

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021



**SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI)**

**Contract No: SANBI G408/2021**

**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE  
REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED  
GLASSHOUSE INFRASTRUCTURE FOR THE SOUTH AFRICAN NATIONAL  
BIODIVERSITY INSTITUTE (SANBI) AT THE KIRSTENBOSCH NATIONAL BOTANICAL  
GARDEN, CAPE TOWN**

**PROCUREMENT DOCUMENT**

**NOVEMBER 2021**

**Issued by:**

South African National Biodiversity Institute  
Private Bag X101  
Silverton  
0184  
Gauteng

**Prepared by:**

Virtual Consulting Engineers VCE (Pty) Ltd  
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**Contact:**

Supply Chain Management

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**Contact:**

Mr M.S. Ishmail

Tel: 021 685 0789

E-mail: [shahien@virtualconsulting.co.za](mailto:shahien@virtualconsulting.co.za)

**Name of tenderer:** .....

**Address:** .....

**Tel no.:** ..... **Fax no.:** .....

**Email:** .....

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## PART T: THE TENDER

### Part T1: Tendering Procedures

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

|                          |                         |                         |                         |
|--------------------------|-------------------------|-------------------------|-------------------------|
| <b>Advertising date:</b> | <b>19 November 2021</b> | <b>Closing date:</b>    | <b>13 December 2021</b> |
| <b>Closing time:</b>     | <b>11:00</b>            | <b>Validity period:</b> | <b>90 days</b>          |

#### T1.1 Tender Notice and Invitation to Tender

**THE SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE INVITES TENDERERS FOR THE PROVISION OF:** The appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the SANBI at the Kirstenbosch National Botanical Garden, Cape Town

**Tender documents will be available** as from **19 November 2021** and will be available **ONLINE ONLY** on the SANBI website [www.sanbi.org](http://www.sanbi.org) (click on "Opportunities").

SANBI is committed to the health and safety of all bidders and staff members and reducing the spread of COVID-19. As a result, with guidance from regulations published by the National Department of Health, **no briefing session or site inspection will be held.**

Bidders are encouraged to direct all technical and bidding procedure enquiries to the email address below.

Department: Supply Chain Management  
Email: [Sanbi.Tenders@sanbi.org.za](mailto:Sanbi.Tenders@sanbi.org.za)  
Cc: [shahien@virtualconsulting.co.za](mailto:shahien@virtualconsulting.co.za) & [A.Hendricks@sanbi.org.za](mailto:A.Hendricks@sanbi.org.za)  
Cut-off date for enquiries: **6 December 2021 at 12:00**

Any queries regarding the tender document or any related matter prior to submission of tenders must be directed to:

|                                                          |                                                                                                                                                    |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SANBI Representative<br/>(Technical Queries Only)</b> | Virtual Consulting Engineers VCE (Pty) Ltd<br>021 685 0789<br><a href="mailto:shahien@virtualconsulting.co.za">shahien@virtualconsulting.co.za</a> |
| <b>SANBI SCM Representative</b>                          | <a href="mailto:sanbi.tenders@sanbi.org.za">sanbi.tenders@sanbi.org.za</a>                                                                         |

The closing time and date for the receipt of tenders is **11:00 on 13 December 2021.**

The tenders will **NOT** be opened in public (please note that the two-envelope system is being followed). Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in the Tender Data.

## PART T: THE TENDER

### Part T1: Tendering Procedures

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

### T1.2 Tender Data

The conditions of tender are the Standard Conditions of Tender as contained in Annex C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts – August 2019. (See [www.cidb.org.za](http://www.cidb.org.za)).

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

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

| <b>Clause number</b> | <b>Tender Data</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C.1.1.1              | <p>The Employer is: South African National Biodiversity Institute (SANBI):</p> <p>The Employer's <i>domicilium citandi et executandi</i> (permanent physical business address) is:<br/>Pretoria National Botanical Garden<br/>2 Cussonia Avenue<br/>Biodiversity Centre<br/>Brummeria,<br/>Pretoria</p> <p>The Employer's address for communication relating to this project is:<br/>Private Bag X101<br/>Silverton<br/>0184</p>                                                                                                                                                                                                                                                                                                   |
| C.1.2                | <p>The Tender Documents issued by the Employer comprise the following documents:</p> <p><b>PART T: THE TENDER</b><br/> <b>Part T1: Tendering procedures</b><br/> T1.1 - Tender notice and invitation to tender<br/> T1.2 - Tender data<br/> <b>Part T2: Returnable documents</b><br/> T2.1 - List of returnable documents<br/> T2.2 - Returnable documents/schedules</p> <p><b>PART C: THE CONTRACT</b><br/> <b>Part C1: Agreements and Contract data</b><br/> C1.1 - Form of offer and acceptance<br/> C1.2 - Contract data<br/> C1.3 - Construction guarantee<br/> C1.4 - Occupational Health &amp; Safety Agreement 37(2)<br/> <b>Part C2: Pricing Data</b><br/> C2.1 - Pricing Instructions<br/> C2.2 - Bill of Quantities</p> |

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

| Clause number | Tender Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <p><b>Part C3: Scope of Works</b><br/> C3.1 - Description of the works<br/> C3.2 - Construction</p> <p><b>Part C4: Site Information</b><br/> C4.1 - Site location</p> <p><b>Annexures</b><br/> Annexure A - Specifications<br/> Annexure B - Drawings</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| C.1.4         | <p>The employer's agent is:</p> <p>Virtual Consulting Engineers VCE (Pty) Ltd<br/> <b>Contact Person:</b> Mr M.S. Ishmail<br/> <b>Tel:</b> 021 685 0789<br/> <b>E-mail:</b> <a href="mailto:shahien@virtualconsulting.co.za">shahien@virtualconsulting.co.za</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| C.2.1         | <p>Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders<br/> Only those tenderers who score the minimum score in respect of the quality criteria stated in C.3.11.1 of this Tender Data shall be considered responsive and have their tenders evaluated further.</p> <p>(a) CIDB registration<br/> Only those tenderers who are registered with the CIDB or are capable of being so prior to the evaluation of submissions, in a contractor grading designation equal to or higher than a contractor grading designation determined in accordance with the sum tendered, or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations, for a <b>4 GB</b> class of construction work, are eligible to have their tenders evaluated.</p> <p>Joint ventures are eligible to submit tenders provided that:</p> <ol style="list-style-type: none"> <li>every member of the joint venture is registered with the CIDB;</li> <li>the lead partner has a contractor grading designation in the <b>3 GB</b> class of construction work; and</li> <li>the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a <b>4 GB</b> class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.</li> </ol> <p>(b) National Treasury Central Supplier Database<br/> Tenderers who are not registered on the National Treasury Central Supplier Database at close of tender, shall submit a copy of their application of registration, with their tender submission. Tenders received from such tenderers who have not submitted proof of their registration within 21 days after the closing date for tender submissions, will not be considered.</p> |
| C.2.6         | <p>Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of clause C.3.8.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| C.2.7         | <p>The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender.</p> <p>Tenderers must sign the attendance list in the name of the tendering entity. Addenda will be issued to and tenders will be received only from those tendering entities appearing on the attendance list</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| C.2.8         | <p>Request clarifications at least 7 working days before the closing time.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

| Clause number | Tender Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C.2.12        | <p>Main tender offers are required to be submitted together with alternative tenders.</p> <p>If a tenderer wishes to submit an alternative tender offer, the only criteria permitted for such alternative tender offer is that it demonstrably satisfies the Employer's standards and requirements, the details of which may be obtained from the Employer's Agent.</p> <p>Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal.</p> <p>Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements.</p> <p>The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs in confirming the acceptability of the detailed design.</p>                                                                 |
| C.2.13.6      | <p>A two-envelope procedure will be followed as described in clause C.2.13.7.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| C.2.13.7      | <p>Tenderers shall note the specific requirements for packaging of their tender documents and include only the following:</p> <ul style="list-style-type: none"><li>• Financial: one (1) original document marked "Original" <b>including</b> Form of Offer and Acceptance, Estimated monthly expenditure and Priced Bills of Quantities; and</li><li>• Technical: one (1) document pack <b><u>without any</u></b> pricing on a <b><u>memory stick</u></b></li></ul> <p>Financial or pricing details should <b>ONLY</b> be included in the printed document pack marked '<b>ORIGINAL</b>', and not in the PDF file(s) of the document(s) on the memory stick.<br/><b>NB:</b> Failure to submit one printed document pack with pricing in one envelope, and a document pack without pricing on a memory stick will lead to your bid being <b>disqualified</b>.</p> <p><b>INCLUSION OF ANY PRICING INFORMATION ANYWHERE ON THE MEMORY STICK WILL LEAD TO THE BID BEING DISQUALIFIED.</b></p> <p>The original document will be placed in one envelope and the memory stick will be placed in another envelope. The two envelopes shall be placed together in an outer envelope sealed and bearing the following:</p> <ul style="list-style-type: none"><li>• The address as stated in C.2.15.1 below</li><li>• The identification details as stated in C.2.15.1 below</li><li>• Name of the Tenderer</li><li>• The words "Not be opened before the Tender opening"</li></ul> <p>The Technical and Financial envelopes should also contain the details of the last three bullets on them. The financial envelope must contain the words <b>NOT TO BE OPENED WITH THE TECHNICAL ENVELOPE</b></p> |
| C.2.13.9      | <p>Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

| Clause number | Tender Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| C.2.15.1      | <p>The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are:</p> <p><b>Location of Tender box:</b> Biodiversity Centre</p> <p><b>Physical address:</b> Pretoria National Botanical Garden<br/>2 Cussonia Avenue<br/>Brummeria<br/>Pretoria</p> <p><b>Identification details:</b> <b>Tender number: SANBI G408/2021</b></p> <p><b>Title of Tender:</b> <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| C.2.15.2      | The closing time for submission of tender offers is as stated in the Tender Notice and Invitation to Tender.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| C.2.16.1      | The tender offer validity period is 90 days.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| C.2.16.3      | <p>Where a tenderer, at any time after the opening of his tender offer but prior to entering into a contract based on his tender offer:</p> <ol style="list-style-type: none"> <li>(1) withdraws his tender;</li> <li>(2) gives notice of his inability to execute the contract in terms of his tender; or</li> <li>(3) fails to comply with a request made in terms of C.2.17, C.2.18 or C.3.9</li> </ol> <p>such tenderer shall be barred from tendering on any of the Employer's future tenders for a period to be determined by the Employer, but not less than six (6) months, from the date of tender closure. The Employer may fully or partly exempt a tenderer from the provisions of this condition if he is of the opinion that the circumstances justify the exemption</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| C.2.18        | The tenderer shall, when requested by the Employer to do so, submit the names of all management and supervisory staff that will be employed to supervise the Labour-Intensive portion of the works together with satisfactory evidence that such staff members satisfy the eligibility requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| C.2.22        | Tender Documents will <b>not be returned</b> to bidders                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| C.2.23        | <p>The tenderer is required to submit with his/her tender, the following <b>(failure to provide below documentation will result in the tender being rejected)</b>:</p> <ol style="list-style-type: none"> <li>1) <b>A copy of the Central Suppliers Database (CSD) registration report or registration number.</b></li> <li>2) <b>A printed copy of the Active Contractor's Listing off the CIDB website (<a href="http://www.cidb.org.za">www.cidb.org.za</a>)</b></li> <li>3) <b>UIF compliance demonstrated by submission of one of the following:</b> <ul style="list-style-type: none"> <li>• <b>A valid copy of the UIF Letter of Compliance issued by the Department of Labour, or</b></li> <li>• <b>Labour uFiling Employer Statement of Account indicating UIF payments or accruals not older than 12 months, or</b></li> <li>• <b>SARS eFiling Employer Statement of Account indicating UIF payments or accruals not older than 12 months, or</b></li> <li>• <b>Valid proof of exemption for UIF.</b></li> </ul> </li> <li>4) <b>Letter of Good Standing from the office of the Compensation Commissioner as required by the Compensation for Occupational Injuries and Diseases Act (COIDA). The letter should be issued by the Department of Labour.</b></li> </ol> |

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

| Clause number | Tender Data                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | 5) <b>A valid certified copy or original Broad-Based Black Economic Empowerment (B-BBEE) Status Level 1 certificate. Note that for this tender, the following pre-qualification criterion for preferential procurement will be applied: Section 4(1) a Tenderer having a B-BBEE status level of contributor Level 1. In case of a Joint Venture, bidders are required to submit consolidated B-BBEE certificate or sworn affidavit, as well as joint venture agreement that clearly outlines each party's percentage involvement or role.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| C.3.1.1       | The Employer shall respond to clarifications received up to 7 working days before the tender closing time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| C.3.2         | The Employer shall issue addenda until 5 working days before the tender closing time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| C.3.4.1       | The tenders will not be opened in public.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| C.3.5.1       | The two-envelope system will be followed for this Tender.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| C.3.7         | In the event of disqualification, the Employer may, at his sole discretion, impose a specified period during which tender offers will not be accepted from the offending tenderer and report same to the CIDB and National Treasury.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| C.3.11.1      | The procedure for the evaluation of responsive tenders is stated in <b>Annexure A</b> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| C.3.13        | <p>In addition to the requirements of the Condition of Tender, offers will only be accepted if:</p> <ol style="list-style-type: none"> <li>the tenderer submits <b>a copy of the CSD registration report or registration number</b> (refer to T2.1.13);</li> <li>the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation (refer to T2.1.12);</li> <li>the tenderer or any of its directors/shareholders is not listed on the Register of Tender Defaulters in terms of the Prevention and Combating of Corrupt Activities Act of 2004 as a person prohibited from doing business with the public sector (refer to SBD 8 – T2.1.17);</li> <li>the tenderer has not (refer to SBD 8 – T2.1.17): <ol style="list-style-type: none"> <li>abused the Employer's Supply Chain Management System; or</li> <li>failed to perform on any previous contract and has been given a written notice to this effect;</li> </ol> </li> <li>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 and persons in the employ of the state are permitted to submit tenders or participate in the contract (refer to T2.1.16);</li> <li>the tenderer is registered and in good standing with the compensation fund issued by the Department of Labour (Letter of good standing with COIDA);</li> <li>the employer is reasonably satisfied that the tenderer has in terms of the Construction Regulations, 2014, issued in terms of the Occupational Health and Safety Act, 1993, the necessary competencies and resources to carry out the work safely.</li> <li>UIF compliance demonstrated by submission of one of the following: <ul style="list-style-type: none"> <li>A valid copy of the UIF Letter of Compliance issued by the Department of Labour, or</li> <li>Labour uFiling Employer Statement of Account indicating UIF payments or accruals not older than 12 months, or</li> <li>SARS eFiling Employer Statement of Account indicating UIF payments or accruals not older than 12 months, or</li> <li>Valid proof of exemption for UIF.</li> </ul> </li> <li>A valid certified copy or original Broad-Based Black Economic Empowerment (B-BBEE) Status Level 1 certificate. Note that for this tender, the following pre-qualification criterion for preferential procurement will be applied: Section 4(1) a Tenderer having a B-BBEE status level of contributor Level 1. In case of a Joint Venture, bidders are required to submit consolidated BBBEE certificate or sworn affidavit, as well as joint venture agreement that clearly outlines each party's percentage involvement or role.</li> </ol> |

## **Annexure A**

This annexure contains all the criteria that the Employer shall use to evaluate tenders. In accordance with clause C.3.11 of the Standard conditions of tender. No other factors, methods or criteria shall be used. The tenderer shall provide all the information requested in the forms included in Part T2.2 – Returnable schedules.

Tenders shall be evaluated in three stages as follows

- Stage 1 – Evaluation of Eligibility and Administrative compliance
- Stage 2 – Evaluation of Functionality
- Stage 3 – Evaluation of Tender Price and Preference

### **1 Stage 1: Eligibility and Administrative compliance**

The first stage will determine whether bids are compliant with all mandatory and disqualifiable submission requirements. Bidders that are deemed compliant will be eligible for further evaluation.

The criteria as identified in Clauses C.2.23 and C.3.13 in the Tender Data will be used to determine the tenders eligibility.

For administrative compliance the tenderers must complete all the returnable forms in Part T2.2, the Bill of Quantities and the Offer section in Part C1.1.

### **2 Stage 2: Functionality**

The tenderers who complied with the eligibility and administrative criteria in stage 1 are considered for further evaluation on their capability to execute the project.

In this stage tenders will be evaluated on functionality according to the criteria listed below. Tenderers who fail to score a minimum of 70 points out of a possible 100 points on functionality criteria will not be eligible for further consideration.

#### **Scoring quality**

The functionality (quality) evaluation criteria are listed below. Maximum points for each criterion are in bold while points for each sub-criterion are indicated in brackets.

| FUNCTIONALITY CRITERIA |                                                                                                                                                                                                    |                    |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| ID                     | CRITERIA                                                                                                                                                                                           | POINTS             |
| 1                      | Implementation method and project plan or programme <ul style="list-style-type: none"><li>Method to be followed in delivering this project</li><li>Weekly plan/programme with milestones</li></ul> | 25<br>(15)<br>(10) |
| 2                      | Contractor's Experience <ul style="list-style-type: none"><li>Three reference letters regarding work of similar scope and scale completed in the last five years</li></ul>                         | 35                 |
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**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

|                                              | <ul style="list-style-type: none"><li>List of at least five other similar projects with telephonic references and indicating value of works completed in the last ten years</li></ul> <table><tr><th>Sub-Criteria</th><th>Points</th></tr><tr><td>One Project</td><td>4</td></tr><tr><td>Two Projects</td><td>8</td></tr><tr><td>Three Projects</td><td>12</td></tr><tr><td>Four Projects</td><td>16</td></tr><tr><td>Five Projects</td><td>20</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Sub-Criteria | Points | One Project                                 | 4 | Two Projects                                | 8  | Three Projects                               | 12 | Four Projects                                | 16 | Five Projects                                | 20 | (20)                              |
|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------|---------------------------------------------|---|---------------------------------------------|----|----------------------------------------------|----|----------------------------------------------|----|----------------------------------------------|----|-----------------------------------|
| Sub-Criteria                                 | Points                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| One Project                                  | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Two Projects                                 | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Three Projects                               | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Four Projects                                | 16                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Five Projects                                | 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| 3                                            | <p>Contractor's Resources – Personnel and Plant</p> <p>Proposed personnel:</p> <ul style="list-style-type: none"><li>CV for proposed key personnel <b>(at least 3)</b> indicating:<ul style="list-style-type: none"><li>Previous work experience of similar projects</li><li>Total number of years' working experience in construction</li><li>Individual experience on similar work in last five years</li><li>Qualifications or artisan's certification or other recognised training courses completed</li><li>Membership of professional bodies or guilds</li></ul></li></ul> <table><tr><th>Sub-Criteria</th><th>Points</th></tr><tr><td>Combined CV experience of less than 5 years</td><td>6</td></tr><tr><td>Combined CV experience of more than 5 years</td><td>12</td></tr><tr><td>Combined CV experience of more than 10 years</td><td>18</td></tr><tr><td>Combined CV experience of more than 15 years</td><td>24</td></tr><tr><td>Combined CV experience of more than 20 years</td><td>30</td></tr></table> <p>Plant:</p> <ul style="list-style-type: none"><li>Equipment owned by contractor or to be rented (if any)</li></ul> | Sub-Criteria | Points | Combined CV experience of less than 5 years | 6 | Combined CV experience of more than 5 years | 12 | Combined CV experience of more than 10 years | 18 | Combined CV experience of more than 15 years | 24 | Combined CV experience of more than 20 years | 30 | <p>40</p> <p>(30)</p> <p>(10)</p> |
| Sub-Criteria                                 | Points                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Combined CV experience of less than 5 years  | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Combined CV experience of more than 5 years  | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Combined CV experience of more than 10 years | 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Combined CV experience of more than 15 years | 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| Combined CV experience of more than 20 years | 30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |
| TOTAL                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 100          |        |                                             |   |                                             |    |                                              |    |                                              |    |                                              |    |                                   |

Functionality shall be scored by not less than three evaluators in accordance with the following schedules:

Each evaluation criterion will be assessed in terms of five indicators – no response, poor, satisfactory, acceptable, good and very good. Scores ranging from 0 to 5 will be allocated to no response, very poor, poor, acceptable, good and very good responses, respectively. The scores submitted by each of the evaluators will be averaged, weighted and then totalled to obtain the final score for functionality. The prompts for judgment and the associated scores used in the evaluation of quality shall be as follows:

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| Score | Prompt for judgement                                                                                                                                                 |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0     | Failed to address the question / issue                                                                                                                               |
| 1     | Very poor response: - response / answer / solution lacks convincing evidence of skill / experience sought or medium risk that relevant skills will not be available. |
| 2     | Poor response – some elements of the response / answer / solution are present but documentary evidence is mostly lacking in respect of the required information      |
| 3     | Acceptable response / answer / solution to the particular aspect of the requirements and evidence given of skill / experience sought                                 |
| 4     | Above acceptable - response / answer / solution demonstrating real understanding of requirements and evidence of ability to meet it.                                 |
| 5     | Excellent - response / answer / solution provides confidence that the tenderer will add real value to the project.                                                   |

The minimum number of evaluation points for functionality proposal is **70 points** in order to progress to stage 3 of the evaluation

### 3 Stage 3: Tender Price and Preference

The tenderers who complied with the functionality criteria in stage 2 are considered for further evaluation in terms of their Tender Price and Preference points.

#### 3.1 Correction of arithmetical errors

Pursuant to clause C.3.9 of the standard conditions of tender as amended in the Tender Data, correction of arithmetical errors shall be undertaken.

#### 3.2 Calculation of score for Tender Price

The score for Tender Price shall be calculated using the following formula:

$$N_F = W_f \times \left[ 1 - \left( \frac{P_t - P_{min}}{P_{min}} \right) \right]$$

Where:

$N_F$  = the score for Tender Price awarded for the tender under consideration

$W_f$  = the weighting given to financial offer, determined as follows:

- 90 where the Tender Price, inclusive of VAT, of all responsive tender offers received has a value in excess of R50 000 000,00; or
- 80 where the Tender Price, inclusive of VAT, of one or more responsive tender offers has a value that equals or is less than R50 000 000,00.

$P_t$  = Tender Price of the tender under consideration

$P_{min}$  = Tender Price of the lowest responsive tender

In the event that the calculated value of  $N_F$  is negative, the allocated score shall be 0

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**3.3 Calculation of Preference points**

Up to 100 minus  $W_f$  tender evaluation points will be awarded to tenderers who submit responsive tenders and who are found to be eligible for the preference claimed. Points are based on a tenderer's scorecard measured in terms of the Broad-Based Black Economic Empowerment Act (B-BBEE, Act 53 of 2003) and the Regulations (2017) to the Preferential Procurement Policy Framework Act (PPPFA, Act 5 of 2000).

Points awarded will be according to a tenderer's B-BBEE status level of contributor and summarised in the table below:

| <b>B-BBEE Status Level of contributor</b> | <b>Qualification</b>  | <b>Number of Points for Contract value up to R50 000 000</b> | <b>Number of Points for Contract Value above R50 000 000</b> |
|-------------------------------------------|-----------------------|--------------------------------------------------------------|--------------------------------------------------------------|
| 1                                         | ≥ 100 points          | 20                                                           | 10                                                           |
| 2                                         | ≥ 85 but < 100 points | 18                                                           | 9                                                            |
| 3                                         | ≥ 75 but < 85 points  | 14                                                           | 6                                                            |
| 4                                         | ≥ 65 but < 75 points  | 12                                                           | 5                                                            |
| 5                                         | ≥ 55 but < 65 points  | 8                                                            | 4                                                            |
| 6                                         | ≥ 45 but < 55 points  | 6                                                            | 3                                                            |
| 7                                         | ≥ 40 but < 45 points  | 4                                                            | 2                                                            |
| 8                                         | ≥ 30 but < 40 points  | 2                                                            | 1                                                            |
| Non-compliant Contributor                 | < 30 points           | 0                                                            | 0                                                            |

Eligibility for preference points is subject to the following conditions:

- (1) A tenderer's scorecard shall be based on the Construction Sector Codes of Practice promulgated in Government Gazette 32305 of 5 June 2009, only if such certificate has been issued before 17 February 2016, alternatively a B-BBEE Certificate issued in accordance with the revised Notice of Clarification published in Notice 444 of 2015 of Government Gazette No.38799 on 15 May 2015 by the Department of Trade and Industry; and
- (2) The scorecard shall be submitted as a certificate attached to Returnable Schedule Form T2.1.06; and
- (3) The certificate shall:
  - (a) be an original or an original certified copy of the original; and
  - (b) have been issued by a verification agency accredited by the South African National Accreditation System (SANAS); or
  - (c) have been issued by a registered auditor approved by the Independent Regulatory Board of Auditors (IRBA), and
- (4) The Verification Certificate must be valid at the tender closing date; and
- (5) The date of issue of the certificate must be less than 12 (twelve) months prior to the advertised tender closing date (see Tender Data C.2.15.2); and
- (6) Compliance with any other information requested to be attached to Form T2.1.06; and
- (7) If a tenderer claims a preference score without submitting an acceptable verification certificate, a period of 24 hours will be granted to submit an acceptable verification certificate which was valid at date of tender closure; and
- (8) Failure to submit a valid verification certificate will result in the award of 0 (zero) points for preference; and
- (9) In the event of a joint venture (JV), a consolidated B-BBEE verification certificate in the name of the JV shall be submitted.

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**3.4 Financial and Preference**

After calculation of the scores for Tender Price and for Preference, a combined score will be calculated as follows:

$$NT = NF + NP$$

Where:

NT = Total score for tender under consideration

NF = Score for Tender Price

NP = Score for Preference

The tender with the highest score should be recommended for appointment.

## Annexure C

### Standard Conditions of Tender

#### C.1 General

##### C.1.1 Actions

C.1.1.1 The employer and each tenderer submitting a tender offer shall comply with these conditions of tender. In their dealings with each other, they shall discharge their duties and obligations as set out in C.2 and C.3, timeously and with integrity, and behave equitably, honestly and transparently, comply with all legal obligations and not engage in anticompetitive practices.

C.1.1.2 The employer and the tenderer and all their agents and employees involved in the tender process shall avoid conflicts of interest and where a conflict of interest is perceived or known, declare any such conflict of interest, indicating the nature of such conflict. Tenderers shall declare any potential conflict of interest in their tender submissions. Employees, agents and advisors of the employer shall declare any conflict of interest to whoever is responsible for overseeing the procurement process at the start of any deliberations relating to the procurement process or as soon as they become aware of such conflict and abstain from any decisions where such conflict exists or recuse themselves from the procurement process, as appropriate.

Note:

- 1) *A conflict of interest may arise due to a conflict of roles which might provide an incentive for improper acts in some circumstances. A conflict of interest can create an appearance of impropriety that can undermine confidence in the ability of that person to act properly in his or her position even if no improper acts result.*
- 2) *Conflicts of interest in respect of those engaged in the procurement process include direct, indirect or family interests in the tender or outcome of the procurement process and any personal bias, inclination, obligation, allegiance or loyalty which would in any way affect any decisions taken.*

C.1.1.3 The employer shall not seek and a tenderer shall not submit a tender without having a firm intention and the capacity to proceed with the contract.

##### C.1.2 Tender Documents

The documents issued by the employer for the purpose of a tender offer are listed in the tender data.

##### C.1.3 Interpretation

C.1.3.1 The tender data and additional requirements contained in the tender schedules that are included in the returnable documents are deemed to be part of these conditions of tender.

C.1.3.2 These conditions of tender, the tender data and tender schedules which are required for tender evaluation purposes, shall form part of any contract arising from the invitation to tender.

C.1.3.3 For the purposes of these conditions of tender, the following definitions apply:

- a) **conflict of interest** means any situation in which:
  - i) someone in a position of trust has competing professional or personal interests which make it difficult to fulfil his or her duties impartially;
  - ii) an individual or tenderer is in a position to exploit a professional or official capacity in some way for their personal or corporate benefit; or
  - iii) incompatibility or contradictory interests exist between an employee and the tenderer who employs that employee.
- b) **comparative offer** means the price after the factors of a non-firm price and all unconditional discounts it can be utilised to have been taken into consideration;
- c) **corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of the employer or his staff or agents in the tender process;

- d) **fraudulent practice** means the misrepresentation of the facts in order to influence the tender process or the award of a contract arising from a tender offer to the detriment of the employer, including collusive practices intended to establish prices at artificial levels;

#### **C.1.4 Communication and employer's agent**

Each communication between the employer and a tenderer shall be to or from the employer's agent only, and in a form that can be readily read, copied and recorded. Communications shall be in the English language. The employer shall not take any responsibility for non-receipt of communications from or by a tenderer. The name and contact details of the employer's agent are stated in the tender data.

#### **C.1.5 Cancellation and Re-Invitation of Tenders**

C.1.5.1 An employer may, prior to the award of the tender, cancel a tender if-

- a) due to changed circumstances, there is no longer a need for the engineering and construction works specified in the invitation;
- b) funds are no longer available to cover the total envisaged expenditure; or
- c) no acceptable tenders are received.
- d) there is a material irregularity in the tender process.

C.1.5.2 The decision to cancel a tender invitation must be published in the same manner in which the original tender invitation was advertised

C.1.5.3 An employer may only with the prior approval of the relevant treasury cancel a tender invitation for the second time.

#### **C.1.6 Procurement procedures**

##### **C.1.6.1 General**

Unless otherwise stated in the tender data, a contract will, subject to C.3.13, be concluded with the tenderer who in terms of C.3.11 is the highest ranked or the tenderer scoring the highest number of tender evaluation points, as relevant, based on the tender submissions that are received at the closing time for tenders.

##### **C.1.6.2 Competitive negotiation procedure**

C.1.6.2.1 Where the tender data require that the competitive negotiation procedure is to be followed, tenderers shall submit tender offers in response to the proposed contract in the first round of submissions. Notwithstanding the requirements of C.3.4, the employer shall announce only the names of the tenderers who make a submission. The requirements of C.3.8 relating to the material deviations or qualifications which affect the competitive position of tenderers shall not apply.

C.1.6.2.2 All responsive tenderers or at least a minimum of not less than three responsive tenderers that are highest ranked in terms of the evaluation criteria stated in the tender data shall be invited to enter into competitive negotiations based on the principle of equal treatment, keeping confidential the proposed solutions and associated information.

Notwithstanding the provisions of C.2.17, the employer may request that tenders be clarified, specified and fine-tuned in order to improve a tenderer's competitive position provided that such clarification, specification, fine-tuning or additional information does not alter any fundamental aspects of the offers or impose substantial new requirements which restrict or distort competition or have a discriminatory effect.

C.1.6.2.3 At the conclusion of each round of negotiations, tenderers shall be invited by the employer to revise their tender offer based on the same evaluation criteria, with or without adjusted weightings. Tenderers shall be advised when they are to submit their best and final offer.

C.1.6.2.4 The contract shall be awarded in accordance with the provisions of C.3.11 and C.3.13 after tenderers have been requested to submit their best and final offer.

**C.1.6.3 Proposal procedure using the two stage-system**

**C.1.6.3.1 Option 1**

Tenderers shall in the first stage submit technical proposals and, if required, cost parameters around which a contract may be negotiated. The employer shall evaluate each responsive submission in terms of the method of evaluation stated in the tender data, and in the second stage negotiate a contract with the tenderer scoring the highest number of evaluation points and award the contract in terms of these conditions of tender.

**C.1.6.3.2 Option 2**

C.1.6.3.2.1 Tenderers shall submit in the first stage only technical proposals. The employer shall invite all responsive tenderers to submit tender offers in the second stage, following the issuing of procurement documents.

C.1.6.3.2.2 The employer shall evaluate tenders received during the second stage in terms of the method of evaluation stated in the tender data, and award the contract in terms of these conditions of tender.

**C.2 Tenderer's obligations**

**C.2.1 Eligibility**

C.2.1.1 Submit a tender offer only if the tenderer satisfies the criteria stated in the tender data and the tenderer, or any of his principals, is not under any restriction to do business with employer.

C.2.1.2 Notify the employer of any proposed material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used by the employer as the basis in a prior process to invite the tenderer to submit a tender offer and obtain the employer's written approval to do so prior to the closing time for tenders.

**C.2.2 Cost of tendering**

C.2.2.1 Accept that, unless otherwise stated in the tender data, the employer will not compensate the tenderer for any costs incurred in the preparation and submission of a tender offer, including the costs of any testing necessary to demonstrate that aspects of the offer comply with requirements.

C.2.2.2 The cost of the tender documents charged by the employer shall be limited to the actual cost incurred by the employer for printing the documents. Employers must attempt to make available the tender documents on its website so as not to incur any costs pertaining to the printing of the tender documents.

**C.2.3 Check documents**

Check the tender documents on receipt for completeness and notify the employer of any discrepancy or omission.

**C.2.4 Confidentiality and copyright of documents**

Treat as confidential all matters arising in connection with the tender. Use and copy the documents issued by the employer only for the purpose of preparing and submitting a tender offer in response to the invitation.

**C.2.5 Reference documents**

Obtain, as necessary for submitting a tender offer, copies of the latest versions of standards, specifications, conditions of contract and other publications, which are not attached but which are incorporated into the tender documents by reference.

**C.2.6 Acknowledge addenda**

Acknowledge receipt of addenda to the tender documents, which the employer may issue, and if necessary apply for an extension to the closing time stated in the tender data, in order to take the addenda into account.

**C.2.7 Clarification meeting**

Attend, where required, a clarification meeting at which tenderers may familiarize themselves with aspects of the proposed work, services or supply and raise questions. Details of the meeting(s) are stated in the tender data.

**C.2.8 Seek clarification**

Request clarification of the tender documents, if necessary, by notifying the employer at least five (5) working days before the closing time stated in the tender data.

**C.2.9 Insurance**

Be aware that the extent of insurance to be provided by the employer (if any) might not be for the full cover required in terms of the conditions of contract identified in the contract data. The tenderer is advised to seek qualified advice regarding insurance.

**C.2.10 Pricing the tender offer**

C.2.10.1 Include in the rates, prices, and the tendered total of the prices (if any) all duties, taxes except Value Added Tax (VAT), and other levies payable by the successful tenderer, such duties, taxes and levies being those applicable fourteen (14) days before the closing time stated in the tender data.

C.2.10.2 Show VAT payable by the employer separately as an addition to the tendered total of the prices.

C.2.10.3 Provide rates and prices that are fixed for the duration of the contract and not subject to adjustment except as provided for in the conditions of contract identified in the contract data.

C.2.10.4 State the rates and prices in Rand unless instructed otherwise in the tender data. The conditions of contract identified in the contract data may provide for part payment in other currencies.

**C.2.11 Alterations to documents**

Do not make any alterations or additions to the tender documents, except to comply with instructions issued by the employer, or necessary to correct errors made by the tenderer. All signatories to the tender offer shall initial all such alterations.

**C.2.12 Alternative tender offers**

C.2.12.1 Unless otherwise stated in the tender data, submit alternative tender offers only if a main tender offer, strictly in accordance with all the requirements of the tender documents, is also submitted as well as a schedule that compares the requirements of the tender documents with the alternative requirements that are proposed.

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

C.2.12.3 An alternative tender offer must only be considered if the main tender offer is the winning tender.

**C.2.13 Submitting a tender offer**

C.2.13.1 Submit one tender offer only, either as a single tendering entity or as a member in a joint venture to provide the whole of the works identified in the contract data and described in the scope of works, unless stated otherwise in the tender data.

C.2.13.2 Return all returnable documents to the employer after completing them in their entirety, either electronically (if they were issued in electronic format) or by writing legibly in non-erasable ink.

C.2.13.3 Submit the parts of the tender offer communicated on paper as an original plus the number of copies stated in the tender data, with an English translation of any documentation in a language other than English, and the parts communicated electronically in the same format as they were issued by the employer.

C.2.13.4 Sign the original and all copies of the tender offer where required in terms of the tender data. The employer will hold all authorized signatories liable on behalf of the tenderer. Signatories for tenderers proposing to contract as joint ventures shall state which of the signatories is the lead partner whom the employer shall hold liable for the purpose of the tender offer.

C.2.13.5 Seal the original and each copy of the tender offer as separate packages marking the packages as "ORIGINAL" and "COPY". Each package shall state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.6 Where a two-envelope system is required in terms of the tender data, place and seal the returnable documents listed in the tender data in an envelope marked "financial proposal" and place the remaining returnable documents in an envelope marked "technical proposal". Each envelope shall

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state on the outside the employer's address and identification details stated in the tender data, as well as the tenderer's name and contact address.

C.2.13.7 Seal the original tender offer and copy packages together in an outer package that states on the outside only the employer's address and identification details as stated in the tender data.

C.2.13.8 Accept that the employer will not assume any responsibility for the misplacement or premature opening of the tender offer if the outer package is not sealed and marked as stated.

C.2.13.9 Accept that tender offers submitted by facsimile or e-mail will be rejected by the employer, unless stated otherwise in the tender data.

### **C.2.14 Information and data to be completed in all respects**

Accept that tender offers, which do not provide all the data or information requested completely and in the form required, may be regarded by the employer as non-responsive.

### **C.2.15 Closing time**

C.2.15.1 Ensure that the employer receives the tender offer at the address specified in the tender data not later than the closing time stated in the tender data. Accept that proof of posting shall not be accepted as proof of delivery.

C.2.15.2 Accept that, if the employer extends the closing time stated in the tender data for any reason, the requirements of these conditions of tender apply equally to the extended deadline.

### **C.2.16 Tender offer validity**

C.2.16.1 Hold the tender offer(s) valid for acceptance by the employer at any time during the validity period stated in the tender data after the closing time stated in the tender data.

C.2.16.2 If requested by the employer, consider extending the validity period stated in the tender data for an agreed additional period with or without any conditions attached to such extension.

C.2.16.3 Accept that a tender submission that has been submitted to the employer may only be withdrawn or substituted by giving the employer's agent written notice before the closing time for tenders that a tender is to be withdrawn or substituted. If the validity period stated in C.2.16 lapses before the employer evaluating tender, the contractor reserves the right to review the price based on Consumer Price Index (CPI).

C.2.16.4 Where a tender submission is to be substituted, a tenderer must submit a substitute tender in accordance with the requirements of C.2.13 with the packages clearly marked as "SUBSTITUTE".

### **C.2.17 Clarification of tender offer after submission**

Provide clarification of a tender offer in response to a request to do so from the employer during the evaluation of tender offers. This may include providing a breakdown of rates or prices and correction of arithmetical errors by the adjustment of certain rates or item prices (or both). No change in the competitive position of tenderers or substance of the tender offer is sought, offered, or permitted.

**Note:** *Sub-clause C.2.17 does not preclude the negotiation of the final terms of the contract with a preferred tenderer following a competitive selection process, should the Employer elect to do so.*

### **C.2.18 Provide other material**

C.2.18.1 Provide, on request by the employer, any other material that has a bearing on the tender offer, the tenderer's commercial position (including notarized joint venture agreements), preferencing arrangements, or samples of materials, considered necessary by the employer for the purpose of a full and fair risk assessment.

