufacturers and in the Technical Specifications. Scheduled items in the Schedule of Quantities are mainly brief descriptions of the final coat(s) to identify the paint system as specified in the Specifications.

Most steel surfaces such as gratings, screens, gates, doors, mesh, louvres, burglar proofing, windows, etc are measured both sides on the net flat overall area of the item. Paint to roof covering and side cladding, etc are measured wet on the flat overall area of the items and not along the girth of the sheeting. All final re-measurements for payment purposes will be done on the same principles.

Rates tendered for paintwork shall be deemed to include for all "line cutting" between different colours of paint specified by the Engineer in dados, skirtings, etc.

Rates tendered for paintwork on ceilings and cornices shall be deemed to include for paint on cover and jointing strips.

Rates tendered for paintwork on ceilings, wall panelling, divisions, etc shall be deemed to include for timber door frames, jointing and cover strips, skirtings, cornices, quadrant beads, etc if painted with the same specified paint material and in the same colour schemes.

Where specified to be painted in contrasting colours, varnished or with a different paint material the paintwork on the door frames, skirtings, cornices, beads, cover strips, etc will be measured and paid for separately per linear metre.

## Specific specification for floor paint

## Preparation:

The concrete floor must have less than 3% moisture before painting is attempted. Remove laitance, residual cement spillage, etc by Carborandum grinding. Vacuum clean to remove all dust. Remove oil, grease, or any other surface contaminants with degreaser. Allow to dry thoroughly before painting.

## Paint system:

Apply one coat of an alkali resistant solvent based stoep (modified alkyd) paint. The first coat may be thinned with approximately 25% mineral turpentine to aid penetration.

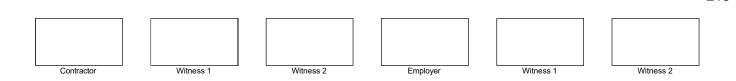
Apply one finishing coat of an alkali resistant solvent based stoep (modified alkyd) paint.

# Protection of existing furniture, carpets, finishings, cupboards, etc during paint procedures

# Protection, sheets and screens:

All existing finishings, carpets, floors, furniture, etc shall be carefully handled, moved when instructed within the specific room, building or area to be painted, covered with sheets, screens or other approved methods to protect the items or finishings against damage or spilled paint spots or stains. Any damage caused to the mentioned existing items shall be rectified or replaced by the Contractor without additional payment.

The costs of sheets, covers, screens and all labour to address the above shall be deemed to be included in the tendered rates for the individual payment items or in the general preliminary cost items. No claims by the Contractor in this regard will be entertained.





Contractor

# BJ 06.02 SCHEDULED ITEMS

BJ.01	Paint to	new un	<u>painted</u>	surfaces:

	NE	W U	NPAINTED S	SUR	FACES:							
BJ.01	<u>Pai</u>	int to	o new unpai	nted	surfaces:							
(a)	De	scrip	tion of surfac	<u>ce:</u>								
	(i)	Brid	ef description	of f	inal paint type	7.						
	(1)	יווט	ci acsoriptioi	1 01 1	mai pami type	<b>,</b> .						
		(a)			pplication are		item	Unit	m², m, numb	er		
		(b)	Etc, for other	er ar	eas or items							
The uni	t of r	neas	surement sha	all be	the number,	metr	e or square m	netre	as applicable	e to e	each item.	
complet for all I	e as	s per ur, r	· specificatior naterial, pre <sub>l</sub>	ns, d para	rawings, desc tion work, wa	cripti aste,	for manufact ons as sched plant, transp eer's approval	uled ort,	or as the ex	isting	and shall in	clude
	<u>PR</u>	EVI	OUSLY PAIN	TED	SURFACES	<u>:</u>						
BJ.02	Paint to previously painted surfaces:											
(a)	Description of surface:											
	(i)	Bri	ef descriptior	of f	inal paint type	<b>)</b> :						
		(a)			pplication are		item	Unit:	: m², m, numb	er		
		(b)	Etc, for other	er ar	eas or items							
The uni	t of r	neas	surement sha	all be	the number,	metr	e or square m	netre	as applicable	e to e	each item.	
complet for all I	e as abo aneo	s per ur, r us it	specificatior material, pre ems and mat	ns, d parat terial	rawings, desc tion work, wa l, etc to the Er	cription aste, ngine	for manufact ons as sched plant, transp eer's approval	uled oort,	or as the exidelivery, acc	isting	and shall in	clude
	<u>PR</u>	EVI	OUSLY PAIN	ITED	SURFACES	IN F	POOR CONDI	TIO	<u>N:</u>			
BJ.03	<u>Pai</u>	int to	o previously	paiı	nted surfaces	s in	poor condition	<u>on:</u>				
(a)	<u>De</u> :	scrip	tion of surfac	<u>ce:</u>								
	(i)	Bri	ef descriptior	of f	inal paint type	<b>e</b> :						
		(a)			pplication are		item	Unit	: m², m, numb	er		
		(b)	Etc, for other	er ar	eas or items							



The unit of measurement shall be the number, metre or square metre as applicable to each item.

The tendered rates shall include full compensation for manufacturing, providing and applying each item complete as per specifications, drawings, descriptions as scheduled or as the existing and shall include for all labour, material, preparation work, waste, plant, transport, delivery, access, scaffolding, fuel, miscellaneous items and material, etc to the Engineer's approval.

Contractor	_	Witness 1	l	Witness 2	ı	Employer	ı	Witness 1	ļ	Witness 2



- L & -

# **C3.3 MANAGEMENT OF THE WORKS**

#### **C3.3.1 MANAGEMENT OF THE WORKS**

#### C3.3.1.1 Applicable SANS 1921 standards

There are no SANS 1921 standards applicable to this contract.

#### C3.3.1.2 Applicable SANS 1200 Standardized Specifications

The SANS 1200 Standardized Specifications that apply to this Contract are listed in Part C3.6.1. All data and variations to these specifications are given in Part C3.6.2, Specification Data.

#### C3.3.1.3 Particular / Generic specifications

The Particular / Generic specifications that apply to this Contract are listed in Part C3.6.1. All data and variations to these specifications are given in Part C3.6.2, Specification Data

#### C3.4. PLANNING AND PROGRAMMING

#### C3.4.1.4.1 Submitted programme

The Contractor's programme, required in terms of Clause 5.6.1 of GCC 2015, shall be in a bar chart form. In addition to the requirements of Clause 5.6.1 of GCC 2015, the Contractor's programme shall show:

- a) the various activities, related to a time scale, for each element of the Works, including those of Nominated and/or Subcontractors, in sufficient detail to be able to assess construction progress,
- b) critical path activities and their dependencies,
- c) key dates in respect of work to be carried out by others,
- d) key dates in respect of information to be provided by the Engineer and/or others,
- e) the anticipated handing over of sections of the site in phases where civil services are completed for the construction of houses by a separate contractor,
- f) predicted cash flow programme.

If any change to the critical path occurs, the Contractor shall as soon as practicable notify the Engineer in writing.

The Contractor's programme and method statement will not be accepted as the basis for claims for additional compensation without due reference to all relevant associated factors.

#### **C3.5. GENERAL ALLOWANCES**

#### C3.5.1.4.2 General allowances

When drawing up his programme, the Contractor shall, take into consideration and make allowance for, inter alia:

- a) expected weather conditions and their effects,
- b) known physical conditions or artificial obstructions.
- c) searching for, dealing with and carrying out alterations to the existing services,
- d) the accommodation of public access and traffic,
- e) the provision and implementation of the health and safety plan in terms of the Construction Regulations, 2014 of the Occupational Health and Safety Act, and
- f) the limitation on length of open excavations as specified in SDDB5-5.

C3.5.1.5 Sequence of the works									
BMH AFRICA ENGINEERS									
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2				



L E S

#### C3.5.1.5.1 Required sequence of construction and interim dates

The Contractor shall arrange his programme in such a manner that the work is completed on time.

#### C3.5.1.6 Review of progress

The Contractor shall review his progress each month and should progress lag behind the latest accepted programme, by more than 2 weeks, he shall submit a revised programme and method statement of how he proposes to make up the lost time. If, in the opinion of the Engineer, such revised programme will not make up the lost time, the Engineer shall have the right to request the Contractor to reorganize his work in a manner which will ensure an acceptable programme. Claims for additional payment to meet any costs incurred due to such reorganization will not be accepted.

#### C3.5.1.6.1 Neatness of the site

The general neatness and tidiness of the residential area, are of particular concern. The Contractor shall, therefore, on a day-to-day basis, keep the area of the Works in a condition acceptable to the Engineer.

#### C3.5.1.6.2 Work across farmland

No construction shall be commenced in any camp containing livestock until arrangements have been made with the owner to have them removed and they have been removed. The Contractor shall ensure that any gate opened by him is attended until it is closed.

#### C3.5.1.6.3 Extension of time resulting from abnormal rainfall

Extension of time will only be considered for rainfall or saturated conditions that will influence the quality of work and will be calculated in accordance with the following method:

- a) The Contractor shall, in his programme, allow for the anticipated number of working days on which work could be delayed as given in the Schedule below.
- b) Extension of time will be calculated for each calendar month or part thereof over the full period for the completion of the Work, plus any approved extension thereof, as follows:
- c) A delay caused by abnormal rainfall will only be accepted for extension of time if, in the opinion of the Engineer, it delays an item or items which lie on the critical path determined by the Contractor's programme. Only delays on working days will be considered.
- d) Abnormal rainfall will be considered to be days, as approved, on which rain delayed operations, less the anticipated number of days given in the Schedule below.
- e) The net extension of time determined for each month, which may be negative, shall accumulate algebraically to determine the net number days for extension of time due to abnormal rainfall, but a negative total at the end of the construction period will not be taken into account.
- f) Where a portion of a month is involved, a pro rata number of days shall be calculated.

#### C3.5.1.7 Quality plans and control

The Contractor shall supply the employer with a quality plan within 14 days after being appointed, showing how quality assurance will be managed on site.

# C3.5.1.8 Environment

#### C3.5.1.8.1 Protection of the environment

#### C3.5.1.8.1.1 Environment management plan

The Contractor shall comply with the provisions of the Environmental Specification.

BMH AFRICA ENGINEER:	MH AFRICA ENGINEERS							
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2			



#### C3.5.1.8.1.2 Fires and burning of vegetation

No fires may be lit except at places approved by the relevant authority. The Contractor shall ensure that the fire hazard on and near the Site is reduced to a minimum and shall take immediate and effective steps to extinguish any fire that may break out. Burning of vegetation and trees cleared from the Site and/or any other material may only be done on site if permitted in writing by the relevant authority, and shall then be strictly controlled by a competent supervisor, shall be carried out strictly in accordance with any directions given and shall be carried out solely at the risk of the Contractor.

#### C3.5.1.8.1.3 Preservation of flora and fauna and soil conservation

The Contractor shall:

- a) take all precautions to prevent:
  - i) the erosion of soils and/or
  - ii) loss of or injury to domestic and other animals from any lands used or occupied by the Contractor;
- b) refrain from destroying, removing or clearing trees, timber and scrub to any extent greater than is necessary for the execution of the Contract,
- c) take care to cause the minimum of disturbance to the fauna and flora.
- d) take precautions to keep the risk of fire to a minimum,
- e) arrange that timber for firewood be obtained only from such places as may be approved by the Engineer;
- f) take such measures as to ensure that his employees are aware of all laws and restrictions governing the hunting, disturbing, capturing or destroying of animals and birds in the vicinity of the camp or the Works or the taking of fish from any water; and
- g) prohibit all firearms from the site and temporary camps.

#### C3.5.1.8.1.4 Indigenous forest

Oak, palm, yellowwood, stinkwood, blackwood, wild olive, trees, and other trees that have a high commercial value in the timber trade, are defined as "valuable indigenous trees" for the purposes of this Contract, and shall not be damaged in any way. Other than as specifically directed by the Engineer, felling of valuable indigenous trees is strictly forbidden.

#### C3.5.1.9 Accommodation of traffic on public roads occupied by the contractor

The access road to Huhudi will still be used by the public. The Contractor will initiate such process as to make the road safe for public use.

#### C3.5.1.10 Other contractors on site

There will be no other contractors on Site.

#### C3.5.1.10.1 General attendance on other contractors

#### C3.5.1.11 Testing, completion, commissioning and correction of defects

As the project will consist out of two aspects of construction namely civil services and top structures, it will be the responsibility of the contractor to correct all defects that may occur to previously completed and tested material or construction work. The site will be taken over by the employer as a whole or in phases only once all work in that phase is completed.

#### C3.5.1.12 Recording of weather

The Contractor will be required to keep daily records of the weather including temperatures and rainfall. These records should be made available to the engineer at every monthly site meeting.

BMH AFRICA ENGINEERS					220
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### C3.5.1.13 Format of communications

All instructions or requests should be noted in a site instruction book that will be permanently available on site.

## C3.5.1.14 Key personnel

A list of all key personnel and their contact details should be made available to the engineers within 7 days after the commencement of work.

#### C3.5.1.15 Management meetings

Management meetings will be held at least once per month at a pre-arranged venue. The Contractor shall make available the personnel as required to attend these meetings. All personnel attending shall have the required capacity to make decisions regarding the execution of the project.

#### C3.5.1.16 Daily records

Daily records will be kept by the Contractor regarding materials, plant and labour on site. These records should be made available to the Engineer on request.

#### C3.5.1.17 Payment certificates

Payment Certificates will be issued and processed once per month. The dates that such certificates should be submitted to the Engineer will be confirmed once construction commences.

#### C3.6. LIST OF APPLICABLE SPECIFICATIONS

The following specifications shall apply to this contract:

a) The COLTO Standard Specifications for Road and Bridge Works for State Road Authorities (1998).

The contractor may purchase copies from the South African Institution of Civil Engineers at:

SAICE
Waterfall Park / Postnet Suite 81
Howick Gardens / Private Bag X65

Vorna Valley / Halfwayhouse

Becker Street / 1685

Midrand

Tel : (011) 805-5947 Fax : (011) 805-5971

Contact Person: Angeline Aylward

b) SABS or BS Specifications and Codes of Practice

Wherever any reference is made to the South African Bureau of Standards (SABS) and the British Standards Specification (BSS) in either these Bill of Quantities or the Specification of Materials and Methods to be Used (OOG-001E), this reference shall be deemed to read "SABS or equivalent standard" and BS or equivalent standard" respectively.

Although not bound in nor issued with this document, the following Standardized Specifications for Civil Engineering Construction, as amended in the Specification Data, form part of this document. (Notwithstanding Sub clause 2.2 of SANS 1200 A, the edition specified below shall apply)

SANS 1200 A - 1986: General

SANS 1200 AB - 1986: Engineer's office

BMH AFRICA ENGINEERS	3				221
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### **C3.6.1 CONSTRUCTION**

Although not bound in nor issued with this document, the COLTO Standard Specifications for Road and Bridge Works for State Road Authorities, 1998 Edition form part of this tender document and, subsequently, the contract document.

#### C3.6.2 VARIATIONS AND ADDITIONS TO THE STANDARD SPECIFICATIONS

Slight amendments to the Standard Specifications as issued by the Committee of Land Transport Officials(COLTO) have been made where necessary and presented under Section C.3.6.3 below.

#### C3.6.3 PROJECT SPECIFICATIONS RELATING TO STANDARD SPECIFICATIONS

This part of the project specifications deals with matters relating to the standard specifications. Where reference is made in the standard specifications to the project specifications this part shall also contain the relevant information e.g. the requirements where a choice of materials or construction methods are provided for the standard specifications.

In certain clauses the standard specifications allow a choice to be specified in the project specifications between alternative materials or methods of construction and for additional requirements to be specified to suit a particular contract. Details of such alternatives or additional requirements applicable to this contract are contained in this part of the project specifications. It also contains some additional specifications and amendments of the standard specifications required for this particular contract.

The number of each clause and each payment item in this part of the project specifications consists of the prefix B followed by a number corresponding to the number of the relevant clause or payment item in the standard specifications. The number of a new clause or a new payment item, which does not form part of a clause or a payment item in the standard specifications and is included here, is also prefixed by B followed by a new number. The new numbers follow on the last clause or item number used in the relevant section of the standard specifications.

BMH AFRICA ENGINEERS								
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2			



# **APPENDIX A: APPLICABLE STANDARDS**

Reference is made to the latest issues of the following standards:

### **SANS 1200 STANDARDS:**

SANS AA: General (small works)

SECTION AH: General (structural)

SECTION C: Site clearance

SECTION D: Earthworks

SECTION DM: Earthworks (roads, subgrade)

SECTION GA: Concrete (small works)

SECTION GB: Concrete (ordinary buildings)

SECTION HA: Structural steelwork (sundry items)

SECTION HC: Corrosion protection of structural steelwork

SECTION MJ: Segmented paving

Specification Occupational health and safety Construction Regulations, 2014

BMH AFRICA ENGINEERS

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

Employer Witness 1 Witness 2



# **APPENDIX A: APPLICABLE STANDARDS**

Reference is made to the latest issue of the following standards:

BS 952	Glass for glazing
BS 1199	Building sands from natural sources
BS 1387	Screwed and socketed steel tubes and tubulars and plain end steel tubes suitable for welding
	or for screwing to BS 21 pipe threads
SANS 22	Glazed ceramic wall tiles and fittings
SANS 28	Metal ties for cavity walls
SANS 121	Hot dip galvanized coatings on fabricated iron and steel articles - Specification and test
	methods
SANS 226	Water taps (metallic bodies) SANS 227
	Burnt clay masonry units
SANS 248	Bituminous damp-proof courses
SANS 266	Gypsum plasterboard
SANS 460	Plain-ended solid drawn copper tubes for potable water
SANS 497	Glazed ceramic sanitary ware SANS 523
	Limes for use in buildings SANS 542
	Concrete roofing tiles
SANS 545	Wooden doors
SANS 559	Vitrified clay sewer pipes and fittings
SANS 581	Semi-flexible vinyl floor tiles
SANS 673	Mixtures of copper - chromium - arsenic compounds for timber preservatives
SANS 679	Zinc chromate primers for steel
SANS 680	Glazing putty for wooden and metal window frames
SANS 685	Fibre-cement sheets (flat and profiled) SANS 723
	Wash primer (metal etch primer)
SANS 727	Windows and doors made from rolled mild steel sections
SANS 786	Flexible vinyl flooring
SANS 791	Unplasticized poly(vinyl chloride) (PVC-U) sewer and drain pipes and pipe fittings
SANS 803	Fibre-cement boards
SANS 903	Aluminium alloy corrugated and troughed sheets
SANS 920	Steel bars for concrete reinforcement
SANS 927	Precast cobcrete kerbs, edgings and channels
SANS 929	Plywood and composite board
SANS 952	Polyolefin film for damp- and waterproofing in buildings
SANS 967	Unplasticized poly(vinyl chloride) (PVC-U) soil, waste and vent pipes and pipe fittings
SANS 1215	Concrete masonry units
SANS 1349	Phendic, aminoplastic and one-part polyurethane resin adhesives for the lamination
	and finger-jointing of timber, and for furniture and joinery
SANS 1783	Sawn softwood timber
SANS 10005	The preservative treatment of timber
SANS 10062	Fixing of concrete interlocking roofing tiles
SANS 10070	The installation of resilient thermoplastic and similar flexible floor covering
SANS 10096	The manufacture of finger-jointed structural timber
SANS 10107	The design and installation of ceramic tiling
SANS 10142	The wiring of premises
SANS 50197	Cement Part 1: Composition, specifications and conformity criteria for common cements

BMH AFRICA ENGIN	EERS				224
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



LE

# C3.7 COMMUNITY LIAISON OFFICERS & LOCAL LABOUR

#### **COMMUNITY LIAISON OFFICERS**

The tenderer shall allow in his tender for the appointment of full time Community Liaison Officer for the duration of the contract. The Liaison Officer will be introduced to the successful tenderer.

Because of the fact the local labour will have to be utilized on this project, the Contractor will have to liaise with the appointed person for the necessary recruitment of labourers as well as for all other negotiations with local labourers.

#### **UTILIZING OF LOCAL LABOUR**

SKILLS REQUIRED
CLO - Community Liaison Officer
Security Officers
Labourers for house connections
Labourers for excavations

#### **DUTIES, TASKS AND RESPONSIBILITIES**

#### **CLO-Community Liaison Officer:**

- a) Act as Liaison Officer between Community, Contractor and Employer.
- b) Identify and recruit manpower.
- c) Ensure labourers obey Contractors instructions.
- d) Terminate, retrench and discipline workers when:
  - Not obeying Contractors instructions
  - Refuse to work
  - Not reporting for work without excuse
  - Misbehave, steel, drink, intimidating, etc. during working hours
- e) Settlement of disputes.
- f) Obtain way leaves.
- g) Any other reasonable instruction required by the Contractor, Project Manager or Employer.

#### SECURITY OFFICER:

- a) Keep close watch over all material, site yard and equipment of Contractor.
- b) Protect material and equipment. Report all incidents to the Contractor.
- c) Work 8 hours shifts as follows:
  - Shift 1: 06:00 to 14:00
  - Shift 2: 14:00 to 22:00
  - Shift 3: 22:00 to 06:00
- d) Any other reasonable instructions required by the Contractor, Project Manager or Employer.

#### **LOCAL LABOUR:**

- a) Perform and execute tasks such as:
  - Digging holes
  - Digging trenches
  - Planting poles
  - Planting stays
- b) Installation and fitting of keypads and readyboards.
- c) Installation and connecting of Airdac cables.
- d) Installation and fitting of kicking pipes.
- e) Any other reasonable instructions required by the Contractor, Project Manager or Employer.