Should the tenderer not provide the material, or a satisfactory reason as to why it cannot be provided, by the time for submission stated in the employer's request, the employer may regard the tender offer as non-responsive.

C.2.18.2 Dispose of samples of materials provided for evaluation by the employer, where required.

### **C.2.19 Inspections, tests and analysis**

Provide access during working hours to premises for inspections, tests and analysis as provided for in the tender data.

**C.2.20 Submit securities, bonds and policies**

If requested, submit for the employer's acceptance before formation of the contract, all securities, bonds, guarantees, policies and certificates of insurance required in terms of the conditions of contract identified in the contract data.

**C.2.21 Check final draft**

Check the final draft of the contract provided by the employer within the time available for the employer to issue the contract.

**C.2.22 Return of other tender documents**

If so instructed by the employer, return all retained tender documents within twenty-eight (28) days after the expiry of the validity period stated in the tender data.

**C.2.23 Certificates**

Include in the tender submission or provide the employer with any certificates as stated in the tender data.

**C.3 The employer's undertakings**

**C.3.1 Respond to requests from the tenderer**

C.3.1.1 Unless otherwise stated in the tender Data, respond to a request for clarification received up to five (5) working days before the tender closing time stated in the Tender Data and notify all tenderers who collected tender documents.

C.3.1.2 Consider any request to make a material change in the capabilities or formation of the tendering entity (or both) or any other criteria which formed part of the qualifying requirements used to prequalify a tenderer to submit a tender offer in terms of a previous procurement process and deny any such request if as a consequence:

- a) an individual firm, or a joint venture as a whole, or any individual member of the joint venture fails to meet any of the collective or individual qualifying requirements;
- b) the new partners to a joint venture were not prequalified in the first instance, either as individual firms or as another joint venture; or
- c) in the opinion of the Employer, acceptance of the material change would compromise the outcome of the prequalification process.

**C.3.2 Issue Addenda**

If necessary, issue addenda that may amend or amplify the tender documents to each tenderer during the period from the date that tender documents are available until three (3) working days before the tender closing time stated in the Tender Data. If, as a result a tenderer applies for an extension to the closing time stated in the Tender Data, the Employer may grant such extension and, shall then notify all tenderers who collected tender documents.

**C.3.3 Return late tender offers**

Return tender offers received after the closing time stated in the Tender Data, unopened, (unless it is necessary to open a tender submission to obtain a forwarding address), to the tenderer concerned.

**C.3.4 Opening of tender submissions**

C.3.4.1 Unless the two-envelope system is to be followed, open valid tender submissions in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data. Tender submissions for which acceptable reasons for withdrawal have been submitted will not be opened.

C.3.4.2 Announce at the meeting held immediately after the opening of tender submissions, at a venue indicated in the tender data, the name of each tenderer whose tender offer is opened and, where applicable, the total of his prices, number of points claimed for its BBBEE status level and time for completion for the main tender offer only.

C.3.4.3 Make available the record outlined in C.3.4.2 to all interested persons upon request.

**C.3.5 Two-envelope system**

C.3.5.1 Where stated in the tender data that a two-envelope system is to be followed, open only the technical proposal of valid tenders in the presence of tenderers' agents who choose to attend at the time and place stated in the tender data and announce the name of each tenderer whose technical proposal is opened.

C.3.5.2 Evaluate functionality of the technical proposals offered by tenderers, then advise tenderers who remain in contention for the award of the contract of the time and place when the financial proposals will be opened. Open only the financial proposals of tenderers, who score in the functionality evaluation more than the minimum number of points for functionality stated in the tender data, and announce the score obtained for the technical proposals and the total price and any points claimed on BBBEE status level. Return unopened financial proposals to tenderers whose technical proposals failed to achieve the minimum number of points for functionality.

**C.3.6 Non-disclosure**

Not disclose to tenderers, or to any other person not officially concerned with such processes, information relating to the evaluation and comparison of tender offers, the final evaluation price and recommendations for the award of a contract, until after the award of the contract to the successful tenderer.

**C.3.7 Grounds for rejection and disqualification**

Determine whether there has been any effort by a tenderer to influence the processing of tender offers and instantly disqualify a tenderer (and his tender offer) if it is established that he engaged in corrupt or fraudulent practices.

**C.3.8 Test for responsiveness**

C.3.8.1 Determine, after opening and before detailed evaluation, whether each tender offer properly received:

- a) complies with the requirements of these Conditions of Tender,
- b) has been properly and fully completed and signed, and
- c) is responsive to the other requirements of the tender documents.

C.3.8.2 A responsive tender is one that conforms to all the terms, conditions, and specifications of the tender documents without material deviation or qualification. A material deviation or qualification is one which, in the Employer's opinion, would:

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

Reject a non-responsive tender offer, and not allow it to be subsequently made responsive by correction or withdrawal of the non-conforming deviation or reservation.

**C.3.9 Arithmetical errors, omissions and discrepancies**

C.3.9.1 Check responsive tenders for discrepancies between amounts in words and amounts in figures. Where there is a discrepancy between the amounts in figures and the amount in words, the amount in words shall govern.

C.3.9.2 Check the highest ranked tender or tenderer with the highest number of tender evaluation points after the evaluation of tender offers in accordance with C.3.11 for:

- a) the gross misplacement of the decimal point in any unit rate;
- b) omissions made in completing the pricing schedule or bills of quantities; or
- c) arithmetic errors in:
  - (i) line item totals resulting from the product of a unit rate and a quantity in bills of quantities or schedules of prices; or

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(ii) the summation of the prices.

C.3.9.3 Notify the tenderer of all errors or omissions that are identified in the tender offer and either confirm the tender offer as tendered or accept the corrected total of prices.

C.3.9.4 Where the tenderer elects to confirm the tender offer as tendered, correct the errors as follows:

- a) If bills of quantities or pricing schedules apply and there is an error in the line item total resulting from the product of the unit rate and the quantity, the line item total shall govern and the rate shall be corrected. Where there is an obviously gross misplacement of the decimal point in the unit rate, the line item total as quoted shall govern, and the unit rate shall be corrected.
- b) Where there is an error in the total of the prices either as a result of other corrections required by this checking process or in the tenderer's addition of prices, the total of the prices shall govern and the tenderer will be asked to revise selected item prices (and their rates if bills of quantities apply) to achieve the tendered total of the prices.

**C.3.10 Clarification of a tender offer**

Obtain clarification from a tenderer on any matter that could give rise to ambiguity in a contract arising from the tender offer.

**C.3.11 Evaluation of tender offers**

The Standard Conditions of Tender standardize the procurement processes, methods and procedures from the time that tenders are invited to the time that a contract is awarded. They are generic in nature and are made project specific through choices that are made in developing the Tender Data associated with a specific project.

Conditions of tender are by definition the document that establishes a tenderer's obligations in submitting a tender and the employer's undertakings in soliciting and evaluating tender offers. Such conditions establish the rules from the time a tender is advertised to the time that a contract is awarded and require employers to conduct the process of offer and acceptance in terms of a set of standard procedures.

| <b>The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:</b> |                                                                                                                                                                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Requirement</b>                                                                                                                | <b>Qualitative interpretation of goal</b>                                                                                                                                                                                      |
| Fair                                                                                                                              | The process of offer and acceptance is conducted impartially without bias, providing simultaneous and timely access to participating parties to the same information.                                                          |
| Equitable                                                                                                                         | Terms and conditions for performing the work do not unfairly prejudice the interests of the parties.                                                                                                                           |
| Transparent                                                                                                                       | The only grounds for not awarding a contract to a tenderer who satisfies all requirements are restrictions from doing business with the employer, lack of capability or capacity, legal impediments and conflicts of interest. |
| Competitive                                                                                                                       | The system provides for appropriate levels of competition to ensure cost effective and best value outcomes.                                                                                                                    |
| Cost effective                                                                                                                    | Cost effective                                                                                                                                                                                                                 |

**The activities associated with evaluating tender offers are as follows:**

- a) Open and record tender offers received
- b) Determine whether or not tender offers are complete
- c) Determine whether or not tender offers are responsive
- d) Evaluate tender offers
- e) Determine if there are any grounds for disqualification
- f) Determine acceptability of preferred tenderer
- g) Prepare a tender evaluation report
- h) Confirm the recommendation contained in the tender evaluation report

**C.3.11.1 General**

The employer must appoint an evaluation panel of not less than three persons conversant with the proposed scope of works to evaluate each responsive tender offer using the tender evaluation methods and associated evaluation criteria and weightings that are specified in the tender data.

**C.3.12 Insurance provided by the employer**

If requested by the proposed successful tenderer, submit for the tenderer's information the policies and / or certificates of insurance which the conditions of contract identified in the contract data, require the employer to provide.

**C.3.13 Acceptance of tender offer**

Accept the tender offer; if in the opinion of the employer, it does not present any risk and only if the tenderer:

- a) is not under restrictions, or has principals who are under restrictions, preventing participating in the employer's procurement;
- b) can, as necessary and in relation to the proposed contract, demonstrate that he or she possesses the professional and technical qualifications, professional and technical competence, financial resources, equipment and other physical facilities, managerial capability, reliability, experience and reputation, expertise and the personnel, to perform the contract;
- c) has the legal capacity to enter into the contract;
- d) is not; insolvent, in receivership, under Business Rescue as provided for in chapter 6 of the Companies Act No. 2008, bankrupt or being wound up, has his/her affairs administered by a court or a judicial officer, has suspended his/her business activities or is subject to legal proceedings in respect of any of the foregoing;
- e) complies with the legal requirements, if any, stated in the tender data; and
- f) is able, in the opinion of the employer, to perform the contract free of conflicts of interest.

**C.3.14 Prepare contract documents**

C.3.14.1 If necessary, revise documents that shall form part of the contract and that were issued by the employer as part of the tender documents to take account of:

- a) addenda issued during the tender period,
- b) inclusion of some of the returnable documents and
- c) other revisions agreed between the employer and the successful tenderer.

C.3.14.2 Complete the schedule of deviations attached to the form of offer and acceptance, if any.

**C.3.15 Complete adjudicator's contract**

Unless alternative arrangements have been agreed or otherwise provided for in the contract, arrange for both parties to complete formalities for appointing the selected adjudicator at the same time as the main contract is signed.

**C.3.16 Registration of the award**

An employer must, within twenty-one (21) working days from the date on which a contractor's offer to perform a construction works contract is accepted in writing by the employer, register and publish the award on the CIDB Register of Projects.

**C.3.17 Provide copies of the contracts**

Provide to the successful tenderer the number of copies stated in the Tender Data of the signed copy of the contract as soon as possible after completion and signing of the form of offer and acceptance.

**C.3.18 Provide written reasons for actions taken**

Provide upon request written reasons to tenderers for any action that is taken in applying these conditions of tender but withhold information which is not in the public interest to be divulged, which is considered to prejudice the legitimate commercial interests of tenderers or might prejudice fair competition between tenderers.

## **PART T: THE TENDER**

### **Part T2: Returnable Documents**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

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

##### **1. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES**

| <b>Tender document name</b>                                                                | <b>Number of pages issued</b> | <b>Returnable document</b> |
|--------------------------------------------------------------------------------------------|-------------------------------|----------------------------|
| Resolution of Board of Directors (T2.1.01)                                                 | 1 Page                        | ■ Yes □ No                 |
| Resolution of Board of Directors to enter into consortia or JV's (T2.1.02) (If Applicable) | 2 Pages                       | ■ Yes □ No                 |
| Special Resolution of Consortia or JV's (T2.1.03) (If Applicable)                          | 3 Pages                       | ■ Yes □ No                 |
| Schedule of proposed sub-contractors (T2.1.04)                                             | 1 Page                        | ■ Yes □ No                 |
| Capacity of Tenderer (T2.1.05)                                                             | 3 Pages                       | ■ Yes □ No                 |
| Preference Point System (T2.1.06)                                                          | 6 Pages                       | ■ Yes □ No                 |
| Resources to be employed in terms of organization and staffing (T2.1.07)                   | 2 Pages                       | ■ Yes □ No                 |
| Estimated Monthly Expenditure (T2.1.08)                                                    | 1 Page                        | ■ Yes □ No                 |
| Compensation of Occupational Injuries and Disease Act (COIDA) (T2.1.18)                    | 1 Page                        | ■ Yes □ No                 |
| Unemployment Insurance Fund (UIF) (T2.1.19)                                                | 1 Page                        | ■ Yes □ No                 |

## 2. OTHER DOCUMENTS REQUIRED FOR TENDER EVALUATION PURPOSES

| Tender document name                                                            | Number of pages issued | Returnable document                                                 |
|---------------------------------------------------------------------------------|------------------------|---------------------------------------------------------------------|
| Declaration of Interest (T2.1.10)                                               | 2 Pages                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Medical Certificate for the confirmation of permanent disabled status (T2.1.11) | 1 Page                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Proof of registration with Construction Industry Development Board (T2.1.12)    | 1 Page                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Copy of CSD Registration Certificate (T2.1.14)                                  | 1 Page                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Financial Reference (T2.1.15)                                                   | 1 Page                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Equipment Datasheets (T2.1.20)                                                  | 1 Page                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Proof of Liability Insurance (T2.1.22)                                          | 1 Page                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| SBD 6.2 Local Content Declaration and Annexures B, C, D & E                     | 7 Pages                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

## 3. RETURNABLE SCHEDULES THAT WILL BE INCORPORATED INTO THE CONTRACT

| Tender document name                            | Number of pages issued | Returnable document                                                 |
|-------------------------------------------------|------------------------|---------------------------------------------------------------------|
| Record of Addenda to Tender Documents (T2.1.16) | 1 Page                 | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Compulsory Enterprise Questionnaire (T2.1.17)   | 3 Pages                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

## 4. OTHER DOCUMENTS THAT WILL BE INCORPORATED INTO THE CONTRACT

| Tender document name         | Number of pages issued | Returnable document                                                 |
|------------------------------|------------------------|---------------------------------------------------------------------|
| Applicable Form of Guarantee | 3 Pages                | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Priced Bill of Quantities    | 37 Pages               | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

|                                                           |
|-----------------------------------------------------------|
| <b>C1.1 Offer portion of Form of Offer and Acceptance</b> |
| <b>C1.2 Contract Data (Part 2)</b>                        |
| <b>C1.3 Form of Guarantee</b>                             |

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**RETURNABLE DOCUMENT CHECKLIST**

This form has been created as an aid to ensure a tenderer's compliance with the completion of the returnable schedules and subsequent placement in the correct **Technical** and **Financial** envelopes.

**A TECHNICAL ENVELOPE (1 COPY)**

| Reference No | Document Description                                                             | Tick if completed |
|--------------|----------------------------------------------------------------------------------|-------------------|
| T2.1.01      | Resolution of Board of Directors                                                 |                   |
| T2.1.02      | Resolution of Board of Directors to enter into consortia or JV's (If Applicable) |                   |
| T2.1.03      | Special Resolution of Consortia or JV's (If Applicable)                          |                   |
| T2.1.04      | Schedule of proposed sub-contractors                                             |                   |
| T2.1.05      | Capacity of Tenderer                                                             |                   |
| T2.1.06      | Preference Point System                                                          |                   |
| T2.1.07      | Resources to be employed in terms of organization and staffing                   |                   |
| T2.1.07      | Estimated Monthly Expenditure                                                    |                   |
| T2.1.10      | Declaration of Interest                                                          |                   |
| T2.1.11      | Medical Certificate for the confirmation of permanent disabled status            |                   |
| T2.1.12      | Proof of registration with Construction Industry Development Board (T2.1.12)     |                   |
| T2.1.13      | Original Valid Tax Clearance Certificate                                         |                   |
| T2.1.14      | CSD Registration Certificate                                                     |                   |
| T2.1.15      | Financial Reference                                                              |                   |
| T2.1.16      | Record of Addenda to Tender Documents                                            |                   |
| T2.1.17      | Compulsory Enterprise Questionnaire                                              |                   |
| T2.1.18      | Compensation of Occupational Injuries and Disease Act (COIDA)                    |                   |
| T2.1.19      | Unemployment Insurance Fund (UIF)                                                |                   |
| T2.1.22      | Proof of Liability Insurance                                                     |                   |
| SBD 8        | Declaration of Bidder's Past Supply Chain Management Practices                   |                   |
| SBD 9        | Certificate of Independent Quotation Determination                               |                   |

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**B FINANCIAL ENVELOPE (ORIGINAL DOCUMENT)**

The entire original tender document must be submitted in this envelope including the forms as listed below:

| Reference No | Document Description                    | Tick if completed |
|--------------|-----------------------------------------|-------------------|
| Form C1.1    | Form of Offer and Acceptance            |                   |
| Form C1.2    | Contract Data – Part 1                  |                   |
| Form C2.2    | Priced Bill of Quantities               |                   |
| Form T2.1.08 | Estimated Monthly Expenditure           |                   |
| SBD 6.2      | Local Content Declaration and Annexures |                   |

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**T2.1.01: RESOLUTION OF BOARD OF DIRECTORS**

**RESOLUTION** of a meeting of the Board of \*Directors / Members / Partners of:

.....  
.....  
(legally correct full name and registration number, if applicable, of the Enterprise)

Held at ..... (place)

On ..... (date)

**RESOLVED that:**

1. The Enterprise submits a Bid / Tender to the South African National Biodiversity Institute in respect of the following project:

.....  
.....  
(project description as per Bid / Tender Document)

Bid / Tender Number: ..... (Bid / Tender Number as per Bid / Tender Document)

2. \*Mr/Mrs/Ms: .....

in \*his/her Capacity as: ..... (Position in the Enterprise)

and who will sign as follows: .....

be, and is hereby, authorised to sign the Bid / Tender, and any and all other documents and/or correspondence in connection with and relating to the Bid / Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid / Tender to the Enterprise mentioned above.

|   | Name | Capacity | Signature |
|---|------|----------|-----------|
| 1 |      |          |           |
| 2 |      |          |           |
| 3 |      |          |           |
| 4 |      |          |           |

**Note:**

1. \* Delete which is not applicable
2. **NB.** This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise.
3. Should the number of Directors / Members/Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

**ENTERPRISE STAMP**

**South African National Biodiversity Institute**

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**T2.1.02: RESOLUTION OF BOARD OF DIRECTORS TO ENTER INTO CONSORTIA OR JOINT VENTURES**

**RESOLUTION** of a meeting of the Board of \*Directors / Members / Partners of:

.....  
.....  
(Legally correct full name and registration number, if applicable, of the Enterprise)

Held at ..... (place)

On ..... (date)

**RESOLVED that:**

1. The Enterprise submits a Bid /Tender, in consortium/Joint Venture with the following Enterprises:

.....  
.....  
(List all the legally correct full names and registration numbers, if applicable, of the Enterprises forming the Consortium/Joint Venture)

to the South African National Biodiversity Institute in respect of the following project:

.....  
.....  
(Project description as per Bid /Tender Document)

Bid / Tender Number: ..... (Bid / Tender Number as per Bid / Tender Document)

2. \*Mr/Mrs/Ms: .....  
in \*his/her Capacity as: ..... (Position in the Enterprise)  
and who will sign as follows: .....

be, and is hereby, authorised to sign a consortium/joint venture agreement with the parties listed under item 1 above, and any and all Other documents and/or correspondence in connection with and relating to the consortium/joint venture, in respect of the project described under item 1 above.

3. The Joint Venture formation/arrangement will be in the following proportions:

| Name of Contractor | Proportion (%) |
|--------------------|----------------|
|                    |                |
|                    |                |
|                    |                |
|                    |                |

4. The Enterprise accepts joint and several liability with the parties listed under item 1 above for the due fulfilment of the obligations of the joint venture deriving from, and in any way connected with, the Contract to be entered into with the Employer in respect of the project described under item 1 above.

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5. The Enterprise chooses as its *domicilium citandi et executandi* for all purposes arising from this joint venture agreement and the Contract with the Employer in respect of the project under item 1 above:

Physical address: .....

.....

..... (code)

Postal address: .....

.....

..... (code)

Telephone number: ..... (code)

Fax number: ..... (code)

|    | Name | Capacity | Signature |
|----|------|----------|-----------|
| 1  |      |          |           |
| 2  |      |          |           |
| 3  |      |          |           |
| 4  |      |          |           |
| 5  |      |          |           |
| 6  |      |          |           |
| 7  |      |          |           |
| 8  |      |          |           |
| 9  |      |          |           |
| 10 |      |          |           |

**Note:**

1. \* Delete which is not applicable.
2. **NB.** This resolution must be signed by all the Directors / Members / Partners of the Bidding Enterprise.
3. Should the number of Directors / Members / Partners exceed the space available above, additional names and signatures must be supplied on a separate page.

**ENTERPRISE STAMP**

**South African National Biodiversity Institute**

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**T2.1.03: SPECIAL RESOLUTION OF CONSORTIA OR JOINT VENTURES**

**RESOLUTION** of a meeting of the duly authorised representatives of the following legal entities who have entered into a consortium/joint venture to jointly bid for the project mentioned below: *(legally correct full names and registration numbers, if applicable, of the Enterprises forming a Consortium/Joint Venture)*

1. ....  
.....
2. ....  
.....
3. ....  
.....
4. ....  
.....
5. ....  
.....
6. ....  
.....
7. ....  
.....
8. ....  
.....

Held at ..... (place)

On ..... (date)

**RESOLVED that:**

- A. The above-mentioned Enterprises submit a Bid in Consortium/Joint Venture to the South African National Biodiversity Institute in respect of the following project:

.....  
.....  
*(Project description as per Bid /Tender Document)*

Bid / Tender Number: ..... *(Bid / Tender Number as per Bid / Tender Document)*

\*Mr/Mrs/Ms: .....

in \*his/her Capacity as: ..... *(Position in the Enterprise)*

and who will sign as follows: .....

**South African National Biodiversity Institute**

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be, and is hereby, authorised to sign the Bid, and any and all other documents and/or correspondence in connection with and relating to the Bid, as well as to sign any Contract, and any and all documentation, resulting from the award of the Bid to the Enterprises in Consortium/Joint Venture mentioned above.

- B. The Enterprises constituting the Consortium/Joint Venture, notwithstanding its composition, shall conduct all business under the name and style of: .....
- C. The Enterprises to the Consortium/Joint Venture accept joint and several liabilities for the due fulfilment of the obligations of the Consortium/Joint Venture deriving from, and in any way connected with, the Contract entered into with the Employer in respect of the project described under item A above.
- D. Any of the Enterprises to the Consortium/Joint Venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Employer 30 day's written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Employer for the due fulfilment of the obligations of the Consortium/Joint Venture as mentioned under item D above.
- E. No Enterprise to the Consortium/Joint Venture shall, without the prior written consent of the other Enterprises to the Consortium/Joint Venture and of the Employer, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Employer referred to herein.
- F. The Enterprises choose as the *domicilium citandi et executandi* of the Consortium/Joint Venture for all purposes arising from the consortium/joint venture agreement and the Contract with the Employer in respect of the project under item A above:

Physical address:.....

.....

..... (code)

Postal address: .....

.....

..... (code)

Telephone number: ..... (code)

Fax number: ..... (code)

|   | Name | Capacity | Signature |
|---|------|----------|-----------|
| 1 |      |          |           |
| 2 |      |          |           |
| 3 |      |          |           |
| 4 |      |          |           |
| 5 |      |          |           |

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|    | Name | Capacity | Signature |
|----|------|----------|-----------|
| 6  |      |          |           |
| 7  |      |          |           |
| 8  |      |          |           |
| 9  |      |          |           |
| 10 |      |          |           |
| 11 |      |          |           |
| 12 |      |          |           |
| 13 |      |          |           |
| 14 |      |          |           |
| 15 |      |          |           |

**Note:**

1. \* Delete which is not applicable.
2. **NB.** This resolution must be signed by all the Duly Authorised Representatives of the Legal Entities to the Consortium Joint Venture submitting this Bid.
3. Should the number of Duly Authorised Representatives of the Legal Entities joining forces in this Bid exceed the space available above, additional names and signatures must be supplied on a separate page.
4. Resolutions, duly completed and signed, from the separate Enterprises who participate in this Consortium/Joint Venture must be attached to the Special Resolution.

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**T2.1.04: SCHEDULE OF PROPOSED SUBCONTRACTORS**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

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 names 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.

|                               | <b>Name and address of proposed Subcontractor</b> | <b>Nature and extent of work</b> | <b>Previous experience with Subcontractor</b> |
|-------------------------------|---------------------------------------------------|----------------------------------|-----------------------------------------------|
| 1                             |                                                   |                                  |                                               |
| 2                             |                                                   |                                  |                                               |
| 3                             |                                                   |                                  |                                               |
| 4                             |                                                   |                                  |                                               |
|                               |                                                   |                                  |                                               |
| <b>Name of representative</b> | <b>Signature</b>                                  | <b>Capacity</b>                  | <b>Date</b>                                   |
| <b>Name of organisation:</b>  |                                                   |                                  |                                               |

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**T2.1.05: CAPACITY OF TENDERER**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

1. **WORK CAPACITY:** *(The Tenderer is requested to furnish the following particulars, attach additional pages if more space is required. Failure to furnish the particulars may result in the Tender being disregarded.)*

| <b>Skilled technicians employed</b> |               | <b>Unskilled employees employed</b> |               |
|-------------------------------------|---------------|-------------------------------------|---------------|
| <b>Categories of technicians</b>    | <b>Number</b> | <b>Categories of employees</b>      | <b>Number</b> |
|                                     |               |                                     |               |
|                                     |               |                                     |               |
|                                     |               |                                     |               |
|                                     |               |                                     |               |
|                                     |               |                                     |               |

1.1. **Provide full particulars of:**

| <b>Machinery</b> | <b>Equipment</b> | <b>Workshops</b> |
|------------------|------------------|------------------|
|                  |                  |                  |
|                  |                  |                  |
|                  |                  |                  |
|                  |                  |                  |
|                  |                  |                  |

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

**2. PARTICULARS OF COMMITMENTS WHICH THE TENDERER HAS PREVIOUSLY COMPLETED AND PRESENTLY ENGAGED WITH:****2.1. Current projects:**

|    | Project | Place (town) | Reference / Contact person | Contact Tel. No. | Contract amount | Contract period | Date of commencement | Scheduled date of completion |
|----|---------|--------------|----------------------------|------------------|-----------------|-----------------|----------------------|------------------------------|
| 1  |         |              |                            |                  |                 |                 |                      |                              |
| 2  |         |              |                            |                  |                 |                 |                      |                              |
| 3  |         |              |                            |                  |                 |                 |                      |                              |
| 4  |         |              |                            |                  |                 |                 |                      |                              |
| 5  |         |              |                            |                  |                 |                 |                      |                              |
| 6  |         |              |                            |                  |                 |                 |                      |                              |
| 7  |         |              |                            |                  |                 |                 |                      |                              |
| 8  |         |              |                            |                  |                 |                 |                      |                              |
| 9  |         |              |                            |                  |                 |                 |                      |                              |
| 10 |         |              |                            |                  |                 |                 |                      |                              |
| 11 |         |              |                            |                  |                 |                 |                      |                              |

---

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

**2.2. Previous projects:**

|   | Project | Place (town) | Reference / Contact person | Contact Tel. No. | Contract amount | Contract period | Date of commencement | Scheduled date of completion | Actual date of completion |
|---|---------|--------------|----------------------------|------------------|-----------------|-----------------|----------------------|------------------------------|---------------------------|
| 1 |         |              |                            |                  |                 |                 |                      |                              |                           |
| 2 |         |              |                            |                  |                 |                 |                      |                              |                           |
| 3 |         |              |                            |                  |                 |                 |                      |                              |                           |
| 4 |         |              |                            |                  |                 |                 |                      |                              |                           |
| 5 |         |              |                            |                  |                 |                 |                      |                              |                           |
| 6 |         |              |                            |                  |                 |                 |                      |                              |                           |
| 7 |         |              |                            |                  |                 |                 |                      |                              |                           |
| 8 |         |              |                            |                  |                 |                 |                      |                              |                           |
| 9 |         |              |                            |                  |                 |                 |                      |                              |                           |

|                         |                  |             |
|-------------------------|------------------|-------------|
|                         |                  |             |
| <b>Name of Tenderer</b> | <b>Signature</b> | <b>Date</b> |

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer".

**T2.1.06: PREFERENCE POINT SYSTEM**

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

This preference form must form part of all bids invited. It contains general information and serves as a claim 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, 2017.**

---

**1. GENERAL CONDITIONS**

1.1 The following preference point systems are applicable to all bids:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included).

a) The value of this bid is estimated to not to exceed R50 000 000 (all applicable taxes included) and therefore the 80/20 preference point system shall be applicable;

or

b) Either the 80/20 preference point system will be applicable to this tender

1.2 Points for this bid shall be awarded for:

- (a) Price; and
- (b) B-BBEE Status Level of Contributor.

1.3 The maximum points for this bid are allocated as follows:

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

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

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

## 2. DEFINITIONS

- (a) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (b) **“B-BBEE status level of contributor”** means the B-BBEE status of an entity in terms of a code of good practice on black economic empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (c) **“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 goods or services, through price quotations, advertised competitive bidding processes or proposals;
- (d) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (e) **“EME”** means an Exempted Micro Enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (f) **“functionality”** means the ability of a tenderer to provide goods or services in accordance with specifications as set out in the tender documents.
- (g) **“prices”** includes all applicable taxes less all unconditional discounts;
- (h) **“proof of B-BBEE status level of contributor”** means:
  - 1) B-BBEE Status level certificate issued by an authorized body or person;
  - 2) A sworn affidavit as prescribed by the B-BBEE Codes of Good Practice;
  - 3) Any other requirement prescribed in terms of the B-BBEE Act;
- (i) **“QSE”** means a qualifying small business enterprise in terms of a code of good practice on black economic empowerment issued in terms of section 9 (1) of the Broad-Based Black Economic Empowerment Act;
- (j) **“rand value”** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

## 3. POINTS AWARDED FOR PRICE

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

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

$$\begin{array}{ccc} \mathbf{80/20} & \mathbf{or} & \mathbf{90/10} \\ P_s = 80 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right) & \text{or} & P_s = 90 \left( 1 - \frac{P_t - P_{\min}}{P_{\min}} \right) \end{array}$$

Where

$P_s$  = Points scored for price of bid under consideration

$P_t$  = Price of bid under consideration

$P_{\min}$  = Price of lowest acceptable bid

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

- 4.1 In terms of Regulation 6 (2) and 7 (2) of the Preferential Procurement Regulations, preference points must be awarded to a bidder for attaining the B-BBEE status level of contribution in accordance with the table below:

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

## 5. BID DECLARATION

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

## 6. B-BBEE STATUS LEVEL OF CONTRIBUTOR CLAIMED IN TERMS OF PARAGRAPHS 1.4 AND 4.1

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

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 4.1 and must be substantiated by relevant proof of B-BBEE status level of contributor.

## 7. SUB-CONTRACTING

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

(Tick applicable box)

|     |  |    |  |
|-----|--|----|--|
| YES |  | NO |  |
|-----|--|----|--|

7.1.1 If yes, indicate:

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

(Tick applicable box)

|     |  |    |  |
|-----|--|----|--|
| YES |  | NO |  |
|-----|--|----|--|

- v) Specify, by ticking the appropriate box, if subcontracting with an enterprise in terms of Preferential Procurement Regulations, 2017:

| Designated Group: An EME or QSE which is at least 51% owned by:   | EME<br>√ | QSE<br>√ |
|-------------------------------------------------------------------|----------|----------|
| Black people                                                      |          |          |
| Black people who are youth                                        |          |          |
| Black people who are women                                        |          |          |
| Black people with disabilities                                    |          |          |
| Black people living in rural or underdeveloped areas or townships |          |          |
| Cooperative owned by black people                                 |          |          |
| Black people who are military veterans                            |          |          |
| <b>OR</b>                                                         |          |          |
| Any EME                                                           |          |          |
| Any QSE                                                           |          |          |

**8. DECLARATION WITH REGARD TO COMPANY/FIRM**

8.1 Name of company/firm:.....

8.2 VAT registration number:.....

8.3 Company registration number:.....

**8.4 TYPE OF COMPANY/ FIRM**

☐ Partnership/Joint Venture / Consortium

☐ One person business/sole propriety

☐ Close corporation

☐ Company

☐ (Pty) Limited

[TICK APPLICABLE BOX]

**8.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES**

.....  
.....  
.....  
.....

**8.6 COMPANY CLASSIFICATION**

☐ Manufacturer

☐ Supplier

☐ Professional service provider

☐ Other service providers, e.g. transporter, etc.

[TICK APPLICABLE BOX]

8.7 Total number of years the company/firm has been in business:.....

8.8 I/we, the undersigned, who is / are duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the B-BBE status level of contributor indicated in paragraphs 1.4 and 6.1 of the foregoing certificate, qualifies the company/ firm for the preference(s) shown and I / we acknowledge that:

- i) The information furnished is true and correct;
- ii) The preference points claimed are in accordance with the General Conditions as indicated in paragraph 1 of this form;
- iii) In the event of a contract being awarded as a result of points claimed as shown in paragraphs 1.4 and 6.1, the contractor may be required to furnish documentary proof to the satisfaction of the purchaser that the claims are correct;
- iv) If the B-BBEE status level of contributor has been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the purchaser may, in addition to any other remedy it may have –
  - (a) disqualify the person from the bidding process;
  - (b) recover costs, losses or damages it has incurred or suffered as a result of that person's conduct;
  - (c) cancel the contract and claim any damages which it has suffered as a result of having to make less favourable arrangements due to such cancellation;
  - (d) recommend that the bidder or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted

**South African National Biodiversity Institute**

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by the National Treasury from obtaining business from any organ of state for a period not exceeding 10 years, after the *audi alteram partem* (hear the other side) rule has been applied; and

- (e) forward the matter for criminal prosecution.

**WITNESSES**

1. ....

2. ....

.....  
**SIGNATURE(S) OF BIDDERS(S)**

**DATE:** .....

**ADDRESS** .....

.....

.....

## **T2.1.07: RESOURCES TO BE EMPLOYED IN TERMS OF ORGANIZATION AND STAFFING**

The Tenderer shall list below the key personnel (including first nominee and the second choice alternate), whom he proposes to employ on the Contract should his tender be accepted, both at his headquarters and on the Site, to direct and for the execution of the work, together with their qualifications, experience, positions held and their nationalities.

[illegible]

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

[illegible]

**South African National Biodiversity Institute**

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**T2.1.08: ESTIMATED MONTHLY EXPENDITURE**

The Tenderer shall state below the estimated value of work to be completed every month, based on his preliminary programme and his tendered unit rates.

The amounts for contingencies and Contract Price Adjustment must not be included **\*OR** the amount for contingencies must not be included.

| MONTH | VALUE                  |
|-------|------------------------|
| 1     | R .....                |
| 2     | R .....                |
| 3     | R .....                |
|       | COMPLETION OF CONTRACT |
| TOTAL | R .....                |

**T2.1.10: DECLARATION OF INTEREST**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

Any person, including persons in the employ of the South African National Biodiversity Institute ; or persons acting on behalf of the South African National Biodiversity Institute performing business as a sole proprietor or in partnership; or persons acting in the capacity of a trustee/s of a trust; or any legal entity, including legal entities and trusts, of which the members, directors, shareholders, trustees and/or beneficiaries are in the employ of the South African National Biodiversity Institute or act on behalf of the South African National Biodiversity Institute, may make an offer or offers in terms of this tender invitation.

In view of the possible allegations of favouritism, should the resulting tender, or part thereof, be awarded to persons employed by the South African National Biodiversity Institute; or to persons who act on behalf of the South African National Biodiversity; or to persons connected or related to them, the bidder / tenderer or the bidder / tenderer's duly authorized representative shall disclose herein any relationship and/or kinship, including blood relation, which he/she; his/her employer; the bidder / tenderer's management; members; directors; partners; shareholders; trustees; and/or beneficiaries may have with any person or persons in the employ of the South African National Biodiversity Institute and/or with any person or persons acting on behalf of the South African National Biodiversity Institute and who may directly or indirectly be involved in, and/or may be in a position to influence the adjudication and/or evaluation and/or award of this bid / tender.

In order to give effect to the above, the following questionnaire shall be completed and submitted with the tender. Failure to furnish the information requested in the questionnaire below may render the tender submission not to be considered at all.

**(In answering the questions below, indicate the applicable answer with a ✓ and cross the other out)**

1. Is the bidder / tenderer and/or the duly authorized representative in the employ of the South African National Biodiversity Institute?

☐ YES ☐ NO

If yes, State the full particulars of such person/s, together with their current position held as an employee of the South African National Biodiversity Institute.

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---

2. Is the bidder / tenderer and/or the duly authorized representative in the employ of the person/s or legal entity acting on behalf of the South African National Biodiversity Institute, and who may directly or indirectly be involved in, and/or may be in a position to influence, the adjudication and/or evaluation and/or award of this tender?

☐ YES ☐ NO

If yes, State the full particulars of such person/s, together with their current position held as an employee of such person/s or legal entity acting on behalf of the South African National Biodiversity Institute.

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**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

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3. Does the bidder / tenderer, the bidder's / tenderer's duly authorised representative, and/or any of the bidder's / tenderer's employees, management, partners, members, directors, shareholders, trustees and/or beneficiaries have any relationship (family, friend, business- or financial interest) with a person, or persons in the employ of the South African National Biodiversity Institute and/or in the employ of the person/s or legal entity acting on behalf of the South African National Biodiversity Institute, and who may directly or indirectly be involved in, and/or may be in a position to influence, the adjudication and/or evaluation and/or award of this tender?

☐ YES ☐ NO

If yes, State the full particulars of the persons between whom the relationship exists, the nature of the relationship and the current position/status of such employee/s of the South African National Biodiversity Institute and/or of the person/s and/or legal entity acting on behalf of the South African National Biodiversity Institute herein.

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I, the undersigned, \_\_\_\_\_  
(name of the person duly authorised to sign the bid / tender documents on behalf of the bidder / tenderer) hereby certify that the information, furnished above, is correct in all respects. I accept and understand that the South African National Biodiversity Institute, may act against me and the bidder / tenderer, jointly and severally, should this declaration prove to be false.

Duly signed at ..... on this .....day of..... (month) of ..... (year)

.....  
Full name of signatory

.....  
Name of Bidder / Tenderer

.....  
Capacity of Signatory

.....  
Signature

|                                                                 |
|-----------------------------------------------------------------|
| <p style="text-align: center;"><b>COMMISSIONER OF OATHS</b></p> |
|-----------------------------------------------------------------|

**South African National Biodiversity Institute**

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**T2.1.11: MEDICAL CERTIFICATE FOR THE CONFIRMATION OF PERMANENT DISABLED STATUS**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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I, ..... (*surname and name*), Identity number,

..... do hereby declare that I am a registered medical practitioner, with my practice number being ....., practicing at .....