В	MH AFRICA ENGINEERS	3						225
			Г				, ,	
							, ,	
							, ,	
							, ,	
	Contractor	Witness 1	_	Witness 2	Employer	Witness 1		Witness 2



#### CONTRACTOR:

- a) Employ the CLO, security officers and local labour.
- b) Provide and supply all clothing, tools and materials to perform the tasks required.
- c) Manage the workforce with the assistance of the CLO to ensure that the programme to carry out the work is met.
- d) Utilize a maximum of 15 people of own employee to conduct all skilled tasks and to work as team leaders amongst the workforce, to provide training, set the standard and quality of work required and to ensure the required production rate is met.
- e) Conduct and convene meetings on a daily base to dish out work and tasks and tor record progress.
- f) To ensure all safety requirements are met.
- g) Pay and remunerate the workforce on a monthly basis and record all payments with relevant signatures.

h)

#### CONDITIONS OF EMPLOYMENT

- a) Obey Contractors instructions.
- b) Sign time sheets and report for work from Monday to Friday.
- c) Work overtime if required by Contractor.
- d) Working hours is 45 hours per week from 07:00 to 16:00 with 30 minutes lunch break from 12:00 to 12:30.
- e) Payment will be affected according to attendance register, with no work no pay policy.
- f) Payment will be done on the last Friday of each month at 12:00. No unemployment insurance funds will be deducted or applicable.
- g) Tax will be deducted if applicable.
- h) Payment categories:
  - CLO R6 000.00 per month;
  - PSC Members R250.00 per sitting (only if not already receiving a stipend);
  - Labourers Compensation to be in line with Department of Labour rates; or according to the attached schedule for the various activities stipulating piece work

NOTE: Preference is given to piece work.

- i) Overtime will be paid according to time plus a third.
- j) If the required progress is not met, the Contractor will have the right to strengthen his own workforce with the approval of the Project Manager.

#### **LABOUR FORCE**

The following key people should be employed on site:

#### **CONTRACTOR:**

1x Contract Manager

1 x Site Agent

1x Foreman

1 x Safety Officer

BMH AFRICA ENGINEER	.s				226
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



Contractor

Witness 1

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

#### RESPONSIBILITY OF CONTRACTOR

It will be the responsibility of the Contractor to manage all material on site, to ensure that the installation complies with the requirements of the specification and to coordinate and supervise the manpower required for the project.

Irrespective of the manpower or subcontractors used, the Contractor will be responsible for the complete installation, all in accordance with the conditions of contract and Technical Specifications and shall provide all the plant, hand tools, etc. for execution of the works.

### **USING OF OWN MANPOWER**

The Contractor will only be allowed to use a skeleton staff of his own. Should it prove to be impossible to identify people from the community to perform the tasks, written approval shall be obtained by the Contractor from the Engineer (after approval by the community) prior to utilizing his own manpower to complete the project. The Contractor's own personnel will be responsible for cable terminations, joints, stringing, connection of pole top boxes, testing of prepayment meters and ready boards, etc. The Contractor shall therefore use only skilled labour of his own workforce. All other labour shall be local labour.

BMH AFRICA ENGINEERS 227

Employer

Witness 1

Witness 2

Witness 2



# C3.8 OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION

1.	Specific Project Information	
1.1	Introduction and Definitions	
1.2	Background to the Health and Safety Specification	
1.3	Purpose of the Health and Safety Specification	
1.4	Implementation of the Health and Safety Specification	
1.5	Project Details	
1.6	Available Drawings	
1.7	Project Health and Safety Requirements	
1.8	Interface and Restrictions by Client	
1.9	Safety File Return to Client	
2.	Further Requirements	
2.1	Duties of Principal Contractor / Contractor in terms of Construction Regulations 2014	
2.2	Management and Supervision of Construction Work	
2.3	Notification of Intention to Commence Construction Work	
2.4	Construction Work Permit	
2.5	Assignment of Contractor's Responsible Persons to Manage Health and Safety on Site	
2.6	Competency for Contractor's Responsible Persons	
2.7	Compensation of Occupational Injuries Act 130 of 1993 (COIDA)	
2.8	Occupational Health and Safety Policy	
2.9	Health and Safety Organogram	
2.10	Risk Assessments	
2.11	Health and Safety Representative(s)	
2.12	Health and Safety Committee	
2.13	Medical Certificate of Fitness	
2.14	Health and Safety Training	
2.14.1	Induction	
2.14.2	Awareness	
2.15	Competency	
2.16	General Record Keeping	
2.17	General Inspection, Monitoring and Reporting	
2.18	Emergency Procedures	
2.19	First Aid Box and First Aid Equipment	
2.20	Accident / Incident Reporting and Investigation	
2.21	Hazards and Potential Situations	
2.22	Occupational Health and Safety Signage	
2.23	Management of Contractors by Principal Contractor	

Contractor Witness 1 Witness 2 Employer Witness 1 Witness 2

Witness 2



2.24 Stacking of Materials 2.25 Housekeeping and General Safeguarding on Construction Sites 2.26 Construction Vehicles and Mobile Plant 2.27 Electrical Installations and Machinery on Construction Sites 2.28 Use and Temporary Storage of Flammable Liquids on Construction Sites 2.29 Water Environments 2.30 Fire Precautions on Construction Sites 2.31 Construction Employees" Facilities 2.32 Fall Protection 2.33 **Temporary Works** 2.34 Excavation 2.35 **Demolition Work** 2.36 Tunneling 2.37 Scaffolding 2.38 **Bulk Mixing Plant** 2.39 Rope Access Work 2.40 Hazardous Chemical Substances (HCS) 2.41 Noise Induced Hearing Loss 2.42 **Explosives and Blasting** 2.43 Personal Protective Equipment (PPE) 2.44 Asbestos 2.45 Pressure Vessels (Including Gas Bottles) 2.46 Fire Extinguishers and Fire Fighting Equipment 2.47 Lifting Machinery and Tackle Ladders and Ladder Work 2.48 2.49 **General Machinery** 2.50 Portable Electrical Tools 2.51 High Voltage Electrical Equipment 2.52 Public Health and Safety 2.53 Night Work 2.54 Environmental Conditions and Flora and Fauna 2.55 Occupational Health 2.56 Suspended Scaffolds 2.57 Material Hoists 2.58 **Explosive Actuating Fastening Devices** 

BMH AFRICA ENGINEERS 229

Contractor Witness 1 Witness 2 Employer Witness 1



#### **Baseline Risk Assessments**

# Health and Safety Specification Acknowledgement Receipt

#### 1.0 SPECIFIC PROJECT INFORMATION

#### 1.1 INTRODUCTION AND DEFINITIONS

PLEASE NOTE THAT THE REQUIREMENTS OF THE NEW CONSTRUCTION REGULATIONS 2014 HAVE BEEN IN EFFECT FROM 7TH AUGUST 2014. THE NEW REGULATIONS PLACE ADDITIONAL LEGAL DUTIES UPON PRINCIPAL CONTRACTORS AND CONTRACTORS. ALTHOUGH THIS HEALTH AND SAFETY SPECIFICATION INCLUDES MUCH OF THE CONTENT OF THESE NEW REQUIREMENTS, THE CONTRACTOR WILL BE DEEMED TO BE FAMILIAR WITH THE REQUIREMENTS OF THESE REGULATIONS, AND TO HAVE FACTORED IN ALL THE DUTIES PLACED UPON CONTRACTORS AND PRINCIPAL CONTRACTORS IN THE TENDER. A COPY OF THE REGULATIONS CAN BE VIEWED ON THE DEPARTMENT OF LABOUR'S WEBSITE.

This Health and Safety Specification contains clauses that are generally applicable to construction activities, as well as imposing pro-active controls associated with activities that impact on Health and Safety as it relates to plant and machinery. Compliance to the requirements of the Occupational Health and Safety Act 1993 is in addition to the requirements of this Health and Safety Specification and is part of the Contractor's responsibility. The Client will monitor that the Contractors comply with the requirements of such legislation.

This specification is a compliance document drawn up in terms of the Occupational Health & Safety Act no 85 of 1993 (OHSA) and is therefore binding. It must be read in conjunction with all other relevant legislation. The contractor shall ensure that it familiarizes itself with the requirements of the legislation listed below, and any related legislation including bylaws, and relevant policies and procedures and that its employees and any sub- contractors comply with the same.

- The Scope of work and information required for tender process, and prior commencement of work, and bill of quantities as described elsewhere
- The Occupational Health and Safety (OSHA) (Act 83 of 1993), and all applicable regulations in terms of the OHSA
- Construction Regulations, 2014;
- National Environmental Management Waste Act (NEMWA) (Act 59 of 2008), and as amended (Act 26 of 2014);
- National Road Transport Act of 1996 (Act 93 of 1996), and as amended in 2014;
- Compensation for Occupational Injuries and Diseases Act (Act 1993):
- Basic Conditions of Employment Act (Act 75 of 1997);
- National Health Act (Act 61 of 2003), as amended in 2013
- National Regulator for Compulsory Specifications Act, (Act no.5 of 2008) (NRCS Act)
- HCS VC 8041: Compulsory specification for microbiological safety cabinets
- (Classes 1,2 and 3)
- Government Notice No. 22014 GOVERNMENT GAZETTE, 2 FEBRUARY 2000

BMH AFRICA ENGINEERS					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



- Second-Hand Goods Act (Act 6 of 2009)
- Municipal By-laws applicable to scope of work
- South African National Standards (SANS) applicable to decontamination, decommission and commissioning of Tuberculosis laboratories
- Systems with particular focus on extraction and ventilation systems

# ALL REFERENCES TO CLIENT IN THIS HEALTH AND SAFETY SPECIFICATION ALSO REFER TO CLIENT AGENT. WHERE SO APPOINTED.

Definitions (as per the Construction Regulations 2014) applicable to this Health and Safety Specification:

"agent" means a competent person who acts as a representative for a client;

"angle of repose" means the steepest angle of a surface at which a mass of loose or fragmented material will remain stationary in a pile on the surface, rather than sliding or crumbling away;

**"bulk mixing plant"** means machinery, appliances or other similar devices that are assembled in such a manner so as to be able to mix materials in bulk for the purposes of using the mixed product for construction work;

"client" means any person for whom construction work is being performed;

"competent person" means a person who has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act;

"construction manager" means a competent person responsible for the management of the physical construction processes and the coordination, administration and management of resources on a construction site;

"construction site" means a work place where construction work is being performed;

"construction supervisor" means a competent person responsible for supervising construction activities on a construction site;

"construction vehicle" means a vehicle used as a means of conveyance for transporting persons or material, or persons and material, on and off the construction site for the purposes of performing construction work;

"construction work" means any work in connection with-

- the construction, erection, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure; or
- the construction, erection, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system; or the moving of earth, clearing of land, the making of excavation, piling, or any similar civil engineering structure or type of work;

"construction work permit" means a document issued in terms of regulation 3;

"contractor" means an employer who performs construction work;

BMH AFRICA ENGINEERS	}				231
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



"demolition work" means a method to dismantle, wreck, break, pull down or knock down of a structure or part thereof by way of manual labour, machinery, or the use of explosives;

"design" in relation to any structure, includes drawings, calculations, design details and specifications

"designer" means a competent person who-

- prepares a design;
- · checks and approves a design;
- arranges for a person at work under his or her control to prepare a design, including an employee of that person where he or she is the employer; or
- designs temporary work, including its components;
- an architect or engineer contributing to, or having overall responsibility for a design;
- a building services engineer designing details for fixed plant;
- a surveyor specifying articles or drawing up specifications;
- a contractor carrying out design work as part of a design and building project;
   or
- an interior designer, shop-fitter or landscape architect;

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

"explosive actuated fastening device" means a tool that is activated by an explosive charge and that is used for driving bolts, nails and similar objects for the purpose of providing fixing;

"fall arrest equipment" means equipment used to arrest a person in a fall, including personal equipment, a body harness, lanyards, deceleration devices, lifelines or similar equipment;

"fall prevention equipment" means equipment used to prevent persons from falling from a fall risk position, including personal equipment, a body harness, lanyards, lifelines or physical equipment such as guard-rails, screens, barricades, anchorages or similar equipment;

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

- all risks relating to working from a fall risk position, considering the nature of work undertaken;
- the procedures and methods to be applied in order to eliminate the risk of falling; and
- a rescue plan and procedures;

"fall risk" means any potential exposure to falling either from, off or into;

"health and safety file" means a file, or other record containing the information in writing required by these Regulations;

"health and safety plan" means a site, activity or project specific documented plan in accordance with the client's health and safety specification;

"health and safety specification" means a site, activity or project specific document prepared by the client pertaining to all health and safety requirements related to construction work;

"material hoist" means a hoist used to lower or raise material and equipment, excluding passengers;

"medical certificate of fitness" means a certificate contemplated in regulation 7(8);

BMH AFRICA ENGINEERS					232
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



L V

"mobile plant" means any machinery, appliance or other similar device that is able to move independently, and is used for the purpose of performing construction work on a construction site;

"National Building Regulations" means the National Building Regulations made under the National Building Regulations and Building Standards Act, 1977 (Act No. 103 of 1977), and promulgated by Government Notice No. R. 2378 of 30 July 1990, as amended by Government Notices No's R. 432 of 8 March 1991, R.919 of 30 July 1999 and R. 547 of 30 May 2008;

"person day" means one normal working shift of carrying out construction work by a person on a construction site;

"principal contractor" means an employer appointed by the client to perform construction work;

"Professional Engineer or Professional Certificated Engineer" means a person holding registration as either a Professional Engineer or Professional Certificated Engineer in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000);

"Professional Technologist" means a person holding registration as a Professional Engineering Technologist in terms of the Engineering Profession Act, 2000;

"**provincial director**" means the provincial director as defined in regulation 1 of the General Administrative Regulations, 2003;

"scaffold" means a temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both;

"shoring" means a system used to support the sides of an excavation and which is intended to prevent the cave-in or the collapse of the sides of an excavation;

#### "structure" means-

- any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels, road, drainage works, earthworks, dam, wall, mast, tower, tower crane, bulk mixing plant, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;
- any false work, scaffold or other structure designed or used to provide support or means of access during construction work; or
- any fixed plant in respect of construction work which includes installation, commissioning, decommissioning
  or dismantling and where any construction work involves a risk of a person falling;

"suspended platform" means a working platform suspended from supports by means of one or more separate ropes from each support;

"temporary works" means any falsework, formwork, support work, scaffold, shoring or other temporary structure designed to provide support or means of access during construction work;

"the Act" means the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993);

"tunneling" means the construction of any tunnel beneath the natural surface of the earth for a purpose other than the searching for or winning of a mineral.

Reference should be made to the following documentation in conjunction with this Safety Specification

BMH AFRICA ENGINEERS					233
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### (including existing surveys, drawings and reports):

Tender documents and Drawings

#### **IMPORTANT NOTE:**

This Health and Safety Specification has been prepared to comply with the requirements of the Construction Regulations 2014.

#### 1.2 BACKGROUND TO THE HEALTH AND SAFETY SPECIFICATION

Historically, the Construction Industry has had a poor health and safety record. Due to the complex and potentially dangerous operations being undertaken, there is a high risk of incidents, accidents and injuries. In many instances poor adherence to the Act and Regulations has resulted in severe consequences for Health and Safety performance. The Client is determined that the highest Health and Safety standards will prevail throughout the Contract and that there will be full commitment from all parties involved.

To achieve this goal the Client has prepared this Health and Safety Specification. The Health and Safety Specification sets out guidelines and minimum levels of awareness and guidance for Health and Safety requirements for the project. Contractual responsibility for adhering to these requirements rests with the Contractors. All employees are encouraged to be pro-active in compliance.

The Client is committed to ensuring the highest Health and Safety standards for all work undertaken within the Contract. The project will be signed off to the Contractor which comes with its own risks and technical control, adherence to legislation, and liability. This includes the risks to the scope of work is under control of the Contractor

Contractors as employers are fully responsible and accountable for compliance with all Health and Safety requirements.

#### **IMPORTANT NOTE:**

Compliance with the Occupational Health and Safety Act and Regulations shall not be limited to this Health and Safety Specification and definitions contained in this document.

Contractors shall be conversant with the requirements and effects of Health and Safety legislation upon their activities, in particular the Construction Regulations, 2014, and the Occupational Health and Safety Act, 1993, and to have made adequate resource in their tender submission to comply with all legislative requirements.

The Contractor's personnel will be responsible for the auditing of the implementation of the Health and Safety Specification and maintaining the document control and record systems associated with the Health and Safety Specification. The Client will conduct Health and Safety audits of the works too.

#### 1.3 PURPOSE OF THE HEALTH AND SAFETY SPECIFICATION

The purpose of this site-specific Health and Safety Specification is to comply with legal requirements and to provide health and safety information about specific project risks known by the Client, Designer and Client Agent to be applicable to this project. This document also provides minimum health and safety requirements, standards and expectations that the principal contractor and contractors must adhere to.

The Contractor must take into account all information in this specification and ensure that their tenders include adequate resource and competence to deal with the matters detailed herein so that all relevant contents are dealt with in a way which is in compliance with legislation and the ethical concerns for the safeguarding of employees, contractors and other persons affected by the construction activities.

The Health and Safety Specification will be implemented during construction of the works and any construction activity that the Client has control over.

BMH AFRICA ENGINEER:	S				234
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



This will also assist in ensuring that all the costs related to the compliance with Occupational Health Act 85 of 1993 and the Construction Regulations 2014, as well as this Health and Safety Specification, are taken into consideration at Tender stage.

No advice, approval of any document required by the Health and Safety Specification such as hazard identification and risk assessment action plans or any other form shall be construed as an acceptance by the Client of any obligation that absolves the Contractor from achieving the required level of performance and compliance with legal requirements.

Further, there is no acceptance of liability by the Client which may result from the Contractor failing to comply with the Health and Safety Specification unless the Client has issued an instruction to any requirement, i.e. the Contractor remains responsible for achieving the required performance levels.

#### 1.4 IMPLEMENTATION OF THE HEALTH AND SAFETY SPECIFICATION

This Health and Safety Specification forms an integral part of the Contract, and Contractors shall make it an integral part of their Contracts with Sub Contractors and Suppliers. Contractors employed by the Client are to ensure that the provisions of

the Health and Safety Specification are applied both on the site and in respect of all off site activities relating to the project, in particular in transport activities and project dedicated off site fabrication works.

The Contractor shall enforce the provisions of the Health and Safety Specification amongst all sub-contractors and suppliers for the project.

The Contractor shall sign the acknowledgment on the last page of this safety specification that he/she has familiarized him/herself with the content of the Health and Safety Specification and shall comply with all obligations in respect thereof.

The successful Contractor will be required to compile a Health and Safety Plan based on the requirements of the Occupational Health Act 85 of 1993 and legislation associated with scope of works and work environment, and these Specifications, which will need to be approved by Client prior to commencement with construction work.

#### 1.4.1 Client Duties

In terms of the Construction Regulations 2014 the Client (or their Agent, where appointed) has legal duties. Where an Agent (refer to "definitions" section of this document) is appointed in terms of this project, these Health and Safety duties assigned will also apply.

All references to "Client" will apply to their appointed "Client Agent", where so appointed, in this Health and Safety **Specification.** 

#### The Client must:

- Prepare a baseline risk assessment for the construction work
- Prepare a suitable, sufficiently documented and coherent site-specific Health and Safety specification for the intended construction work, based on the baseline risk assessment
- Include the health and safety specification in the tender documents
- Ensure that potential principal contractors submitting tenders have made adequate provision for the cost of health and safety measures
- Ensure that the principal contractor to be appointed has the necessary competencies and resources to carry out the construction work safely
- Take reasonable steps to ensure co-operation between all contractors appointed by the client to enable each
  of those contractors to comply with the regulations
- Ensure, before work commences, that every principal contractor is registered and in good standing with the compensation fund, or with a licensed compensation insurer as contemplated in the Compensation for Occupational injuries and Diseases Act, 1993 (Act no 130 of 1993)

BMH AFRICA ENGINEERS					
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



- Appoint each principal contractor in writing for the project, or part thereof
- Discuss and negotiate with the principal contractor the contents of the principal contractor's safety plan and thereafter finally approve that plan for implementation
- Ensure that a copy of the principal contractor's health and safety plan is implemented and maintained
- Ensure that periodic health and safety audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days
- Ensure that a copy of the health and safety audit report is provided to the principal contractor within 7 days after the audit
- Stop any contractor from executing a construction activity which poses a threat to the health and safety of persons which is not in accordance with the principal contractor's health and safety plan for site
- Where changes are brought about to the design or construction work, make sufficient health and safety information and appropriate resources available to the principal contractor to execute the work safely
- Ensure that the health and safety file is kept and maintained by the principal contractor.
- Where the client requires additional work to be performed as a result of a design change or error in construction due to the actions of the client, the client must ensure that sufficient safety information and appropriate additional resources are available to execute the required work safely.
- Where more than one principal contractor is appointed, the client must take reasonable steps to ensure cooperation between all principal contractors and contractors to ensure compliance with the Regulations
- Where the Client has appointed a Client Agent for the project, their details for this project are contained in the Project Directory section of this health and safety specification.

#### 1.4.2 Designer Duties

It must be noted that the Designer also has Health and Safety duties assigned in terms of the Construction Regulations. Where the contractor fulfils a design function in terms of this project (refer to "definitions" section of this document), these duties will also apply. Please refer to Regulation 6 of the Construction Regulations 2014.