..... (Physical and postal addresses) declare that I have examined Mr/Mrs

....., identity number of .....

and have found the said person to be permanently disabled or having a recurring disability.

“Disability” means, in respect of a person, a permanent impairment of a physical, intellectual, or sensory function, which results in restricted, or lack of, ability to perform an activity in the manner, or within the range, considered normal for a human being.” – As per Preferential Procurement Policy Framework Act: No 5 of 2000 (PPPFA)

The nature of the disability is as follows:

.....  
.....  
.....

Thus signed at ..... on this ..... day of ..... of .....

.....

Signature

.....

Date

**OFFICIAL STAMP OF  
MEDICAL PRACTITIONER**

**South African National Biodiversity Institute**

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**T2.1.12: PROOF OF REGISTRATION WITH CONSTRUCTION INDUSTRY DEVELOPMENT BOARD**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

The Tenderer shall provide a printed copy of the Active Contractor's Listing off the CIDB website. ([www.cidb.org.za](http://www.cidb.org.za)). In the case of a joint venture, a printed copy of the Active Contractor's listing must be provided for each member of the joint venture.

Name of Contractor: .....

Contractor Grading Designation: .....

CIDB Contractor Registration Number: .....

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

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**T2.1.14: COPY OF CSD REGISTRATION CERTIFICATE**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

A copy of Central Suppliers Database (CSD) Registration Certificate must be included for evaluation purposes.

**South African National Biodiversity Institute**

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**T2.1.15: FINANCIAL REFERENCES**

|                       |                                                                                                                                                                                                                                    |
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| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

**Notes to tenderer:**

1. The tenderer shall attach to this form a letter from the bank in which it is declared how he conducts his account. The contents of the bank's letter must state the credit rating that the bank, in addition to the information required below, accords to the tenderer for the business envisaged by this tender. Failure to provide the required letter with the tender submission may render the tenderer's offer unresponsive in terms of tender condition C3.8.
2. The tenderer's banking details as they appear below shall be completed.
3. In the event that the tenderer is a joint venture enterprise, details of all the members of the joint venture shall be similarly provided and attached to this form.

**Details of Company's Bank**

| <b>DESCRIPTION OF BANK DETAIL</b> | <b>BANK DETAILS APPLICABLE TO TENDERER'S HEAD OFFICE</b> |
|-----------------------------------|----------------------------------------------------------|
| <b>Name of bank</b>               |                                                          |
| <b>Branch name</b>                |                                                          |
| <b>Branch code</b>                |                                                          |
| <b>Street address</b>             |                                                          |
| <b>Postal address</b>             |                                                          |
| <b>Name of manager</b>            |                                                          |
| <b>Telephone number</b>           |                                                          |
| <b>Fax number</b>                 |                                                          |
| <b>Account number</b>             |                                                          |

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

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**T2.1.16: RECORD OF ADDENDA TO TENDER DOCUMENTS**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

I / We confirm that the following communications received from the South African National Biodiversity Institute before the submission of this tender offer, amending the tender documents, have been taken into account in this tender offer: *(Attach additional pages if more space is required)*

|    | <b>Date</b> | <b>Title or Details</b> |
|----|-------------|-------------------------|
| 1. |             |                         |
| 2. |             |                         |
| 3. |             |                         |
| 4. |             |                         |
| 5. |             |                         |
| 6. |             |                         |
| 7. |             |                         |
| 8. |             |                         |
| 9. |             |                         |

|                  |           |      |
|------------------|-----------|------|
|                  |           |      |
| Name of Tenderer | Signature | Date |

I / We confirm that no communications were received from the South African National Biodiversity Institute before the submission of this tender offer, amending the tender documents.

|                  |           |      |
|------------------|-----------|------|
|                  |           |      |
| Name of Tenderer | Signature | Date |

## T2.1.17: COMPULSORY ENTERPRISE QUESTIONNAIRE

The following particulars must be furnished. In the case of a joint venture, separate enterprise questionnaires in respect of each partner must be completed and submitted.

**Section 1: Name of enterprise:** .....

**Section 2: VAT registration number, if any:** .....

**Section 3: SAQCC Fire registration number, if any:** .....

### Section 4: Particulars of sole proprietors and partners in partnerships

| Name* | Identity number* | Personal income tax number* |
|-------|------------------|-----------------------------|
|       |                  |                             |
|       |                  |                             |
|       |                  |                             |
|       |                  |                             |

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

### Section 5: Particulars of companies and close corporations

Company registration number: .....

Close corporation number: .....

Tax reference number: .....

### Section 6: Record in the service of the state

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

- |                                                                                                |                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> a member of any municipal council                                     | <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature                                |                                                                                                                                                                                                                        |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province |                                                                                                                                                                                                                        |
| <input type="checkbox"/> a member of the board of directors of any municipal entity            | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity                                                                                                               |
| <input type="checkbox"/> an official of any municipality or municipal entity                   | <input type="checkbox"/> an employee of Parliament or a provincial legislature                                                                                                                                         |

**South African National Biodiversity Institute**

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

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

\*Insert separate page if necessary.

**Section 7: Record of spouses, children and parents in the service of the state**

Indicate by marking the relevant boxes with a cross, if any spouse, child or parent or a sole proprietor, partner in a partnership or director, manager, 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:

- |                                                                                                |                                                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> a member of any municipal council                                     | <input type="checkbox"/> an employee of any provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No 1 of 1999) |
| <input type="checkbox"/> a member of any provincial legislature                                |                                                                                                                                                                                                                        |
| <input type="checkbox"/> a member of the National Assembly or the National Council of Province | <input type="checkbox"/> a member of an accounting authority of any national or provincial public entity                                                                                                               |
| <input type="checkbox"/> a member of the board of directors of any municipal entity            | <input type="checkbox"/> an employee of Parliament or a provincial legislature                                                                                                                                         |
| <input type="checkbox"/> an official of any municipality or municipal entity                   |                                                                                                                                                                                                                        |

| 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) |                       |
|---------------------------------|-------------------------------------------------------------------------------|---------------------------------------------|-----------------------|
|                                 |                                                                               | Current                                     | Within last 12 months |
|                                 |                                                                               |                                             |                       |
|                                 |                                                                               |                                             |                       |
|                                 |                                                                               |                                             |                       |
|                                 |                                                                               |                                             |                       |
|                                 |                                                                               |                                             |                       |

\*Insert separate page if necessary.

**South African National Biodiversity Institute**

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

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

Signed: ..... Date: .....

Name: ..... Position: .....

Enterprise name: .....

**South African National Biodiversity Institute**

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**T2.1.18: COMPENSATION OF OCCUPATIONAL INJURIES AND DISEASE ACT (COIDA)**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

Letter of Good Standing from the office of the Compensation Commissioner as required by the Compensation for Occupational Injuries and Diseases Act (COIDA) must be included for evaluation purposes. The letter should be issued by the Department of Labour.

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**T2.1.19: UNEMPLOYMENT INSURANCE FUND (UIF)**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

UIF compliance should be demonstrated by submission of one of the following:

- A valid copy of the UIF Letter of Compliance issued by the Department of Labour, or
- Labour uFiling Employer Statement of Account indicating UIF payments or accruals not older than 12 months, or
- SARS eFiling Employer Statement of Account indicating UIF payments or accruals not older than 12 months, or
- Valid proof of exemption for UIF.

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**T2.1.22: PROOF OF LIABILITY INSURANCE**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

The tender shall append their Proof of Liability Insurance behind this page.

## DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT FOR DESIGNATED SECTORS

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

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

### 1. General Conditions

- 1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.
- 1.2. Regulation 8 (2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.
- 1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two-stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.
- 1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.
- 1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

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

Where

x is the imported content in Rand

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

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

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

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

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**2. The stipulated minimum threshold(s) for local production and content (refer to Annex A of SATS 1286:2011) for this bid is/are as follows:**

| <b><u>Description of services, works or goods</u></b> | <b><u>Stipulated minimum threshold</u></b> |
|-------------------------------------------------------|--------------------------------------------|
| <b>IBR Roof Sheetting</b>                             | <b>100%</b>                                |
| <b>Structural Steel</b>                               | <b>100%</b>                                |
| <b>Fasteners</b>                                      | <b>100%</b>                                |

**3. Does any portion of the goods or services offered have any imported content?**

**(Tick applicable box)**

|     |  |    |  |
|-----|--|----|--|
| YES |  | NO |  |
|-----|--|----|--|

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

The relevant rates of exchange information is accessible on [www.reservebank.co.za](http://www.reservebank.co.za)

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

| <b>Currency</b> | <b>Rates of exchange</b> |
|-----------------|--------------------------|
| US Dollar       |                          |
| Pound Sterling  |                          |
| Euro            |                          |
| Yen             |                          |
| Other           |                          |

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

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

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

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

**IN RESPECT OF BID NO. ....**

**ISSUED BY:** (Procurement Authority / Name of Institution): **SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI).**

**NB**

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

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

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

|                                                                    |   |
|--------------------------------------------------------------------|---|
| Bid price, excluding VAT (y)                                       | R |
| Imported content (x), as calculated in terms of SATS 1286:2011     | R |
| Stipulated minimum threshold for local content (paragraph 3 above) |   |
| Local content %, as calculated in terms of SATS 1286:2011          |   |

**If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.**

**The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 4.1 above and the information contained in Declaration D and E.**

- (d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

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- (e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

**SIGNATURE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**WITNESS No. 1** \_\_\_\_\_

**DATE:** \_\_\_\_\_

**WITNESS No. 2** \_\_\_\_\_

**DATE:** \_\_\_\_\_

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**ANNEXURE C**

**SATS 1286.2011**

**Local Content Declaration – Summary Schedule**

|                                       |                                                                                                                                                                |  |             |  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------|--|
| <b>(C1) Tender No.</b>                | Q408/2021                                                                                                                                                      |  |             |  |
| <b>(C2) Tender Description</b>        | Repairs and Upgrades of the Existing Nurseries and Associated Glasshouse Infrastructure for the SANBI at the Kirstenbosch National Botanical Garden, Cape Town |  |             |  |
| <b>(C3) Designated product(s)</b>     | Roof Sheeting                                                                                                                                                  |  |             |  |
| <b>(C4) Tender Authority</b>          | SANBI                                                                                                                                                          |  |             |  |
| <b>(C5) Name of Tendering Entity</b>  |                                                                                                                                                                |  |             |  |
| <b>(C6) Tender Exchange Rate</b>      | <b>Currency</b>                                                                                                                                                |  | <b>Rate</b> |  |
| <b>(C7) Specified local content %</b> | 100%                                                                                                                                                           |  |             |  |

**NOTE: VAT to be excluded from all calculations**

|                         |                                                                                                     | Calculation of local content |                                |                                                      |                       |                    |                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------|------------------------------|--------------------------------|------------------------------------------------------|-----------------------|--------------------|-----------------------------------|
| <b>Tender Item No's</b> | <b>List of Items</b>                                                                                | <b>Tender Price – each</b>   | <b>Exempted imported value</b> | <b>Tender value net of exempted imported content</b> | <b>Imported value</b> | <b>Local value</b> | <b>Local content % (per item)</b> |
| <b>(C8)</b>             | <b>(C9)</b>                                                                                         | <b>(C10)</b>                 | <b>(C11)</b>                   | <b>(C12)</b>                                         | <b>(C13)</b>          | <b>(C14)</b>       | <b>(C15)</b>                      |
| Schedule No.2           | Roofs                                                                                               |                              |                                |                                                      |                       |                    |                                   |
| 201,01,02               | 0,8mm thick galvanised IBR or equivalent approved sheeting with Chromadek silicone polyester finish |                              |                                |                                                      |                       |                    |                                   |
| 201,03,01 .01           | 0.8mm thick galvanised sheeting with chromadek silicone polyester finish to both                    |                              |                                |                                                      |                       |                    |                                   |

| Tender summary         |                           |                                        |                               |
|------------------------|---------------------------|----------------------------------------|-------------------------------|
| <b>Tender Quantity</b> | <b>Total tender value</b> | <b>Total exempted imported content</b> | <b>Total imported content</b> |
| <b>(C16)</b>           | <b>(C17)</b>              | <b>(C18)</b>                           | <b>(C19)</b>                  |
|                        |                           |                                        |                               |
|                        |                           |                                        |                               |
|                        |                           |                                        |                               |

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer"

**South African National Biodiversity Institute**

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|                                                                |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|--|
|                                                                | sides for 600 x 200mm self-supporting box gutter                                                                |  |  |  |  |  |  |  |  |  |  |  |
| 201,03,01.02                                                   | 0.8mm thick galvanised sheeting with chromadek silicone polyester finish to both sides for 600 x 200mm downpipe |  |  |  |  |  |  |  |  |  |  |  |
| 206,01,01,01,01                                                | M12 holding down bolts 350mm long including 13mm ID and 24mm OD x 2,4mm thick washer                            |  |  |  |  |  |  |  |  |  |  |  |
| 206,01,01,01,02                                                | M16 holding down bolts 350mm long including 17mm ID and 30mm OD x 3,0mm thick washer                            |  |  |  |  |  |  |  |  |  |  |  |
|                                                                |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
|                                                                |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
|                                                                |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
|                                                                |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
| <b>(C20) Total tender value</b>                                |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
| <b>(C21) Total Exempt imported content</b>                     |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
| <b>(C22) Total Tender value net of exempt imported content</b> |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
| <b>(C23) Total Imported content</b>                            |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
| <b>(C24) Total local content</b>                               |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |
| <b>(C25) Average local content % of tender</b>                 |                                                                                                                 |  |  |  |  |  |  |  |  |  |  |  |

|                                                        |
|--------------------------------------------------------|
| SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION |
| DATE                                                   |

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer"

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**ANNEXURE D****SATS 1286.2011****Imported Content Declaration – Supporting Schedule to Annexure C**

|      |                                |                                                                                                                                                                |  |             |
|------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-------------|
| (D1) | <b>Tender No.</b>              | Q408/2021                                                                                                                                                      |  |             |
| (D2) | <b>Tender Description</b>      | Repairs and Upgrades of the Existing Nurseries and Associated Glasshouse Infrastructure for the SANBI at the Kirstenbosch National Botanical Garden, Cape Town |  |             |
| (D3) | <b>Designated product(s)</b>   |                                                                                                                                                                |  |             |
| (D4) | <b>Tender Authority</b>        | SANBI                                                                                                                                                          |  |             |
| (D5) | <b>Tendering Entity's Name</b> |                                                                                                                                                                |  |             |
| (D6) | <b>Tender Exchange Rate</b>    | <b>Currency</b>                                                                                                                                                |  | <b>Rate</b> |

**NOTE: VAT to be excluded from all calculations**

| A. Exempted imported content |                                 |                |                   | Calculation of imported content                  |                      |                        |                                |                                             |                   | Summary                                              |                         |
|------------------------------|---------------------------------|----------------|-------------------|--------------------------------------------------|----------------------|------------------------|--------------------------------|---------------------------------------------|-------------------|------------------------------------------------------|-------------------------|
| Tender item no's             | Description of imported content | Local supplier | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Tender Quantity                                      | Exempted imported value |
| (D7)                         | (D8)                            | (D9)           | (D10)             | (D11)                                            | (D12)                | (D13)                  | (D14)                          | (D15)                                       | (D16)             | (D17)                                                | (D18)                   |
|                              |                                 |                |                   |                                                  |                      |                        |                                |                                             |                   |                                                      |                         |
|                              |                                 |                |                   |                                                  |                      |                        |                                |                                             |                   |                                                      |                         |
|                              |                                 |                |                   |                                                  |                      |                        |                                |                                             |                   |                                                      |                         |
|                              |                                 |                |                   |                                                  |                      |                        |                                |                                             |                   |                                                      |                         |
|                              |                                 |                |                   |                                                  |                      |                        |                                |                                             |                   | <b>(D19) Total exempt imported value</b>             |                         |
|                              |                                 |                |                   |                                                  |                      |                        |                                |                                             |                   | <b>This total must correspond with Annex C – C21</b> |                         |

Any reference to words "Bid" or Bidder" herein and/or in any other documentation shall be construed to have the same meaning as the words "Tender" or "Tenderer"

**South African National Biodiversity Institute**

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| B. Imported directly by the Tenderer   |                                 |                 |                   | Calculation of imported content                  |                      |                        |                                |                                             |                   | Summary         |                      |
|----------------------------------------|---------------------------------|-----------------|-------------------|--------------------------------------------------|----------------------|------------------------|--------------------------------|---------------------------------------------|-------------------|-----------------|----------------------|
| Tender item no's                       | Description of imported content | Unit of measure | Overseas supplier | Foreign currency value as per Commercial Invoice | Tender Exchange Rate | Local value of imports | Freight costs to port of entry | All locally incurred landing costs & duties | Total landed cost | Tender Quantity | Total imported value |
| (D20)                                  | (D21)                           | (D22)           | (D23)             | (D24)                                            | (D25)                | (D26)                  | (D27)                          | (D28)                                       | (D29)             | (D30)           | (D31)                |
|                                        |                                 |                 |                   |                                                  |                      |                        |                                |                                             |                   |                 |                      |
| (D32) Total imported value by tenderer |                                 |                 |                   |                                                  |                      |                        |                                |                                             |                   |                 |                      |

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**ANNEX E****SATS 1286.2011****Local content Declaration – Summary Schedule**

|                                     |                                                                                                                                                                |                                                       |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| <b>(E1) Tender No.</b>              | Q408/2021                                                                                                                                                      | <b>NOTE: VAT to be excluded from all calculations</b> |
| <b>(E2) Tender Description</b>      | Repairs and Upgrades of the Existing Nurseries and Associated Glasshouse Infrastructure for the SANBI at the Kirstenbosch National Botanical Garden, Cape Town |                                                       |
| <b>(E3) Designated product(s)</b>   |                                                                                                                                                                |                                                       |
| <b>(E4) Tender Authority</b>        | SANBI                                                                                                                                                          |                                                       |
| <b>(E5) Tendering Entity's Name</b> |                                                                                                                                                                |                                                       |

| <b>LOCAL PRODUCTS (Goods, Services and Works)</b>                                                                                 |                        |              |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------|
| <b>Description of items purchased</b>                                                                                             | <b>Local suppliers</b> | <b>Value</b> |
| <b>(E6)</b>                                                                                                                       | <b>(E7)</b>            | <b>(E8)</b>  |
| 0,8mm thick galvanised IBR or equivalent approved sheeting with chromadek silicone polyester finish                               |                        |              |
| 0.8mm thick galvanised sheeting with chromadek silicone polyester finish to both sides for 600 x 200mm self-supporting box gutter |                        |              |
| 0.8mm thick galvanised sheeting with chromadek silicone polyester finish to both sides for 600 x 200mm downpipe                   |                        |              |
| M12 holding down bolts 350mm long including 13mm ID and 24mm OD x 2,4mm thick washer                                              |                        |              |
| M16 holding down bolts 350mm long including 17mm ID and 30mm OD x 3,0mm thick washer                                              |                        |              |
|                                                                                                                                   |                        |              |
|                                                                                                                                   |                        |              |
|                                                                                                                                   |                        |              |
| <b>(E9) Total local products (Goods, service and works)</b>                                                                       |                        |              |

**(E10) Manpower costs** (Tenderer's own manpower cost)

**(E11) Factory overheads** (Rental, depreciation & amortization, utility costs, consumables, etc.)

**(E12) Administration overheads and mark-up** (Marketing, insurance, financing interest, etc.)

**(E13) Total local content**

**This total must correspond with Annex C – C24**

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

SBD 8

## DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

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

| Item  | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Yes                             | No                             |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------------|
| 4.1   | Is the bidder or any of its directors listed on the National Treasury's database as companies or persons prohibited from doing business with the public sector?<br>(Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the <i>audi alteram partem</i> rule was applied).                                                                                                                           | Yes<br><input type="checkbox"/> | No<br><input type="checkbox"/> |
| 4.1.1 | If so, furnish particulars:                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |                                |
| 4.2   | Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)?<br><b>To access this Register enter the National Treasury's website, <a href="http://www.treasury.gov.za">www.treasury.gov.za</a>, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445.</b> | Yes<br><input type="checkbox"/> | No<br><input type="checkbox"/> |
| 4.2.1 | If so, furnish particulars:                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |                                |
| 4.3   | Was the bidder or any of its directors convicted by a court of law (including a court outside of the Republic of South Africa) for fraud or corruption during the past five years?                                                                                                                                                                                                                                                                                               | Yes<br><input type="checkbox"/> | No<br><input type="checkbox"/> |
| 4.3.1 | If so, furnish particulars:                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |                                |
| 4.4   | Was any contract between the bidder and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?                                                                                                                                                                                                                                                                                                                | Yes<br><input type="checkbox"/> | No<br><input type="checkbox"/> |
| 4.4.1 | If so, furnish particulars:                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                 |                                |

**SBD 8**

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**CERTIFICATION**

**I, THE UNDERSIGNED (FULL NAME) .....**

**CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM IS TRUE AND CORRECT.**

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

.....

Signature

.....

Date

.....

Position

.....

Name of Bidder

## CERTIFICATE OF INDEPENDENT QUOTATION DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all quotations<sup>1</sup> invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<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.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

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

<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.

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying bid:

**G408/2021: REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN**

(Bid Number and Description)

in response to the invitation for the quote made by:

**SANBI** (Name of Institution)

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

I certify, on behalf of: \_\_\_\_\_ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - (a) has been requested to submit a bid in response to this bid invitation;
  - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium<sup>3</sup> will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - (a) prices;
  - (b) geographical area where product or service will be rendered (market allocation)
  - (c) methods, factors or formulas used to calculate prices;
  - (d) the intention or decision to submit or not to submit, a bid;

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

- (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
- (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
- <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.**
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....  
Signature

.....  
Date

.....  
Position

.....  
Name of Bidder

## PART C: THE CONTRACT

### Part C1: Agreement and Contract Data

|                |                                                                                                                                                                                                                             |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PROJECT TITLE: | REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN |
| CONTRACT NO:   | SANBI G408/2021                                                                                                                                                                                                             |

#### C1.1 Form of Offer and Acceptance

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

**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN**

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

The tenderer, identified in the Offer signature block, has examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

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

#### THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VAT IS:

(in words) ..... Rand;

R ..... (in figures)

#### THE OFFERED PRICES ARE AS STATED IN THE PRICING SCHEDULE

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

Signature(s) .....

Name(s) .....

Capacity .....

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**For the**

**Tenderer:**

.....

.....

*(Insert name and address of organisation)*

Name &

signature of

witness

.....

Date

.....

.....

**[Failure of a Tenderer to complete and sign this form will invalidate the tender]**

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**Acceptance**

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

The terms of the Contract are contained in

|         |                                                                     |
|---------|---------------------------------------------------------------------|
| Part C1 | Agreements and Contract Data <i>[which includes this Agreement]</i> |
| Part C2 | Pricing Data                                                        |
| Part C3 | Scope of Work                                                       |
| Part C4 | Site Information                                                    |

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C4 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 the said documents are valid unless contained in this Schedule, which must be duly signed by the authorised representative(s) of both parties.

The Tenderer shall within the time required to submit documentation in accordance with clause 5.3.2 of the Contract Data (C1.2) 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 fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this Agreement.

Notwithstanding anything contained herein, this Agreement comes into effect on the date when the Tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the Tenderer (now Contractor) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this Agreement, this Agreement shall constitute a binding Contract between the parties.

Signature(s) .....

Name(s) .....

Capacity .....

**For the****Employer:**

.....

.....

.....

*(Insert name and address of organisation)*

Name &  
signature of  
witness .....

Date .....

.....

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**Schedule of Deviations**

|   |               |
|---|---------------|
| 1 | Subject ..... |
|   | Details ..... |
|   | .....         |
|   | .....         |
|   | .....         |
| 2 | Subject ..... |
|   | Details ..... |
|   | .....         |
|   | .....         |
|   | .....         |
| 3 | Subject ..... |
|   | Details ..... |
|   | .....         |
|   | .....         |
|   | .....         |
| 4 | Subject ..... |
|   | Details ..... |
|   | .....         |
|   | .....         |
|   | .....         |
| 5 | Subject ..... |
|   | Details ..... |
|   | .....         |
|   | .....         |
|   | .....         |

By the duly authorised 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.

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.

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**FOR THE TENDERER:**

Signature(s) .....

Name(s) .....

Capacity .....

.....  
*[Name and address of organisation]*

Name and  
signature of  
witness .....

Date .....

**FOR THE EMPLOYER:**

Signature(s) .....

Name(s) .....

Capacity .....

.....  
*[Name and address of organisation]*

Name and  
signature of  
witness .....

Date .....

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**CONFIRMATION OF RECEIPT**

The Tenderer (now Contractor), identified in the Offer part of this Agreement, hereby confirms receipt from the Employer, identified in the Acceptance part of this Agreement, of one fully completed original copy of this Agreement, including the Schedule of Deviations (if any) today:

The..... *[day]*

of ..... *[month]*

20.....*[year]*

at ..... *[place]*

For the Contractor:

.....  
Signature

.....  
Name

.....  
Capacity

Signature and name of witness:

.....  
Signature

.....  
Name

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**PART C: THE CONTRACT****Part C1: Agreement and Contract Data**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>G408/2021</b>                                                                                                                                                                                                                   |

**C1.2 Contract Data**

The Conditions of Contract are the **JBCC Series 2000 Principal Building Agreement (July 2007 Edition 5.0 - Reprint 1)** published by the Joint Building Contract Committee. Copies of these documents may be obtained from the **Association of South African Quantity Surveyors** (011-315 4140), the **Master Builders Association** (011-205 9000), the **South African Association of Consulting Engineers** (011-463 2022) or the **South African Institute of Architects** (011-486 0684).

The JBCC Principal Building Agreement Contract Data EC and the JBCC Principal Building Agreement Contract Data CE form an integral part of this agreement.

The **ASAQS Preliminaries (November 2007 Edition)** published by the Association of South African Quantity Surveyors for use with the said JBCC Principal Building Agreement shall be deemed to be incorporated in the bills of quantities.

The **Model Preambles for Trades (2008 Edition)** as published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in the bills of quantities and no claims arising from brevity of description of items fully described in the said Model Preambles will be entertained.

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**Section C1.2.1: Contract Data: Employer to Contractor (EC)**

***Employer Addendum Code 2101-EC***

**For information purposes only. To be signed on appointment.**

**Introduction**

This addendum contains all variables referred to in the **Principal Building Agreement** that are the responsibility of the Contractor to provide the appropriate information that is necessary for the Contractor to complete his tender. The Addendum must be completed in full and included in the tender documents. The Addendums "Contract Data – EC", "Contract Data – CE", "Contract Data – ES" and "Contract Data – SE" form part of the contract between the parties.

**Definitions**

The definitions used in this document and the interpretation thereof are as listed in the Principal Building Agreement. The work or phrase of a definition is in bold text and shall bear the meaning assigned to it in the Principal Building Agreement. Where such word or phrase is not highlighted it shall bear the meaning consistent with the context of its use. The listed defined word or phrase does not qualify as a definition where information required to be stated in the contract data has not been provided.

**Provision of Contract Data**

Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be clearly struck out. Where insufficient space is provided the additional information should be annexed hereto and cross referenced to the applicable clause of the contract data.

**Reference Clauses**

Where relevant the Principal Building Agreement clause applicable to the required information is printed in italics under the Contract Data clause number i.e. [27.4.2]

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

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**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

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**CONTRACT DATA – EMPLOYER****1.0 CONTRACTING AND OTHER PARTIES**

|              |                          |                                                                                |                 |              |
|--------------|--------------------------|--------------------------------------------------------------------------------|-----------------|--------------|
| 1.1<br>[1.2] | <b>Employer:</b>         | South African National Biodiversity Institute                                  |                 |              |
|              | <b>Postal Address:</b>   | Private Bag X101,<br>Silverton, Gauteng                                        | <b>Code:</b>    | 0184         |
|              | <b>Physical Address:</b> | Pretoria National Botanical Garden<br>2 Cussonia Avenue,<br>Brummeria, Gauteng | <b>Code:</b>    | 0184         |
|              | <b>Tel no.:</b>          | 012 843 5000                                                                   | <b>Fax no.:</b> | 012 843 5205 |
|              | <b>VAT no.</b>           |                                                                                |                 |              |
|              | <b>E-mail:</b>           |                                                                                |                 |              |

|              |                         |                                               |                 |                    |
|--------------|-------------------------|-----------------------------------------------|-----------------|--------------------|
| 1.2<br>[5.1] | <b>Principal Agent:</b> | Virtual Consulting Engineers<br>VCE (Pty) Ltd | <b>Person:</b>  | Mr Shahien Ishmail |
|              | <b>Postal Address:</b>  | P.O. Box 82, Crawford                         | <b>Code:</b>    | 7779               |
|              | <b>Tel no.:</b>         | 021 685 0789                                  | <b>Fax no.:</b> | 086 655 2690       |
|              | <b>E-mail:</b>          | shahien@virtualconsulting.co.za               |                 |                    |

|              |                         |  |                 |  |
|--------------|-------------------------|--|-----------------|--|
| 1.2<br>[5.2] | <b>Agent (1):</b>       |  | <b>Person:</b>  |  |
|              | <b>Agent's Service:</b> |  |                 |  |
|              | <b>Postal Address:</b>  |  | <b>Code:</b>    |  |
|              | <b>Tel no.:</b>         |  | <b>Fax no.:</b> |  |
|              | <b>E-mail:</b>          |  |                 |  |

|              |                         |  |                 |  |
|--------------|-------------------------|--|-----------------|--|
| 1.3<br>[5.2] | <b>Agent (2):</b>       |  |                 |  |
|              | <b>Agent's Service:</b> |  |                 |  |
|              | <b>Postal Address:</b>  |  | <b>Code:</b>    |  |
|              | <b>Tel no.:</b>         |  | <b>Fax no.:</b> |  |
|              | <b>E-mail:</b>          |  |                 |  |

|              |                         |  |                 |  |
|--------------|-------------------------|--|-----------------|--|
| 1.4<br>[5.2] | <b>Agent (3):</b>       |  | <b>Person:</b>  |  |
|              | <b>Agent's Service:</b> |  |                 |  |
|              | <b>Postal Address:</b>  |  | <b>Code:</b>    |  |
|              | <b>Tel no.:</b>         |  | <b>Fax no.:</b> |  |
|              | <b>E-mail:</b>          |  |                 |  |

|              |                         |  |                |  |
|--------------|-------------------------|--|----------------|--|
| 1.5<br>[5.2] | <b>Agent (4):</b>       |  | <b>Person:</b> |  |
|              | <b>Agent's Service:</b> |  |                |  |

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**Postal Address:** \_\_\_\_\_ **Code:** \_\_\_\_\_  
**Tel no.:** \_\_\_\_\_ **Fax no.:** \_\_\_\_\_  
**E-mail:** \_\_\_\_\_

1.6 **Agent (5):** \_\_\_\_\_ **Person:** \_\_\_\_\_  
 [5.2] **Agent's Service:** \_\_\_\_\_  
**Postal Address:** \_\_\_\_\_ **Code:** \_\_\_\_\_  
**Tel no.:** \_\_\_\_\_ **Fax no.:** \_\_\_\_\_  
**E-mail:** \_\_\_\_\_

1.7 **Agent (6):** \_\_\_\_\_ **Person:** \_\_\_\_\_  
 [5.2] **Agent's Service:** \_\_\_\_\_  
**Postal Address:** \_\_\_\_\_ **Code:** \_\_\_\_\_  
**Tel no.:** \_\_\_\_\_ **Fax no.:** \_\_\_\_\_  
**E-mail:** \_\_\_\_\_

1.8 **Agent (7):** \_\_\_\_\_ **Person:** \_\_\_\_\_  
 [5.2] **Agent's Service:** \_\_\_\_\_  
**Postal Address:** \_\_\_\_\_ **Code:** \_\_\_\_\_  
**Tel no.:** \_\_\_\_\_ **Fax no.:** \_\_\_\_\_  
**E-mail:** \_\_\_\_\_

1.9 **Interest of principal agent or other agent in the project.** (Yes / No) No  
 [5.5] Details where "yes": **N/A**

## 2.0 CONTRACT AND SITE INFORMATION

2.1 **The law applicable to this agreement:** (Country / State) RSA  
 [1.7]

2.2 **Works identification:** **REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN**  
 [1.1]

2.3 **Site description:** **SANBI Kirstenbosch National Botanical Garden**  
 [1.1]

2.4 **Possession of the site is to be given on:** (Date)  
 [15.2.1] 

**Within 5 (five) working days after receipt of documentary evidence that:**  
 • Insurances have been effected [12.2];  
 • Security has been provided to the Employer [14.1];  
 • Contractor's Lien has been signed;  
 • Safety Plan has been approved by the Employer.

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|                                |                                                                                                                                                        |                                  |                                                                                              |                |          |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------|----------------|----------|
| 2.5<br>[15.3]                  | Period for the commencement of the <b>works</b> after the contractor takes possession of the <b>site</b> :                                             |                                  |                                                                                              | (Working days) | 5 (Five) |
| 2.6<br>[15.4]<br>,<br>[28.0]   | Completion of the works in <b>sections</b> is required.                                                                                                |                                  |                                                                                              | (Yes / No)     | No       |
| 2.7<br>[3.3],<br>[31.1<br>6.2] | Waiver of the <b>contractor's</b> lien or right of continuing possession is required.                                                                  |                                  |                                                                                              | (Yes / No)     | Yes      |
| 2.8<br>[16.1]                  | Defined restrictions to the <b>site</b> area. Where "yes" the specific requirements are described below or detailed in the <b>contract documents</b> . |                                  |                                                                                              | (Yes / No)     | No       |
| 2.9<br>[16.4]                  | Geotechnical investigation of the <b>site</b> has been undertaken. Where "yes" the results are included in the <b>contract documents</b> .             |                                  |                                                                                              | (Yes / No)     | N/A      |
| 2.10<br>[16.6]                 | Existing premises will be occupied. Where "yes" the specific requirements are described below or detailed in the <b>contract documents</b> .           |                                  |                                                                                              | (Yes / No)     | Yes      |
| 2.11<br>[16.7]                 | Provision of temporary services is required. Where "yes" the specific requirements are described below or detailed in the <b>contract documents</b> .  |                                  |                                                                                              | (Yes / No)     | Yes      |
| 2.11.1                         | <b>Water</b>                                                                                                                                           | Option A<br>Option B<br>Option C | Contractor – his cost<br>Employer – free of charge<br>Contractor – metered (contractor cost) | (A, B or C)    | B        |
| 2.11.2                         | <b>Electricity</b>                                                                                                                                     | Option A<br>Option B<br>Option C | Contractor – his cost<br>Employer – free of charge<br>Contractor – metered (contractor cost) | (A, B or C)    | B        |
| 2.11.3                         | <b>Telecom</b>                                                                                                                                         | Option A<br>Option B<br>Option C | Contractor – his cost<br>Employer – free of charge<br>Contractor – metered (contractor cost) | (A, B or C)    | A        |
| 2.11.4                         | <b>Ablutions</b>                                                                                                                                       | Option A<br>Option B<br>Option C | Contractor – his cost<br>Employer – free of charge<br>Contractor – metered (contractor cost) | (A, B or C)    | A        |

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|                |                                                                                                                                                               |            |            |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|
| 2.12<br>[16.8] | Protection of existing trees and shrubs is required. Where “yes” the specific requirements are described below or detailed in the <b>contract documents</b> . | (Yes / No) | <b>Yes</b> |
|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------|

**3.0 INSURANCE AND SECURITIES**

|                            |                                             |                         |                   |
|----------------------------|---------------------------------------------|-------------------------|-------------------|
| 3.1<br>[10.1.1],<br>[12.6] | Contract works insurance to be effected by: | (Employer / Contractor) | <b>Contractor</b> |
|----------------------------|---------------------------------------------|-------------------------|-------------------|

|                 |          |                              |
|-----------------|----------|------------------------------|
| For the sum of: | (Amount) | <b>Contract Sum Plus 20%</b> |
|-----------------|----------|------------------------------|

|                       |          |                |
|-----------------------|----------|----------------|
| With a deductible of: | (Amount) | <b>R20 000</b> |
|-----------------------|----------|----------------|

|                                         |                                                      |                         |            |
|-----------------------------------------|------------------------------------------------------|-------------------------|------------|
| 3.2<br>[10.1.2],<br>[11.1-3],<br>[12.6] | Supplementary / Special insurance to be effected by: | (Employer / Contractor) | <b>N/A</b> |
|-----------------------------------------|------------------------------------------------------|-------------------------|------------|

|                 |          |            |
|-----------------|----------|------------|
| For the sum of: | (Amount) | <b>N/A</b> |
|-----------------|----------|------------|

|                       |          |            |
|-----------------------|----------|------------|
| With a deductible of: | (Amount) | <b>N/A</b> |
|-----------------------|----------|------------|

|                            |                                               |                         |                   |
|----------------------------|-----------------------------------------------|-------------------------|-------------------|
| 3.3<br>[10.1.3],<br>[12.6] | Public liability insurance to be effected by: | (Employer / Contractor) | <b>Contractor</b> |
|----------------------------|-----------------------------------------------|-------------------------|-------------------|

|                 |          |                             |
|-----------------|----------|-----------------------------|
| For the sum of: | (Amount) | <b>R5 000 000 per claim</b> |
|-----------------|----------|-----------------------------|

|                       |          |                |
|-----------------------|----------|----------------|
| With a deductible of: | (Amount) | <b>R20 000</b> |
|-----------------------|----------|----------------|

|                 |                                      |                         |            |
|-----------------|--------------------------------------|-------------------------|------------|
| 3.4<br>[11.1.1] | Support insurance to be effected by: | (Employer / Contractor) | <b>N/A</b> |
|-----------------|--------------------------------------|-------------------------|------------|

|                 |          |            |
|-----------------|----------|------------|
| For the sum of: | (Amount) | <b>N/A</b> |
|-----------------|----------|------------|

|                       |          |            |
|-----------------------|----------|------------|
| With a deductible of: | (Amount) | <b>N/A</b> |
|-----------------------|----------|------------|

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3.5

[11.

1.2-

3],

[12.

1]

Special insurance to be effected by: (Employer / Contractor)

N/A

Type:

N/A

For the sum of:

(Amount)

N/A

With a deductible of:

(Amount)

N/A

#### 4.0 PRACTICAL COMPLETION DATES AND PENALTIES

4.1

[24.3.

1],

[30.1-

36]

For the **works** as a whole:  
The date for **practical completion** and the **penalty** per **calendar day** is:

Date

5 months after  
date of site  
handover

Penalty Amount

R2 100-00 per calendar  
day (Excl. VAT)

Or

4.2

[24.3.