#### Please note that the designer of temporary works must ensure that:

- all temporary works are adequately designed so that it will be capable of supporting all anticipated vertical and lateral loads that may be applied;
- the designs of temporary works are done with close reference to the structural design drawings issued by the contractor, and in the event of any uncertainty consult the contractor;
- all drawings and calculations pertaining to the design of temporary works are kept at the office of the temporary works designer and are made available on request by an inspector; and
- the loads caused by the temporary works and any imposed loads are clearly indicated in the design.

#### 1.5 PROJECT DETAILS

#### **Description of Works**

The upgrading of the Huhudi Sports Facility will be executed through a series of coordinated construction activities, ensuring compliance with design specifications, safety standards, and stakeholder expectations. The service to be provided will consist of the professional services for the refurbishment/construction of the following:

- Sport Field (Soccer/Rugby) Artificial Turf
- Athletic Track Marking
- High-Mast Lights
- Team Ablution & Changing Facility
- Main Change Room, Storeroom, Pavilion & Kiosk
- Photographers Elevated Steel Stand
- Tennis Court Fence & Lights
- Walkways
- Testing & Handover

BMH AFRICA ENGINEER	S				236
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



The description of the projects as described in this section is merely an outline of the contract works and shall not be regarded as limiting to the amount of work to be done by the Contractor under this contract. Dealing with existing services including water pipes, electrical and Telkom cables and existing sewer lines form part of the works.

This description of the works is not necessarily complete and shall not limit the work to be carried out by the Contractor under this Contract.

#### **Appointment: SAFETY OFFICER**

No contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved by the Chief Inspector (SACPCMP) and has necessary competencies and resources to assist the contractor

#### 2.0 FURTHER REQUIREMENTS

### 2.1 Duties of Principal Contractor / Contractor in terms of Construction Regulations 2014

A Principal Contractor must:

- provide and demonstrate to the client a suitable, sufficiently documented and coherent site-specific health
  and safety plan, based on the client's documented health and safety specifications, which plan must be
  applied from the date of commencement of and for the duration of the construction work and which must be
  reviewed and updated by the principal contractor as work progresses;
- open and keep on site a health and safety file, which must include all documentation required in terms of the
  Act and these Regulations, which must be made available on request to an inspector, the client, the client's
  agent or a contractor; and
- on appointing any other contractor, in order to ensure compliance with the provisions of the Act –
- provide contractors who are tendering to perform construction work for the principal contractor, with the relevant sections of the health and safety specifications pertaining to the construction work which has to be performed;
- ensure that potential contractors submitting tenders have made sufficient provision for health and safety measures during the construction process;
- ensure that no contractor is appointed to perform construction work unless the principal contractor is reasonably satisfied that the contractor that he or she intends to appoint, has the necessary competencies and resources to perform the construction work safely;
- ensure prior to work commencing on the site that every contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993;
- appoint each contractor in writing for the part of the project on the construction site
- take reasonable steps to ensure that each contractor's health and safety plan is implemented and maintained
  on the construction site;
- ensure that the periodic site audits and document verification are conducted at intervals mutually agreed upon between the principal contractor and any contractor, but at least once every 30 days;

BMH AFRICA ENGINEERS					237
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



L E .

- stop any contractor from executing construction work which is not in accordance with the client's health and safety specifications and the principal contractor's health and safety plan for the site or which poses a threat to the health and safety of persons;
- where changes are brought about to the design and construction, make available sufficient health and safety
  information and appropriate resources to the contractor to execute the work safely;
- discuss and negotiate with the contractor the contents of their health and safety plan and finally approve that plan for implementation;
- ensure that a copy of both the principal contractor and contractor's health and safety plan is available on request to an employee, an inspector, a contractor, the client or the client's agent;
- hand over a consolidated health and safety file, hardcopy and CD to the client upon completion of the construction work, to include a record of all drawings, designs, materials used and other similar information concerning the completed structure;
- in addition to the documentation required in the health and safety file include and make available a comprehensive and updated list of all the contractors on site accountable to the principal contractor, the agreements between the parties and the type of work being done;
- ensure that all his or her employees have a valid medical certificate of fitness specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3.

A contractor must prior to performing any construction work-

- provide and demonstrate to the principal contractor a suitable and sufficiently documented health and safety
  plan, based on the relevant sections of the client's health and safety specification and provided by the
  principal contractor, which plan must be applied from the date of commencement of and for the duration of
  the construction work and which must be reviewed and updated by the contractor as work progresses;
- open and keep on site a health and safety file, which must include all documentation required in terms of the
  Act and these Regulations, and which must be made available on request to an inspector, the client, the
  client's agent or the principal contractor;
- before appointing another contractor to perform construction work be reasonably satisfied that the contractor
  that he or she intends to appoint has the necessary competencies and resources to perform the construction
  work safely;
- co-operate with the principal contractor as far as is necessary to enable each of them to comply with the provisions of the Act;
- as far as is reasonably practicable, promptly provide the principal contractor with any information which might
  affect the health and safety of any person at work carrying out construction work, any person who might be
  affected by the work of such a person at work, or which might justify a review of the health and safety plan.

Where a contractor appoints another contractor to perform construction work, the duties that apply to the principal contractor will apply to the contractor as if he or she were the principal contractor.

A principal contractor must take reasonable steps to ensure co-operation between all contractors appointed by the principal contractor to enable each of those contractors to comply with these Regulations.

No contractor may allow or permit any employee or person to enter any site, unless that employee or person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

BMH AFRICA ENGINEERS					238
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



L &

A contractor must ensure that all visitors to a construction site undergo health and safety induction pertaining to the hazards prevalent on the site and must ensure that such visitors have the necessary personal protective equipment.

A contractor must at all times keep on his or her construction site records of the health and safety induction training and such records must be made available on request to an inspector, the client, the client's agent or the principal contractor.

A contractor must ensure that all his or her employees have a **valid medical certificate of fitness** specific to the construction work to be performed and issued by an occupational health practitioner in the form of Annexure 3 (a template of which can be found in the Construction Regulations, 2014).

#### 2.2 Management and Supervision of Construction Work

A principal contractor must, in writing, appoint one full-time competent person as the construction manager with the duty of managing all the construction work on a single site, including the duty of ensuring occupational health and safety compliance, and in the absence of the construction manager an alternate must be appointed by the principal contractor.

A principal contractor must upon having considered the size of the project, in writing appoint one or more assistant construction managers for different sections thereof: Provided that the designation of any such person does not relieve the construction manager of any personal accountability for failing in his or her management duties in terms of this regulation.

Where the construction manager has not appointed assistant construction managers, or, in the opinion of an inspector, a sufficient number of such assistant construction managers have not been appointed, that inspector must direct the construction manager in writing to appoint the number of assistant construction managers indicated by the inspector, and those assistant construction managers must be regarded as having been appointed.

No construction manager appointed in terms of the Regulations may manage any construction work on or in any construction site other than the site in respect of which he or she has been appointed.

A contractor must, after consultation with the client and having considered the size of the project, the degree of danger likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction health and safety officer in writing to assist in the control of all health and safety related aspects on the site: Provided that, where the question arises as to whether a construction health and safety officer is necessary, the decision of an inspector is decisive.

No contractor may appoint a construction health and safety officer to assist in the control of health and safety related aspects on the site unless he or she is reasonably satisfied that the construction health and safety officer that he or she intends to appoint is registered with a statutory body approved by the Chief Inspector and has necessary competencies and resources to assist the contractor

A construction manager must in writing appoint construction supervisors responsible for construction activities and ensuring occupational health and safety compliance on the construction site.

A contractor must, upon having considered the size of the project, in writing appoint one or more competent employees for different sections thereof to assist the construction supervisor, and every such employee has, to the extent clearly defined by the contractor in the letter of appointment, the same duties as the construction supervisor: Provided that the designation of such employee does not relieve the construction supervisor of any personal accountability for failing in his or her supervisory duties.

Where the contractor has not appointed such an employee, or, in the opinion of an inspector, a sufficient number of such employees have not been appointed, that inspector must instruct the employer to appoint the number of employees indicated by the inspector.

No construction supervisor appointed may supervise any construction work on or in any construction site other than the site in respect of which he or she has been appointed: Provided that if a sufficient number of competent employees have been appropriately designated on all the relevant construction sites, the appointed construction supervisor may supervise more than one site.

BMH AFRICA ENGINEER	RS				239
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.3 Notification of Intention to Commence Construction Work

The Contractor shall notify the Provincial Director of the Department of Labour of the intention to commence construction work at least 7 days prior to the works commencing if the intended construction work will:

- Include excavation work
- Include work at height where there is a risk of falling
- Include the demolition of a structure, or
- Include the use of explosives to perform construction work.

This must be done on a form similar to an Annexure 2 (template of which can be found in the Construction Regulations, 2014). A copy of the notification letter to the Provincial Director shall be forwarded to the Client for record purposes.

# 2.4 Construction Work Permit - Not applicable

It must be noted that from August 2014 certain projects will require a construction work permit to be applied for at least 30 days prior to the work being carried out:

 Works contract value is equal to or exceeding R130 million or Construction Industry Grading Board (CIDB) grading level 9

It is the client's responsibility to apply for this permit from the Provincial Director and construction work may not commence until the permit has been issued by the Provincial Director.

A copy of this permit will be required to be kept in the principal contractor's safety file, and the site-specific number issued by the Provincial Director must be displayed at the site entrance.

#### 2.5 Assignment of Contractor's Responsible Persons to Manage Health and Safety on Site

The Contractor shall submit management and supervisory appointments as well as any relevant appointments in writing (as stipulated by the Construction Regulations 2014 and the Occupational Safety and Health Act 1993), prior to commencement of work.

#### 2.6 Competency for Contractor's Responsible Persons

The Contractor's responsible persons shall be competent in health and safety and be familiar with the Occupational Health and Safety Act 1993, and applicable regulations. Valid proof of pertinent health and safety courses attended by such persons will be required to be presented to the Client.

#### 2.7 Compensation of Occupational Injuries and Diseases Act 130 of 1993 (COIDA)

The successful Contractor shall submit to the Client a valid letter of good standing with the Compensation Insurer prior to appointment.

#### 2.8 Occupational Health and Safety Policy

The Contractor shall submit their Health and Safety Policy, prior to construction commencement, signed by the Chief Executive Officer. The Policy must outline objectives and how they will be achieved and implemented within the company operations.

#### 2.9 Health and Safety Organogram

The Contractor shall submit an organogram, prior to construction commencement, outlining the Health and Safety Site Team that will be assigned to the project, if successful with the tender. In cases where appointments have not been made, the organogram shall reflect the position. The organogram shall be updated, when there is a change in the site team.

BMH AFRICA ENGINEER:	S				240
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.10 Risk Assessments

#### **Baseline Risk Assessment**

The Client shall cause a baseline risk assessment to be conducted by a competent person before the design process and tender process commence, and the assessed risks shall form part of the health and safety specifications.