1],

[28.1]

For the **works** in **sections**:  
The date for **practical completion** and the **penalty** per **calendar day** is:

Date

Penalty Amount

Section 1

N/A

R

Section 2

N/A

R

Section 3

N/A

R

Section 4

N/A

R

#### 5.0 DOCUMENTS AND GENERAL

5.1

[3.7]

Construction document copies to be supplied to the **contractor** free of charge.

(No. of copies)

3

5.2

[3.9]

The **priced document** may be used as a specification of **materials and goods** and work methods.

(Yes / No)

Yes

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|                 |                                                                                                                                      |                 |                                                                          |                |                                                          |
|-----------------|--------------------------------------------------------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------|----------------|----------------------------------------------------------|
| 5.3<br>[3.10]   | The <b>contractor</b> shall provide a schedule of rates.                                                                             | (Yes / No)      | <input type="text" value="No"/>                                          | (Addendum No.) | <input type="text" value="Refer to Bill of Quantities"/> |
| 5.4<br>[3.11]   | Changes made to <b>JBCC</b> standard documents.                                                                                      | (Yes / No)      | <input type="text" value="Yes"/>                                         | (Addendum No.) | <input type="text" value="Refer to Point 6 below"/>      |
| 5.5<br>[15.1.1] | On acceptance of the tender the <b>priced document</b> is to be submitted within the stated <b>working days</b> .                    | (No. of days)   | <input type="text" value="Priced document to be submitted with Tender"/> |                |                                                          |
| 5.6<br>[22.2]   | Work to be undertaken by <b>direct contractors</b> .                                                                                 | (Yes / No)      | <input type="text" value="No"/>                                          | (Addendum No.) | <input type="text" value="N/A"/>                         |
| 5.7<br>[24.9]   | On achievement of practical completion the <b>contractor</b> is to hand over all certificates and manuals etc. related to the works. |                 |                                                                          |                |                                                          |
| 5.8<br>[31.1]   | Interim <b>payment certificate</b> to be issued by:                                                                                  | (Date of Month) | <input type="text" value="25&lt;sup&gt;th&lt;/sup&gt;"/>                 |                |                                                          |
| 5.8<br>[4.1]    | The following items of works shall be designed by the Contractor:                                                                    |                 |                                                                          |                |                                                          |
|                 | (1) Support structures                                                                                                               | (2)             | All guarantees                                                           |                |                                                          |
|                 | (3) A19 certificates                                                                                                                 | (4)             |                                                                          |                |                                                          |
|                 | (5)                                                                                                                                  |                 |                                                                          |                |                                                          |

**6.0 STATE PROVISIONS AND SUBSTITUTIONS**

6.1 *Replace the following definitions with:*

**"CONSTRUCTION PERIOD"** means the period commencing on the date of acceptance of the bid as stated in [15.2.1] And ending on the date of **practical completion**

**"INTEREST"** means the interest rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

6.2  
[3.6] *Replace the last sentence with the following:*

The original signed set of contract documents shall be held by the **Employer**.

6.3  
[5.1] *Replace the clause with the following:*

In terms of the clauses listed hereunder the **Employer** has retained its authority and has not given a mandate to the **Principal Agent**. The **Employer** shall sign all documents in relation to the following clauses:

20.1, 20.7, 26.2.1, 26.3.1, 29.1, 29.2, 29.4.1, 29.4.3, 29.7, 29.8, 32.1, 32.6.2, 32.15, 34.3

Copies of the signed documents shall be provided to the **Principal Agent**.

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6.4  
[8.4] *Replace the clause with the following:*

The **Contractor** shall bear the full risk of damage to and/or destruction of the **works** by whatever cause during construction of the **works** and hereby indemnifies and holds harmless the **Employer** against any such damage. The **Contractor** shall take such precautions and security measures and other steps for the protection and security of the **works** as the **Contractor** may deem necessary.

6.6  
[9.3] *Add the following clause:*

The **Employer's** rights to claim damages for the **Contractor's** omissions and actions will not be affected.

6.7  
[10.1] *Replace the clause with the following:*

The **Contractor** shall effect contract works insurances and, where available, supplementary insurance in respect of civil commotion, riot and strike shall be effected for the **works** for the Contractor's all risk and, in addition, covering the **Contractor's** subcontractors. Such insured amounts shall include the full value of materials and goods supplied by the **Employer** to the Contractor. Supplementary insurance shall not be effected where the **Employer** makes such an election as stated in [11.1.2 – 3]

6.8  
[11.2] *Add the following clause:*

The **Contractor** shall effect public liability insurance for not less than the amount and the deductible as stated in [10.1.3]. In addition the **Contractor** shall effect any relevant workmen's compensation or similar insurances as are required by law. The **Contractor** shall ensure that his sub-contractors effect their own similar insurances.

6.9  
[11.3] *Add the following clause:*

Should the **Employer** decide that the execution of the works could cause the weakening or interference with the support of the land adjacent to the **site**, the **Employer** shall state in [11.1.1] That the **Contractor** shall effect support insurance

6.12  
[12.3] *Replace the clause with the following:*

Where the **Contractor** fails to effect any of the required insurances or to keep them in force, the **Employer** may cancel this agreement in terms of clause [36.0]

6.13  
[12.4] *Replace the clause with the following:*

Before effecting support insurance in terms of [11.2] the **Contractor** shall engage an engineer or technologist to design and inspect the provision of the necessary support.

6.14  
[14.1] *Replace the clause with the following:*

Security:

The securities to be provided by the **Contractor** are:

- (1) Variable construction guarantee
- (2) Fixed construction guarantee
- (3) Advance payment guarantee

6.14  
[15.2.1] *Replace the clause with the following:*

Give the **Contractor** possession of site within ten (10) **working days** of the commencement of the **construction period** provided that the **Contractor** has complied with the terms of [15.1.1] and [15.1.2]

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6.15  
[25.3] *Replace the clause with the following:*

Should the **Principal Agent** not issue a **works completion** list, in terms of [25.1] or [25.2.2], within seven (7) **calendar days** from the end of the inspection period, the **Contractor** shall notify the **Employer** and **Principal Agent**. Should the **Principal Agent** not issue such **works completion** list within seven (7) **calendar days** of such notice, the **Employer** may within seven (7) **calendar days** issue to the **Contractor** a **works completion** list. Should the **Employer**:

6.16  
[25.3.1] *Replace the clause with the following:*

Not issue such **works completion** list within seven (7) **calendar days**, then the **certificate of works completion** shall be deemed to have been issued on the date of expiry of the initial notice period and **works completion** shall be deemed to have been achieved on such date.

6.17  
[25.3.2] *Replace the clause with the following:*

Issue a **works completion** list and the work on the **works completion** list not have been completed or where further **defects** have become apparent, the **Employer** shall forthwith identify such items on the updated **works completion** list and notify the **Contractor**. The **Contractor** shall repeat the procedure in terms of [25.2.2] until such items have been completed to the satisfaction of the **Employer**.

6.18  
[26.1] *Replace the clause with the following:*

The defects liability period for the works shall commence on the date of works completion and end after three hundred and sixty-five (365) **calendar days** for items stated in the **bills of quantities**.

6.19  
[26.4] *Replace the clause with the following:*

Should the **Principal Agent** not issue a **defects** list in terms of [26.2.2 or 26.3.2], within seven (7) **calendar days** from the end of the **defects** liability period, the **Contractor** shall notify the **Employer** and **Principal Agent**. Should the **Principal Agent** not issue such **defects** list within seven (7) **calendar days** of receipt of such notice, the **Employer** may within seven (7) **calendar days** issue to the **Contractor** a **defects** list. Should the **Employer**:

6.20  
[26.4.1] *Replace the clause with the following:*

Not issue such **defects** list within seven (7) **calendar days**, then the **certificate of final completion** shall be deemed to have been issued on the date of expiry of the initial notice period and **final completion** shall be deemed to have been achieved on such date.

6.21  
[26.4.2] *Replace the clause with the following:*

Issue a **defects** list and the work on the **defects** list has not been completed or where further **defects** have become apparent, the **Employer** shall forthwith identify such items on the updated **defects** list and notify the **Contractor**. The **Contractor** shall repeat the procedure in terms of [26.3.2] until such items have been completed to the satisfaction of the **Employer**

6.22  
[26.6] *Replace the clause with the following:*

A **certificate of final completion** issued in terms of [26.0] shall be *prima facie* evidence as to the sufficiency of the **works** and that the Contractor's obligations in terms of [2.0] and [15.0] have been fulfilled other than for **latent defects**.

6.23  
[27.1] *Replace the clause with the following:*

The **latent defects** liability period shall commence at the start of the **construction period** and end ten (10) years from the date of **final completion** where **final completion** in terms of [26.0] is achieved.

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6.24 *Replace the clause with the following:*  
[27.2]

Where cancellation of this **agreement** occurs before the achievement of **final completion** the **latent defects** liability period shall end ten (10) years from the date of cancellation.

6.27 *Replace the clause with the following:*  
[31.4.2]

A reasonable estimate of the value of **materials and goods** in terms of [31.6] unless the **Employer** elects not to pay for such.

6.29 *Replace the clause with the following:*  
[31.9]

The **Employer** shall pay the **Contractor** the amount certified within thirty (30) **calendar days** of the date for issue of the **payment certificate**. Payment shall be subject to the **Contractor** giving the **Employer** a **tax** invoice for the amount due.

6.30 *Replace the last sentence with the following:*  
[31.11.2]

The principle agent shall calculate such default interest at the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

6.31 *Replace the clause with the following:*  
[31.12]

Where a **payment certificate** reflects an amount in favour of the **Employer**, the **Contractor** shall pay the amount certified within twenty-one (21) **calendar days** of the date of issue of the **payment certificate**. Where such an amount has not been paid, the **Contractor** shall be liable for default interest and the **Principal Agent** shall include such an amount in the **recovery statement** in terms of [33.0]. Payment shall be subject to the **Employer** giving the **Contractor** a **tax** invoice for the amount due. The **Principal Agent** shall calculate such interest at the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

6.32 *Replace the clause with the following:*  
[34.1]

The **Contractor** shall cooperate with and assist the **Principal Agent** in the preparation of the **final account** by timeously providing all relevant documents on request. The **Principal Agent** shall issue the final account to the **Contractor** within one hundred and twenty (120) **working days**.

6.33 *Add the following clause:*  
[34.2]

The **Principal Agent** shall allow the **Employer** twenty (20) **working days**, within the period provided in [34.1] to accept the **final account** before presentation to the **Contractor** in terms of [34.3]

6.34 *Add the following:*  
[34.5]

The final payment certificate shall be issued by the **Employer**.

6.35 *Replace the clause with the following:*  
[34.9]

The **Employer** shall concurrently with the issue of the final **payment certificate** issue a statement to the **Contractor** showing the total amount of **tax** certified.

6.36 *The **Employer** shall pay to the **Contractor** the amount certified for payment in the final **payment certificate** within thirty (30) **calendar days** of the date of issue of the final **payment certificate** subject to the **Contractor** giving the **Employer** a **tax** invoice for the amount due.*  
[34.10]

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6.37 *Replace the last sentence with:*  
[34.12]

Such interest shall be calculated at the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999).

6.38 *Replace the clause with the following:*  
[36.1]

The **Employer** may, without prejudice of any other rights available to him, cancel this **agreement** where the **Contractor**:

6.39 *Replace the clause with the following:*  
[36.2]

Where the **Contractor** is in default, the **Employer** may notify the **Contractor**, either directly or through the **Principal Agent**, of his default and of the **Employer's** intention to cancel this **agreement** in terms of [36.1], should the default not be remedied.

6.40 *Replace the clause with the following:*  
[37.2]

Where the **Employer** considers cancelling this **agreement** in terms of [37.1] the **Employer** shall notify the **Contractor** of the **Employer's** intention to cancel this **agreement**.

6.41 *Add the following clause:*  
[39.2]

The **Employer** shall be entitled at any time to unilaterally terminate or cancel this **agreement** or any part thereof. Save for the following the **Contractor** shall not be entitled to claim any other amounts whatsoever in respect of such termination or cancellation of this **agreement**. The **Employer** shall be obliged to pay the **Contractor** as damages and/or loss of profit the lesser of:

6.42 *Add the following clause:*  
[39.2.1]

An amount not exceeding ten per cent (10%) of the **contract sum**.

6.43 *Add the following clause:*  
[39.2.2]

Ten per cent (10%) of the value of incomplete work.

6.43 *Add the following clause:*  
[39.2.3]

The **Contractor's** actual damage or loss as determined by the **Employer** after receipt of evidence substantiating any such damage or loss.

6.44 *Replace the clause with the following:*  
[40.2.2]

Litigation where the **Employer** so elects. Institution of the action shall be commenced and process served with one (1) year from the date of existence of the dispute, failing which the dispute shall lapse.

## **7.0 CHANGES MADE TO THE STANDARD JBCC DOCUMENT**

Changes made to the standard JBCC document are listed in section 6 above.

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**8.0 DECLARATION BY THE PRINCIPAL AGENT**

I, the Principal Agent named in 1.2 above, declare that the information provided above is complete and accurate at the time of calling for tenders. Where necessary, should any of the above information need to be varied, tenderers will be forthwith informed thereof in writing,

.....  
Principal Agent

.....  
Date

## **Section C1.2.2: Contract Data: Contractor to Employer (CE)**

### ***Contractor Addendum Code 2101-CE***

#### ***Introduction***

This addendum contains all variables referred to in the Principal Building Agreement that are the responsibility of the Contractor to provide the appropriate information that is necessary for the Contractor to complete his tender. The Addendum must be completed in full and included in the tender documents. The Addendums "Contract Data – EC", "Contract Data – CE", "Contract Data – ES" and "Contract Data – SE" form part of the contract between the parties.

#### ***Definitions***

The definitions used in this document and the interpretation thereof are as listed in the Principal Building Agreement. The work or phrase of a definition is in **bold text** and shall bear the meaning assigned to it in the Principal Building Agreement. Where such word or phrase is not highlighted it shall bear the meaning consistent with the context of its use. The listed defined word or phrase does not qualify as a definition where information required to be stated in the **contract data** has not been provided.

#### ***Provision of Contract Data***

Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be clearly struck out. Where insufficient space is provided the additional information should be annexed hereto and cross referenced to the applicable clause of the **contract data**.

#### ***Reference Clauses***

Where relevant the Principal Building Agreement clause applicable to the required information is printed in italics under the Contract Data clause number i.e. [27.4.2]

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Contract No: SANBI G408/2021

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## CONTRACT DATA – CONTRACTOR

### 1.0 CONTRACTING PARTY

1.1

[1.2]

**Contractor:**

**Postal Address:**

**Code:**

**Physical Address:**

**Code:**

**E-mail:**

**Tel no.:**

**Fax no.:**

**VAT no.:**

### 2.0 SECURITIES

2.1 The security provisions selected are:

2.1.1  
[14.3]

Variable Construction Guarantee

(Yes / No)

2.1.2  
[14.4]

Fixed Construction Guarantee and Payment Reduction

(Yes / No)

2.1.3  
[14.5]

Advanced Payment is required. Where "Yes"

Amount

**N/A**

2.1.4  
[14.5]

An Advance Payment Guarantee to be provided

(Yes / No)

**No**

### 3.0 PAYMENT AND ADJUSTMENT OF PRELIMINARIES

#### 3.1 Payment of preliminaries

The payment of preliminaries shall be according to the option selected by the **contractor**. The amount included in each monthly **payment certificate** in respect of preliminaries as stated in the **contract data** shall be:

##### 3.1.1 Option A

Assessed by the **principal agent** as an amount prorated to the value of the work duly executed in the same ratio as the preliminaries bears to the **contract sum** excluding:

- The amount for preliminaries
- Any contingency sum
- Any amount in respect of **CPAP**

All inclusive of **tax**.

### 3.1.2 Option B

Calculated from the priced items in the **bills of quantities / lump sum document**. The **contractor** and the **principal agent** shall agree on a division of the priced preliminaries items into:

- An initial or establishment charge
- A monthly charge
- A final or disestablishment charge

All inclusive of **tax**.

In arriving at such a division cognizance shall be taken of such factors as:

- Premiums for annually renewable insurance policies.
- Plant, scaffolding and the like remaining the property of the **contractor** or the hiring company and the capital costs thereof not treated as part of the initial charge.

Where the initial **construction period** is extended the monthly charge shall be recalculated on the same basis as was originally applied but taking into account the revised **construction period** and the amounts already paid to the **contractor**.

Should the **contractor** and the **principal agent** be unable to agree such division then the **principal agent** shall make a division of the amount of preliminaries to be incorporated in the valuations of each monthly **payment certificate**.

### 3.2 Adjustment of preliminaries

The amount of items of preliminaries shall be adjusted to take account of the theoretical financial effect which changes in time and/or value have on preliminaries. Such an adjustment shall be based on the particulars provided by the **contractor** for this purpose in terms of Option A or B and shall preclude any further adjustment of preliminaries.

Adjustment of preliminaries in terms of Options A or B shall apply notwithstanding the actual employment of resources by the **contractor** in the execution of the **works**. The adjustment of preliminaries shall be based on the options as selected in the **contractor's tender**.

For the adjustment of the preliminaries both the **contract sum** and the **contract value** shall exclude:

- The amount of preliminaries
- Any contingency sum
- Any amount in respect of **CPAP**

All inclusive of **tax**.

#### 3.2.1 Option A

The amount of preliminaries shall be adjusted in the following categories:

- An amount which shall not be varied.
- An amount which shall be varied in proportion to the **contract value** as compared with the **contract sum**.
- An amount which shall be varied in proportion to the **construction period** as compared to the initial **construction period** excluding revisions to the **construction period** for which the **contractor** is not entitled to adjustment of the **contract value** in terms of the **agreement**.

The **contractor** shall, within fifteen (15) working days of taking possession of the **site**, give the **principal agent** a breakdown, subdivided into the above categories, of the amount for preliminaries in tabulated form, all to the satisfaction of the **principal agent**.

Should the **contractor** fail to provide such information within the period stipulated then the amount for preliminaries shall be deemed to be subdivided into the following proportions:

- 10% (ten percent) which amount shall not be varied.
- 15% (fifteen percent) which amount shall be varied in proportion to the **contract value** as compared with the **contract sum**.
- 75% (seventy-five percent) which amount shall be varied in proportion to the **construction period** as compared with the initial **construction period**.

For a lump sum document, should the contractor fail to identify the amount for preliminaries, then such an amount shall be deemed to be 7,5% (seven and a half percent) of the contract sum excluding:

- Any contingency sum
- Any amount in respect of **CPAP**

All inclusive of **tax**.

Where sectional completion is required in terms of the agreement, the contractor shall provide the **principal agent** with the division of the above categorised amounts into sections. Should the **contractor** fail to provide such information within the period stipulated the categorised amounts shall be prorated to the value of each section.

### 3.2.2 Option B

The **contractor** shall, within fifteen (15) **working days** of taking possession of the site, provide the **principal agent** with a detailed breakdown of the amount for preliminaries. This breakdown shall set out, among others, full particulars of administrative, supervisory and other personnel, plant, transport and other resources and charges included in the amount for preliminaries. The **contractor** shall show the periods to which the individual items related with the charge rate for such items by means of a **programme** all to the satisfaction of the **principal agent**.

Where sectional completion is required in terms of the **agreement**, the **contractor** shall provide the **principal agent** with details of the resources required for each section and those that are common to sections. Should the **contractor** fail to provide such information within the period stipulated, Option A shall apply.

### 3.2.3 Payment certificate cash flow

The **contractor** shall provide all reasonable assistance to the **principal agent** in the preparation of cash flow projections of claims for **payment certificates** where required by the **employer**. The projections shall be based on the **programme** and shall be updated as and when the **programme** requires updating. The cooperation of the **contractor** in terms of this item shall not prejudice his right to receive payment in terms of the **agreement**.

|       |                                                                         |            |                                 |
|-------|-------------------------------------------------------------------------|------------|---------------------------------|
| 3.2.4 | The <b>contract value</b> shall be adjusted according <b>CPAP</b> [3.1] | (Yes / No) | <input type="text" value="No"/> |
| 3.2.5 | Payment of preliminaries [3.1.1-2]                                      | (A or B)   | <input type="text"/>            |
| 3.2.6 | Adjustment of preliminaries [3.2.1-2]                                   | (A or B)   | <input type="text"/>            |

## 4.0 EMPLOYER CHANGES TO JBCC STANDARD DOCUMENTS

|     |                                                                                                                                                    |            |                                                 |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------|
| 4.1 | Changes (if any) in terms of the Employer's Contract Data are accepted [3.11]. Where "no" an addendum referenced to this clause is to be attached. | (Yes / No) | <input type="text" value="Yes. Refer to EC 6"/> |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------|

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**5.0 THE TENDER**

- 5.1 This tender is to be submitted to the principal agent at the street address provided in the invitation to tender before the tender closing date and time stated herein.
- 5.2 By the submission of this tender to the **employer** the tenderer offers and agrees to contract for, execute and complete the **works** for the tender sum as stated below.
- 5.3 Tenders will be opened in public directly after the stated closing time. Only the total tender sum as stated in each tender will be announced.
- 5.4 The lowest or any tender will not necessarily be accepted.
- 5.5 This tender shall remain in full legal force for **one hundred and twenty (120) calendar days**. The tenderer accepts liability for damages as may be suffered by the **employer** should the tender validity period not be honoured.
- 5.6 This tender takes into account all listed items [4.0] for the purpose of preparing and submitting this tender.
- 5.7 The successful tenderer will be appointed in terms of the JBCC Principal Building Agreement.

**5.8 TENDER SUM COMPILATION****Amount**5.8.1 Tenderer's work including **prime cost amounts**

R

5.8.2 **Employer allowances** stated by the **principal agent**

R

5.8.3 **SUB TOTAL**

R

5.8.4 *Add tax* on 5.8.3

R

5.8.5 **TOTAL TENDER SUM inclusive of tax**

R

5.8.6 Tender Sum in words

|  |  |
|--|--|
|  |  |
|  |  |

Thus done and signed at ..... on .....

.....  
Name of Signatory

.....  
Capacity of Authorised Signatory

.....  
As witness

.....  
for and on behalf of the Tenderer who  
warrants authorisation hereto

**PART C: THE CONTRACT**  
**Part C1: Agreement and Contract Data**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

**C1.3 Form of Construction Guarantee (Pro Forma)**

**C1.3.1 FIXED CONSTRUCTION GUARANTEE - JBCC 2000 PRINCIPAL BUILDING AGREEMENT (Edition 5.0 of July 2007)**

**To:**

South African National Biodiversity Institute  
Private Bag X101  
Silverton  
0184

Sir,

**FIXED CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT  
IN TERMS OF JBCC 2000 (5.0 EDITION JULY 2007)**

1. With reference to the contract between .....(hereinafter referred to as the “**Contractor**”) and the **South African National Biodiversity Institute** (hereinafter referred to as the “**Employer**”), **Contract/Tender No: SANBI G408/2021 for REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN** (hereinafter referred to as the “contract”) in the amount of

R .....(insert amount), .....

..... (insert amount in words),  
(hereinafter referred to as the contract sum),

I / We, .....

in my/our Capacity as ..... and hereby  
representing .....

(hereinafter referred to as the “**Guarantor**”) advise that the **Guarantor** holds at the **Employer’s** disposal the sum of R....., (insert amount in figures)

..... (insert amount in words)  
being 5% of the contract sum (excluding VAT), for the due fulfilment of the contract.

2. The **Guarantor** hereby renounces the benefits of the exceptions *non numeratae punia; non causa debiti; excussionis et divisionis; and de duobus vel pluribus reis debendi* which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to the **Employer** the amount guaranteed, on receipt of a written demand from the **Employer** to do so, stating that the **Employer** has a right of recovery against the **Contractor** in terms of 33.0 of the contract.

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

3. Subject to the above, but without in any way detracting from the **Employer's** rights to adopt any of the procedures provided for in the contract, the said demand can be made by the **Employer**, at any stage prior to the expiry of this guarantee.
4. The amount id by the **Guarantor** in terms of this guarantee may be retained by the **Employer** on condition that upon the issue of the last final **payment certificate**, the **Employer** shall account to the **Guarantor** showing how this amount has been expended and refund any balance due to the **Guarantor**.
5. The **Employer** shall have the absolute right to arrange his affairs with the **Contractor** in any manner which the **Employer** deems fit and the **Guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **Guarantor**. Without derogating from the foregoing, any compromise, extension of the **construction period**, indulgence, release or variation of the **Contractor's** obligation shall not affect the validity of this guarantee.
6. The **Guarantor** reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the **Employer**, whereupon the Guarantor's liability seizes.
7. This guarantee is neither negotiable nor transferable, and
  - (a) must be surrendered to the **Guarantor** at the time when the **Employer** accounts to the **Guarantor** in terms of clause 4 above, or
  - (b) shall lapse on the date of the last **certificate of practical completion**.
8. This guarantee shall not be interpreted as extending the **Guarantor's** liability to anything more than payment of the amount guaranteed.

Signed at ..... on this ..... day of ..... 20.....

**AS WITNESS**

1. ....

2. ....

By and on behalf of

.....  
.....  
(insert the name and physical address of the  
Guarantor)

Name: .....

Capacity: .....  
(Duly authorised thereto by resolution attached  
marked Annexure A)

Date: .....

- A. No alterations and/or additions of the wording of this form will be accepted.
- B. The physical address of the Guarantor must be clearly indicated and will be regarded as the Guarantor's *domicilium citandi et executandi*, for all purposes arising from this guarantee.
- C. This GUARANTEE must be returned to: .....

**C1.3.2: VARIABLE CONSTRUCTION GUARANTEE - JBCC 2000 PRINCIPAL BUILDING AGREEMENT  
(Edition 5.0 of July 2007)**

To:

South African National Biodiversity Institute  
Private Bag X101  
Silverton  
0184

Sir,

**VARIABLE CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF  
JBCC 2000 (5.0 EDITION JULY 2007)**

5. With reference to the contract between .....(hereinafter referred to as the “**Contractor**”) and the **South African National Biodiversity Institute** (hereinafter referred to as the “**Employer**”), **Contract/Tender No: SANBI G408/2021 for REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN**

(hereinafter referred to as the “contract”) in the amount of

R .....(insert amount), .....

..... (insert amount in words),

(hereinafter referred to as the contract sum),

I / We, .....

in my/our Capacity as ..... and hereby

representing .....

(hereinafter referred to as the “**Guarantor**”) advise that the **Guarantor** holds at the **Employer’s** disposal the sum of R....., (insert amount in figures)

..... (insert amount in words)

being 10% of the contract sum (excluding VAT), for the due fulfilment of the contract.

1. I / We advise that the **Guarantor’s** liability in terms of this guarantee shall be as follows:
- (a) From and including the date on which this guarantee is issued and up to and including the date of payment of the amount in the last final **payment certificate**, the **Guarantor** will be liable in terms of this guarantee to the maximum amount of 10% of the **contract sum** (excluding VAT);
  - (b) The **Guarantor’s** liability shall reduce to 3 % of the **contract value** (excluding VAT) as determined at the date of the last **certificate of practical completion**, subject to such amount not exceeding 10% of the **contract sum** (excluding VAT).
  - (c) The **Guarantor’s** liability shall reduce to 1 % of the **contract value** (excluding VAT) as determined at the date of the last **certificate of final completion**, subject to such amount not exceeding 10 % of the **contract sum** (excluding VAT).
  - (d) This guarantee shall expire on the date of the last **final payment certificate**.
  - (e) The **practical completion certificate** and the **final completion certificate** referred to in this guarantee shall mean the certificates issued in terms of the contract.

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

2. The **Guarantor** hereby renounces the benefits of the exceptions *non numeratae punia; non causa debiti; excussionis et divisionis; and de duobus vel pluribus reis debendi* which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to y the **Employer** the amount guaranteed on receipt of a written demand from the **Employer** to do so, stating that the **Employer** has a right of recovery against the **Contractor** in terms of 33.0 of the contract.
4. Subject to the above, but without in any way detracting from the **Employer's** rights to adopt any of the procedures provided for in the contract, the said demand can be made by the **Employer** at any stage prior to the expiry of this guarantee.
5. The amount id by the **Guarantor** in terms of this guarantee may be retained by the **Employer** on condition that upon the issue of the last **final payment certificate**, the **Employer** shall account to the **Guarantor** showing how this amount has been expended and refund any balance due to the **Guarantor**.
6. The **Employer** shall have the absolute right to arrange his affairs with the **Contractor** in any manner which the **Employer** deems fit and the **Guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **Guarantor**. Without derogating from the foregoing, any compromise, extension of the construction period, indulgence, release or variation of the **Contractor's** obligation shall not affect the validity of this guarantee.
7. The **Guarantor** reserves the right to withdraw from this guarantee at any time by depositing the amount guaranteed with the **Employer**, whereupon the **Guarantor's** liability ceases.
8. This guarantee is neither negotiable nor transferable, and
  - (a) must be surrendered to the **Guarantor** at the time when the **Employer** accounts to the **Guarantor** in terms of clause 5 above, or
  - (b) shall lapse in accordance with clause 2(d) above.
9. This guarantee shall not be interpreted as extending the **Guarantor's** liability to anything more than the payment of the amount guaranteed.

Signed at ..... on this ..... day of ..... 20.....

**AS WITNESS**

1. ....

2. ....

.....  
By and on behalf of

.....  
.....  
(insert the name and physical address of the  
Guarantor)

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

Name: .....

Capacity: .....  
(Duly authorised thereto by resolution attached marked Annexure A)

Date: .....

- A. No alterations and/or additions of the wording of this form will be accepted.
- B. The physical address of the Guarantor must be clearly indicated and will be regarded as the Guarantor's *domicilium citandi et executandi*, for all purposes arising from this guarantee.
- C. This GUARANTEE must be returned to: .....  
.....

## PART C: THE CONTRACT

### Part C1: Agreement and Contract Data

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

#### C1.4 Occupational Health and Safety Agreement 37(2)

**AGREEMENT MADE AND ENTERED INTO BETWEEN THE  
SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI)  
(Hereinafter called the “EMPLOYER”)**

.....  
(Contractor / Mandatary / Company / CC Name)

**IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH AND SAFETY ACT, ACT NO. 85 OF  
1993 AS AMENDED**

I, ....., representing  
....., as an Employer  
in its own right, do hereby undertake to ensure, as far as is reasonably practicable, that all work will be performed, and all equipment, machinery or plant used in such a manner as to comply with the provisions of the Occupational Health and Safety Act (OHSA) and the Regulations promulgated there under.

I furthermore confirm that I am / we are registered with the Compensation Commissioner and that all registration and assessment monies due to the Compensation Commissioner have been fully paid or that I / we are insured with an approved licensed compensation insurer.

COID ACT Registration Number: .....

Or Compensation Insurer: ..... Policy No.: .....

I undertake to appoint, where required, suitable competent persons, in writing, in terms of the requirements of OHSA and the Regulations and to charge him / them with the duty of ensuring that the provisions of OHSA and Regulations as well as the Council's Special Conditions of Contract, Way Leave, Lock-Out and Work Permit Procedures are adhered to as far as reasonably practicable.

I further undertake to ensure that any Sub-contractors employed by me will enter into an Occupational Health and Safety Agreement separately, and that such Sub-contractors comply with the conditions set.

I hereby declare that I have read and understand the appended Occupational Health and Safety Conditions and undertake to comply therewith at all times.

I hereby also undertake to comply with the Occupational Health and Safety Specification and Plan.

Signed at ..... this ..... day of ..... 20 .....

.....  
WITNESS

.....  
MANDATARY

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

Signed at ..... this ..... day of ..... 20 .....

.....  
WITNESS

.....  
FOR AND ON BEHALF OF THE EMPLOYER

---

**OCCUPATIONAL HEALTH AND SAFETY CONDITIONS**

1. The Chief Executive Officer of the Contractor shall assume the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act (as amended). Should the Contractor assign any duty in terms of Section 16(2), a copy of such assignment shall immediately be provided to the representative of the Employer as defined in the Contract.
2. All work performed on the Employer's premises shall be performed under the supervision of the construction supervisor who understand the hazards associated with any work that the Contractor performs on the site in terms of Construction Regulations 2003.
3. The Contractor shall appoint a Competent Person who shall be trained on any occupational health and safety aspect pertaining to them or to the work that is to be performed.
4. The Contractor shall ensure that he familiarises himself with the requirements of the Occupational Health and Safety Act and that he, his employees, and any sub-contractors, comply with them.
5. Discipline in the interests of occupational health and safety shall be strictly enforced.
6. Personal protective equipment shall be issued by the Contractor as required and shall be worn at all times where necessary.
7. Written safe work procedures and appropriate precautionary measures shall be available and enforced, and all employees shall be made conversant with the contents of these practices.
8. No substandard equipment/machinery/articles or substances shall be used on the site.
9. All incidents referred to in terms of Section 24 of the Occupational Health and Safety Act shall be reported by the Contractor to the Department of Labour and the Employer.
10. The Employer hereby obtains an interest in the issue of any formal inquiry conducted in terms of Section 32 of the Occupational Health and Safety Act and into any incident involving a Contractor and/or his employees and/or his Sub-Contractor/s.
11. No use shall be made of any of the Employer's machinery / plant / equipment / substance / personal protective equipment or any other article without prior arrangement and written approval.
12. No alcohol or any other intoxicating substance shall be allowed on the site. Any person suspected of being under the influence of alcohol or any other intoxicating substance shall not be permitted access to, or allowed to remain on the site.
13. Prior to commencement of any work, verified copies of all documents mentioned in the agreement, must be presented to the Employer.

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**PART C: THE CONTRACT****Part C2: Pricing Data and Bill of Quantities**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

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| C2.2 | Bill of Quantities   | 108 |

## PART C: THE CONTRACT

### Part C2: Pricing Instruction and Bill of Quantities

|                |                                                                                                                                                                                                                             |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PROJECT TITLE: | REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN |
| CONTRACT NO:   | SANBI G408/2021                                                                                                                                                                                                             |

#### C2.1 Pricing Instructions

##### 1. GENERAL INFORMATION

- a. Bills of Quantities  
The **bills of quantities** forms part of and must be read and priced in conjunction with all the other documents forming part of the **contract documents**, the Standard Conditions of Tender, Conditions of Contract, Specifications, Drawings and all other relevant documentation.
- b. Value Added Tax  
The **contract sum** must include for Value Added Tax (VAT). All rates, provisional sums, etc. in the **bills of quantities** must however be net (exclusive of VAT) with VAT calculated and added to the total value thereof in the Final Summary.
- c. Fixed Price Contract  
Tenderers are to take note that contract price adjustments are not applicable to this contract. Tenderers should therefore make provision in the **contract sum**, schedule of rates, etc., for possible price increases during the contract period, as no claims in this regard shall be entertained.

##### 2. PRICING INFORMATION

1. These schedules of quantities contain sequentially numbered pages as indicated in the contents list. Tenderers are required to check that the pages in their schedules of quantities are complete. If any pages are duplicated or omitted, or if any quantity or typing is unclear or if the schedules of quantities contain any obvious errors, the tenderer shall immediately notify the engineer so that the problem may be rectified. No responsibility for any errors arising from any of the above shall be accepted by the engineer.
2. The schedules of quantities form part of and shall be read in conjunction with the specification, which contains full description of the work required to be performed and the materials and equipment to be supplied and used in the execution of the works. Tenderers shall refer to the specification for the full meaning and description of work to be executed and materials and equipment to be supplied or used in the execution of the work.
3. Tenders shall be submitted with schedules of quantities completed in full. Non or partial completion of the schedules of quantities shall render tenders liable for disqualification.
4. The total tender price as carried forward to the tender form, after correction for arithmetic extension errors, etc. shall be the contract price as awarded to the successful tenderer. Tenderers are requested to check multiplication and addition of the schedules of quantities. The rate submitted shall be regarded as the price offered per item.
5. No changes, additions or omissions to the contents of the schedules of quantities shall be permitted. If any changes, additions or omissions are made these shall not be recognised and the original wording of the schedules of quantities shall apply.

6. The priced schedules of quantities of tender shall be checked by the principal agent. The principal agent reserves the right to request adjustments to one or more individual tender prices and to rectify contradictions and thereby alter the total tender price as submitted. The acceptance of this tender does not preclude the principal agent from querying or requesting of the contractor to adjust the rates at any stage during the contract period or any extension thereto.
7. The responsibility of the accuracy of the quantities included in the schedules, remains with the person who prepared the schedules. The tenderer is relieved from the responsibility of the measurement of quantities at tender stage and the tender amounts shall be for the quantities as listed in the schedules. It is however expected from the tenderer to include for minor construction items such as would be required for the complete execution of works in accordance with the specification.
8. The quantities in these schedules of quantities shall not be used for the ordering of materials.
9. Changes in the scope of works included in the schedule of quantities shall be permitted and shall be measured and priced at the tariffs as included in the schedules of quantities and shall form an addition to or omission from the total of the schedule of quantities. Any changes not covered by any rates in the schedules of quantities shall be agreed and priced as non-schedule items in accordance with the conditions of contract.
10. The extent and value of variations shall be in accordance with the conditions of contract. Variations to the works prior to the execution thereof shall be priced as above. Variations to work already executed shall not necessarily be priced in accordance with the schedule of quantities and shall be judged individually on merit.
11. Except where the separate rate for the material and labour components of any item is specifically called for, the unit price of such item shall be deemed to include the supply and installation of that item.

The description of any items shall, except where otherwise specified, allow for the purchase, delivery, off-loading, storage, packing, lifting, placing, positioning and fixing in position, cutting and wastage, dies and patterns, models and equipment, temporary work, return of packing material, fixing costs, profit or other obligations of the contract arising out of the conditions of contract. All items prices shall exclude VAT but include any other tax or levy as applicable.

All items are measured to the net final quantity as indicated on the drawings with the completed work in the position as indicated on the drawing. All prices and rates shall allow for wastage for whatever reason, irrespective of any other standard measurement which may be currently used elsewhere.

12. Should the contractor identify any additional issues or items which in his opinion are necessary for the complete and proper execution of the works, he shall identify such items in a covering letter attached to his tender and submit rates for these items. Mistakes in the physical measurement of items in the schedules of quantities shall be rectified but no claim shall be considered for the non-measurement of doubtful or minor items or claims resulting of criticism of method of measurement used or descriptions given. The priced schedule of quantities shall not be adjusted on the grounds of the items which in the opinion of the tenderer should have been brought into account unless so detailed in the accompanying letter.
13. The schedule of quantities shall be adjusted to reflect the quantities of materials used on completion of whole or part of the works as a result of remeasurement, qualification or variations. The remeasured quantities shall form the basis for the calculation of payment certificates. The schedules of quantities are not intended for the ordering of materials, etc. and the contractor is advised to extract the quantities for the ordering of materials directly from the drawings and specification. Any order placed directly from the schedules of quantities shall be solely at the contractor's risk.
14. The unit rates as entered in the schedule of quantities with the exclusion of dayworks items shall in all cases include any present and applicable sales tax or similar statutory duties.

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town

Contract No: SANBI G408/2021

**PART C: THE CONTRACT****Part C2: Pricing Data and Bill of Quantities**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

**C2.2 Bill of Quantities**

**TENDER NO:** SANBI G408/2021

**CLIENT:** SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI)

**TITLE OF THE *REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE AT THE***  
**PROJECT: *KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN***

| <b>SCHEDULES FOR REPAIR WORK</b> |                                             | <b>REPAIR</b> |
|----------------------------------|---------------------------------------------|---------------|
| SCHEDULE NO 1:                   | PRELIMINARY AND GENERAL                     | <b>100</b>    |
| SCHEDULE NO 2:                   | STRUCTURAL AND BUILDING RELATED REPAIR WORK | <b>200</b>    |

**Tender No: SANBI G408/2021**  
**SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI)**

REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED  
 GLASSHOUSE INFRASTRUCTURE AT THE KIRSTENBOSCH NATIONAL BOTANICAL

**SCHEDULE OF QUANTITIES**

**NB** TENDERES MUST COMPLETE THE SCHEDULE OF QUANTITIES IN BLAC INK

**SCHEDULE NO 1: PRELIMINARY AND GENERAL**

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AMOUNT |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| A1.0 | <p><b>MEANING OF TERMS "TENDER / TENDERER"</b></p> <p>Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"</p> <p><b>PRELIMINARIES</b></p> <p>The JBCC Preliminaries Code 2101, July 2007 edition for use with the JBCC Principal Building Agreement Edition 5.0 (Reprint 1) Code 2101, July 2007 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked "N/A" signifying "Not Applicable"</p> <p><b>PRICING OF PRELIMINARIES</b></p> <p>Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item</p> <p>Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities</p> <p><b>SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT</b></p> <p><b>DEFINITIONS</b></p> <p><b>DEFINITIONS AND INTERPRETATION</b></p> <p>Refer to Contract Data</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p> |        |

**SCHEDULE NO 1: PRELIMINARY AND GENERAL**

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | AMOUNT |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| A2.0 | <p><b>OBJECTIVE AND PREPARATION</b></p> <p><b>OFFER, ACCEPTANCE AND PERFORMANCE</b></p> <p>Clause 2.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |
| A3.0 | <p><b>DOCUMENTS</b></p> <p>Clause 3.0</p> <p>Clause 3.2.1 is amended by replacing "14.1" with "14.0" Clause 3.7 is amended by the addition of the following:</p> <p>The <b>contractor</b> shall supply and keep a copy of the <b>JBCC</b> Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site, to which the employer, <b>principal agent</b> and <b>agents</b> shall have access</p> <p>Clause 3.11 is amended by replacing the second reference to "principal agent" with the word "<b>employer</b>"</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p> |        |
| A4.0 | <p><b>DESIGN RESPONSIBILITY</b></p> <p>Clause 4.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |
| A5.0 | <p><b>EMPLOYER'S AGENTS</b></p> <p>Clause 5.0</p> <p>Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                        |        |
| A6.0 | <p><b>CONTRACTOR'S SITE REPRESENTATIVE</b></p> <p>Clause 6.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |
| A7.0 | <p><b>COMPLIANCE WITH LAWS AND REGULATIONS</b></p> <p>Clause 7.0</p> <p>Note: A separate clause has been included in Section C: Specific Preliminaries of the <b>bills of quantities / lump sum document</b> for the <b>contractor</b> to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                             |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | AMOUNT |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| A8.0  | <p><b>WORKS RISK</b></p> <p>Clause 8.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |
| A9.0  | <p><b>INDEMNITIES</b></p> <p>Clause 9.0</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |
| A10.0 | <p><b>GENERAL INSURANCES</b></p> <p>Clause 10.0</p> <p>Clause 10.0 is amended by the addition of the following clauses:</p> <p><b>10.5 Damage to the Works</b></p> <p>(a) Without in any way limiting the <b>contractor's</b> obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the <b>works</b> by whatever cause during construction of the <b>works</b> and hereby indemnifies and holds harmless the employer against any such damage. The <b>contractor</b> shall take such precautions and security measures and other steps for the protection and security of the <b>works</b> as the contractor may deem necessary</p> <p>(b) The <b>contractor</b> shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the <b>works</b> and to rebuild, restore, replace and/or repair the <b>works</b></p> <p>(c) The <b>employer</b> shall carry the risk of damage to or destruction of the <b>works</b> and materials paid for by the <b>employer</b> that is the result of the excepted risks as set out in 10.6</p> <p>(d) Where the <b>employer</b> bears the risk in terms of this contract, the <b>contractor</b> shall, if requested to do so, reinstate any damage or destroyed portions of the <b>works</b> and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof</p> <p><b>10.6 Injury to Persons or loss of or damage to Properties</b></p> <p>(a) The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the <b>works</b> unless due to any act or negligence of any person for whose actions the <b>employer</b> is legally liable</p> <p>(b) The <b>contractor</b> shall be liable for and hereby indemnifies the employer against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the <b>site</b>, whether belonging to or under the control of the <b>employer</b> or any other body or person, arising out of or in the course of or by reason of the execution of the <b>works</b> unless due to any act or negligence of any person for whose actions the <b>employer</b> is legally liable</p> |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | AMOUNT |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|      | <p>(c) The <b>contractor</b> shall, upon receiving a <b>contract instruction</b> from the <b>principal agent</b>, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the <b>employer</b> shall be entitled to cause it to be made good and to recover the cost thereof from the <b>contractor</b> or to deduct the same from amounts due to the <b>contractor</b></p> <p>(d) The <b>contractor</b> shall be responsible for the protection and safety of such portions of the premises placed under his control by the <b>employer</b> for the purpose of executing the <b>works</b> until the issue of the <b>certificate of practical completion</b></p> <p>(e) Where the execution of the <b>works</b> involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the <b>contractor</b> shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the <b>works</b> has been completed</p> <p><b>10.7 High risk insurance</b></p> <p>In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:</p> <p><b>10.7.1 Damage to the works</b></p> <p>The <b>contractor</b> shall, from the <b>commencement date</b> of the <b>works</b> until the date of the <b>certificate of practical completion</b> bear the full risk of and hereby indemnifies and holds harmless the <b>employer</b> against any damage to and/or destruction of the <b>works</b> consequent upon a catastrophic ground movement as mentioned above. The <b>contractor</b> shall take such precautions and security measures and other steps for the protection of the <b>works</b> as he may deem necessary</p> <p>When so instructed to do so by the <b>principal agent</b>, the <b>contractor</b> shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the <b>works</b> and to rebuild, restore, replace and/or repair the <b>works</b>, at the <b>contractor's</b> own costs</p> <p><b>10.7.2 Injury to persons or loss of or damage to property</b></p> <p>The <b>contractor</b> shall be liable for and hereby indemnifies and holds harmless the <b>employer</b> against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of, or caused by a catastrophic ground movement as mentioned above</p> <p>The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the <b>site</b>, whether belonging to or under the control of the <b>employer</b> or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract</p> |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | AMOUNT |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|       | <p><b>10.7.3</b> It is the responsibility of the <b>contractor</b> to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the <b>contractor's</b> obligations in terms of the contract, the <b>contractor</b> shall, within twenty-one (21) <b>calendar days</b> of the commencement date but before commencement of the <b>works</b>, submit to the employer proof of such insurance policy, if requested to do so</p> <p><b>10.7.4</b> The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the <b>contractor's</b> default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the <b>contractor</b> or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the <b>employer</b> and the <b>contractor</b> and for this purpose all these contracts shall be considered one indivisible whole</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> |        |
| A11.0 | <p><b>SPECIAL INSURANCES</b></p> <p>Clause 11.0</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |
| A12.0 | <p><b>EFFECTING INSURANCES</b></p> <p>Clause 12.0</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |
| A13.0 | <b>No clause</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |
| A14.0 | <p><b>SECURITY</b></p> <p>Clause 14.0</p> <p>Clauses 14.1 - 14.8 are amended by replacing them with the following:</p> <p>14.1 In respect of contracts with a <b>contract sum</b> up to R1 million, the <b>security</b> to be provided by the <b>contractor</b> to the <b>employer</b> will be a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT)</p> <p>14.1.1 The payment reduction of the value certified in a <b>payment certificate</b> shall be mutatis mutandi in terms of 31.8(A)</p> <p>14.1.2 The <b>employer</b> shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the payment reduction <b>security</b> or portions thereof to the <b>contractor</b></p>                                                                                                                                                                                                                |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | AMOUNT |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|      | <p>14.2 In respect of contracts with a <b>contract sum</b> above R1 million, the <b>contractor</b> shall have the right to select the <b>security</b> to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the <b>schedule</b>. Such <b>security</b> shall be provided to the <b>employer</b> within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>. Should the <b>contractor</b> fail to select the <b>security</b> to be provided or should the <b>contractor</b> fail to provide the <b>employer</b> with the selected security within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>, the <b>security</b> in terms of 14.7</p> <p>14.3 Where <b>security</b> as a cash deposit of ten per cent (10%) of the <b>contract sum</b> (excluding VAT) has been selected:</p> <p>14.3.1 The contractor shall furnish the employer with a cash deposit equal in value to ten per cent (10%) of the contract sum (excluding VAT) within twenty-one (21) calendar days from commencement date</p> <p>14.3.2 Within twenty-one (21) calendar days of the date of practical completion of the works the employer shall reduce the cash deposit to an amount equal to three per cent (3%) of the contract value (excluding VAT), and refund the balance to the contractor</p> <p>14.3.3 Within twenty-one (21) calendar days of the date of final completion of the works the employer shall reduce the cash deposit to an amount equal to one per cent (1%) of the contract value (excluding VAT) and refund the balance to the contractor</p> <p>14.3.4 On the date of payment of the amount in the final payment certificate, the employer shall refund the remainder of the cash deposit to the contractor</p> <p>14.3.5 The employer shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the cash deposit security or portions thereof to the contractor</p> <p>14.3.6 The parties expressly agree that neither the employer nor the contractor shall be entitled to cede the rights to the deposit to any third party</p> <p>14.4 Where security as a variable construction guarantee of ten percent (10%) of the contract sum (excluding VAT) has been selected:</p> <p>14.4.1 The <b>contractor</b> shall furnish the employer with an acceptable variable <b>construction guarantee</b> equal in value to ten per cent (10%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b></p> <p>14.4.2 The variable <b>construction guarantee</b> shall reduce and expire in terms of the Variable <b>Construction Guarantee</b> form included in the invitation to tender</p> <p>14.4.3 The <b>employer</b> shall return the variable <b>construction guarantee</b> to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring</p> <p>14.4.4 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the employer shall issue a written demand in terms of the variable <b>construction guarantee</b></p> |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | AMOUNT |
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|      | <p>14.5 Where <b>security</b> as a fixed <b>construction guarantee</b> of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p> <p>14.5.1 The <b>contractor</b> shall furnish a fixed <b>construction guarantee</b> to the <b>employer</b> equal in value to five per cent (5%) of the <b>contract sum</b> (excluding</p> <p>14.5.2 The fixed <b>construction guarantee</b> shall come into force on the date of issue and shall expire on the date of the last certificate of <b>practical completion</b></p> <p>14.5.3 The <b>employer</b> shall return the fixed <b>construction guarantee</b> to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring</p> <p>14.5.4 The payment reduction of the value certified in a <b>payment certificate</b> shall be in terms of 31.8 (A) and 34.8</p> <p>14.5.5 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of the 33.0 the <b>employer</b> shall be entitled to issue a written demand in terms of the fixed <b>construction guarantee</b> or may recover from the payment reduction or may do both</p> <p>14.6 Where <b>security</b> as a cash deposit of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p> <p>14.6.1 The <b>contractor</b> shall furnish the <b>employer</b> with a cash deposit equal in value to five per cent (5%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b></p> <p>14.6.2 Within twenty-one (21) <b>calendar days</b> of the date of <b>practical completion</b> of the <b>works</b> the <b>employer</b> shall refund the cash deposit in total to the <b>contractor</b></p> <p>14.6.3 The payment reduction of the value certified in a <b>payment certificate</b> shall be mutatis mutandi in terms of 31.8(A)</p> <p>14.6.4 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both</p> <p>14.7 Where <b>security</b> as a payment reduction of ten per cent (10%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p> <p>14.7.1 The payment reduction of the value certified in a <b>payment certificate</b> shall be mutatis mutandi in terms of 31.8(B)</p> <p>14.7.2 The <b>employer</b> shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the <b>contractor</b></p> <p>14.8 Payments made by the guarantor to the <b>employer</b> in terms of the fixed or variable <b>construction guarantee</b> shall not prejudice the rights of the <b>employer</b> or <b>contractor</b> in terms of this <b>agreement</b></p> <p>14.9 Should the contractor fail to furnish the security in terms of 14.2, the employer, in his sole discretion and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT), whereafter 14.7 shall be applicable</p> |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | AMOUNT |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|      | <p><b>EXECUTION</b></p> <p><b>PREPARATION FOR AND EXECUTION OF THE WORKS</b></p> <p>Clause 15.0</p> <p>Clause 15.1.1 is amended by replacing it with:</p> <p>No clause</p> <p>Clause 15.1.2 is amended by replacing it with:</p> <p>The <b>security</b> selected in terms of 14.0</p> <p>Clause 15.1 is amended by the addition of the following clause:</p> <p>15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) <b>calendar days of commencement date</b></p> <p>Clause 15.2.1 is amended by replacing it with the following clause:</p> <p>Give the <b>contractor</b> possession of the <b>site</b> within ten (10) <b>working days</b> of the <b>contractor</b> complying with the terms of 15.1.4</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/> <div style="text-align: right;"><b>Item</b></div></p> <p>14.4.1 The <b>contractor</b> shall furnish the employer with an acceptable variable <b>construction guarantee</b> equal in value to ten per cent (10%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b></p> <p>14.4.2 The variable <b>construction guarantee</b> shall reduce and expire in terms of the Variable <b>Construction Guarantee</b> form included in the invitation to tender</p> <p>14.4.3 The <b>employer</b> shall return the variable <b>construction guarantee</b> to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring</p> <p>14.4.4 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the employer shall issue a written demand in terms of the variable <b>construction guarantee</b></p> <p>14.5 Where <b>security</b> as a fixed <b>construction guarantee</b> of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p> <p>14.5.1 The <b>contractor</b> shall furnish a fixed <b>construction guarantee</b> to the <b>employer</b> equal in value to five per cent (5%) of the <b>contract sum</b> (excluding VAT)</p> <p>14.5.2 The fixed <b>construction guarantee</b> shall come into force on the date of issue and shall expire on the date of the last certificate of <b>practical completion</b></p> |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | AMOUNT |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|      | <p>14.5.3 The <b>employer</b> shall return the fixed <b>construction guarantee</b> to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring</p> <p>14.5.4 The payment reduction of the value certified in a <b>payment certificate</b> shall be in terms of 31.8 (A) and 34.8</p> <p>14.5.5 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of the 33.0 the <b>employer</b> shall be entitled to issue a written demand in terms of the fixed <b>construction guarantee</b> or may recover from the payment reduction or may do both</p> <p>14.6 Where <b>security</b> as a cash deposit of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p> <p>14.6.1 The <b>contractor</b> shall furnish the <b>employer</b> with a cash deposit equal in value to five per cent (5%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b></p> <p>14.6.2 Within twenty-one (21) <b>calendar days</b> of the date of <b>practical completion</b> of the <b>works</b> the <b>employer</b> shall refund the cash deposit in total to the <b>contractor</b></p> <p>14.6.3 The payment reduction of the value certified in a <b>payment certificate</b> shall be mutatis mutandi in terms of 31.8(A)</p> <p>14.6.4 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both</p> <p>14.7 Where <b>security</b> as a payment reduction of ten per cent (10%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p> <p>14.7.1 The payment reduction of the value certified in a <b>payment certificate</b> shall be mutatis mutandi in terms of 31.8(B)</p> <p>14.7.2 The <b>employer</b> shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the <b>contractor</b></p> <p>14.8 Payments made by the guarantor to the <b>employer</b> in terms of the fixed or variable <b>construction guarantee</b> shall not prejudice the rights of the <b>employer</b> or <b>contractor</b> in terms of this <b>agreement</b></p> <p>14.9 Should the contractor fail to furnish the security in terms of 14.2, the employer, in his sole discretion and without notification to the contractor, is entitled to change the contractor's selected form of security to that of a ten per cent (10%) payment reduction of the value certified in the payment certificate (excluding VAT), whereafter 14.7 shall be applicable</p> |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AMOUNT |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| A15.0 | <p><b>EXECUTION</b></p> <p><b>PREPARATION FOR AND EXECUTION OF THE WORKS</b></p> <p>Clause 15.0</p> <p>Clause 15.1.1 is amended by replacing it with:</p> <p>Clause 15.1.2 is amended by replacing it with:</p> <p>The <b>security</b> selected in terms of 14.0</p> <p>Clause 15.1 is amended by the addition of the following clause:</p> <p>15.1.4 An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, (Act 85 of 1993), R84 of February 7, 2014 Construction Regulations that came into effect within twenty-one (21) <b>calendar days</b> of <b>commencement date</b></p> <p>Clause 15.2.1 is amended by replacing it with the following clause:</p> <p>Give the <b>contractor</b> possession of the <b>site</b> within ten (10) <b>working days</b> of the <b>contractor</b> complying with the terms of 15.1.4</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> |        |
| A16   | <p><b>SITE AND ACCESS</b></p> <p>Clause 16.0</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        |
| A17.0 | <p><b>CONTRACT INSTRUCTIONS</b></p> <p>Clause 17.0</p> <p>Clause 17.1.11 is amended by deleting the words "and the appointment of</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |
| A18.0 | <p><b>SETTING OUT OF THE WORKS</b></p> <p>Clause 18.0</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |
| A19.0 | <p><b>TEMPOARARY WORKS AND PLANT</b></p> <p>Clause 19.0</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |        |

**SCHEDULE NO 1: PRELIMINARY AND GENERAL**

| ITEM  | DESCRIPTION                                                                                                                                                                                     | AMOUNT |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| A20.0 | <b>NOMINATED SUBCONTRACTORS</b><br>Clause 20.0<br>Clause 20.1.3 is amended by replacing it with the following:<br>No clause<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div> |        |
| A21.0 | <b>SELECTED SUBCONTRACTORS</b><br>Clause 21.0<br>Clause 21 is amended by replacing it with:<br>No clause<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                    |        |
| A22.0 | <b>EMPLOYER'S DIRECT CONTRACTORS</b><br>Clause 22.0<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                                                         |        |
| A23.0 | <b>CONTRACTOR'S DOMESTIC SUBCONTRACTORS</b><br>Clause 23.0<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                                                  |        |
| A24.0 | <b>COMPLETION</b><br><b>PRACTICAL COMPLETION</b><br>Clause 24.0<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                                             |        |
| A25.0 | <b>WORKS COMPLETION</b><br>Clause 25.0<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                                                                      |        |
| A26.0 | <b>FINAL COMPLETION</b><br>Clause 26.0<br>Clause 26.1.2 is amended by inserting<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                             |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AMOUNT |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| A27.0 | <b>LATENT DEFECTS LIABILITY PERIOD</b><br>Clause 27.0<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |
| A28.0 | <b>SECTIONAL COMPLETION</b><br>Clause 28.0<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |        |
| A29.0 | <b>REVISION OF DATE FOR PRACTICAL COMPLETION</b><br>Clause 29.0<br>Clause 29.2.5 is amended by replacing it with:<br>No clause<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |        |
| A30.0 | <b>PENALTY FOR LATE OR NON-COMPLETION</b><br>Clause 30.0<br>Fixed:_____Value related:_____Time related:_____ <div>Item</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |
| A31.0 | <b>PAYMENT</b><br><b>INTERIM PAYMENT TO THE CONTRACTOR</b><br>Clause 31.0<br>Clause 31.5.2 is amended by replacing "14.7.1" with "14.0"<br>Clause 31.8 is amended by replacing it with the following two alternative clauses:<br><br><b>Alternative A</b><br><br>31.8(A) Where a <b>security</b> is selected in terms of 14.1; 14.5 or 14.6, the value of the <b>works</b> in terms of 31.4.1 and <b>materials and goods</b> in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:<br><br>31.8(A).1 Ninety-five per cent (95%) of such value in interim <b>payment certificates</b> issued up to the date of <b>practical completion</b><br><br>31.8(A).2 Ninety-seven per cent (97%) of such value in interim <b>payment certificates</b> issued on the date of <b>practical completion</b> and up to but excluding the date of <b>final completion</b><br><br>31.8(A).3 Ninety-nine per cent (99%) of such value in interim <b>payment certificates</b> issued on the date of <b>final completion</b> and up to but excluding the final <b>payment certificate</b> in terms of 34.6<br><br>31.8(A).4 One hundred per cent (100%) of such value in the final <b>payment certificate</b> in terms of 34.6 except where the amount certified is in favour of the <b>employer</b> . In such an event the payment reduction shall remain at the adjustment |        |

**SCHEDULE NO 1: PRELIMINARY AND GENERAL**

| ITEM  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AMOUNT |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|       | <p><b>Alternative B</b></p> <p>31.8(B) Where <b>security</b> as a payment reduction in terms of 14.7 has been selected, the value of the <b>works</b> in terms of 31.4.1 and <b>materials and goods</b> in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:</p> <p>31.8(B).1 Ninety per cent (90%) of such value in interim <b>payment certificates</b> issued up to the date of <b>practical completion</b></p> <p>31.8(B).2 Ninety-seven per cent (97%) of such value in interim <b>payment certificates</b> issued on the date of <b>practical completion</b> and up to but excluding the date of <b>final completion</b></p> <p>31.8(B).3 Ninety-nine per cent (99%) of such value in interim <b>payment certificates</b> issued on the date of <b>final completion</b> and up to but excluding the final <b>payment certificate</b> in terms of 34.6</p> <p>31.8(B).4 One hundred per cent (100%) of such value in the final <b>payment certificate</b> in terms of 34.6 except where the amount certified is in favour of the <b>employer</b>. In such an event the payment reduction shall remain at the adjustment</p> <p>Clause 31.12 is amended by deleting the following:</p> <p>Payment shall be subject to the employer giving the contractor a tax invoice for the amount due</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> |        |
| A32.0 | <p><b>ADJUSTMENT TO THE CONTRACT VALUE</b></p> <p>Clause 32.0</p> <p>Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:</p> <p>"due to no fault of the <b>contractor</b>"</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |
| A33.0 | <p><b>RECOVERY OF EXPENSE AND LOSS</b></p> <p>Clause 33.0</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |
| A34.0 | <p><b>FINAL ACCOUNT AND FINAL PAYMENT</b></p> <p>Clause 34.0</p> <p>Clause 34.1 is amended by removing</p> <p>Clause 34.2 is amended by inserting</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AMOUNT |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| A35.0 | <p>Clause 34.8 is amended by deleting the words “where <b>security</b> as a fixed <b>construction guarantee</b> in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1”</p> <p>Clause 34.13 is amended by replacing “seven (7) <b>calendar days</b>” with “twenty-one (21) <b>calendar days</b>” and deleting the words “subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due”</p> <p>Fixed:_____Value related:_____Time related:_____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |        |
|       | <p><b>PAYMENT TO OTHER PARTIES</b></p> <p>Clause 35.0</p> <p>Fixed:_____Value related:_____Time related:_____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |
| A36.0 | <p><b>TERMINATION BY EMPLOYER – CONTRACTOR’S DEFAULT</b></p> <p>Clause 36.0</p> <p>Clause 36.1 is amended by the addition of the following clauses</p> <p>36.1.3 refuses or neglects to comply strictly with any of the conditions of contract</p> <p>36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa</p> <p>36.1.5 in the judgement of the <b>employer</b>, has engaged in <b>corrupt or fraudulent practices</b> in competing for or in executing the contract</p> <p>Clause 36.3 is amended by removing the reference to “No clause” and replacing the words “<b>principal agent</b>” with “<b>employer</b>”</p> <p>Clause 36.0 is amended by the addition of the following clause:</p> <p>Clause 36.0 is amended by the addition of the following clause:\</p> <p>36.7 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b>; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed:_____Value related:_____Time related:_____</p> <p style="text-align: right;"><b>Item</b></p> |        |
|       | <p><b>TERMINATION BY EMPLOYER – LOSS AND DAMAGE</b></p> <p>Clause 37.0</p> <p>Clause 37.3.5 is amended by replacing “ninety (90)” with “one-hundred and twenty (120)”</p> <p>Clause 37.0 is amended by the addition of the following clause:</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |        |
| A37.0 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM  | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | AMOUNT |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| A38.0 | <p>37.5 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b>; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b>. The <b>contractor</b> shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p> <p><b>TERMINATION BY CONTRACTOR – EMPLOYER’S DEFAULT</b></p> <p>Clause 38.0</p> <p>Clause 38.5.4 is amended by replacing “ninety (90)” with “one-hundred and twenty (120)”</p> <p>Clause 38.0 is amended by the addition of the following clause:</p> <p>38.7 Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b>; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b>. The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p> |        |
| A39.0 | <p><b>TERMINATION – CESSATION OF THE WORKS</b></p> <p>Clause 39.0</p> <p>Clause 39.3.5 is amended by the addition of the following at the end of the sentence:</p> <p>“within one hundred and twenty (120) <b>working days</b> of completion of such a report”</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |        |
| A40.0 | <p><b>DISPUTE</b></p> <p><b>SETTLEMENT OF DISPUTES</b></p> <p>Clause 40.0</p> <p>Clause 40.2.2 is amended by replacing “one (1) year” with “three (3) years”</p> <p>Clause 40.6 is amended by removing the reference to:</p> <p>No clause</p> <p>Clause 40.7.1 is amended by replacing “(10)” with “(15)” and by the addition of the following:</p> <p>Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the mediator and related costs</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                          | AMOUNT |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| B1.1 | <p><b>Definitions and interpretation</b></p> <p>See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p> |        |
| B2.0 | <b>DOCUMENTS</b>                                                                                                                                                                                                                                                                     |        |
| B2.1 | <p><b>Checking of documents</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                       |        |
| B2.2 | <p><b>Provisional bills of quantities</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                             |        |
| B2.3 | <p><b>Availability of construction documentation</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                  |        |
| B2.4 | <p><b>Interests of agents</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                         |        |
| B2.5 | <p><b>Priced documents</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                            |        |
| B2.6 | <p><b>Tender submission</b></p> <p>Clause 2.6 is amended by replacing "JBCC Form of Tender" with "The Tender Page 97"</p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                 |        |
| B3.0 | <b>THE SITE</b>                                                                                                                                                                                                                                                                      |        |
| B3.1 | <b>Defined works area</b>                                                                                                                                                                                                                                                            |        |
| B3.2 | <p><b>Geotechnical investigation</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                  |        |
| B3.3 | <p><b>Inspection of the site</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                      |        |
| B3.4 | <p><b>Existing premises occupied</b></p> <p>Fixed: _____ Value related: _____ Time related: _____</p> <p style="text-align: right;"><b>Item</b></p>                                                                                                                                  |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM  | DESCRIPTION                                                                                                         | AMOUNT |
|-------|---------------------------------------------------------------------------------------------------------------------|--------|
| B3.5  | <b><i>Previous work – dimensional accuracy</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item |        |
| B3.6  | <b><i>Previous work – defects</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item              |        |
| B3.7  | <b><i>Services – known</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                     |        |
| B3.8  | <b><i>Services – unknown</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                   |        |
| B3.9  | <b><i>Protection of trees</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                  |        |
| B3.9  | <b><i>Protection of trees</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                  |        |
| B3.10 | <b><i>Articles of value</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                    |        |
| B3.11 | <b><i>Inspection of adjoining properties</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item   |        |
| B4.0  | <b>MANAGEMENT OF CONTRACT</b>                                                                                       |        |
| B4.1  | <b><i>Management of the works</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item              |        |
| B4.2  | <b><i>Programme for the works</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item              |        |
| B4.3  | <b><i>Progress meetings</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                    |        |
| B4.4  | <b><i>Technical meetings</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                   |        |
| B4.5  | <b><i>Labour and plant records</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item             |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM | DESCRIPTION                                                                                                                       | AMOUNT |
|------|-----------------------------------------------------------------------------------------------------------------------------------|--------|
| B5.0 | <b>SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS</b>                                                                     |        |
| B5.1 | <b><i>Samples of materials</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                        |        |
| B5.2 | <b><i>Workmanship samples</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                         |        |
| B5.3 | <b><i>Shop drawings</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                               |        |
| B5.4 | <b><i>Compliance with manufacturers' instructions</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b> |        |
| B6.0 | <b>TEMPORARY WORKS AND PLANT</b>                                                                                                  |        |
| B6.1 | <b><i>Deposits and fees</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                           |        |
| B6.2 | <b><i>Enclosure of the works</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                      |        |
| B6.3 | <b><i>Advertising</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                 |        |
| B6.4 | <b><i>Plant, equipment, sheds and offices</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>         |        |
| B6.5 | <b><i>Main notice board</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                           |        |
| B6.6 | <b><i>Subcontractors' notice board</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                |        |
| B7.0 | <b>TEMPORARY SERVICES</b>                                                                                                         |        |
| B7.1 | <b><i>Location</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                    |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM  | DESCRIPTION                                                                                                                                                                                                                                                                                                                             | AMOUNT |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| B7.2  | <b>Water</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                                                    |        |
| B7.3  | <b>Electricity</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                                              |        |
| B7.4  | <b>Telecommunication facilities</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                             |        |
| B7.5  | <b>Ablution facilities</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                                      |        |
| B8.0  | <b>PRIME COST AMOUNTS</b>                                                                                                                                                                                                                                                                                                               |        |
| B8.1  | <b>Responsibility for prime cost amounts</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                    |        |
| B9.0  | <b>ATTENDANCE ON N/S SUBCONTRACTORS</b>                                                                                                                                                                                                                                                                                                 |        |
| B9.1  | <b>General attendance</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                                       |        |
| B9.2  | <b>Special attendance</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                                       |        |
| B9.3  | <b>Commissioning – fuel, water and electricity</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                              |        |
| B10.0 | <b>FINANCIAL ASPECTS</b>                                                                                                                                                                                                                                                                                                                |        |
| B10.1 | <b>Statutory taxes, duties and levies</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                       |        |
| B10.2 | <b>Payment for preliminaries</b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                                |        |
| B10.3 | <b>Adjustment of preliminaries</b><br>Clauses B10.3.1 and B10.3.2 are amended by replacing “within fifteen (15) <b>working days</b> of taking possession of the <b>site</b> ” with “when submitting his priced <b>bills of quantities / lump sum document</b> ”<br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b> |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL

| ITEM   | DESCRIPTION                                                                                                                             | AMOUNT |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------|--------|
| B10.4  | <b>Payment certificate cash flow</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                   |        |
| B11.0  | <b>GENERAL</b>                                                                                                                          |        |
| B11.1  | <b>Protection of the works</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                         |        |
| B11.2  | <b>Protection / isolation of existing / sectionally occupied works</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item |        |
| B11.3  | <b>Security of the works</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                           |        |
| B11.4  | <b>Notice before covering work</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                     |        |
| B11.5  | <b>Disturbance</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                                     |        |
| B11.6  | <b>Environmental disturbance</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                       |        |
| B11.7  | <b>Works cleaning and clearing</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                     |        |
| B11.8  | <b>Vermin</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                                          |        |
| B11.9  | <b>Overhand work</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                                                   |        |
| B11.10 | <b>Instruction manuals and guarantees</b><br>Fixed: _____ Value related: _____ Time related: _____<br>Item                              |        |

**SCHEDULE NO 1: PRELIMINARY AND GENERAL**

| ITEM   | DESCRIPTION                                                                                                                                                                                                                                                                                                                                               | AMOUNT |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| B11.11 | <b><i>As built information</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                                                |        |
| B11.12 | <b><i>Tenant installations</i></b><br>Fixed: _____ Value related: _____ Time related: _____<br><b>Item</b>                                                                                                                                                                                                                                                |        |
| B12.0  | <b>SCHEDULE OF VARIABLES</b>                                                                                                                                                                                                                                                                                                                              |        |
| B12.1  | <b><i>Schedule of variables</i></b><br>This <b>schedule</b> contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these <b>Preliminaries</b> |        |
| 12,1   | <b>PRE-TENDER INFORMATION</b><br><b><i>Refer to Contract Data</i></b>                                                                                                                                                                                                                                                                                     |        |
| 12,2   | <b>POST-TENDER INFORMATION</b><br><b><i>Refer to Contract Data</i></b>                                                                                                                                                                                                                                                                                    |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL (SECTION C)

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | AMOUNT |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| C1.0 | <p><b>SECTION C: SPECIFIC PRELIMINARIES</b></p> <p><b>Section C</b> contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item</p> <p><b>CONTRACT DRAWINGS</b></p> <p>* Select relevant paragraph and delete whichever is not applicable depending on whether the contract is based on a <b>bills of quantities</b> or <b>lump sum document</b></p> <p>* The drawings issued with the tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the <b>works</b> and the manner in which they are to be executed</p> <p>Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the <b>principal agent</b></p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> |        |
| C2.0 | <p><b>PREAMBLES</b></p> <p>The Specifications shall be read in conjunction with the <b>bills of quantities / lump sum document</b> and be referred to for the full descriptions of work to be done and materials to be used</p> <p>The specifications are issued and shall be read in conjunction with the drawings and the <b>bills of quantities / lump sum document</b></p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |        |
| C3.0 | <p><b>TRADE NAMES</b></p> <p>Wherever a trade name for any product has been described in the <b>bills of quantities / lump sum document</b>, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the <b>principal agent</b> being obtained prior to the closing date for submission of tenders</p> <p>If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                         |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL (SECTION C)

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | AMOUNT |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| C4.0 | <p><b>IMPORTED MATERIALS AND EQUIPMENT</b></p> <p>Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Annexure D Imported Content Declaration)</p> <p>Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable)</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/> <b>Item</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |
| C5.0 | <p><b>OCCUPATIONAL HEALTH AND SAFETY ACT</b></p> <p>The <b>contractor</b> shall comply with all the requirements as set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993)</p> <p>It is required of the <b>contractor</b> to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the <b>bills of quantities / lump sum document</b></p> <p>The <b>contractor</b> must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the <b>principal agent</b>, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress <b>payment certificate</b> until the <b>contractor</b> provides satisfactory proof of compliance. The <b>contractor</b> shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment</p> <p>Provision for pricing of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained</p> <p>0,1 Preparation of Health and Safety Plan. Implementation and maintenance of Health and Safety Plan</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/> <b>Item</b></p> <p>0,2 Health and Safety Training. Implementation and maintenance of Training</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/> <b>Item</b></p> <p>0,3 Personal Protective Clothing and equipment. Maintenance of Personal Protective Clothing and Equipment</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/> <b>Item</b></p> |        |

## SCHEDULE NO 1: PRELIMINARY AND GENERAL (SECTION C)

| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | AMOUNT |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|      | <p>0,4 Fences, Signs and Barricades. Maintenance of Fence, Signs and Barricades</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> <p>0,5 Establishment of Safety Administration. Implementation and maintenance of Safety Administration</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> <p>0,6 Other Health and Safety Fixed-charge Obligations. Other Health and Safety Time-Related Obligations</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |        |
| C6.0 | <p><b>COVID-19 GUIDELINES</b></p> <p>The <b>contractor</b> shall comply with all the requirements as set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993), in conjunction with the Hazardous Biological Agents Regulation.</p> <p>It is required of the <b>contractor</b> to thoroughly study the COVID-19 Specification that must be read together with and is deemed to be incorporated under this Section of the <b>bills of quantities / lump sum document</b></p> <p>The <b>contractor</b> must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non-compliance, the <b>principal agent</b>, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress <b>payment certificate</b> until the <b>contractor</b> provides satisfactory proof of compliance. The <b>contractor</b> shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment</p> <p>Provision for pricing of the COVID-19 is made under this clause and it is explicitly pointed out that all requirements of the aforementioned are deemed to be priced hereunder and no additional claims in this regard shall be entertained</p> <p>0,1 Appointment of COVID-19 awareness champion</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> <p>0,2 Arranging awareness workshops</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> <p>0,3 Providing Sanitizing/ Washing facilities</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> <p>0,4 Provide notices and posters</p> <p>Fixed: _____ Value related: _____ Time related: _____<br/>Item</p> |        |

**SCHEDULE NO 1: PRELIMINARY AND GENERAL (SECTION C)**

| ITEM | DESCRIPTION                                                                                                | AMOUNT |
|------|------------------------------------------------------------------------------------------------------------|--------|
|      | 0,5 Provide screening facility<br>Fixed: _____ Value related: _____ Time related: _____<br><div>Item</div> |        |

**SCHEDULE NO 1: PRELIMINARIES AND GENERAL**

| <b>COLLECTION</b> |                                                     | <b>Page</b> | <b>AMOUNT</b> |
|-------------------|-----------------------------------------------------|-------------|---------------|
| <b>Item</b>       |                                                     |             |               |
|                   | <b>SECTION A: JBCC PRINCIPAL BUILDING AGREEMENT</b> |             |               |
|                   | <b>Definitions</b>                                  |             |               |
| A1.0              | Definitions and interpretation                      | 1.1-2       |               |
|                   | <b>Objective and Preparation</b>                    |             |               |
| A2.0              | Offer, acceptance and performance                   | 1.1-3       |               |
| A3.0              | Documents                                           | 1.1-3       |               |
| A4.0              | Design responsibility                               | 1.1-3       |               |
| A5.0              | Employer's agents                                   | 1.1-3       |               |
| A6.0              | Contractor's Site representative                    | 1.1-3       |               |
| A7.0              | Compliance with laws and regulations                | 1.1-3       |               |
| A8.0              | Works risk                                          | 1.1-4       |               |
| A9.0              | Indemnities                                         | 1.1-4       |               |
| A10.0             | General insurances                                  | 1.1-4       |               |
| A11.0             | Special insurances                                  | 1.1-6       |               |
| A12.0             | Effecting insurances                                | 1.1-6       |               |
| A13.0             | Assignment                                          | 1.1-6       |               |
| A14.0             | Security                                            | 1.1-6       |               |
|                   | <b>Execution</b>                                    |             |               |
| A15.0             | Preparation for and execution of the works          | 1.1-11      |               |
| A16.0             | Site and Access                                     | 1.1-11      |               |
| A17.0             | Contract instructions                               | 1.1-11      |               |
| A18.0             | Setting out of the works                            | 1.1-11      |               |
| A19.0             | Temporary Works and Plant                           | 1.1-11      |               |
| A20.0             | Nominated subcontractors                            | 1.1-12      |               |
| A21.0             | Selected subcontractors                             | 1.1-12      |               |
| A22.0             | Employer's direct contractors                       | 1.1-12      |               |
| A23.0             | Contractor's domestic subcontractors                | 1.1-12      |               |
|                   | <b>Completion</b>                                   |             |               |
| A24.0             | Practical completion                                | 1.1-12      |               |
| A25.0             | Works completion                                    | 1.1-12      |               |
| A26.0             | Final completion                                    | 1.1-12      |               |
| A27.0             | Latent defects liability period                     | 1.1-13      |               |
| A28.0             | Sectional completion                                | 1.1-13      |               |
| A29.0             | Revision of date for practical completion           | 1.1-13      |               |
| A30.0             | Penalty for late or non-completion                  | 1.1-13      |               |
|                   | <b>Payment</b>                                      |             |               |
| A31.0             | Interim payment to the contractor                   | 1.1-13      |               |
| A32.0             | Adjustment to the contract value                    | 1.1-14      |               |
| A33.0             | Recovery of expense and loss                        | 1.1-14      |               |
| A34.0             | Final account and final payment                     | 1.1-14      |               |
| A35.0             | Payment to other parties                            | 1.1-15      |               |
| Carried forward R |                                                     |             |               |