The Contractor must, before commencement of any construction work, and during construction work, have risk assessments performed by a competent person appointed in writing, which risk assessments form part of the health and safety plan to be applied on the site and must include:

- The identification of the risks and hazards to which persons may be exposed to;
- An analysis and evaluation of the risks and hazards identified; based on a documented method
- A documented plan and applicable safe work procedures to mitigate, reduce or control the risks and hazards that have been identified;
- A monitoring plan; and
- A review plan

The Contractor must ensure that, as far as is reasonably practicable, ergonomic related hazards are analyzed, evaluated and addressed in a risk assessment.

The Contractor must ensure that all employees under his control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures and/or control measures **before any work commences** and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site.

The Principal Contractor must ensure that all contractors are informed regarding any hazard that is stipulated in the risk assessment before any work commences and thereafter at the times determined in the risk assessment monitoring and review plan of the relevant site.

The Contractor must consult with the health and safety committee or with a representative trade union or representative group of employees if no health and safety committee exists, on the monitoring and review of the risk assessments for the site.

The Contractor must ensure that copies of risk assessment for this site are available on site for inspection purposes by interested parties (inspector, the client, client's agent, any contractor, any employee, a representative trade union, a health and safety representative or safety committee member.

A Contractor must review the relevant risk assessment where changes are effected to the design and/or construction that result in a change to the risk profile, or when an incident has occurred.

Preventative measures must first address the elimination of the hazard or risk. Should PPE be required to reduce risk, the equipment or clothing to be used must be SABS approved.

In general, the Contractor must ensure that the Risk Assessment involves identifying the hazards present in a work activity on site. This is followed by an evaluation of the extent of the risk involved taking into account those precautions already being taken.

The following general principle should be followed when conducting a risk assessment:

- All relevant risks and/or hazards should be systematically addressed;
- The risk assessment should address what actually happens in the workplace during the work activity;
- All employees and those who may be affected must be considered, including maintenance staff, security

BMH AFRICA ENGINEER	RS				241
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



guards, visitors and subcontractors;

- The risk assessment should highlight those groups and individuals who may be required to work alone or who have disabilities:
- The risk assessment process should take into account the existing safety measures and controls.
- The level of detail on a risk assessment should be appropriate to the level of risk.

#### 2.11 Health and Safety Representative(s)

The Contractor shall ensure that Health and Safety Representative(s) is/are elected and trained to carry out his / her functions. The appointment must be in writing. The Health and Safety Representative shall carry out regular inspections, keep records and report to the supervisor to take appropriate action. He / she shall attend Health and Safety Committee Meetings. The Health and Safety Representative shall be part of the team that will investigate incidents, accidents and non-conformances.

#### 2.12 Health and Safety Committee

Where two or more health and safety representatives have been appointed on site, the Contractor shall ensure that monthly health and safety meetings are held with such representatives and minutes are kept on record. Meetings must be organized and chaired by the Contractor's Health and Safety Committee Chairperson. Minutes of these meetings must be available for the employees of the contractor to refer to.

#### 2.13 Medical Certificate of Fitness

The contractor must ensure that their employees on site have a valid medical certificate of fitness, specific to the construction work being performed, issued by an occupational health practitioner in the form of an Annexure 3 template (refer to the Construction Regulations 2014 on the Department of Labour website for a sample of this form).

# 2.14 Health and Safety Training

The Contractor shall quarterly conduct a training needs analysis to ascertain what health and safety training is required. A plan of action should be devised and forwarded to the Client for records. Once the identified people have attended the training, the Contractor must provide the Client with copies of certificates obtained.

#### 2.14.1 Induction

No Contractor may allow or permit any employee or person to enter site unless they have undergone health and safety induction training pertaining to the hazards prevalent on site at the time of entry. This includes visitors to site. The Contractor must ensure that visitors to site have the necessary protective equipment (PPE). A copy of attendance registers of all employees who attend inductions shall be kept.

#### 2.14.2 Awareness

The Contractor shall conduct periodic toolbox talks on site, preferably weekly or before any hazardous work takes place. The talks shall cover the relevant activity and an attendance register must be signed by all attendees. This record of who attended and the content of the topic will be kept on the site health and safety file as evidence of training.

#### 2.15 Competency

After the Contractor has identified the training to be conducted as part of the competency requirement, and based on Risk Assessment, he shall send the relevant persons on appropriate courses and keep certificates of training for reference. Familiarity with the Health and Safety Act and Regulations is an integral part of the definition of competence.

BMH AFRICA ENGINEER	S				242
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.16 General Record Keeping

The Contractor shall keep and maintain Health and Safety records to demonstrate compliance with the Health and Safety Specification and the Occupational Health and Safety Act. The contractor shall ensure that all records of incidents, spot fines, training etc. are kept on site. All documents shall be available for inspection by the Client, or the Department of Labour's Inspectors.

#### 2.17 General Inspection, Monitoring and Reporting

The Contractor shall carry out inspections as required by this Health and Safety Specification, as well as by health and safety legislation.

#### 2.18 Emergency Procedures

The Contractor shall submit a detailed Emergency Procedure for approval by the Client prior to commencement on site. The procedure shall detail the response plan including the following:

- List of key personnel;
- Details of emergency services;
- Actions or steps to be taken in the event of the emergency; and
- Information on hazardous materials / situations, including each material's hazardous potential impact or risk
  on the environment or human and measures to be taken in the event of an accident.

Emergency procedure(s) shall include, but shall not be limited to, fire, spills, accidents to employees, use of hazardous substances, dangers as a result of riot / service deliver protests / intimidation, etc. The Contractor shall advise the Client in writing of any on-site emergencies, together with a record of action taken, within 24 hours of the emergency occurring. A contact list of all service providers (Fire Department, Ambulance, Police, Medical and Hospital, etc.) must be maintained and available to site personnel.

## 2.19 First Aid Box and First Aid Equipment

The Contractor shall provide first aid box/es and appoint, in writing, First Aider(s) for this project in line with the results of the Contractor's risk assessment for the project, this health and safety specification as well as the provisions of the General Safety Regulations. The appointed First Aider(s) are to be sent for accredited first aid training before starting on site. Valid certificates are to be kept on site. First Aid box/es must be adequately stocked at all time, accessible and be controlled by a qualified First Aider. If required by the Client, the Contractor shall have a stretcher on site to be used in case of a serious incident.

#### 2.20 Accident / Incident Reporting and Investigation

The Contractor shall, in addition to the prescribed requirements of the Occupational Health and Safety Act and General Safety Regulations, investigate, record and report all Section 24 reportable incidents to the Client within 24 hours of the incident occurring. Incident investigations shall be conducted by the Contractor's appointed Accident Investigator — this Investigator must be a competent person or persons who have sufficient knowledge to carry out an investigation.

In the event of a fatality or a permanent disabling injury the Contractor must submit proof of reporting of incident to Department of Labour as well as proof of preventative measures to the Client. The Client reserves the right to conduct investigations into any incidents that they deem fit and the Contractor is required to provide full co-operation in this regard.

#### 2.21 Hazards and Potential Situations

The Contractor shall immediately notify other Contractors of any hazardous or potentially hazardous situations, which may arise during performance of the activities.

BMH AFRICA ENGINEERS	3				243
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.22 Occupational Health and Safety Signage

The Contractor shall ascertain and provide adequate on site health and safety signage. This signage shall include, but shall not be limited to, Hard Hat / Helmet Area; Safety Shoes to be worn on site; Dust Masks to be worn in areas where there might be exposure to excessive dust; Ear Plugs / Muffs to be worn where there might be noise exposure over 85 db; Gloves; Safety Goggles; Safety Harness, Workers in Excavation, traffic management, etc. In addition, the appropriate over coats, masks, eye protection / face shield to be worn during decontamination, decommissioning and commissioning procedures protecting them from toxic, oxidizing, flammable and corrosive chemicals, as well as TB bacilli. The Contractor shall be responsible to maintain the quality and replacement of signage.

#### 2.23 Management of Contractors by Principal Contractor

The Principal Contractor shall ensure that all contractors under his control are complying with the respective Health and Safety Plans, as well as Health and Safety Legislation.

## 2.24 Stacking of Materials

In addition to the provisions for the stacking of articles in the General Safety Regulations, 2003, the contractor must ensure that –

- a competent person is appointed in writing with the duty of supervising all stacking and storage on a construction site;
- adequate storage areas are provided;
- there are demarcated storage areas; and
- storage areas are kept neat and under control.

#### 2.25 Housekeeping and General Safeguarding on Construction Sites

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, promulgated by Government Notice No. R. 2281 of 16 October 1987, ensure that suitable housekeeping is continuously implemented on each construction site, including-

- the proper storage of materials and equipment;
- the removal of scrap, waste and debris at appropriate intervals;
- ensuring that materials required for use, are not placed on the site so as to obstruct means of access to and egress from workplaces and passageways;
- ensuring that materials which are no longer required for use, do not accumulate on and are removed from the site at appropriate intervals;
- ensuring that waste and debris are not disposed of from a high place with a
- chute, unless the chute complies with the requirements set out in the regulations;
- ensuring that construction sites in built-up areas adjacent to a public way are suitably and sufficiently fenced off and provided with controlled access points to
- prevent the entry of unauthorized persons; and
- ensuring that a catch platform or net is erected above an entrance or passageway or above a place where persons work or pass under, or fencing off
- the danger area if work is being performed above such entrance, passageway,
- or place so as to ensure that all persons are kept safe in the case of danger or possibility of persons being struck by falling objects.

BMH AFRICA ENGINEER:	S				244
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.26 Construction Vehicles and Mobile Plant

- A contractor must ensure that all construction vehicles and mobile plant-
- are of an acceptable design and construction;
- are maintained in a good working order;
- are used in accordance with their design and the intention for which they were designed, having due regard to safety and health;
- · are operated by a person who-
- has received appropriate training, is certified competent and in possession of proof of competency and is authorized in writing to operate those construction vehicles and mobile plant;
- has a medical certificate of fitness to operate those construction vehicles and mobile plant, issued by an occupational health practitioner in the form of Annexure 3.
- have safe and suitable means of access and egress;
- are properly organized and controlled in any work situation by providing adequate signaling or other control arrangements to guard against the dangers relating to the movement of vehicles and plant, in order to ensure their continued safe operation;
- are prevented from falling into excavations, water or any other area lower than the working surface by installing adequate edge protection, which may include guard-rails and crash barriers;
- are fitted with structures designed to protect the operator from falling material or from being crushed should the vehicle or mobile plant overturn;
- are equipped with an acoustic warning device which can be activated by the operator;
- are equipped with an automatic acoustic reversing alarm; and
- are inspected by the authorized operator or driver on a daily basis using a relevant checklist prior to use and that the findings of such inspection are recorded in a register kept in the construction vehicle or mobile plant.