**SCHEDULE NO 1: PRELIMINARIES AND GENERAL**

| <b>COLLECTION</b> |                                                | <b>Page</b> | <b>AMOUNT</b> |
|-------------------|------------------------------------------------|-------------|---------------|
| <b>Item</b>       |                                                |             |               |
|                   | <b>Cancellation</b>                            |             |               |
| A36.0             | Termination by employer – contractor's default | 1.1-15      |               |
| A37.0             | Termination by employer – loss and damage      | 1.1-15      |               |
| A38.0             | Termination by contractor – employer's default | 1.1-16      |               |
| A39.0             | Termination – cessation of the works           | 1.1-16      |               |
|                   | <b>Dispute</b>                                 |             |               |
| A40.0             | Settlement of disputes                         | 1.1-16      |               |
|                   | <b>SECTION B: JBCC PRELIMINARIES</b>           |             |               |
| B1.0              | Definitions and interpretation                 |             |               |
| B1.1              | Definitions and interpretation                 | 1.1-17      |               |
| B2.0              | <b>Documents</b>                               |             |               |
| B2.1              | Checking of documents                          | 1.1-17      |               |
| B2.2              | Provisional bills of quantities                | 1.1-17      |               |
| B2.3              | Availability of construction documentation     | 1.1-17      |               |
| B2.4              | Interests of agents                            | 1.1-17      |               |
| B2.5              | Priced documents                               | 1.1-17      |               |
| B2.6              | Tender submission                              | 1.1-17      |               |
| B3.0              | <b>The Site</b>                                |             |               |
| B3.1              | Defined works area                             | 1.1-17      |               |
| B3.2              | Geotechnical investigation                     | 1.1-17      |               |
| B3.3              | Inspection of the site                         | 1.1-17      |               |
| B3.4              | Existing premises occupied                     | 1.1-17      |               |
| B3.5              | Previous work – dimensional accuracy           | 1.1-18      |               |
| B3.6              | Previous work – defects                        | 1.1-18      |               |
| B3.7              | Services – known                               | 1.1-18      |               |
| B3.8              | Services – unknown                             | 1.1-18      |               |
| B3.9              | Protection of trees                            | 1.1-18      |               |
| B3.10             | Articles of value                              | 1.1-18      |               |
| B3.11             | Inspection of adjoining properties             | 1.1-18      |               |
| B4.0              | <b>Management of contract</b>                  |             |               |
| B4.1              | Management of the works                        | 1.1-18      |               |
| B4.2              | Programme for the works                        | 1.1-18      |               |
| B4.3              | Progress meetings                              | 1.1-18      |               |
| B4.4              | Technical meetings                             | 1.1-18      |               |
| B4.5              | Labour and plant records                       | 1.1-18      |               |
|                   | Carried forward R                              |             |               |

**SCHEDULE NO 1: PRELIMINARIES AND GENERAL**

| <b>COLLECTION</b> |                                                                 | <b>Page</b>       | <b>AMOUNT</b> |
|-------------------|-----------------------------------------------------------------|-------------------|---------------|
| <b>Item</b>       |                                                                 |                   |               |
| <b>B5.0</b>       | <b>Samples, shop drawings and manufacturers' instructions</b>   |                   |               |
| B5.1              | Samples of materials                                            | 1.1-19            |               |
| B5.2              | Workmanship samples                                             | 1.1-19            |               |
| B5.3              | Shop drawings                                                   | 1.1-19            |               |
| B5.4              | Compliance with manufacturers' instructions                     | 1.1-19            |               |
| <b>B6.0</b>       | <b>Temporary works and plant</b>                                |                   |               |
| B6.1              | Deposits and fees                                               | 1.1-19            |               |
| B6.2              | Enclosure of the works                                          | 1.1-19            |               |
| B6.3              | Advertising                                                     | 1.1-19            |               |
| B6.4              | Plant, equipment, sheds and offices                             | 1.1-19            |               |
| B6.5              | Main notice board                                               | 1.1-19            |               |
| B6.6              | Subcontractors' notice board                                    | 1.1-19            |               |
| <b>B7.0</b>       | <b>Temporary services</b>                                       |                   |               |
| B7.1              | Location                                                        | 1.1-19            |               |
| B7.2              | Water                                                           | 1.1-20            |               |
| B7.3              | Electricity                                                     | 1.1-20            |               |
| B7.4              | Telecommunication facilities                                    | 1.1-20            |               |
| B7.5              | Ablution facilities                                             | 1.1-20            |               |
| <b>B8.0</b>       | <b>Prime cost amounts</b>                                       |                   |               |
| B8.1              | Responsibility for prime cost amounts                           | 1.1-20            |               |
| <b>B9.0</b>       | <b>Attendance on N/S subcontractors</b>                         |                   |               |
| B9.1              | General attendance                                              | 1.1-20            |               |
| B9.2              | Special attendance                                              | 1.1-20            |               |
| B9.3              | Commissioning – fuel, water and electricity                     | 1.1-20            |               |
| <b>B10</b>        | <b>Financial aspects</b>                                        |                   |               |
| B10.1             | Statutory taxes, duties and levies                              | 1.1-20            |               |
| B10.2             | Payment for preliminaries                                       | 1.1-20            |               |
| B10.3             | Adjustment of preliminaries                                     | 1.1-20            |               |
| B10.4             | Payment certificate cash flow                                   | 1.1-21            |               |
| <b>B11.0</b>      | <b>General</b>                                                  |                   |               |
| B11.1             | Protection of the works                                         | 1.1-21            |               |
| B11.2             | Protection / isolation of existing / sectionally occupied works | 1.1-21            |               |
| B11.3             | Security of the works                                           | 1.1-21            |               |
| B11.4             | Notice before covering work                                     | 1.1-21            |               |
| B11.5             | Disturbance                                                     | 1.1-21            |               |
| B11.7             | Works cleaning and clearing                                     | 1.1-21            |               |
| B11.8             | Vermin                                                          | 1.1-21            |               |
| B11.9             | Overhand work                                                   | 1.1-21            |               |
| B11.10            | Instruction manuals and guarantees                              | 1.1-21            |               |
| B11.11            | As built information                                            | 1.1-22            |               |
| B11.12            | Tenant installations                                            | 1.1-22            |               |
|                   |                                                                 | Carried forward R |               |

EACH ITEM CARRIED TO COLLECTION

## SCHEDULE NO 2: STRUCTURAL AND BUILDING RELATED REPAIR WORK

| PAYMENT<br>REFERS<br>TO | ITEM<br>NO      | DESCRIPTION                                                                                                            | UNIT           | QUAN-<br>TITY | RATE | AMOUNT |
|-------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|--------|
| BA.01                   |                 | <b><u>NOTE: BILL OF QUANTITIES TO BE READ IN CONJUNCTION WITH DRAWINGS PROVIDED.</u></b>                               |                |               |      |        |
|                         | 200,00          | <b><u>STRUCTURAL AND BUILDING</u></b>                                                                                  |                |               |      |        |
|                         | 201,00          | <b><u>BA : ROOFS</u></b>                                                                                               |                |               |      |        |
|                         | 201,01          | <b><u>Supply and install cladding and sheeting:</u></b>                                                                |                |               |      |        |
|                         |                 | .01 1,2 mm corrugated UV2 polycarbonate roof sheeting "Clear" 2m width sheets:                                         |                |               |      |        |
|                         |                 | .01 Roof covering with pitches exceeding 15° and tunnel curvature, fixed to timber or steel purlins                    | m <sup>2</sup> | 4381          |      |        |
|                         |                 | .02 Side wall cladding fixed to timber or steel purlins                                                                | m <sup>2</sup> | 632           |      |        |
|                         |                 | .02 0.8mm Thick galvanised IBR or equivalent approved sheeting with CHROMADEK silicone polyester finish on both sides: |                |               |      |        |
|                         |                 | .01 Roof covering with pitches not exceeding 15°, fixed to timber or steel purlins                                     | m <sup>2</sup> | 123           |      |        |
|                         |                 | .03 1,2mm UV2 polycarbonate IBR or equivalent 50% Transluecent sheeting:                                               |                |               |      |        |
|                         |                 | .01 Roof covering with pitches not exceeding 15°, fixed to timber or steel purlins                                     | m <sup>2</sup> | 89            |      |        |
|                         |                 | .04 1.0mm Thick polypropylene sheeting or equivalent approved sheeting:                                                |                |               |      |        |
|                         |                 | .01 Side wall cladding fixed to steel purlins                                                                          | m <sup>2</sup> | 140           |      |        |
|                         |                 | .05 40% shade cloth made from knitted HDPE monofilament (Hardware measured elsewhere):                                 |                |               |      |        |
|                         |                 | .01 Pitches not exceeding 15°, fixed to timber or steel purlins                                                        | m <sup>2</sup> | 67            |      |        |
|                         |                 | .06 80% shade cloth made from knitted HDPE monofilament (Hardware measured elsewhere):                                 |                |               |      |        |
|                         |                 | .01 Pitches not exceeding 15°, fixed to timber or steel purlins                                                        | m <sup>2</sup> | 134           |      |        |
|                         | Carried forward |                                                                                                                        |                |               |      |        |

## SCHEDULE NO 2: STRUCTURAL AND BUILDING RELATED REPAIR WORK

| PAYMENT<br>REFERS<br>TO | ITEM<br>NO | DESCRIPTION                                                                                                        | UNIT           | QUAN-<br>TITY | RATE | AMOUNT |
|-------------------------|------------|--------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|--------|
|                         |            | Brought forward                                                                                                    |                |               |      |        |
| BA.03                   | 201,02     | .07 60% "Aluminet" made from knitted metalized HDPE (Hardware measured elsewhere):                                 |                |               |      |        |
|                         |            | .01 Pitches not exceeding 15°, fixed to timber or steel purlins                                                    | m <sup>2</sup> | 1589          |      |        |
|                         |            | .08 Anti-virus 50 Mesh Net made of 0,22mm stabilized HDPE monofilaments transparent:                               |                |               |      |        |
|                         |            | .01 Side wall fixed to timber or steel purlins                                                                     | m <sup>2</sup> | 1074          |      |        |
|                         |            | <b><u>Carefully remove existing cladding, sheeting, netting and prepare to receive new:</u></b>                    |                |               |      |        |
|                         |            | .01 Existing polycarbonate sheeting roof covering removed from timber or steel purlins or girts                    | m <sup>2</sup> | 4470          |      |        |
|                         |            | .02 Existing polycarbonate sheeting side wall cladding removed from timber or steel purlins or girts               | m <sup>2</sup> | 632           |      |        |
|                         |            | .03 Existing IBR sheeting roof covering removed from timber or steel purlins or girts                              | m <sup>2</sup> | 123           |      |        |
|                         |            | .04 Existing shade net                                                                                             | m <sup>2</sup> | 201           |      |        |
|                         |            | .05 Existing insect netting                                                                                        | m <sup>2</sup> | 1074          |      |        |
| BA.08                   | 201,03     | .06 Existing Aluminet                                                                                              | m <sup>2</sup> | 1589          |      |        |
|                         |            | .07 Cut out existing polycarbonate sheeting and prepare to receive new sliding door and frame (Measured elsewhere) | m <sup>2</sup> | 4             |      |        |
|                         |            | <b><u>Supply and install rainwater goods and prepare to receive new:</u></b>                                       |                |               |      |        |
|                         |            | .01 0,8 mm Thick galvanised sheeting with CHROMADEK silicone polyester finish to one side in:                      |                |               |      |        |
|                         |            | .01 600 x 200 mm self-supporting box gutter                                                                        | m              | 40            |      |        |
|                         |            | .02 600 x 200 mm Down pipe                                                                                         | m              | 10            |      |        |
|                         |            | .02 uPVC or similar approved:                                                                                      |                |               |      |        |
|                         |            | .01 150mm eaves gutters                                                                                            | m              | 41            |      |        |
|                         |            | .02 80mm dia downpipe                                                                                              | m              | 11            |      |        |
|                         |            | Carried forward                                                                                                    |                |               |      |        |

**SCHEDULE NO 2: STRUCTURAL AND BUILDING RELATED REPAIR WORK**

| PAYMENT<br>REFERS<br>TO | ITEM<br>NO | DESCRIPTION                                                                                                                                  | UNIT | QUAN-<br>TITY | RATE | AMOUNT |
|-------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|------|--------|
|                         |            | Brought forward                                                                                                                              |      |               |      |        |
| BA.09                   | 201,04     | <b><u>Carefully remove existing rainwater goods:</u></b>                                                                                     |      |               |      |        |
|                         |            | .01 Eaves gutters                                                                                                                            | m    | 81            |      |        |
|                         |            | .02 Down pipes                                                                                                                               | m    | 21            |      |        |
|                         | 202,00     | <b><u>BUILDING WORK</u></b>                                                                                                                  |      |               |      |        |
| BD.03                   | 202,01     | <b>Joinery:</b>                                                                                                                              |      |               |      |        |
|                         |            | .01 Items measured by number:                                                                                                                |      |               |      |        |
|                         |            | .01 Aluminium sliding door, 1600 mm wide x 2 032 mm high with two sliding doors and sliding track fixed to steel purlins above sliding door. | No   | 1             |      |        |
|                         |            | .02 Aluminium sliding door, door frame for 1600 mm wide x 2 032 mm high fixed to steel purlins                                               | No   | 1             |      |        |
| BD.04                   | 202,02     | <b>Ironmongery, steelwork, glass, wall finishings, etc.:</b>                                                                                 |      |               |      |        |
|                         |            | .01 Items measured by number:                                                                                                                |      |               |      |        |
|                         |            | .01 Four lever mortice lockset with one pair anodized aluminium handles and back plate type B3085, two keys, back plates and striking plate  | No   | 1             |      |        |
|                         |            | .02 MiTek bracket type G (100 x 50 x 50mm)                                                                                                   | No   | 4             |      |        |
|                         |            | .03 Manual stainless steel shade cloth pulley set:                                                                                           |      |               |      |        |
|                         |            | .01 Duo-choke pulley stainless steel                                                                                                         | No   | 120           |      |        |
|                         |            | .02 Standup pulley stainless steel                                                                                                           | No   | 120           |      |        |
|                         |            | .03 Stainless steel M25 Heavy Duty single pulley swivel 25mm                                                                                 | No   | 160           |      |        |
|                         |            | .04 12mm plastic shade cloth clips UV stabilized                                                                                             | No   | 1600          |      |        |
|                         |            | .05 Galvanised steel hooks to match existing                                                                                                 | No   | 480           |      |        |
|                         |            | Carried forward                                                                                                                              |      |               |      |        |

**SCHEDULE NO 2: STRUCTURAL AND BUILDING RELATED REPAIR WORK**

| PAYMENT<br>REFERS<br>TO      | ITEM<br>NO    | DESCRIPTION                                                                                                                                                                                                                          | UNIT           | QUAN-<br>TITY | RATE | AMOUNT |
|------------------------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|--------|
|                              |               | Brought forward                                                                                                                                                                                                                      |                |               |      |        |
| <b>BD.05</b>                 | <b>202,03</b> | .06 2.5mm straining wire                                                                                                                                                                                                             | m              | 5000          |      |        |
|                              |               | .07 2.5mm shade netting lacing chord                                                                                                                                                                                                 | m              | 2240          |      |        |
|                              |               | .02 Items measured by area:                                                                                                                                                                                                          |                |               |      |        |
|                              |               | .01 6 mm clear float laminated glass to galvanised steel windows                                                                                                                                                                     | m <sup>2</sup> | 12            |      |        |
|                              |               | .02 Allow a PC Amount of R450.00/m2 for 90% shade roll up sails, knitted construction with double lock stitches, on a manual pulley system to be in triangular shapes, mildew, mould and tear resistant:                             | m <sup>2</sup> | 150           |      |        |
|                              |               | <b>Corrective work to existing structures:</b>                                                                                                                                                                                       |                |               |      |        |
|                              |               | .01 Repair and re-fix:                                                                                                                                                                                                               |                |               |      |        |
|                              |               | .01 Attend to, service and repair as necessary aluminium sliding door 1600 x 2100mm high overall including replacing any defective or missing parts, ancillary items and ensure door is properly aligned to open and close correctly | No             | 3             |      |        |
|                              |               | .02 Remove and prepare to receive new:                                                                                                                                                                                               |                |               |      |        |
|                              |               | .01 All types of locksets with handles                                                                                                                                                                                               | No             | 1             |      |        |
| <b>BH.01</b><br><b>BH.02</b> | <b>203,00</b> | .03 Break out/hack up/demolish, remove and prepare to receive new:                                                                                                                                                                   |                |               |      |        |
|                              |               | .01 Roll up blinds                                                                                                                                                                                                                   | m <sup>2</sup> | 150           |      |        |
|                              |               | .02 6 mm clear float laminated glass to galvanised steel windows                                                                                                                                                                     | m <sup>2</sup> | 12            |      |        |
|                              |               | <b><u>BH: FITTINGS</u></b>                                                                                                                                                                                                           |                |               |      |        |
|                              |               | <b>Steelwork and joinery:</b>                                                                                                                                                                                                        |                |               |      |        |
|                              | <b>203,01</b> | .01 Items measured by number:                                                                                                                                                                                                        |                |               |      |        |
|                              |               | .01 Bolts, fasteners, etc.                                                                                                                                                                                                           |                |               |      |        |
|                              |               | .01 M12 holding down bolts 350mm long including 13mm ID and 24mm OD x 2.4mm thick washer                                                                                                                                             | No             | 10            |      |        |
|                              |               | Carried forward                                                                                                                                                                                                                      |                |               |      |        |

**SCHEDULE NO 2: STRUCTURAL AND BUILDING RELATED REPAIR WORK**

| PAYMENT<br>REFERS<br>TO | ITEM<br>NO | DESCRIPTION                                                                                                                                                                                                                     | UNIT | QUAN-<br>TITY | RATE | AMOUNT |
|-------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------------|------|--------|
|                         |            | Brought forward                                                                                                                                                                                                                 |      |               |      |        |
| BH.03                   |            | .02 M16 holding down bolts 350mm long including 17mm ID and 30mm OD x 3mm thick washers                                                                                                                                         | No   | 10            |      |        |
|                         |            | .02 Welded beams in single lengths with flat section bearer and connection plates bolted to or welded                                                                                                                           |      |               |      |        |
|                         |            | .01 I-Section bearers                                                                                                                                                                                                           | t    | 0,70          |      |        |
|                         |            | .02 Break out/hack up/demolish, remove and prepare to receive new:                                                                                                                                                              |      |               |      |        |
|                         |            | .01 I-Section Bearers                                                                                                                                                                                                           | t    | 0,70          |      |        |
|                         | 204,00     | <b><u>BJ: PAINT WORK</u></b>                                                                                                                                                                                                    |      |               |      |        |
|                         |            | <u>PREVIOUSLY PAINTED SURFACES:</u>                                                                                                                                                                                             |      |               |      |        |
| BJ.02                   | 204,01     | <b>Paint to previously painted surfaces:</b>                                                                                                                                                                                    |      |               |      |        |
|                         |            | .01 Remove all traces of protective coating from galvanised surfaces with galvanised iron cleaner, prepare and apply one coat galvanised iron primer and two coats superior quality universal enamel paint, on galvanised steel |      |               |      |        |
|                         |            | .01 Rails, posts, pipes, steel structures etc.                                                                                                                                                                                  | m    | 120           |      |        |
|                         | 205,00     | <b><u>BB : CARPENTRY AND JOINERY FOR ROOFS</u></b>                                                                                                                                                                              |      |               |      |        |
| BB.04                   | 205,01     | <b><u>Remove existing joinery items by length and prepare to receive new:</u></b>                                                                                                                                               |      |               |      |        |
|                         |            | .01 Roof Timbers                                                                                                                                                                                                                | m    | 108           |      |        |
|                         |            | .02 Gum poles (up to 160mm dia)                                                                                                                                                                                                 | m    | 30            |      |        |
| BB.01                   | 205,02     | <b><u>Supply and install new items measured by length:</u></b>                                                                                                                                                                  |      |               |      |        |
|                         |            | .01 38 x 114 mm Wrought sloping SAP rafters                                                                                                                                                                                     | m    | 108           |      |        |
|                         |            | .02 100-120mm Diameter tapered poles SA Pine CCA H4 treated                                                                                                                                                                     | m    | 27            |      |        |
|                         |            | .03 140-160mm Diameter tapered poles SA Pine CCA H4 treated                                                                                                                                                                     | m    | 3             |      |        |
|                         |            | <b>TOTAL SCHEDULE NO 2: CARRIED TO SUMMARY: REPAIR WORK</b>                                                                                                                                                                     |      |               |      |        |

TENDER NO: SANBI G408/2021  
SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI)

REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE AT  
THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN

**SUMMARY OF SCHEDULE OF QUANTITIES: REPAIR WORK**

SCHEDULE NO 1: PRELIMINARY AND GENERAL R .....

SCHEDULE NO 2: STRUCTURAL AND BUILDING RELATED REPAIR WORK R .....

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**TOTAL OF SCHEDULE OF QUANTITIES - REPAIR WORK** R .....  
**CARRIED TO CALCULATION OF TENDER SUM**

---

TENDER NO: SANBI G408/2021

SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI)

REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE  
AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN

**CALCULATION OF TENDER SUM**

TOTAL OF SCHEDULE OF QUANTITIES - REPAIR WORK R .....

---

**SUBTOTAL** R .....

VALUE-ADDED TAX (VAT)

The tenderer shall add 15% of the subtotal for value-added tax R .....

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**TENDER SUM CARRIED TO FORM OF OFFER AND ACCEPTANCE** R .....

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**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

**PART C: THE CONTRACT****Part C3: Scope of Work**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

|      |                          | <b><u>Page</u></b> |
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| C3.1 | DESCRIPTION OF THE WORKS | 110                |
| C3.2 | CONSTRUCTION             | 113                |
| C3.3 | MANAGEMENT               | 115                |

## **PART C: THE CONTRACT**

### **Part C3: Scope of Work**

|                       |                                                                                                                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>PROJECT TITLE:</b> | <b>REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE REPAIRS AND UPGRADES OF THE EXISTING NURSERIES AND ASSOCIATED GLASSHOUSE INFRASTRUCTURE FOR THE SANBI AT THE KIRSTENBOSCH NATIONAL BOTANICAL GARDEN, CAPE TOWN</b> |
| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

#### **C3.1. Description of the Works**

##### **C3.1.1 Employer's Objectives**

The employer's objective is to deliver improved infrastructure in the Kirstenbosch National Botanical Garden.

##### **C3.1.2 Overview of the Works**

The project entails the Repairs and Upgrades of The Existing Nurseries and Associated Glasshouse Infrastructure for the SANBI at the Kirstenbosch National Botanical Garden, Cape Town.

##### **C3.1.3 Extent of the Works**

The Contractor will be required to construct the works in conformity with design criteria specified in the project's scope of work, part C3 of the tender document. The scope of works includes, but is not limited to, the following:

###### N29 Building

- All polycarbonate roof sheeting to be replaced.
- Damaged insect netting to be replaced.
- Damaged Aluminet to be replaced.
- Missing pulley system clips to be replaced.
- Replace damaged timber gumpoles

###### N49-79 Building

- All polycarbonate roof sheeting to be replaced.
- Damaged insect netting to be replaced.
- Damaged Aluminet to be replaced.
- Missing pulley system clips to be replaced.
- New insect netting to be installed at eaves level.

###### Disa, Fynbos, Fern, Clivia and Strep House

- Gable ends between each house is to be clad with polycarbonate sheeting in order to section off the various houses.
- The existing Aluminet in houses to be replaced with 60% shade net.

###### N16 Building

- All polycarbonate roof sheeting to be replaced.
- Damaged insect netting to be replaced.
- Damaged Aluminet to be replaced.
- Service double doors.
- Install polypropylene cladding.

## South African National Biodiversity Institute

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
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### N39 Building

- All polycarbonate roof sheeting to be replaced.
- Damaged insect netting to be replaced.
- Aluminet shading is in a poor condition and will need to be replaced with an 80% shade cloth in the first 1/3 of building and the rest is to receive 40% shade cloth.
- Service double doors.
- Replace manual pulleys in sections.

### Lower Succulent House

- All polycarbonate roof sheeting to be replaced.
- Damaged insect netting to be replaced.
- Missing Aluminet pulley system clips to be replaced.
- 1.8m sliding door is to be added at the rear of the building.

### Cycad Tunnels 1 and 2

- Polycarbonate sheeting was recently replaced but damaged in a few areas.

### Research Facility

- Covered walkway roof sheeting to be replaced with IBR roof sheeting (50% translucent).
- Steel posts are to be checked, cleaned, light rust removal and repainted.

### Research Facility Storeroom

- Replace damaged steel bearers in the storeroom
- The covered walkway roof sheeting to be replaced with IBR roof sheeting.

### Plant Production Building 1

- The entire structure sheeting to be replaced with Polycarbonate sheeting.

### Production Building 2

- Damaged Aluminet to be replaced and missing pulley system clips to be replaced.
- Roof sheeting throughout the entire roof structure to be replaced.
- Damaged insect netting to be replaced.

### Conservatory

- Remove and install new gutters and downpipes.
- Remove and install windowpanes.
- Install 4-lever lockset with handles.
- Remove and install new 90% horizontal shaded roll up blinds.

The project period will be **5 months**.



Picture 1: Existing manual pulley system



Picture 2: Existing manual pulley system hooks

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#### **C3.1.4 Location of the Works**

The site is located at the Kirstenbosch National Botanical Garden (KNBG), Rhodes Drive, Newlands, Cape Town.

The following structures shall form part of the scope of work:

- N29 Building
- N49-79 Building
- Disa, Fynbos, Fern, Clivia and Strep House
- N16 Building
- N39 Building
- Lower Succulent House
- Cycad Tunnels 1 and 2
- Research Facility
- Research Facility Storeroom
- Plant Production Building 1
- Production Building 2
- Conservatory

#### **C3.1.5 Description of Site and Access**

Kirstenbosch National Botanical Garden lies in the heart of the Cape Floristic Region, also known as the Cape Floral Kingdom. It is the first botanic garden in the world to be included within a natural World Heritage Site.

The 36-hectare garden is part of a 528-hectare estate that contains protected mountainside supporting natural forest and fynbos along with a variety of animals and birds. The Kirstenbosch Estate borders the Table Mountain National Park, and the Garden merges seamlessly with the natural fynbos and forest of the mountain.

Kirstenbosch displays a wide variety of the unique plant life of the Cape Flora. Plants from all the diverse regions and biomes of southern Africa are also grown at Kirstenbosch, including a near-complete collection of cycads. There are over 7 000 species in cultivation at Kirstenbosch, including many rare and threatened species.

The garden is accessible via Rhodes Drive, Newlands.

#### **C3.1.6 Temporary Works**

All design and construction of any temporary works must be approved by the Principal Agent.

## **PART C: THE CONTRACT**

### **Part C3: Scope of Work**

|                       |                                                                                                                                                                                                                                    |
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| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

#### **C3.2. Construction**

##### **C3.2.1 Construction Standards**

The "Model Preambles for Trades (2008 Edition)" recommended and published by the Association of South African Quantity Surveyors shall be deemed to be incorporated in the Bills of Quantities, with amendments as follows: References to "Architect" in the Model Preambles are to be read as "Principal Agent" shall apply to this contract.

This publication is available from The Association of South African Quantity Surveyors, P.O. Box 3527, Halfway House, 1685 - telephone (011) 315-4140, before a Tender is submitted.

The SANS 1200 Standardised Specification for Civil Engineering Construction prepared by Standards South Africa and specific amendments and additions to the SANS 1200 Standardized Specifications shall apply to this contract.

The SANS 1200 Standardised Specification publications are available from Standard south Africa, Private Bag X 191, Pretoria, 0001.

##### **C3.2.2 Plant and Materials**

###### **C3.2.2.1 Plant and Materials Supplied by the Employer**

None

###### **C3.2.2.2 Materials, Samples and Shop Drawings**

All materials are to be SANS approved as directed by the Engineer.

##### **C3.2.3 Construction Equipment**

###### **C3.2.3.1 Requirements for Equipment**

The Contractor is required to use plant and equipment that is sufficient for the contract.

###### **C3.2.3.2 Equipment Provided by the Employer**

None

##### **C3.2.4 Existing Services**

###### **C3.2.4.1 Known Services**

None

**South African National Biodiversity Institute**

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**C3.2.4.2 Treatment of Existing Services**

Contractor to use caution.

**C3.2.4.3 Use of Detection Equipment for the Location of Underground Services**

There are no ground services expected to be disturbed during construction.

**C3.2.4.4 Damage to Services**

It is the responsibility of the Contractor to ensure that no services are damaged during the construction process. In case the known services are damaged, the main Contractor shall be responsible for the repair of the services to the original state before it was damaged, as well as all cost associated with the damaged service.

**C3.2.5 Site Establishment****C3.2.5.1 Services and Facilities Provided by the Employer**

None.

**C3.2.5.2 Facilities Provided by the Contractor**

The onus lies with the main Contractor to find a suitable camp site, approved by the Employer.

**C3.2.5.3 Storage**

No requirements are specified.

**C3.2.5.4 Other Facilities and Services**

No requirements are specified.

**C3.2.5.5 Vehicles and Equipment**

No requirements are specified.

**C3.2.5.6 Advertising Rights**

It is the main Contractor's responsibility that no suppliers advertise on site. Any advertisement from suppliers shall be removed at the cost of the main Contractor.

**C3.2.5.7 Notice Boards**

The main Contractor is allowed to place a Notice board on site. The maximum allowed size of this board should be 2 x 3m.

**C3.2.6 Site Usage**

The Contractors are not allowed to work outside the allowed working hours, as agreed with the Engineer. The disturbance to the residence should be kept at a minimum.

## **PART C: THE CONTRACT**

### **Part C3: Scope of Work**

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#### **C3.3. Management**

##### **C3.3.1 Planning and Programming**

###### **C3.3.1.1 General**

This clause describes the requirements for the preparation, submission, updating and revision of the programme for the works. The requirements are in addition to or in expansion of the JBCC PBA clause [15.6].

The programme shall be used by the contractor to plan and execute the works. The programme shall also be used by the Principal Agent to monitor progress and be the sole basis for the assessment of revisions of the date for Practical Completion.

The programme shall be produced by the contractor as follows:

- a) A programme for the totality of the works shall be submitted to the principal agent for acceptance. If the principal does not accept such programme, it shall be revised and amended until it is accepted by the principal agent. This programme will then be regarded as the baseline programme.
- b) This baseline programme shall be updated with actual progress on a monthly basis, or any more frequent basis as necessitated by construction events. The contractor may submit to the principal for acceptance revisions to the baseline programme.
- c) Acceptance by the Principal Agent of any programme submitted by the contractor does not make such programme a contract document, nor does it mandate that the works shall be constructed strictly in accordance therewith. The contractor at all times remains responsible for the construction of the works.

###### **C3.3.1.2 Submission of Programme**

Within 10 (Ten) working days of been given possession of the site the Contractor shall submit to the Principal Agent for his review and acceptance a programme for the whole of the works showing the order in which the contractor proposes to execute the works. This programme becomes the baseline programme upon acceptance by the Principal Agent. The baseline programme shall have regard to the contract completion dates, any other milestones and any restraints set out in the contract. Thereafter, if the actual progress does not conform with the baseline programme, the Principal Agent is entitled to require the Contractor to submit a revised programme showing the order of activities necessary to ensure completion of the works by the contract completion dates.

The Contractor shall supply the Principal Agent with an electronic copy of each programme, together with a print-out bar chart or tabular report in a pre-agreed format. All programmes shall be prepared and submitted using Microsoft Project software.

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Within 10 (Ten) working days of the contractor submitting a programme complete with all the information required by this clause to the principal agent for acceptance, the principal agent will accept the programme or state reasons for not accepting the programme. If such reasons are given, the contractor shall take account of the reasons and resubmit the programme within 5 (five) working days.

If the Principal Agent fails to act the programme is deemed to be rejected.

**C3.3.1.3 Default in submission of programs**

Should the contractor fail to submit a programme for acceptance as the baseline programme or not update the programme as described above, the principal agent shall be entitled to withhold 25% of the amount due to the contractor in interim payment certificates until the contractor has complied with its obligations in this regard.

**C3.3.2 Health and Safety****C3.3.2.1 Health and Safety specification**

In terms of the Occupational Health and Safety Act (Act 85 of 1993) (OHSA) and the Construction Regulation 2014, the Client must provide the Contractor with a Health and Safety Specification to which the Contractor must respond with a Health and Safety Plan for approval by the Client.

The purpose of this Specification is to ensure that Principal Contractors entering into a contract with the Employer maintain an acceptable level of performance with regard to health and safety issues during the performance of the contract. In this regard the OHSA Specification form an integral part of the Contract and the Principal Contractor shall ensure that their contractors and/or suppliers comply with the requirements of this Specification.

**South African National Biodiversity Institute**

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**PART C: THE CONTRACT****Part C4: Site Information**

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**C4.1 SITE INFORMATION****Page**

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## **PART C: THE CONTRACT**

### **Part C4: Site Information**

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| <b>CONTRACT NO:</b>   | <b>SANBI G408/2021</b>                                                                                                                                                                                                             |

#### **C4.1 Site Information**

##### **C4.1.1 Site Location**

The site is located at the Kirstenbosch National Botanical Garden, Rhodes Drive, Newlands, Cape Town.



Figure 1: Layout of site Area 1 highlighted in yellow.

**South African National Biodiversity Institute**

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Figure 2: Layout of site Area 2 highlighted in yellow.

**South African National Biodiversity Institute**

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**ANNEXURE A: SPECIFICATIONS**

- 1) BA: ROOF COVERINGS
- 2) BB: CARPENTRY AND JOINERY FOR ROOFS AND CEILINGS
- 3) BD: WALLS
- 4) BH: FITTINGS
- 5) BJ: PAINTWORK
- 6) SI: OCCUPATIONAL HEALTH & SAFETY
- 7) SJ: COVID-19

**TECHNICAL SPECIFICATION****BA ROOF COVERINGS****CONTENTS**

|       |                         |
|-------|-------------------------|
| BA 01 | SCOPE                   |
| BA 02 | STANDARD SPECIFICATIONS |
| BA 03 | MEASUREMENT AND PAYMENT |

**BA 01 SCOPE**

This specification covers the removal of existing roof coverings and waterproofing and the supply, delivery and installation of new roof coverings and water-proofing to various types of buildings.

Roof coverings shall mean the scope of work related to the removal of existing roof coverings, water-proofing and ancillary items, the supply and installation of new roof sheeting, roofing screws, purlins, flashings, rainwater goods, water-proofing, fascias and barge boards. This specification also includes minor work related to trusses, purlins, paintwork, minor plumbing work and water-proofing to concrete roofs.

**BA 02 STANDARD SPECIFICATIONS****BA 02.01 GENERAL STANDARD SPECIFICATIONS**

The latest edition, including all amendments 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:

|               |                                                    |
|---------------|----------------------------------------------------|
| PW 371-       | Specification of Materials and Methods to be used, |
|               | fourth edition, Oct 1993                           |
| SANS 1200HB - | Cladding and Sheeting                              |
| SANS 1783-4 - | Softwood brandering and battens                    |
| SANS 935 -    | Hot-dip (galvanised) zinc coatings                 |
| SANS 1273 -   | Fasteners for sheet roof and wall coverings        |

**BA 02.02 Occupational Health and Safety**

The Contractor shall be required to comply with the Occupational Health and Safety Act 85 of 1993, Construction Regulations 2014 and related regulations. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

**BA 02.2 ADDITIONAL SPECIFICATIONS**

Technical Specification BB: Carpentry and Joinery for Roofs and Ceilings  
 Technical Specification BC: Waterproofing of Concrete Roofs

**BA 02.3      ADDITIONAL REQUIREMENTS FOR REPAIR OF PROFILED ROOF SHEETING  
(NON-CONCEALED FIXING AND CONCEALED FIXING)**

**BA 02.3.1      Roof sheeting**

Existing roof sheeting shall either be replaced or to a small extent be repaired according to the Schedule of Quantities and as instructed by the Engineer. Where new sheeting is specified, the existing roof sheeting must be removed. Each day's removed sheeting shall be fully covered with new roof sheeting at the end of the day. Plastic sheeting or equivalent approved protection to minimize damage possibilities due to rain, etc and to protect the personnel and occupied buildings. The new roof sheeting shall be 0,6 mm thick galvanised baked silicone polyester enamel paint (baked enamel) IBR or equivalent approved for roof slopes exceeding 15°. Concealed fixed type Galvanised baked enamel roof sheeting will in general 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 to form a drip. Metal closers 0,8 mm thick galvanised (baked enamel), 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 dimensions and measurements 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 will be used for baked enamel finished roof sheeting, flashings, gutters and down pipes. In all cases the roofing must be laid strictly in accordance with the manufacturer's specifications.

In certain cases, existing roof sheeting that is removed from buildings, will be re-used to repair similar types of structures.

The following paragraphs in specification PW 371 must be specifically 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 02.3.2      Main fasteners to timber purlins: Galvanised/baked enamel IBR or equivalent approved sheeting**

90 mm x no. 14 hexagon head (H/H) carbon steel (C/S) cadmium plated Posidriv or equivalent approved roofing screws with 29 mm diameter x 1,0 mm thick galvanised conical washers and poly-isobutyl grommet assembly must be used. Main fasteners for steel purlins are to be 65 mm long. Fasteners to be provided at alternating ribs and all side laps.

**BA 02.3.3      Side lap fasteners: Galvanised/baked enamel IBR or equivalent approved sheeting**

Stitching will be done with 25 mm x no. 14 H/H C/S posidriv or equivalent approved roofing screws @ 600 c/c maximum with 29 mm diameter x 1,0 mm thick galvanised conical washers and poly-isobutyl grommet assembly. Provide 10 x 1,6 mm thick butyl rubber sealer strip between sheets.

**BA 02.3.4      Flashings**

0,8 mm thick baked enamel/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 to be stitched together with 25 mm x no. 14 H/H C/S posidriv or equivalent approved roofing screws with 29 mm diameter x 1,0 mm thick galvanised conical washers at end laps and

longitudinally @ 400 c/c maximum at ribs, etc. The Contractor shall take all necessary dimensions and measurements on site prior to manufacturing and installation.

**BA 02.3.5      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 02.3.6      Pipe flashings**

EPDM/silicone pipe-through-roof flashings to diameter 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 EPDM/silicone pipe through roof flashing and sealant and fastening of flashing to surface with TEKS or equivalent approved self-drilling fasteners.

**BA 02.3.7      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 PW 371.

Specification for non-visible roof insulation material:

Heavy grammage double sided reflective aluminium foil (heavy grade) laid on 1,6 mm diameter galvanised straining wires at 300 mm centres to the manufacturer's specification. The insulation shall be laid longitudinally over the purlins and lapped 150 mm at joints.

Specification for visible roof insulation material:

White thermal insulation low density polyethylene bubble and Aluminium foil backing fire retardant grade 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 02.4      ADDITIONAL REQUIREMENTS FOR REPAIR OF PROFILED SIDE WALL CLADDING (NON-CONCEALED FIXING AND CONCEALED FIXING)**

**BA 02.4.1      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 baked enamel) IBR or equivalent approved. The cladding must be laid in long lengths without end overlaps. Metal closers 0,8 mm thick galvanised (or baked enamel), complete with polyclosers set in one run of silicone sealant, are required at gables, ridges, side and head walls, etc. The Contractor shall take all necessary dimensions and measurements 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 baked enamel finished side wall cladding, flashings, gutters and down pipes will be used. In all cases the cladding must be laid strictly in accordance with the manufacturer's specifications.

**BA 02.4.2      Main fasteners to timber girts: Galvanised/Galvanised baked enamel IBR (or equivalent approved) and profiled translucent sheeting**

90 mm x no. 14 hexagon head (H/H) carbon steel (C/S) cadmium plated posidriv or equivalent approved roofing screws with 29 mm diameter x 1,0 mm thick galvanised conical washers and poly-isobutyl grommet assembly must be used. Main fasteners for steel girts are to be 65 mm long. Fasteners to be provided at alternating ribs.

**BA 02.4.3      Side lap fasteners: Galvanised/Galvanised baked enamel IBR (or equivalent approved) sheeting**

Stitching will be done with 25 mm x no. 14 H/H C/S posidriv or equivalent approved roofing screws @ 600 c/c with 29 mm diameter x 1,0 mm thick galvanised conical washers and poly-isobutyl grommet assembly. Provide 10 x 1,6 mm butyl rubber sealer strip between sheets.

**BA 02.4.4      End overlaps**

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

**BA 02.4.5      Side overlaps: Vertical profiled translucent sheeting**

Stitching will be done with 6 mm cadmium-plated cladding bolts and nuts x 25 mm long @ ± 300 c/c with 19 mm diameter x 1,0 mm thick galvanised conical washers and poly-isobutyl grommet assembly.

**BA 02.5      RAINWATER GOODS**

**BA 02.5.1      Gutters**

Standard size for houses:

100 x 75 x 0,8 thick standard baked enamel/galvanised non-supporting beaded gutter. Galvanised brackets to be provided at every truss. Brackets to be painted to specification in the Schedule of Quantities.

Alternatively standard 140 x 127 x 83 x 0,6 mm thick concealed fix profile sheeting baked enamel/galvanised fascia gutter with galvanised gutter clips can be used.

Typical size for other buildings:

125 x 100 x 0,8 thick standard baked enamel self-supporting beaded gutter.

Dark colours to Consultant's specification.

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

7.15, 16.12 and 16.13.

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

**BA 02.5.2      Joints in gutters, valleys, etc**

150 mm overlap sealed with an approved silicone and riveted together with 2 rows of sealed pop rivets. Linings to valleys and secret gutters, etc, shall have an overlap of 225 mm.

**BA 02.5.3      Gutter accessories and ancillary items**

End stops:      0,8 mm thick baked enamel/galvanised finished end stops joined to gutter on site and sealed as for joints in gutters.

Outlets:      0,8 mm thick baked enamel/galvanised finished outlets fixed to gutter with pop rivets and sealed with an approved silicone. Outlet to slip into down pipe.

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

Corner joints:      Corner joints to be neatly mitred, pop riveted together and sealed with an approved silicone.

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

**BA 02.5.4      Down pipes**

Standard sizes:

100 x 75 x 0,6 thick baked enamel/galvanised down pipes

100 x 100 x 0,8 thick baked enamel/galvanised down pipes

Dark colours to Consultant's specifications.

Down pipes 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 dimensions and measurements on site prior to manufacturing and installation.

**BA 02.5.5      Down pipe accessories**

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

Brackets to be primed and painted with 2 coats of high gloss enamel.

Shoes, offsets and spreaders:      Manufactured from 0,8 mm thick baked enamel/galvanised material, cut and mitred to suit. All joints to be sealed with an approved silicone sealant.

**BA.02.5.6      General**

The Contractor will be responsible for the stability of the supporting structure during and after removal of existing roof cladding and sheeting.

SANS 1200 HB "Cladding and Sheeting" will be applicable for the erection of all new roofs.

The Contractor must give a minimum 3 year guarantee for the watertight roof and workmanship. **The manufacturer must carry out inspections at regular intervals during the construction period. He must issue a certificate of acceptance and compliance on completion to the client.**

**BA 03 MEASUREMENT AND PAYMENT****BA.03.1 DETAILS OF MATERIAL TO BE USED**

For detail descriptions of materials, thicknesses, dimensions and ancillary items to be used, as specified in the various payment items of roof sheeting, cladding, flashings, etc; refer to the scheduled list below:

| <b>Flashings: Refer to Technical Specifications BA</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Roof:</b>                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 0,8 mm thick Galvanised baked enamel Ridge Flashing    | 462 mm girth (231 + 231), 3 x bends (2 are shallow bends). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone; 2 rows of broad flute polyclosers bedded in silicone, 2 rows x 0,6 mm thick Galvanised baked enamel broad flute metal closers. Bend up trough to form a dam.                                                                                                                                                                                                                                                                                                                                                             |
| 0,6 mm thick Galvanised baked enamel Eaves Closer      | Fix standard serrated narrow flute eaves closer to timber purlin. Patch plaster and touch up paint work.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 0,8 mm thick Galvanised Apex Trim                      | 462 mm girth (231 + 231 vertical), 3 x bends (2 are shallow bends). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row of broad flute polycloser bedded in silicone, 2 rows x 0,6 mm thick galvanised broad flute metal closers. Bend up trough to form a dam.                                                                                                                                                                                                                                                                                                                                                         |
| 0,8 mm thick Galvanised baked enamel Headwall Flashing | 385 mm girth (231 + 154 vertical) headwall flashing, 2 x bends (1 is a shallow bend). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row of broad flute polycloser bedded in silicone, 1 row x 0,6 mm thick Galvanised baked enamel broad flute metal closer. Bend up trough to form a dam. 154 mm girth (114 + 25 + 15 lip @ 15°) Galvanised baked enamel counter flashing, 3 x bends (1 is a shallow bend). Counter flashing to overlap with headwall flashing with at least 75 mm. Cut 6 mm wide groove into brick wall for counter flashing. Prime joint and seal with an approved 6 x 6 mm poly-urethane sealant. |
| Extra over for cutting into brick wall                 | 6 mm wide groove x 30 mm deep into brick wall. Clean groove from dust and prime groove.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 0,8 mm thick Galvanised baked enamel Hip Flashing      | 462 mm girth (231 + 231), 3 x bends (2 are shallow bends). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone. 2 rows of broad flute polyclosers bedded in silicone, 2 rows x 0,6 mm thick Galvanised baked enamel broad flute metal closers on rake. Bend up trough to form a dam.                                                                                                                                                                                                                                                                                                                                                     |
| 0,8 mm thick Galvanised baked enamel Apron Flashing    | 462* mm girth (308 + 154* vertical, girt position determines final upstand length on site), 3 x bends (2 are shallow bends). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone. 2 rows of broad flute polyclosers bedded in silicone, 1 row x 0,6 mm thick Galvanised baked enamel broad flute metal closer. Bend up trough to form a dam.                                                                                                                                                                                                                                                                                             |
| 0,8 mm thick Galvanised baked enamel Eaves             | 462* mm girth (154 vertical + 308*, girt position determines final upstand length), 3 x bends (2 are shallow bends). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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| Flashing                                                                    | sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row each of broad and narrow flute polyclosers bedded in silicone, 1 row each x 0,6 mm thick Galvanised baked enamel broad and narrow flute metal closers. Turn down trough to form a drip. Overhang length of roof sheeting to be determined on site.                                                                                                                                                                                                                                                                                                                                                                                                    |
| 0,8 mm thick Galvanised baked enamel Gable Flashing (residential type)      | 308 mm girth (262 + 46 vertical), 3 x bends (2 are shallow bends). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone. Flashing to be fitted tightly over gable fascia board. Provide one row of continuous silicone on rib.                                                                                                                                                                                                                                                                                                                                                                                                     |
| 0,8 mm thick Galvanised baked enamel Gable Flashing (industrial type)       | 462 mm girth (262 + 200 vertical), 3 x bends (2 are shallow bends). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row x 0,6 mm thick Galvanised baked enamel broad flute metal closer on side wall cladding. Provide one row of continuous silicone on rib.                                                                                                                                                                                                                                                                                                                                                              |
| 0,8 mm thick Galvanised baked enamel Side Wall Flashing                     | 385 mm girth (231 + 154 vertical) side wall flashing, 2 x bends (1 is a shallow bend). Fix flashing to roof sheeting with posidriv screws and washers. 150 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row of broad flute polycloser bedded in silicone (only for vertical side wall cladding). 154 mm girth (114 + 25 + 15 lip @ 15°) Galvanised baked enamel counter flashing, 3 x bends (1 is a shallow bend). Counter flashing (side wall is a brick wall) to overlap with side wall flashing with at least 75 mm. Cut 6 mm wide groove into brick wall parallel to roof sheeting for counter flashing. Prime joint and seal with an approved 6 x 6 mm polyurethane sealant. |
| 0,8 mm thick Galvanized Roof Overhang Barge Flashing                        | 616 mm girth (286 + 300 vertical + 20 + 10 vertical) standard Craft-Lock barge flashing, 4 x bends (1 is a shallow bend). Fix flashing to roof sheeting with posidriv screws and washers, and to 250 x 25 wide x 2,5 thick with 25 mm lip galvanised bracket. The galvanised bracket to be screwed to rafter ends with 2 countersunk brass screws. 150 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row of broad flute polycloser bedded in silicone, 1 row x Galvanised baked enamel broad flute metal closer bedded in a row of silicone. Bend up trough to form a dam.                                                                                                         |
| 0,8 mm thick Galvanised baked enamel Side Roof Overhang Flashing (carports) | 616 mm girth (286 + 300 vertical + 20 + 10 vertical), 4 x bends (1 is a shallow bend). Fix flashing to roof sheeting with posidriv screws and washers, and to 250 x 25 wide x 2,5 thick with 25 mm lip galvanised bracket. The galvanised bracket to be screwed to timber rafter ends with 2 countersunk brass screws or to be site welded to steel purlins. 150 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone.                                                                                                                                                                                                                                                                       |
| 0,8 mm thick Galvanised Valley Flashing                                     | 770 mm girth (308 + 27 vertical + 100 wide gutter + 27 vertical + 308), 6 x bends (2 x shallow bends). Fix valley gutter to top of valley rafters with posidriv screws and washers (seal with silicone). Cut and bend valley gutter at main gutter with 25 mm down lip. 225 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. 2 rows of narrow flute polyclosers in ribs bedded in silicone.                                                                                                                                                                                                                                                                                             |
| 0,8 mm thick Galvanised Valley Side Wall Flashing                           | 616 mm girth (308 + 27 vertical + 140 wide gutter + 141 vertical), 4 x bends (1 is a shallow bend). Fix valley gutter to top of valley rafter with Posidriv screws and washers (seal with silicone) and impact nails (6 mm dia x 60 long @ 200 c/c) to brick wall. Cut and bend valley gutter at main gutter with 25 mm down lip. 225 mm overlap                                                                                                                                                                                                                                                                                                                                                                     |

|                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|                                                                           | fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row of narrow flute polyclosers in ribs bedded in silicone. 154 mm girth (114 + 25 + 15 lip @ 15°) galvanised counter flashing, 3 x bends (1 is a shallow bend). Counter flashing (side wall is a brick wall) to overlap with side wall flashing with at least 75 mm. Cut 6 mm wide groove into brick wall parallel to roof sheeting for counter flashing. Prime joint and seal with an approved 6 x 6 mm poly-urethane sealant.                                                                                                                                                                                                                                                                                                             |
| 0,8 mm thick Galvanised baked enamel Flat Back Flashing                   | 1200* mm wide (25 mm lips on sides bend down to angle of rib) x 925 mm girth, * width of roof monitors determine the final width of flat back flashing. Flat back flashing for full length between monitor and ridge. Fix flashing to roof sheeting with posidriv screws or sealed type Aluminium blind pop rivets. 150 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row of broad flute polycloser bedded in silicone at bottom end of flat back flashing.                                                                                                                                                                                                                                                                                                                     |
| 0,8 mm thick Galvanised baked enamel Wall Gutter                          | 616 mm girth (154 vertical x 462 at slope), 1 x bend. Fix boundary/side valley gutter to top of valley rafter with posidriv screws and washers (seal with silicone) and impact nails (6 mm dia. x 60 long @ 200 c/c) to brick wall. 225 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row x 0,6 mm thick galvanised narrow flute closers in ribs fixed to purlins with posidriv screws and washers; seal with silicone. 154 mm girth (114 + 25 + 15 lip @ 15°) Galvanised baked enamel counter flashing, 3 x bends (1 is a shallow bend). Counter flashing (side wall is a brick wall) to overlap with side wall flashing with at least 75 mm. Cut 6 mm wide groove into brick wall for counter flashing. Prime joint and seal with an approved 6 x 6 mm poly-urethane sealant. |
| 0,8 mm thick Galvanised baked enamel Corner Piece Flashing (for monitors) | 231 wide x 77 vertical x 462 long, shallow bend for horizontal portion. Fix flashing to roof sheeting with Posidriv screws or sealed type Aluminium blind pop rivets. Seal overlap with 2 rows of pop rivets and 2 rows of silicone. Provide broad flute polyclosers bedded in silicone in troughs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Walls: (m)</b>                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 0,8 mm thick Galvanised baked enamel External Vertical Flashing           | 462 mm girth (231 + 231), 3 x bends (2 x shallow bends). Fix flashing to roof sheeting with Posidriv screws and washers. 150 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 0,8 mm thick Galvanised baked enamel Internal Vertical Flashing           | 462 mm girth (231 + 231), 3 x bends (2 x shallow bends). Fix flashing to roof sheeting with Posidriv screws with washers. 150 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 0,8 mm thick Galvanised Internal Vertical Flashing                        | 462 mm girth (231 + 231), 3 x bends (2 x shallow bends), fix flashing to roof sheeting with Posidriv screws with washers. 150 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 0,8 mm thick Galvanised Drip Flashing                                     | 154 mm girth (64 vertical + 50 + 20 vertical + 20) standard drip flashing, 3 x bends. Fix flashing to girts or roof sheeting with sealed type Aluminium blind pop rivets or Posidriv screws with washers. 50 mm overlap sealed with one row of silicone and stitched together with sealed blind type pop rivets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 0,8 mm thick Galvanised baked enamel Window Flashings                     | 154 mm girth 3 x bends. Different flashing details for sill, jamb and top of window. Contractor to provide details to Engineer for approval. One row of narrow flute polyclosers bedded in silicone above and below window frame. Fix flashings to girts or roof sheeting with Posidriv screws and washers or sealed type Aluminium blind pop rivets. 100 mm overlap sealed with 2 rows of                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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|                                                                                  | pop rivets and 2 rows of silicone. Seal around window frame with silicone to waterproof flashings. 1 row x 0,6 mm thick Galvanised baked enamel broad flute metal closer for sill flashing.                                                                                                                                                                                                                                                                                                                                                                                           |
| 0,8 mm thick Galvanised baked enamel Door Flashings                              | 154 mm girth 3 x bends. Different flashing details for sill, jamb and top of window. Contractor to provide details to Engineer for approval. One row of narrow flute polyclosers bedded in silicone above and below window frame. Fix flashings to girts or roof sheeting with Posidriv screws and washers or sealed type Aluminium blind pop rivets. 100 mm overlap sealed with 2 rows of pop rivets and 2 rows of silicone. Seal around window frame with silicone to waterproof flashings. 1 row x 0,6 mm thick Galvanised baked enamel broad flute metal closer for sill flashing |
| 0,8 mm thick Galvanised baked enamel Bull Nose Flashing                          | 462 mm girth (262 +200 vertical), 3 x bends excluding curving (2 are shallow bends), Fix flashing to roof sheeting with Posidriv screws and washers. 300 mm max. overlaps (run outs) sealed with 2 rows of pop rivets and 2 rows of silicone. 1 row x 0,6 mm thick Galvanised baked enamel broad flute metal closer on side wall cladding. Provide one row of continuous silicone on rib. Contractor to measure radius on site prior manufacturing.                                                                                                                                   |
| <b>Roof Insulation: (m<sup>2</sup>)</b>                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| White Bubble Foil on white straining wires (abattoirs only)                      | Lay insulation strictly to manufacturer's specifications. Use 1,6 mm diameter white PVC coated straining wires @ 300 mm c/c max. Refer to clause 2.3.7 of Technical Specification BA: Roof Coverings.                                                                                                                                                                                                                                                                                                                                                                                 |
| 420 RSA heavy duty reinforced reflective Aluminium foil                          | Lay insulation strictly to manufacturer's specifications. Refer to clause 2.3.7 of Technical Specification BA: Roof Coverings.                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Rainwater Goods:(m)</b>                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 100 x 75 x 0,8 mm thick Galvanised baked enamel beaded non-supporting box gutter | Provide 25 x 1 mm thick galvanised fascia straps @ 686 c/c to support fascia of gutters; fix with 6 mm galvanised gutter bolts, nuts and washers. All accessories and ancillary items included. Roof sheeting troughs to be have drip bend.                                                                                                                                                                                                                                                                                                                                           |
| 100 x 75 x 0,6 mm thick Galvanised baked enamel down pipes; height < 5 m         | Provide one down pipe for every 6 m of gutter length. For gutter length of 3 to 6 m, provide two down pipes. All accessories and ancillary items included.                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 125 x 100 x 0,8 mm thick Galvanised baked enamel self-supporting box gutter      | Gutter to be braced back to the roof sheeting with a 25 x 1 mm thick galvanised fascia straps @ 686 c/c. The detail can only be applied to sheeting with a max. cantilever of 450 mm from first purlin. Roof sheeting troughs to be have drip bend.                                                                                                                                                                                                                                                                                                                                   |
| 125 x 100 x 0,8 mm thick Galvanised baked enamel down pipes                      | Provide one down pipe for every 6 m of gutter length. For gutter length of 4,5 to 6 m, provide two down pipes. All accessories and ancillary items included.                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 100 x 100 x 0,8 mm thick Galvanised baked enamel down pipes                      | Provide one down pipe for every 6 m of gutter length. For gutter length of 4,5 to 6 m, provide two down pipes. All accessories and ancillary items included.                                                                                                                                                                                                                                                                                                                                                                                                                          |

| <b>Pipe Flashings: (No. and Dia.)</b>                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| EPDM/silicone pipe-through-roof flashings to diameter pipe flashings to diameter | For all residential type of buildings, pipe protrusions through roof sheeting will be eliminated by re-routing existing pipe work. For all other pipe protrusions: Use EPDM/silicone pipe-through-roof flashings to diameter no. 2 for pipe diameters 40 - 80 mm and EPDM/silicone pipe-through-roof flashings to diameter no. 4 for pipe diameters 80 - 150 mm. EPDM/silicone pipe-through-roof flashings to diameter flashings are made of E.P.D.M. rubber compound of a carbon black colour. |
| 0,8 mm thick Galvanised baked enamel Cravat and Cowl Flashing to diameter        | Refer to roof and wall details no 1 and 2. (Bound into the back of this document).                                                                                                                                                                                                                                                                                                                                                                                                              |

| <b>Pipework: (No.)</b>                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Re-route existing pipes; diameter and number | <p><u>Re-routing of roof void geyser pipework:</u><br/>Disconnect and remove existing overflow pipe from Latco - and or Safety Valve, supply and connect new 15-28mm dia polycop pipe to existing Latco - and or Safety Valve including all necessary fittings, adaptors, brackets, etc and re-route pipework in ceiling or roof void to protrude through external wall, including making good of external wall, irrespective of finish. Allow approximately 7m horizontal and 3m vertical pipework to ground level per geyser, complete with standard primer, one undercoat and two coats of super acrylic paint to exposed pipework to match existing paint system and colour.</p> <p><u>Ventilation pipework:</u><br/>Remove existing 100mm dia ventilation pipe section protruding through roof covering. Install 90° bend below roof level and re-route ventilation pipe to clear overhang. Install 90° reducing 100 x 50 bend and rise with 50mm dia pipe to 600mm. Install standard sewer pipe ventilation cowl on top of ventilation pipework. Pipe material must adapt to existing material of ventilation pipework. The bracketing and supports of the ventilation pipework shall be as per manufacturers specifications. Standard primer, one coat undercoat and two coats of super acrylic paint to exposed pipework to match existing paint system and colour.</p> |

**BA.03.01****DETAILS OF ROOF PAINT REPAIR WORK**

Specification of paint shall be an extremely durable weather and UV resistant coating system for Galvanised iron roofs or previously painted galvanised iron roofs.

A two coat system shall be used consisting of a two component recoatable polyurethane acrylic finish.

The mixing ratio of the dual pack enamel system shall be as per the manufacturer's specifications. Both components shall be stirred with a power mixer until homogeneous. The dual pack enamel system shall always be applied over a suitable primer and/or intermediate coats within the manufacture's specified over-coating intervals.

Contractor must ensure that the work is done by a competent person and must be approved by the Engineer before work may commence

**SURFACE PREPARATION – PREVIOUSLY PAINTED**

Remove all peeling paint by sanding, scraping or water cooled grinders fitted with reversible knotted wire brush. Care must be taken not to remove any sound galvanizing. Any unsound paint will fail at a later stage. Wash roof with Aquasolv degreaser, scotch brite pads and rinse thoroughly with clean water to ensure soluble chloride content <75mg per m<sup>2</sup>. Ensure that all degreaser is properly washed off.

**SURFACE PREPARATION - UNPAINTED GALVANISED**

Wash roof with degreaser, scotch brite pads and rinse thoroughly with clean water. Ensure that all degreaser is properly washed off, to ensure soluble chlorine content <75mg per m<sup>2</sup>.

**APPLICATION**

Apply one coat of a two component anti-corrosive strontium chromate epoxy primer by using airless spray. Allow 4 hours drying time. Apply a second coat if necessary to achieve the specified DFT of 25 – 35 microns.

Apply one coat of a dual pack polyurethane enamel system with acrylic finish by airless spray to achieve complete obliteration. Ensure that a single coat of wet film application of 88 – 135 microns is achieved. This will give a DFT of 50 – 75 microns. Application in high humidity environments (75% RH) may cause surface bloom.

**GUARANTEE**

The Contractor must give a written 5 year guarantee for the quality and workmanship of the paint work (fair wear and tear excepted). The Contractor shall be liable for any peeling or flaking paint applied by the Contractor and shall execute all such work of repair, rectification and making good of painted surfaces as may be ordered in writing by the Engineer. The manufacturer must carry out inspections at regular intervals during the construction period. He must issue a certificate of acceptance and compliance on completion to the client.

**BA 03.2 SCHEDULED ITEMS****BA.01 Supply and install cladding, sheeting and coverings:..... Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface of the finished building as specified in, Subclause 8.1.1 of SANS 1200 HB.

Separate items will be scheduled for roof sheeting, side cladding and shade cloth, subdivided for each type of sheeting, cladding and finish, each profile and straight or curved sheets.

The rate shall cover the cost of supplying, delivering, storing on Site, handling, moving, installing and fixing the sheeting or cladding (finished or prepainted as scheduled) complete with all necessary fasteners (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 water tightness and workmanship). The rate shall also cover the cost of cutting, notching, waste, all scaffolding, temporary supports, hoisting facilities and safety precautions (see Subclause 8.1.1 of SANS 1200HB).

**BA.02      Forming cranks, bullnoses, etc: ..... Unit: m**

Cranks, bullnoses, etc will be measured by length, with bullnoses to a maximum of 600mm radius and bend to maximum of 90°.

Separate items for cranks, bullnoses, etc, will be scheduled for each different type of sheeting, profile and finish.

The rate shall cover the cost of supplying, delivery, storing on Site, handling, moving, installing and fixing of cranks, bullnoses, etc and shall be measured as an extra over the specified roof sheeting. The rate shall also cover the cost of cutting, notching, waste, all necessary scaffolding, temporary supports, hoisting facilities and safety precautions (see Subclause 8.1.2 of SANS 1200 HB).

**BA.03      Carefully remove existing cladding, sheeting and coverings: ..... Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface of finished building (see Subclause 8.1.1 of SANS 1200 HB).

Separate items will be scheduled for roof covering, side cladding and shade cloth, without differentiating amongst different profiles, etc.

The rate shall cover the cost of removing of existing roof sheeting or side cladding inclusive of flashings and sundry items from timber or steel purlins, and the removal from site of all such material. The rate shall also cover the cost of any scaffolding, temporary supports, hoisting facilities etc as well as credit for the redundant material becoming the property of the Contractor.

The rate shall also cover all temporary necessary dust screens, sheets, plastic linings, etc laid horizontal or vertical inside existing roof spaces or voids on top of ceilings, trusses, etc to protect all contents inside the buildings while replacing or repairing the roof coverings.

**BA.04      Carefully remove and store existing cladding and sheeting: ..... Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface of finished building (see Subclause 8.1.1 of SANS 1200 HB).

Separate items will be scheduled for roof covering and side cladding without differentiating amongst different profiles etc.

The rate shall cover the cost of removing of existing roof sheeting or side cladding inclusive of flashings and sundry items from timber or steel purlins, the temporary storage of the removed sheeting or cladding at a store area (position of store area to be indicated on site). The rate shall also cover the cost of any scaffolding, temporary supports, hoisting facilities etc.

The rate shall also cover all temporary necessary dust screens, sheets, plastic linings, etc laid horizontal or vertical inside existing roof spaces or voids on top of ceilings, trusses, etc to protect all contents inside the buildings while replacing or repairing the roof coverings.

**BA.05      Re-erect: Stockpiled cladding and sheeting: .....Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface off the finished building (see Subclause 8.1.1 of SANS 1200 HB).

Separate items will be scheduled for roof covering and side cladding without differentiating amongst different profiles, etc..

The rate shall cover the cost of preparing, re-erecting, handling, moving, installing existing stockpiled sheeting and cladding including new fixing fasteners, etc complete. The rate shall also cover the cost of cutting, notching, waste, all scaffolding, temporary supports, hoisting facilities and safety precautions (see Subclause 8.1.1 of SANS 1200HB).

**BA.06      Supply and install sundry items, etc: .....Unit: m**

Flashing, ridging, etc will be measured by length.

Separate items will be scheduled for each type, finish and shape of sundry item.

The rate shall cover the cost of supplying, delivery, storing on Site, handling, moving, installing and fixing the relevant item complete with all fasteners and sundry items as stipulated in BA.02.3.4.

The rate shall also cover the cost of cutting, notching, waste and of all scaffolding, temporary supports, hoisting facilities and safety precautions (see Subclause 8.1.1 of SANS 1200 HB).

**BA.07      Supply and install roof insulation: .....Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface, no deductions being made for openings left or cut for protrusions such as those specified in Subclause 5.7 of SANS 1200 HB, or for ventilators and the like. Deductions will be made for windows and other openings of similar dimensions.

The rate shall cover the costs of supplying, delivery, storing on Site, handling, moving, installing and fixing complete with all necessary fasteners as specified in BA.02.3.7, and shall also cover cost of cutting, notching, waste and of all scaffolding, temporary supports, hoisting facilities and safety precautions (see Subclause 8.1.1 of SANS 1200 HB).

**BA.08      Supply and install rainwater goods: .....Unit: m**

Rainwater goods and similar lengths of constant profile will be measured by length.

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

Separate items will be scheduled for each type, finish, shape and when relevant, profile of rainwater goods. The rate shall cover the cost of supplying, delivery, storing on Site, handling, moving installing and fixing the relevant goods complete with all necessary fasteners, etc as specified in BA.02.5 (all complete and subject to a three year written guarantee on watertightness and workmanship). The rate 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.09      Carefully remove existing rainwater goods:..... Unit: m**

The length measured will be that of the exposed length of finished building.

No separate items will be scheduled for size, thickness, material, profile, galvanized or Galvanised baked enamel finished items.

The rate shall cover the cost of removing of existing rainwater goods inclusive of brackets and sundry items from timber or steel purlins and trusses, the cost of any scaffolding, temporary supports, hoisting facilities etc and the allowance of credit for material to become the property of the Contractor and to be removed from the site.

**BA.10      Miscellaneous items:**

(a)    Measured by number:

(i)    (Description of item)..... Unit: No

(ii)   Etc.

(b)    Measured by linear metre:

(i)    (Description of item)..... Unit: m

(ii)   Etc.

The unit of measurement shall be the number or metre as applicable to each item.

The tendered rates shall include full compensation for manufacturing or providing and installing each item complete as per BA.03.1.

**BA.11      Roof rehabilitation:..... Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface of building as specified in Subclause 8.1.1 of SANS 1200 HB. Separate items will be scheduled for roof sheeting and side cladding, without differentiating between different profiles, finishings, fixing methods, etc.

The rate shall cover the cost for inspecting, removing existing and supplying and fixing new posidriv screws and mechanisms, sealants, sealer strips, etc complete.

The rate shall also cover the cost of cutting, waste, all scaffolding, temporary supports, etc all to the approval of the Engineer.

**BA.12      Supply and install additional fixing screws, etc:..... Unit: No**

The unit of measurement will be the number of additional screws installed.

The rate shall cover the cost for removing defective fixing screws as indicated by the Engineer, and replacing aforesaid with new posidriv or equivalent approved fixing screws in similar previous positions.

No separate items will be scheduled for roof sheeting, side cladding or different profiles. Payment under this item shall not include the screws to be replaced under the roof rehabilitation item above.

**BA.13      Carefully remove and re-erect ventilation units: ..... Unit: No**

The unit of measurement will be number of ventilation units removed, temporarily stored and resized to similar positions.

The rate shall cover the cost for carefully removing existing ventilation units approximately 2,5m<sup>2</sup> in area from existing roof structures, temporary storage, servicing of existing ventilation units, cleaning, re-erecting later onto new roof sheeting (irrespective of type or profile of sheeting), new ventilation flashings and counter flashings, sealants, fixing screws, fasteners, etc complete. The rate shall also cover the cost for cutting openings into new sheeting for ventilation units, waste, all necessary scaffolding, temporary supports, hoisting facilities and safety precautions (see Subclause 8.1.1 of SANS 1200 HB).

**BA.14      Carefully remove and re-erect birdproofing: ..... Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface to be covered with bird-proofing.

The rate shall cover the cost for carefully removing chicken wire bird-proofing stapled to each roof truss tie beam at roof overhang between beam-filling and fascia board, temporary storage, cleaning of bird-proofing, re-erecting later into similar previous position. The rate shall also cover the cost for cutting, fixing staples, waste, scaffolding, etc.

**BA.15      Prepare existing roof sheeting and repaint: ..... Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface of roof sheeting painted (measured on flat area as for roof coverings.)

The rate shall cover the cost for removing existing paint and cleaning surfaces with an approved degreaser and scotch brite pads and rinsing thoroughly by means of pressure washing to receive one new primer coat and one coat dual pack poly-urethane enamel system with acrylic finish roof paint, supplying, delivery and applying new primer and finishing coat, etc., without distinguishing between roof sheeting, side cladding, profile, finish, etc., as specified in BA 03.02

The rate shall also cover the cost of waste, all necessary scaffolding, etc.

**BA.16      Replacement of existing roof tiles in patchwork: ..... Unit: number**

The unit of measurement will be number of roof tiles removed, installation of new roof tiles similar to existing roof tiles.

The rate shall cover the cost for carefully removing existing roof tiles approximately 350mm x 350mm in area from existing roof structures, installation of new roof tiles and ridge flashings, sealants, fixing screws, fasteners, etc complete. The rate shall also cover the cost, waste, all necessary scaffolding, temporary supports, hoisting facilities and safety precautions.

**BA.17      Pressure Clean existing roof tiles: ..... Unit: m<sup>2</sup>**

The area measured will be that of the exposed surface of roof tiles pressure cleaned (measured on flat area as for roof coverings.)

The rate shall cover the cost for removing existing dirt and cleaning surfaces by means of pressure washing with an approved degreaser and rinsing thereof.

The rate shall also cover the cost of water connection, all necessary scaffolding, etc.

**TECHNICAL SPECIFICATION****BB CARPENTRY AND JOINERY FOR ROOFS AND CEILINGS****CONTENTS**

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**BB 01 SCOPE**

Carpentry and joinery shall mean the maintenance of 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 corrective maintenance repairs 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 shall be performed in accordance with Additional Specification SA: General Maintenance and part 4.2 ( Scope of Services, availability and Matrix of Services).

**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:

|               |                                                                                      |
|---------------|--------------------------------------------------------------------------------------|
| PW 371-       | Specification of Materials and Methods to be used<br>(Fourth revision, October 1993) |
| SANS 10243    | - The design, manufacture and erection of timber trusses                             |
| SANS 266      | - Gypsum plasterboard                                                                |
| SANS 1783 - 2 | - Stress-graded softwood: general structural timber                                  |
| SANS 1783 - 4 | - Softwood brandering and battens                                                    |
| SANS 803      | - Fibre-cement boards                                                                |

**BB 02.02 ADDITIONAL SPECIFICATIONS**

Technical Specification BA: Roof coverings

Technical Specification BD: Walls

Technical Specification BJ: Paintwork

**BB 02.03      OCCUPATIONAL HEALTH AND SAFETY**

The Contractor shall be required to comply with the Occupational Health and Safety Act 85 of 1993, Construction Regulations 2014 and related regulations. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

**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:

- (i) Deflection exceeding acceptable limits;
- (ii) Inadequacy in design, e.g. 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 e.g. 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:

- (i) 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 waness 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 less than 65 mm of a connector plate on 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 PW 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.

**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, e.g. 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 PW 371, or clauses 8.5.1 and 8.5.2 of SANS 10234, 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, i.e. 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, e.g. 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;
- (ii)   Strengthening of members due to unforeseen loads, notching and cutting for services by other contractors;
- (iii)   Exposed portions of structural timber shall be painted to match existing appearance;
- (iv)   Bolt connections shall be in accordance with the requirements of SANS 10163.

**BB 03.01.04    Ceilings**

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

**(a)    Branderling to ceilings**

Branderling to ceilings shall be replaced where:

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

New brandering shall be provided in accordance with clause 9.4 of PW 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. Branderling must be provided for light fitting support.

**(b)    Gypsum ceiling boards**

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.

Where it is necessary to replace ceiling boards onto existing brandering, new boards shall be installed by first drilling through and then securing with cadmium-plated flat headed wood screws, or alternatively by shot nailing to suit, to avoid unnecessary vibration or impact damage to adjacent elements.

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 clout-headed 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.

Replacement of new ceiling boards onto existing brandering shall be done as described in BB 03.01.04(b) above.

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.

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

(d) Exposed T-system suspended ceilings

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 Timber trusses, purlins and battens**

(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 10163.
- (4) Timber grade shall be S5 and replacement sizes are to match existing unless otherwise agreed.
- (5) 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 types of failure 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)

- (1) 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.

- (2) 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**

This specification shall be read in conjunction with Additional Specification SA: General Maintenance and part 4.2 ( Scope of Services, availability and performance and Matrix of Services).

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, i.e. 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 used for repair work 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 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 brander and the Contractor must take special care not to damage the existing brander when removing damaged ceiling boards.

## **BB 06.02      SCHEDULED ITEMS**

### **NEW WORK**

#### **BB.01      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 indicated) ..... Unit: number
- (g) Etc

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.

#### **BB.02      Ceilings:**

- (a) Ceiling boards, trapdoors, cornices, cover strips, etc  
(type and/or thickness indicated):
  - (i) Thickness, shape and description of applications ..... Unit: m<sup>2</sup>, 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 brander as specified.

**BB.03****Joinery:**(a) Items measured by number:

- (i) Doors, etc (type and size indicated) ..... Unit: number
- (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: m<sup>2</sup>
- (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.

**ALTERATION WORK****BB.04****Alterations and repairs to existing structures:**(a) Indicate if repairs, alterations, removal or sealing, etc:

- (i) Description of individual items to be repaired, replaced, altered, removed, sealed, etc ..... Unit: m<sup>3</sup>, m<sup>2</sup>, 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 distinction 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, re-align, 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."

**BB.05      Repairs to watermarked and slightly rotten**  
**timber roof members: ..... Unit: m**

The unit of measurement shall be the linear metre of timber roof members repaired as specified. No distinction will be made for size, type of member or position.

The tendered rate shall include full compensation for the complete repair work, wire brushing, creosote, etc as specified by the Engineer.

**BB.06      Repairs to damaged masonry, plastering and surface finishes:**

(a) Items measured by number:

(i) Description of item ..... Unit: No

(ii) Etc ..... Unit: m

(b) Items measured by linear metre:

(i) Description of item ..... Unit: No

(ii) Etc ..... Unit: m

The unit of measurement shall be the number or metre as applicable to each item.

The tendered rates shall include full compensation for the making good of masonry (stock or face bricks), beam-filling, plastering, painting, closing ends to troughs of sheet metal roof sheeting, repairs to structure at ends of rafters and purlins, protruding through brick walls, etc.

The tendered rate shall also cover the cost of cutting, notching and waste and of all scaffolding, temporary supports, etc.

**BB.07      Painting to top cords of timber trusses**  
**in roof voids: ..... Unit: m**

The unit of measurement shall be the metre.

The tendered rate shall include full compensation to prepare existing top cords (where applicable) to receive one coat creosote. No distinction will be made for size, type, new or existing members. The rate shall also cover the cost for waste, all scaffolding, etc.

**BB.08      Painting of existing members in overhangs: ..... Unit: m**

The unit of measurement shall be the metre.

Separate items will be listed for paint and/or creosote as specified.

The tendered rate shall include full compensation to prepare existing overhangs to receive paint or creosote as specified. No distinction will be made for size of existing members. The rate shall also cover the cost for waste, all scaffolding, etc.