#### A contractor must ensure that-

- no person rides or is required or permitted to ride on a construction vehicle or mobile plant otherwise than in a safe place provided thereon for that purpose;
- every construction site is organized in such a way that, as far as is reasonably practicable, pedestrians and vehicles can move safely and without risks to health;
- the traffic routes are suitable for the persons, construction vehicles or mobile plant using them, are sufficient in number, in suitable positions and of sufficient size;
- every traffic route is, where necessary, indicated by suitable signs;
- all construction vehicles and mobile plant left unattended at night, adjacent to a public road in normal use
  or adjacent to construction areas where work is in progress, have appropriate lights or reflectors, or
  barricades equipped with appropriate lights or reflectors, in order to identify the location of the vehicles or
  plant:
- all construction vehicles or mobile plant when not in use, have buckets, booms or similar appendages, fully lowered or blocked, controls in a neutral position, motors stopped, wheels chocked, brakes set and ignition secured;
- whenever visibility conditions warrant additional lighting, all mobile plant are equipped with at least two headlights and two taillights when in operation;
- tools, material and equipment are secured and separated by means of a physical barrier in order to prevent movement when transported in the same compartment with employees;
- vehicles used to transport employees have seats firmly secured and adequate for the number of employees to be carried; and
- all construction vehicles or mobile plant travelling, working or operating on public roads comply with the requirements of the National Road Traffic Act, 1996.

BMH AFRICA ENGINEER	S				245
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



· L & ·

#### 2.27 Electrical Installations and Machinery on Construction Sites

A contractor must, in addition to compliance with the Electrical Installation Regulations and the Electrical Machinery Regulations, ensure that –

- before construction commences and during the progress thereof, adequate steps are taken to ascertain the
  presence of and guard against danger to workers from any electrical cable or apparatus which is under,
  over or on the site;
- all parts of electrical installations and machinery are of adequate strength to withstand the working conditions
  on construction sites; the control of all temporary electrical installations on the construction site is designated
  to a competent person who has been appointed in writing for that purpose;
- all temporary electrical installations used by the contractor are inspected at least once a week by a competent person and the inspection findings are recorded in a register kept on the construction site; and
- all electrical machinery is inspected by the authorized operator or user on a daily basis using a relevant checklist prior to use and the inspection findings are recorded in a register kept on the construction site.

# 2.28 Use and Temporary Storage of Flammable Liquids on Construction Sites

A contactor must, in addition to compliance with the provisions for the use and storage of flammable liquids in the General Safety Regulations, 2003, ensure that –

- where flammable liquids are being used, applied or stored at the workplace concerned, it is done in a manner that does not cause a fire or explosion hazard, and that the workplace is effectively ventilated;
- no person smokes in any place in which flammable liquid is used or stored, and the contractor must affix a suitable and conspicuous notice at all entrances to any such areas prohibiting such smoking;
- an adequate amount of efficient fire-fighting equipment is installed in suitable locations around the flammable liquids store with the recognized symbolic signs;
- only the quantity of flammable liquid needed for work on one day is taken out of the store for use;
- all containers holding flammable liquids are kept tightly closed when not in actual use and, after their contents have been used up, are removed from the construction site and safely disposed of;
- where flammable liquids are decanted, the metal containers are bonded and earthed; and
- no flammable material, including cotton waste, paper, cleaning rags or similar material is stored together with flammable liquids

## 2.29 Water environments

Not applicable to this project.

#### 2.30 Fire precautions on Construction Sites

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987, ensure that:

- all appropriate measures are taken to avoid the risk of fire;
- sufficient and suitable storage is provided for flammable liquids, solids and gases;
- smoking is prohibited and notices in this regard are prominently displayed in all places containing readily combustible or flammable materials;
- in confined spaces and other places in which flammable gases, vapours or dust can cause danger;
- only suitably protected electrical installations and equipment, including portable lights, are used;
- there are no flames or similar means of ignition;
- there are conspicuous notices prohibiting smoking;
- oily rags, waste and other substances liable to ignite are without delay removed to a safe place; and adequate ventilation is provided;

BMH AFRICA ENGINEER		246			
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



LE

- combustible materials do not accumulate on the construction site;
- welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire:
- suitable and sufficient fire-extinguishing equipment is placed at strategic locations or as may be recommended by the Fire Chief or local authority concerned, and that such equipment is maintained in a good working order;
- the fire equipment contemplated above is inspected by a competent person, who has been appointed in writing for that purpose, in the manner indicated by the manufacturer thereof;
- a sufficient number of workers are trained in the use of fire- extinguishing equipment;
- where appropriate, suitable visual signs are provided to clearly indicate the escape routes in the case of a fire:
- the means of escape is kept clear at all times;
- there is an effective evacuation plan providing for all
  - o persons to be evacuated speedily without panic;
  - persons to be accounted for;
  - plant and processes to be shut down; and
- a siren is installed and sounded in the event of a fire.

#### 2.31 Construction Employees' Facilities

A contractor must, in terms of the Construction Regulations 2014, provide:

- Shower facilities after consultation with the employees or employee's representatives, or at least one shower facility for every 15 persons;
- at least one sanitary facility for each sex and for every 30 workers;
- changing facilities for each sex;
- and sheltered eating area.

A contractor must provide reasonable and suitable living accommodation for the workers at construction sites who are far removed from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

### 2.32 Fall protection -

Not applicable to this project.

#### 2.33 Temporary works

Not applicable to this project.

#### 2.34 Excavation

A contractor must ensure that all excavation work is carried out under the supervision of a competent person who has been appointed in writing for that purpose; and evaluate, as far as is reasonably practicable, the stability of the ground before excavation work begins. Comply with the rest of these regulations.

#### 2.35 Demolition Work

Not applicable to this project.

#### 2.36 Tunneling

Not applicable to this project.

BMH AFRICA ENGINEERS					247
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.37 Scaffolding

Not applicable to this project.

#### 2.38 Bulk mixing plant

Not applicable to this project.

#### 2.39 Rope Access Work

Not applicable to this project.

#### 2.40 Hazardous Chemical Substances (HCS)

In addition to the requirements in the HCS Regulations, the principal contractor must provide proof in the Health and Safety Plan that:

- Material Safety Data Sheets (MSDS"s) of the relevant materials / hazardous chemical substances are available prior to use by the contractor. All MSDS"s shall be available for inspection by the agent at all times.
- Risk assessments are done at least once every 8 months.
- Exposure monitoring is done according to OESSM and by an Approved
- Inspection Authority (AIA) and that the medical surveillance programme is based on the outcomes of the
  exposure monitoring.
- How the relevant HCS's are being/going to be controlled by referring to:
  - Limiting the amount of HCS
  - Limiting the number of employees
  - Limiting the period of exposure
  - Substituting the HCS
  - Using engineering controls
  - Using appropriate written work procedures
- The correct PPE is being used.
- HCS are stored and transported according to SABS 072 and 0228.
- Training with regards to these regulations was given.

The Health and Safety plan should make reference to the disposal of hazardous waste on classified sites and the location thereof (where applicable).

The First Aider must be made aware of the MSDS and trained in how to treat HCS incidents appropriately.

PLEASE NOTE THAT THIS PREMISES CONTAINS HAZARDOUS CHEMICAL SUBSTANCES AND HAZARDOUS BIOLOGICAL AGENTS THAT WILL BE REQUIRED TO BE DECONTAMINATED BY THE CONTRACTOR, AND DISPOSED OF IN ACCORDANCE WITH WASTE MANAGEMENT REGULATIONS AND THE CLIENT'S REQUIREMENTS, AND ALL NECESSARY CERTIFICATION HANDED OVER TO THE CLIENT TO PROVIDE PROOF THEREOF.

#### 2.41 Noise Induced Hearing Loss

Where noise is identified as a hazard the requirements of the NIHL regulations must be complied with and the following must be included / referred to in the Health and Safety Plan:

- Proof of training with regards to these regulations.
- Risk assessment done within 1 month of commencement of work.
- That monitoring carried out by an AIA and done according to SABS 083.
- Medical surveillance programme established and maintained for the necessary employees.

BMH AFRICA ENGINEERS	S				248
Qualitative.	When	When	Factors	When	Minus
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



L E .

- Control of noise by referring to:
- · Engineering methods considered
- Admin control (number of employees exposed) considered
- · Personal protective equipment considered/decided on
- Describe how records are going to be kept for 40 years.

#### 2.42 Explosives and Blasting

Not applicable to this project.

#### 2.43 Personal Protective Equipment (PPE)

The Contractor shall carry out PPE or clothing needs analysis in accordance with his risk assessment, to determine the necessary PPE or clothing to be used during construction. The Contractor shall make provision and keep adequate quantities of SABS approved PPE or clothing on site at all times.

The Contractor must ensure that personnel are trained in the correct use of PPE to be used.

The Contractor must ensure that lost, stolen, worn out or damaged PPE is replaced as required and receipt signed for by employees on site. (See also section 2.22)

#### 2.44 Asbestos

Contractor to note that this is not thought to be applicable to this project but it cannot be said to be a qualified statement due to the age of the building. If the contractor comes into contact with any materials or substances that could be thought to contain asbestos then the project management team must be notified immediately and work halted in the area until the legal requirements are in place. Only contractors registered with Department of Labour as asbestos registered contractors may work with asbestos.

#### 2.45 Pressure Vessels (Including Gas Bottles)

The Principal Contractor and all relevant Contractors shall comply with the Pressure Equipment Regulations, including:

- Providing competency and awareness training to the operators;
- Providing PPE or clothing
- Inspect equipment regularly and keep records of inspections
- Providing appropriate firefighting equipment (Fire Extinguishers) on hand
- Provided the compressed air lance with a dead man's handle or similar device to ensure that it does not injure any one when it is dropped accidently when under pressure.

### 2.46 Fire Extinguishers and Fire Fighting Equipment

The Contractor shall provide adequate, regularly serviced fire extinguishers located at strategic points on site. The Contractor shall keep spare serviced portable fire extinguishers. The Contractor shall have adequate persons trainedor competent to use the Fire Fighting Equipment.

Safety signage shall be posted up in all areas where fire extinguishers are located.

#### 2.47 Lifting Machinery and Tackle

The Contractor shall ensure that lifting machinery and tackle is inspected before use and on a monthly basis. The Contractor shall have lifting machinery and tackle inspector who will inspect the equipment at intervals required by the Driven Machinery Regulations, taking into account that:

- · All lifting machinery and tackle have a safe working load clearly indicated;
- Regular inspection and servicing is carried out;

BMH AFRICA ENGINEER	RS .				249
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



- Records are kept of inspections and of service certificates;
- Thorough examinations are carried out by competent personnel at the frequencies required by legislation
- There is proper supervision in terms of guiding the loads which includes a trained banks man to direct and check lifting tackle if it is safe for use.