**TECHNICAL SPECIFICATION****BD                WALLS****CONTENTS**

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**BD 01            SCOPE**

This specification covers the corrective maintenance repairs 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.

**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 10400: The Application of the National Building Regulations.

|             |                                                                                      |                                                        |  |
|-------------|--------------------------------------------------------------------------------------|--------------------------------------------------------|--|
| PW 371-     | Specification of materials and methods to be used<br>(Fourth revision, October 1993) |                                                        |  |
| SANS    22  | -                                                                                    | Glazed ceramic wall tiles and fittings                 |  |
| SANS   227  | -                                                                                    | Burnt clay masonry units                               |  |
| SANS   545  | -                                                                                    | Wooden doors                                           |  |
| SANS   622  | -                                                                                    | Gypsum cove cornice                                    |  |
| SANS   680  | -                                                                                    | Glazing putty for wood and steel sashes                |  |
| SANS   727  | -                                                                                    | Windows and doors made from rolled mill steel sections |  |
| SANS 10107  | -                                                                                    | The fixing of glazed wall tiles                        |  |
| SANS   1236 | -                                                                                    | Silvered glass mirrors for general use                 |  |
| SANS   1263 | -                                                                                    | Safety and security glazing materials for buildings    |  |

**BD 02.02       ADDITIONAL SPECIFICATIONS**

Technical Specification BG: Metalwork

Technical Specification BH: Fittings

Technical Specification BJ: Paintwork

**BD 02.03      OCCUPATIONAL HEALTH AND SAFETY**

The Contractor shall be required to comply with the Occupational Health and Safety Act 85 of 1993, Construction Regulations 2014 and related regulations. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

**BD 03      VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS****BD 03.01      ADDITIONAL REQUIREMENTS FOR REPAIR OF PLASTERED AND UNPLASTERED WALL SURFACES****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 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 m<sup>2</sup> 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.

**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 10400.

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.

#### **BD03.04.01     APPLICATION OF SILANE / SILOXANE BASED WATER REPELLENT/IMPREGNATION**

The surface to be treated shall be clean, sound and dry. It should be free from dust, dirt, loose particles and oily or greasy deposits.

The surface shall be dry to allow maximum penetration. No application shall be made for at least four days after rain.

In order to remove any loose particles, the walls shall be pressure-cleaned with water before application of the silane / siloxane based water repellent. After pressure cleaning of the walls, the walls shall be left to dry in sunny conditions for at least 4 days, and where dagha (cement) has come loose in the joints and left a void, dagha (cement) joint filling shall be prepared to match the existing colour and shall be replaced to match the existing. The Contractor shall submit a mix design of the dagha (cement) joint filling for approval before application.

The contractor shall arrange for walls to be inspected by the Engineer's Representative before application of the water repellent, but after pressure cleaning of the walls.

The water repellent should be applied by brush or through a low pressure knapsack sprayer. Application should commence from the highest point of the surface and work down the surface. Some run-down of the coating is permissible but should not exceed 250-300 mm. A second coat may be given but only after at least two hours drying time between coats.

Avoid working in full sunshine to achieve maximum penetration. Confine activities to the shadow side of the structures.

Application temperature shall be +/- 5o to +30o, and shall not be applied if rain is imminent.

The penetrating silane / siloxane based water repellent shall be applied to cover 3 – 5 m<sup>2</sup> per litre per coat. The water repellent shall be applied in two coats.

The penetrating silane / siloxane based water repellent shall be applied in accordance with the instructions of the supplier.

**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 10107 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 x 150 x 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 replacing damaged tiles and pointing between tiles with an approved epoxy grout.

**BD 03.05.04      Corner protectors**

Install 75 x 75 x 5 mm thick aluminium angle corner protectors to external vertical wall corners for protection with 8 mm diameter impact nails x 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.

**BD 03.06.05      Aluminium windows**

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 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 1½ 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    Doors, sidelights and fanlights**

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    Toilet doors in ablutions**

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 x 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 x 8 mm diameter heavy duty impact nails.

**BD 03.09      IRONMONGERY**

**BD 03.09.01    General**

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**

No maintenance will be required for walls under this contract.

#### **BD 06            MEASUREMENT AND PAYMENT**

##### **BD 06.01       MEASUREMENT AND RATES**

##### **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 servicing of windows or similar items shall be deemed to include for servicing all opening sashes and the total overall frame. The rates tendered for servicing of doors or gates shall include the service of all locks, handles 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 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.

All brickwork shall include for damp proofing membranes, galvanized brickwork reinforcement to every third course, wire ties and wall anchors as needed.

Tile work 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 : Repairs to galvanised IBR roofs**

Repairs to the workshops and store room roofs will include the following work and all work must be carried out in accordance with the Technical Specification BA: Roof Coverings.

- (a) Inspect the roof for defects.
- (b) Fasten loose nuts on hook bolts.
- (c) Replace damaged and/or severely corroded washers (allow for  $\pm 30\%$  of all washers to be replaced). The remainder of the existing washers must be painted with an approved rust converter and a grey colour pure acrylic paint system.
- (d) Insert sealer strips on all loose side laps.
- (e) Stitch side laps together with Leak Plugs for IBR roof cladding (2 between every hook bolt; purlins are spaced at approximately 1,86 m c/c).
- (f) Install new 0,8 mm thick apex trim at the workshops for the length of each bay size 616 mm girth (286 + 300 vertical + 20 + 10 vertical) with Craft-Lock type apex trim fixing brackets. The apex trim 4 x bend (1 is a shallow bend) and fixed to roof sheeting with stitching screws and washers, and to 260 mm vertical x 140 mm (at slope) x 25 mm wide x 2,5 mm thick with 25 mm lip galvanised bracket. The galvanised bracket to be screwed and fixed to roof cladding in trough with 2 galvanised gutter bolts. The spacing of the brackets is 1029 mm. 150 mm overlap fixed and sealed with 2 rows of pop rivets and 2 rows of silicone. Bend up trough to form dam.
- (g) Side wall flashings: Inspect existing flashings. All loose flashings must be sealed with two rows of silicone and stitched together with no.10 stitching screws. Counter flashing to be sealed with silicone in brick wall. Existing sealant to be removed. Prepare groove to manufacturer's specifications to receive new joint sealant.
- (h) Ridge flashings: Inspect existing flashings. All loose flashings must be sealed with two rows of silicone and stitched together with no.10 stitching screws.
- (i) Holes (small diameter) in cladding to be sealed with Leak King plugs.
- (j) Replace existing galvanised gutters and down pipes with new 125 x 100 x 0,8 mm thick Chromadek gutters with 100 x 100 x 0,8 mm thick galvanized baked enamel rainwater down pipes spaced at approximately 6 to 7 m intervals.

#### **Specific specification : Repairs to concrete gutter at workshops**

- (a) The existing  $\pm 305$  mm x 400 mm deep concrete box gutters must be waterproofed with a fully bonded waterproofing system to Technical Specification BC: Waterproofing. Prepare the existing cement screed surface by cleaning it and replacing decayed cement screed with new screed. The waterproofing membrane must be dressed over the top ends of the concrete upstand beams of the gutters and down into down pipes. All sharp concrete corners must be chamfered adequately to suit waterproofing membrane requirements.
- (b) The existing expansion joints in the box gutter must be cleaned and prepared to receive joint sealant. The edges of the concrete must be chamfered to comply with waterproofing manufacturer's requirements. Insert 35 mm diameter low

density, non-cross-linked, closed cell, expanded poly-ethylene foam backing cord for 25 mm wide joint. Prime joint and seal joints with 25 mm wide x 15 mm thick approved poly-urethane joint sealant applied strictly according to manufacturer's specifications. The top surface of the joint sealant must be recessed adequately into joint to allow for a closed cell polyethylene foam strip that will accommodate movement of the waterproofing membrane.

Dressing to expansion joint will comprise of additional strips of reinforced waterproofing membranes that are lapped and sealed to manufacturer's specifications. The Contractor must submit detail for approval to the Engineer prior installation.

**Specific specification : Repairs to roller shutter doors at workshops**

- (a) Replace the whole bottom T-bar including the bottom  $\pm$  17 galvanised slats of the existing roller shutter doors with a new galvanised T-bar (bottom rail) with neoprene weather strip. The Contractor must measure the width of the door (approximately 3000 mm) and the opening width of the wicket door prior ordering the new bottom T-bar and new galvanised slats ( $\pm$  76 mm high x 1,2 mm thick). When the new bottom T-bar has arrived on site, the Contractor must remove the existing bottom T-bar and slats and slide in the new T-bar and slats.
- (b) Provide and insert end locks on the ends of door curtains.
- (c) Repairing shall include fixing of missing bracket bolts, screws and pins, brackets, fittings such as locks, loose ratchet and pawls, and brackets. Loose bracket bolts that have broken out of walls shall be replaced with 175 mm long x 12 mm diameter threaded rods that must be anchored to the walls with an approved epoxy grout.
- (d) Repairing bent and fixing of damaged steel plates of canopy covers.
- (e) Repairing gearbox, gear handle, drive shaft, pinions and bevel gears.

**Specific specification: Servicing and adjustments to roller shutter doors**

- (a) All other door components shall be serviced, adjusted, repaired and replaced, but not restricted to, for the full repair of the complete door installation to a smooth working condition. The door sizes is approximately 3000 mm wide x 3500 mm high. The existing interlocking slats are 76 mm wide.
- (b) Servicing shall include cleaning and oiling of hinges, rollers, bearings, gears, channel guides and locks. Interlocking slats of the roller shutter curtains shall only be washed with a high-pressure water jet and detergent to remove all dirt, grease, etc.
- (c) Adjusting, fixing and realigning of door guides. The existing channel guides, approximately 76 mm wide shall be bent straight to allow free and smooth movement of the roller shutter door slats. The Engineer shall give the necessary instructions where severely damaged channel guides must be replaced.
- (d) Adjusting and balancing torsion springs, barrel collar and counter balance.

**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 agricultural kraals**

#### **Replace diamond mesh fence:**

Existing diamond mesh shall, where indicated by the Engineer, be removed and replaced with new diamond mesh fence. The new galvanized diamond mesh shall be stretched and properly tied 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 and droppers, and 1,6 mm diameter, mild steel, galvanized wire for tying netting and mesh wire to fencing wire.

## **BD 06.02      SCHEDULED ITEMS**

### **NEW WORK**

## **BD.01      Doors and windows:**

- (a) (Type of doors, windows, locks, etc and material indicated):

- (i) Description of item ..... Unit : number

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 or natural anodised aluminium 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 used:**

- (i) Description of item and/or position to  
be fixed ..... Unit m, m<sup>2</sup>, number

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****Joinery:****(a) Items measured by number:**

- (i) Doors, etc (type and size indicated) ..... Unit: number
- (ii) Etc for other items measured by number

**(b) Items measured by linear metre:**

- (i) Skirtings, etc (type and 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: m<sup>2</sup>
- (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.

The tendered rates shall include full compensation for the supply of all materials, manufacture, cutting, waste, fixing and installation of the joinery items.

**BD.04****Ironmongery, steelwork, glass, wall finishings, etc:****(a) Measured by number:**

- (i) (Description of item) ..... Unit: number
- (ii) Etc

**(b) Measured by linear metre:**

- (i) (Description of item) ..... Unit: m
- (ii) Etc

(c) Measured by area:(i) (Description of item) ..... Unit: m<sup>2</sup>

(ii) Etc

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 installing each item to new or existing steel, wood or plaster complete as per specifications, drawings, descriptions as scheduled or as the existing and shall include for all labour, material, waste, plant, transport, delivery, access, scaffolding, 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 ..... Unit: m<sup>3</sup>, m<sup>2</sup>, m, number

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

The tendered rates shall include full compensation for all costs to repair, replace, refix, remove, cutting into, re-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.

**TECHNICAL SPECIFICATION****BH                    FITTINGS****CONTENTS**

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**BH 01                SCOPE**

Fittings shall mean the scope of work to perform corrective maintenance repairs to 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.

**BH 02                STANDARD SPECIFICATIONS****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:

|                 |                                                                                     |
|-----------------|-------------------------------------------------------------------------------------|
| PW 371-         | Specification of Materials and Methods to be used<br>(Fourth edition, October 1993) |
| SANS    929 -   | Plywood and composite board                                                         |
| SANS   1099 -   | Hardwood furniture timber                                                           |
| SANS   1783-3 - | Softwood timber for industrial use                                                  |
| SANS    1385 -  | Kitchen cupboards of steel, composite board and timber                              |

**BH 02.02          ADDITIONAL SPECIFICATIONS**

Technical Specification BD: Walls  
 Technical Specification BG: Metalwork  
 Technical Specification BJ: Paintwork

**BH 02.03          OCCUPATIONAL HEALTH AND SAFETY**

The Contractor shall be required to comply with the Occupational Health and Safety Act 85 of 1993, Construction Regulations 2014 and related regulations. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

**BH 03                VARIATIONS AND ADDITIONS TO STANDARD SPECIFICATIONS****BH 03.01          ADDITIONAL REQUIREMENTS FOR REPAIR OF FITTINGS****BH 03.01.01      Built-in cupboards**

The Engineer shall inspect all cupboards for defects and shall establish which components are to be replaced or repaired. Reasons for replacement will include, but not be limited to:

- (a) Severely chipped or damaged block board;
- (b) Severely chipped or damaged decorative laminates;
- (c) Inadequacy of design, eg strength of hinges, failure of door furniture, etc;
- (d) Corroded steel elements.

Fixing of defects will include repairing or replacing damaged, corroded and worn-out fittings, eg door handles, knobs and hinges, door catches and holders, door locks, cupboard door vents, drawer slide rails, drawer handles, knobs and locks. Moving parts shall be serviced by cleaning, oiling, tightening loose screws, reinstating missing screws or aluminium pop rivets, etc. Refer to BD 03.08 and BD 03.09 of Technical Specification BD: Walls, for repairs or replacements of cupboard doors and ironmongery.

#### **BH 03.01.02    Kitchen cupboards**

Kitchen cupboards shall be inspected for defects. Defects will include repairing or replacing damaged, corroded and worn-out fittings, eg door handles, knobs and hinges, door catches and holders, door locks, cupboard door vents, drawer slide rails, drawer handles, knobs and locks. Moving parts shall be serviced by cleaning, oiling, tightening loose screws, reinstating missing screws or aluminium pop rivets, etc. Where the baked enamel of steel cupboards is scratched and worn off, the steel surface shall be sanded and painted with an approved gloss epoxy paint to match the existing colour. Severely corroded or damaged steel cupboards shall be replaced with approved new steel cupboards complying with SANS 1385, with the baked enamel complying with SANS 783 Type II.

Damaged kitchen cupboards manufactured from composite board with laminated plastic covering shall be repaired where possible by gluing loose laminated plastic covering or replacing components with new similar matching finished elements.

Damaged kitchen cupboards manufactured from timber shall be repaired by replacing cracked and broken timber components. Painted surfaces shall be varnished with water-resistant varnish (with matching stain) or painted with approved polyurethane paint. Refer to Technical Specification BJ: Paintwork.

All cupboards shall be properly screwed and fixed to walls and floors with suitable corrosion resistant screws and plastic plugs, washers, etc.

Work tops and sinks against walls shall be sealed with an approved white one part polyurethane sealant. The sealant shall be applied strictly according to the manufacturer's specifications. Old worn-out and damaged sealant shall also be replaced. Drop-in sink bowls shall also be sealed with this approved polyurethane sealant. Where the possibility exists that water can penetrate composite board, these joints in the worktops shall also be sealed.

#### **BH 03.01.03    Shelving**

The stability of shelves must be checked to determine the occurrence of sagging. Where required, provide adequate support for the specific application, eg steel tubing struts, additional timber bearers, steel brackets, etc.

Broken timber shelving shall be replaced with approved wrought hardwood or solid laminated pine varnished or painted to specification. Composite board will not be permitted. Shelves shall be in single lengths. Heads of nails and brass countersunk screws in exposed faces of joinery shall be sunk and pelleted.

#### **BH 03.01.04    Signage**

Safety signs shall comply with the requirements of SANS 1186 (1997).

The Engineer shall survey all signage and list those items that prove to be illegible. Signs that need to be replaced shall be done in the same fashion and material as to match similar signs in the same application. The size of the signs shall be as shown on the schedules.

Where required proper and appropriate signage must be provided for door numbers, room size and room description. The size, colour, position on the door, wall, etc., height above floor level of the lettering shall be instructed by the Engineer on site or shown on the schedules. The lettering must be stencilled on to the doors and walls.

All other fire protection signage will be provided for hydrants, hose reels, etc, shall be provided under separate contract.

**BH 03.01.05     Counters**

The Engineer shall inspect all counters and counter tops for defects and shall establish which components are to be replaced or repaired. Special attention shall be given to the condition of hinges at service hatches.

All joinery liable to be damaged shall be covered with temporary coverings to the satisfaction of the Engineer and special care shall be taken to protect surfaces that are to be varnished.

Where necessary, timber counters shall be sanded down, uneven surface spots filled with an approved wood filler, all blemishes removed and then finished off in order to restore the wood to its original state.

Steel tops that have been damaged excessively shall be replaced.

**BH 04             DETAIL OF REPAIR WORK**

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

**BH 05             MAINTENANCE**

No maintenance will be required for fittings under this contract.

**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 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.

## **BH 06.02 SCHEDULED ITEMS**

### **NEW WORK**

#### **BH.01 Joinery:**

##### **(a) Items measured by number:**

- (i) Timber cupboard doors, shelves, complete cupboards, etc (type and size indicated) .....Unit: number
- (ii) Etc for other items measured by number

##### **(b) Items measured by linear metre:**

- (i) Timber rails, planks, frames, shelves, etc (size indicated) ..... Unit: m
- (ii) Etc for other items measured by length

##### **(c) Items measured by area:**

- (i) Pinning boards, shelves, work tops, etc (type and thickness indicated) .....Unit: m<sup>2</sup>
- (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.

The tendered rates shall include full compensation for the manufacturing and supplying of all materials, for transport, scaffolding for working at heights, labour, cutting, waste, fixing, screws, bolts, clamps, etc and installation of the joinery items.

**BH.02****Steelwork:****(a) Items measured 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) Items measured by linear metre:**

(i) Steel rails, shelves, frames, etc (size indicated) ..... Unit : m

(ii) Etc, for other items measured by length

**(c) Items measured by area:**

(i) Shelves, plates, etc (type and thickness indicated) .....Unit : m<sup>2</sup>

(ii) Etc, for other items measured by area

The unit of measurement shall be the number, metre or square metre of each type and/or size of steelwork item specified.

The tendered rates shall include full compensation for the manufacturing, supplying of all materials and transport, and for all labour, cutting, welding, waste, fixing, scaffolding for working at heights and installation of the steelwork items complete with a 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 .....Unit: m<sup>3</sup>, m<sup>2</sup>, m, number

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, scaffolding for working at heights 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 BH 06.01.01.

**TECHNICAL SPECIFICATION****BJ PAINTWORK****CONTENTS**

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**BJ 01 SCOPE**

This specification covers the painting/repainting and maintenance of new and existing building components and maintenance thereafter for various types of buildings and structures.

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.

**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 10064 - 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 ADDITIONAL SPECIFICATIONS**

Technical Specification BG: Metalwork

Paint manufacturers' specifications. These specifications shall take precedence over all others.

**BJ 02.03      OCCUPATIONAL HEALTH AND SAFETY**

The Contractor shall be required to comply with the Occupational Health and Safety Act 85 of 1993, Construction Regulations 2014 and related regulations. Non-compliance with these regulations, in any way whatsoever, will be adequate reason for suspending the Works.

**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.
- 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.

c) Guarantee

- i) The Contractor must give a 3 year written guarantee for the quality and workmanship of the paint work (fair wear and tear excepted). The Contractor shall be liable for any peeling or flaking paint applied by the Contractor and shall execute all such work of repair, rectification and making good of painted surfaces as may be ordered in writing by the Engineer. The manufacturer must carry out inspections at regular intervals during the construction period. The Manufacturer must issue a certificate of acceptance and compliance on completion to the client.

**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.

(b) Metalwork

- (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) InteriorCeilings 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

Preparation: Clean down to remove all dirt and grease, etc, fill nail-heads with exterior 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.

(ii) Renovation (existing) work(1) InteriorCeilings 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.

Finishing coat: Apply two coats of super acrylic copolymer PVA.

Ceilings to wet areas:

Preparation as above, but to be followed by one coat synthetic copolymer primer and two final coats polyurethane alkyd enamel interior quality paint (with fungicidal additive, only if specified).

In cases where fungicidal attack is prevalent the prepared surface must be washed down with antiseptic solution, followed by sodium hyperchlorite and allowed to react for 15 minutes before washing down with water. Once dry, primer and finishing coats may be applied.

(2) Exterior

Not applicable.

(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.

(ii) 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: Clean down and sand to a smooth finish. Spot prime where necessary with primer for wood. 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. 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

Previously painted metalwork, in good condition (steel windows, door frames, miscellaneous steelwork, etc):

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.

Previously painted metalwork, to remove all previous paint to original surface:

Preparation: Remove all existing paint by means of scraping or wire brushing, grinding and sanding. 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-papery. 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.

Primer: Apply one coat of zinc phosphate primer for steel. Allow for 24 hours drying.

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).

Previously painted metalwork, to remove all previous paint to original surface:

Preparation: Remove all existing paint by means of scraping or wire brushing, grinding and sanding. 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.

(3) Aggressive environments

Not applicable.

(d) Gypsum board (ceilings, etc)

(i) New work

(1) Interior (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) Exterior (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

Not applicable.

(e) Cement plaster (walls) and concrete surfaces

(i) New work

(1) Interior

- 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) Interior

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.

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).

Previously painted cement plaster (walls) and surfaces, in poor condition (ie peeling, crazing, etc, not previously limewashed):

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 asbestos 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 asbestos 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) Interior

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:

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) Interior

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):  
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 down with sugar soap to remove all dirt, grease, etc, then rinse off with clean water. Sand down to a smooth and flat 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 flat 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) Exterior

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.

Previously varnished woodwork in good condition (to be finished with exterior quality ultraviolet resistant solvent based varnish):

Preparation and application as for similar interior item above.

Previously stained and varnished or painted woodwork, in poor condition (to be finished in 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 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.

Previously stained and varnished or painted woodwork, in poor condition (to be finished in polyurethane alkyd enamel):

As for similar interior item above.

Previously varnished woodwork in poor condition (to be finished with exterior quality ultraviolet resistant 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) Cement plaster or facebrick walls and concrete surfaces where damp penetration is evident

- (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.

#### **BJ 05            MAINTENANCE**

No maintenance will be required for paintwork under this contract.

#### **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.

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.

**BJ 06.02      SCHEDULED ITEMS**

**NEW UNPAINTED SURFACES:**

**BJ.01      Paint to new unpainted surfaces:**

(a) Description of surface:

(i) Brief description of final paint type:

(a) Description of application area or item  
to be painted ..... Unit: m<sup>2</sup>, m, number

(b) Etc, for other areas 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.

**PREVIOUSLY PAINTED SURFACES:**

**BJ.02      Paint to previously painted surfaces:**

(a) Description of surface:

(i) Brief description of final paint type:

(a) Description of application area or item  
to be painted..... Unit: m<sup>2</sup>, m, number

(b) Etc, for other areas 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.

**PREVIOUSLY PAINTED SURFACES IN POOR CONDITION:****BJ.03****Paint to previously painted surfaces in poor condition:****(a) Description of surface:****(i) Brief description of final paint type:**

**(a)** Description of application area or item  
to be painted ..... Unit: m<sup>2</sup>, m, number

**(b)** Etc, for other areas 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.

**PREVIOUSLY PAINTED SURFACES TO REMOVE ALL PREVIOUS PAINT TO ORIGINAL SURFACE:****BJ.04****Paint to previously painted surfaces to remove all previous paint to original surface****(a) Description of surface:****(i) Brief description of final paint type:**

**(a)** Description of application area or item  
to be painted ..... Unit: m<sup>2</sup>, m, number

**(c)** Etc, for other areas 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.

## **ADDITIONAL SPECIFICATION**

### **SI      OCCUPATIONAL HEALTH AND SAFETY**

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Signature Client H&amp;S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

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Signature Client H&amp;S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

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Signature Client H&amp;S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

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Signature Client H&amp;S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

## SI 1 DEFINITIONS

In this document the following expressions shall bear the meanings assigned to them below:

### **Agent**

Means a competent person who acts as a representative for a Client;

### **Client**

Means any person for whom construction work is being performed (*i.e. Kirstenbsosch / SANBI*) for purposes of this specification;

### **COID ACT**

Means the Compensation of Occupational Injuries and Diseases Act and Regulations, Act 130/1993

### **Construction Regulations**

Means the Occupational Health and Safety Act's, No 85 of 1993, R 84 of February 7, 2014 Construction Regulations that came into effect on February 7, 2014;

### **Occupational Health and Safety Plan**

Means a documented plan, which addresses hazards identified and includes safe working procedures to mitigate, reduce or control the hazards identified;

### **Occupational Health and Safety specification**

Means a documented specification of all Health and Safety requirements pertaining to the associated works on a construction site, so as to ensure the Health and Safety of persons working, visiting, passing, staying and/or working close to the site;

### **OHS ACT**

Means the Occupational Health and Safety Act and Regulations, Act 85 of 1993, as amended;

### **Principal Contractor**

Means an Employer, as defined in Section 1 of the OHS Act, who performs construction work and is appointed by the Client to be in overall control and management of the construction site and works.

## SI 2 INTRODUCTION

In terms of Construction Regulation 5(1)(b) of the OHS Act, the Client is required to compile an Occupational Health and Safety Specification for any intended project and provide such specification to prospective tenderers.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

This specification has as objective to ensure that the Principle Contractor entering into a contract with the Client achieves and maintains an acceptable level of Occupational Health and Safety performance and compliance. This document forms an integral part of the contract between the Client and the Principal Contractor and the Principal- and other contractors should make it part of any contract/s that they may have with other contractors and/or suppliers as far as this project is concerned.

Compliance with this document does not absolve the Principal Contractor from complying with any other minimum legal requirements and the Principal Contractor remains responsible for the Health and Safety of his employees, those of his mandataries as well as any persons on adjacent properties as far as it relates to the construction activities.

**Standing time claims related to any health & safety matter will not be entertained.**

### **SI 3 SCOPE**

To develop a project specific Occupational Health and Safety specification that addresses the reasonable and foreseeable risks, exposures and aspects of Occupational Health and Safety as affected by the abovementioned contract work.

The specification will provide the requirements that the Principal Contractor and other contractors will have to comply with in order to reduce the risks associated with the abovementioned contract work and that may lead to incidents causing injury and/or ill health, to a level as low as reasonably practicable and possible.

A contractor appointed as the Principal Contractor response to the Client's formal tender for the construction project, has to prepare an Occupational Health and Safety Plan based on his specification. The Client will evaluate this plan to ensure compliance with Construction Regulation 5(1)(h) that stipulates that the Client may only appoint a contractor who has the necessary competencies and resources to carry out this work safely.

**The following construction work is included at Lebombo Port of Entry. The items allowed for in the scope of works will only be executed upon instruction from the Engineer when so required and when necessary.**

#### **General Items**

- Compliance to OHS Act Requirements, Construction Regulations 2014 and related regulations.
- It is required of the Contractor to thoroughly study the Additional Specification SH: HIV / AIDS Requirements (PW 1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the Bills of Quantities. Provision for pricing of HIV/AIDS awareness is made and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced, as the said items represent the only method of measurement and no additional items or extras to the Contract in this regard shall be entertained.
- Training of EPWP Workers.

#### **Installation A1: Replacement of Perimeter Security Fence**

- Replacement of the entire perimeter security fence with a new high security perimeter fence
- Replacement of gates and installation of new gates
- Storm water Drainage at new security fencing

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

**SI 4 GENERAL OCCUPATIONAL HEALTH AND SAFETY PROVISIONS****SI 4.1 Hazard Identification and Risk Assessment****SI 4.1.1 Risk assessments**

This specification contains a list of risk assessment headings that have been identified by the Client as possibly applicable to the abovementioned contract work. It is, by no means, exhaustive and is only offered as assistance to the contractors intending to tender for the applicable works.

List of Risk Assessments to be used on site:

- Aggregate/Sand Delivery
- Brickwork
- Crane Operations
- Cutting of pipes
- Demolition Work
- Distribution boards – Electrical
- Drivers – of vehicles
- Electrical installation and Maintenance
- Electrical Welding Machines
- Fire prevention and protection
- Gas welding-cutting operations
- Generators
- Grinding Machines Operation
- Hand and spray painting
- Hand Excavation
- Hand tools
- Installation of Glass
- Laying of pipes
- Levelling – off materials
- Loading supervisor
- Loading/unloading – of trucks
- Machine operator
- Material delivery
- Material handling
- Plastering
- Portable Electrical Tools
- Portable ladders
- Scaffolding
- Site establishment
- Skill Saw
- Tile stacking
- Tiling
- Traffic control
- Trenches – Digging of
- Use of portable electrical tools
- Work in elevated positions
- Working close to existing services i.e. electrical, waste water etc
- Working close to traffic

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

- Workshops
- Working at/on open edges
- Working at a Wastewater and Water Treatment Works with associated hazards.

#### SI 4.1.2 Development of Risk Assessments

Every Principal Contractor performing construction work shall, before the commencement of any construction work or work associated with the aforesaid construction work and during such work, ensure that risk assessments are undertaken by a competent person, appointed full time on site in writing, including proof of training, and the risk assessments shall form part of the Occupational Health and Safety plan and be implemented and maintained.

The risk assessments shall include, at least:

- The identification of the current as well as emerging risks and hazards to which persons may be exposed to
- The analysis and evaluation of the risks and hazards identified
- A documented plan of safe working procedures (*SWP*) and any method statements to mitigate, reduce or control the risks and hazards that have been identified
- A plan to monitor the application of the *SWP*'s; and
- A plan to review the risk assessments as the work progresses and changes are introduced.
- A Plan Task Observation (*PTO*) must be done on a weekly basis on all risk assessments and the record of it must be in the safety file.

Based on the risk assessments, the Principal Contractor must develop a set of site-specific Occupational Health and Safety rules that will be applied to regulate the Occupational Health and Safety aspects of the construction.

The risk assessments, together with the site-specific Occupational Health and Safety rules, must be submitted to the **Client before** mobilization on site commences.

Despite the risk assessments listed, the Principal Contractor is required to conduct a baseline risk assessment and the aforesaid risk assessments must be incorporated into the baseline risk assessment. The baseline risk assessment must further include the *SWP*'s and the applicable method statements based on the risk assessments.

Hazard identification and risk assessments must be undertaken whilst *SWP*'s must be developed for all out-of-scope work.

#### SI 4.1.3 Review of Risk Assessments

The Principal Contractor is to review the hazards identified, the risk assessments and the *SWP*'s at each production planning and progress report meeting as the contract work develops and progresses and each time changes are made to the designs, plans and construction methods and/or processes.

The Principal Contractor must provide the Client, other contractors and all other concerned or affected parties with copies of any changes, alterations or amendments as soon as possible but within 14 days of such changes.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

## SI 4.2 LEGAL REQUIREMENTS

All Contractors entering into a contract with the Client shall, as a minimum, comply with the –

- OHS Act and a current, up-to-date copy of the OHS Act and its Regulations must be available on site at all times
- Compensation for Occupational Injuries and Diseases Act, No 130 of 1993 (*COID Act*). The Principal Contractor will be required to submit a letter of registration and “good-standing” from the Compensation Commissioner or compensation insurer before being awarded the contract. A current, up-to-date copy of the COID Act must be available on site at all times; and
- Where work is being carried out on mine premises, as well as where any tunneling will be done, the contractor will comply with the Mine Health and Safety Act and Regulations (*Act. 29 of 1996*), the Minerals Act and Regulations (*Act 50 of 1991*) and any other Occupational Health and Safety requirements that the mine may specify. Current, up-to-date copies of the last two mentioned Acts must be available on site at all times.

## SI 4.3 STRUCTURE AND RESPONSIBILITIES

### SI 4.3.1 Overall Supervision and Responsibility for Occupational Health and Safety

The Principal Contractor is responsible to implement and maintain the Occupational Health and Safety Plan approved by the Client.

The Chief Executive Officer (*in terms of Section 16(1) of the OHS Act*) of the Principal Contractor is to ensure that the Employer (*as defined in the OHS Act*) complies with the OHS Act. “*Legal Compliance Checklist*” may be used for this purpose.

The Principal Contractor’s Chief Executive Officer may appoint any person reporting to him/her as Designated Person in terms of Section 16(2) of the OHS Act. Such Designated Person is responsible to assist the Chief Executive Officer to ensure that the Employer complies with the requirements of the OHS Act.

The construction supervisor(s) appointed are responsible for supervising the construction work and in specific to ensure that all work undertaken comply with the requirements of the OHS Act, its Regulations and the Client’s specifications.

### SI 4.3.2 Operational responsibilities for Occupational Health and Safety

The Principal Contractor shall appoint designated competent employees and/or other competent persons as outlined in the following list to assist with the operational responsibilities for Occupational Health and Safety (*this list is only the minimum requirement and is therefore in no way exhaustive*):

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

| Appointment description                                                 | Appointment required in terms of |
|-------------------------------------------------------------------------|----------------------------------|
| Accident/ Incident Investigator                                         | General Safety Regulation 9(2)   |
| Assistant Construction Manager                                          | Construction Regulation 8(2)     |
| Assistant Construction Work Supervisor                                  | Construction Regulation 8(8)     |
| Construction Manager                                                    | Construction Regulation 8(1)     |
| Construction Supervisor                                                 | Construction Regulation 8(7)     |
| Construction vehicle, mobile plant and machinery supervisor / operators | Construction Regulation 23       |
| Demolition Supervisor                                                   | Construction Regulation 14(1)    |
| Drivers of construction vehicles and operators or plant                 | Construction Regulation 23       |
| Emergency/ Fire Co-ordinator                                            | Construction Regulation 29       |
| Excavation Supervisor                                                   | Construction Regulation 13(1)(a) |
| Explosive powered tool Controller                                       | Construction Regulation 21(g)(i) |
| Explosive powered tool Operator                                         | Construction Regulation 21(1)(b) |
| Fall Protection Planner                                                 | Construction Regulation 10(1)(a) |
| First-aiders                                                            | General Safety Regulation 3      |
| Temp Works/ Form & Support Work Inspector                               | Construction Regulation 12(3)(f) |
| Temp Works/ Form & Support Work Supervisor                              | Construction Regulation 12(2)    |
| H&S Safety Representative                                               | Section 17 of the OHS Act        |

| Appointment description                              | Appointment required in terms of |
|------------------------------------------------------|----------------------------------|
| Lifting machines and equipment inspector / Operators | Construction Regulation 22       |
| Risk Assessor                                        | Construction Regulation 9(1)     |
| Safety Officer / Consultant                          | Construction Regulation 8(5)     |
| Scaffolding Erector                                  | Construction Regulation 16       |
| Scaffolding Inspector                                | Construction Regulation 16       |
| Scaffolding Supervisor                               | Construction Regulation 16       |

These appointments must be in writing and the responsibilities clearly stated together with the period for which each appointment is made. This information must be communicated to and agreed with the appointees. Appointments should also include proof of training where applicable.

**Register by a statutory body SACPCMP (with effect 6 August 2015).**

Copies of appointments must be submitted to the Client together with short concise CV's of the appointees as part of the Principal Contractor's Health and Safety plan and if appointed copies of the appointments included in the Occupational Health and Safety file. All appointments must be approved by the Client and any changes in appointees or appointments must be communicated to the Client and agreed upon before being implemented.

The Principal Contractor must, furthermore provide the Client with an organogram of all contractors that he/she has appointed or intends to appoint and keep this list updated on a weekly basis.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

### SI 4.3.3 Designation of Occupational Health and Safety Representatives

Where the Principal Contractor employs more than 20 persons [*including the employees of other contractors (sub-contractors)*] he has to appoint one Occupational Health and Safety representative for every 50 employees or part thereof. General Administrative Regulation 6 requires that the election, appointment and subsequent designation of the Occupational Health and Safety representatives be executed in consultation with employee representatives or employees.

Occupational Health and Safety representatives have to be designated in writing and the designation must include the area of responsibility of the person and term of the designation.

Should the appointed representatives require any training, assistance or facilities, the Principal Contractor must provide these.

### SI 4.3.4 Duties and Functions of the Occupational Health and Safety Representatives

The Principal Contractor must ensure that the designated Occupational Health and Safety representatives conduct a weekly inspection of their respective areas of responsibility, using a checklist, and report thereon to the Principal Contractor.

Occupational Health and Safety representatives must be included in accident and/or incident investigations.

Occupational Health and Safety representatives must attend all Occupational Health and Safety committee meetings.

### SI 4.3.5 Appointment of Occupational Health and Safety Committee

The Principal Contractor must establish an Occupational Health and Safety committee consisting of all the designated Occupational Health and Safety representatives together with a number of management representatives that are not allowed to exceed the number of Occupational Health and Safety representatives on the committee and a representative of the Client who shall act as a co-opt without voting rights. The members of the Occupational Health and Safety committee must be appointed in writing and copies of the appointments included in the Occupational Health and Safety file.

The Occupational Health and Safety committee must meet as a minimum on a **monthly** basis and consider, at least, the following agenda items:

- Opening and welcome
- Members present, apologies and absent
- Minutes of previous meeting
- Matters arising from the previous meeting
- Occupational Health and Safety representatives' reports
- Incident and/or accident reports and investigations
- Incident, accident and/or injury statistics
- Other matters
- Endorsement of registers and other statutory documents by a duly authorised representative of the Principal Contractor
- Close and next meeting.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

#### **SI 4.4 MANDATARIES & CONTRACTORS SAFETY FILE**

It is a requirement that the Principal Contractor, when he appoints Contractors, includes an OHS Act Section 37(2) agreement (*i.e. Agreement with Mandatary*) in his agreement with such Contractor.

#### **SI 4.5 ADMINISTRATIVE CONTROLS AND THE OCCUPATIONAL HEALTH AND SAFETY FILE**

##### **SI 4.5.1 The Occupational Health and Safety File**

As required by Construction Regulation 7(2)(b), the Principal Contractor and other Contractors will each keep a completed and updated Occupational Health and Safety File on site, containing the following documents as a minimum:

- Notification of construction work
- Updated copy of the OHS ACT and its Regulations (*General Administrative Regulation 4*)
- Proof of registration and good standing with the Compensation Commissioner or a COID Insurer
- Occupational Health and Safety plan agreed with the Client including the underpinning risk assessment(s) and method statements
- Copies of Occupational Health and Safety committee meetings and other relevant minutes.
- Designs and/or drawings
- A list of Contractors (*Sub-Contractors*) including copies of the agreements between the parties and the type of work being done by each