#### 2.48 Ladders and Ladder work

The Contractor shall ensure that all ladders are numbered and inspected regularly keeping record of inspections. It should be noted that Aluminum ladders are preferred to wooden ladders.

#### 2.49 General Machinery

The Contractor shall comply with the Driven Machinery Regulations, which include inspecting machinery regularly, appointing a competent person to inspect and ensure maintenance, issuing PPE or clothing and training those that use machinery and enforce compliance.

#### 2.50 Portable Electrical Tools

The Contractor shall ensure that use and storage of all explosive actuating fastening devices and portable electrical tools are in compliance with relevant legislation.

The Contractor shall consider that:

- A competent person undertakes routine inspections;
- Only authorized persons use the tools;
- There are safe working procedures applied;
- Awareness training is carried out and compliance is enforced at all times; and
- PPE and clothing is provided and maintained.

#### 2.51 High Voltage Electrical Equipment

The Contractor shall ensure that, where the work is under, on or near high-voltage electrical equipment the Electrical Installation Regulations, together with safety instructions (Regulations of the Owner of the Equipment) are complied with. Such equipment includes:

- Eskom and the Local Authority equipment
- The Contractor's own power supply; and
- Electrical equipment being installed but not yet taken over from a Contractor by The Client.

#### 2.52 Public Health and Safety

The Contractor shall ensure that each person working on or visiting a site, and the surrounding community, shall be made aware of the dangers likely to arise from on-site activities and the precautions to be observed to avoid or minimize those dangers. Appropriate health and safety signage shall be posted at all times.

# 2.53 Night Work

Not applicable to this project.

#### 2.54 Environmental Conditions and Flora and Fauna

The Contractor must be mindful of adverse weather conditions upon the health and safety of the workforce. This includes inclement weather, strong wind, heat stress, extreme cold, etc. The Contractor's risk assessment process must take into account the risks associated with such weather conditions. The same is true when working in an environment where there is a risk to employees" health and safety from presence of poisonous flora, or wildlife (including bees, snakes, etc.). The Contractor's risk assessment process must take these risks into account.

BMH AFRICA ENGINEEF	RS				250
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.55 Occupational Health

Exposure of workers to occupational health hazards and risks are very common in any work environment, especially in construction. Occupational health hazards and risks exposure is a major problem and all Contractors are to ensure that proper health and hygiene measures are put in place to prevent exposure to these hazards and risks.

The occupational hazards and risks may enter the body in three ways:

- Inhalation through breathing e.g. cement dust; contaminated air-borne droplets and filters; chemicals fumes
- Ingestion through swallowing maybe through food intake; unhygienic practices, and handling of contaminated filters and materials
- Absorption through the skin (pores) e.g. painting or use of thinners; chemicals used during decontamination

The contractor is required to ensure that all his personnel are medically fit prior to being allowed onto the work site.

All Contractors should ensure that Occupational Hygiene surveys are conducted as per the Occupational Health and Safety Act to ensure employees are not exposed to hazards. Risk Assessments should identify areas where surveys are to be conducted.

#### 2.56 Suspended Platforms

Not applicable to this project.

#### 2.57 Material Hoists

Not applicable to this project.

#### 2.58 Explosive Actuated Fastening Device

The Principal Contractor shall ensure that use and storage of all explosive actuated fastening devices and portable electrical tools are in compliance with relevant legislation. The Principal Contractor shall ensure that all-electrical tools, electrical distribution boards, extension leads, and plugs are kept in safe working order.

Regular inspections and toolbox talks must be conducted to make workers aware of the dangers and control measures to be implemented e.g. personal protection equipment, guards, etc.

The Principal Contractor shall consider the following:

- A competent person undertakes routine inspections and records are kept;
- Only authorized trained persons use the tools;
- The safe working procedures apply;
- Awareness training is carried out and compliance is enforced at all times; and
- PPE and clothing are provided and maintained.
- Signs to be posted up in the areas where explosive actuated fastening devices are being used.

### 2.59 Public and Site Visitor Health and Safety

The Principal Contractor shall ensure that every person working on or visiting the site, as well as the public in general, shall be made aware of the dangers likely to arise from site activities, including the precautions to be taken to avoid or minimize those dangers. Appropriate health and safety notices and signs shall be posted up, but shall not be the only measure taken.

Both the Client and the Principal Contractor have a duty in terms of the OHS Act 85/1993 to do all that is reasonably practicable to prevent members of the public and site visitors from being affected by the contractor's activities. Site visitors must be briefed on the hazards and risks they may be exposed to and what measures are in place or should be taken to control these hazards and risks. A record of these inductions must be kept on site in accordance with the Construction Regulations.

BMH AFRICA ENGINEERS					251
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.60 PERMITS

Permits may be required for certain activities and these are not limited to but may include the following:

- Use of Explosives and Blasting
- Work for which a fall prevention plan is required
- Removal of asbestos materials.
- Disposal of (old type) fire detectors with radioactive elements.
- Decanting/handling of Ammonia.

If and where applicable, the Employer will issue to the Principal Contractor, permits and log books (which log books shall thereafter be kept up to date by the Principal Contractor

All of the above are to be documented in the H&S plan

#### 2.61 Lockout Systems - Electrical

A system of control shall be established in order that no unauthorized person can energize a circuit, open a valve, or activate a machine on which people are working or doing maintenance, even if equipment, plant or machinery is out of commission for any period, thus eliminating injuries and damage to people and equipment as far as is reasonably practicable.

Physical/mechanical lock-out systems shall be part of the safety system and included in training. Lockouts shall be tagged and the system tested before commencing with any work or repairs.

#### 2.62 Hot Works

A contractor must, in addition to compliance with the Environmental Regulations for Workplaces, 1987 and Construction Regulations 2014, ensure that- welding, flame cutting and other hot work are done only after appropriate precautions have been taken to reduce the risk of fire;

# 2.63 Hired Plant and machinery

The Principal Contractor shall ensure that any hired plant and machinery used on site is safe for use. The necessary requirements as stipulated by the OHS Act 85/1993 and Construction Regulations (February 2014) shall apply. The Principal Contractor shall ensure that operators hired with machinery are competent and that certificates are kept on site in the health & safety file. All relevant Contractors must ensure the same.

### 2.64 Transport of Workers

The Principal Contractor and other Contractors shall not:

- Transport persons together with goods or tools unless there is an appropriate area of section to store them and all loose tool and plant are tied down and secured;
- Transport persons in a non-enclosed vehicle, e.g. truck; there must be a proper canopy (properly covering the back and top) with suitable sitting area. Workers shall not be permitted to stand or sit at the edge of the transporting vehicle.
- Transport workers in LDV unless they are closed/ covered and have the correct number of seats for the passengers.

BMH AFRICA ENGINEERS					252
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2



#### 2.65 Welfare Facilities

A contractor shall, depending on the number of workers and the duration of the work, provide at or within reasonable access of every construction site, the following clean and maintained facilities:

- a) at least one shower facility for every 15 workers;
- b) at least one sanitary facility for every 30 workers;
- c) changing facilities for each sex; and
- d) sheltered eating areas.

A contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

## 2.66 Alcohol and Other Drugs

- An employer or a user, as the case may be, shall not permit any person who is or who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at a workplace.
- No person at a workplace shall be under the influence of or have in his possession or partake of or offer any other person intoxicating liquor or drugs.
- An employer or user, as the case may be, shall in the case where a person is taking medicines, only allow such person to perform duties at the workplace if the side effects of such medicine do not institute a threat to the health or safety of the person concerned or other persons at such workplace.

#### 2.67 Copy of the Act and Regulations

Every employer with five or more persons in his employ shall have a copy of the Act and the relevant regulations readily available at the work place: Provided that, where the total number of employees is less than five, the employer shall, on request of an employee, make a copy of the Act available to that employee.

#### 2.68 Other Acts and Laws that may apply

The contractor's attention is directed to the following Acts that may be applicable and must be adhered to at all times. It is the contractor's responsibility to become conversant with the requirements applicable in these laws:

Compensation for Occupational Injuries and Diseases ACT 130 of 1993, Water Act No. 54 of 1956, and Atmospheric Pollution Prevention Act No. 45 of 1965, Occupational Health and Safety Act No. 85 of 1993, Environmental Conservation Act No. 73 of 1989. Hazardous Substances Act No.15 of 1973, National Building Regulations and Building Standards Act No.103 of 1977, National Environmental Management Act No. 107 of 1998, National Road Traffic Act No. 93 of 1996, National Water Act No. 36 of 1998, Relevant By-laws.

BMH AFRICA ENGINEERS						
Contractor	Witness 1	Witness 2	Employer	Witness 1	Witness 2	



L E .

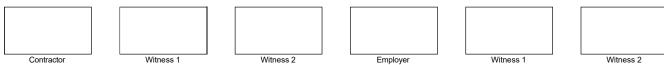
2.69 ACCEPTANCE OF COND	ITIONS OF THESE SPE	ECIFICATIONS						
The contractor must provide	a certified copy of his	Public Liability insurar	nce when signing t	this document.				
I,the Co	the Contractor, do hereby declare that my companyacknowledge							
having read and understood the	e conditions contained in	this legal document and	d furthermore we a	gree and accept				
to abide by the conditions and r	equirements of the act.							
SIGNATUE CONTRACTOR:		DATE						
SIGNATUE WITNESS		PRINT NAME:						
AGENT ACTING ON BEHALF	OF THE CLIENT:							
NAME:		_DATE						
SIGNATUE:								
SIGNATUE WITNESS		PRINT NAME:						
INDEMNIFICATION								
The Contractor hereby certifi	es that all contracting	workmen recognize t	he inherent hazar	ds that exist on				
whatsoever nature ag mandatories in respec- act or omission on the part of agents and/or manda	ntirely at his/her own ainst ct of any loss, damage a of tories or other independent materials supplied b	, (Cli and/or injury whether s endent Contractors or	ient) its employeessame is the result(contractor), if	s, agents and/o of any negligen it's employees on or by way o				
Hereby indemnifies		(Clie	ent), its employees	s, agents and/o				
mandatories against	any claims from the C	Contractor's employee	s and/or from an	y other person				
arising and being cau	sed in the manner set	out above						
BMH AFRICA ENGINEERS				254				
Contractor Witness 1	Witness 2	Employer	Witness 1	Witness 2				



# **PART C4: SITE INFORMATION**

SITE INFORMATION & LOCALITY PLAN......255 C4.1

255 **BMH AFRICA ENGINEERS** 



Witness 1 Witness 2 Witness 1 Witness 2 Employer



# C4.1 SITE INFORMATION & LOCALITY PLAN

# **SITE INFORMATION:**

Site information is incorporated in C3 Scope of Work.

# **LOCALITY PLAN:**



Huhudi is located approximately 2km South of Vryburg.

BMH AFRICA ENGINEERS 256

 Contractor
 Witness 1
 Witness 2
 Employer
 Witness 1
 Witness 2

# C4.2 DRAWINGS

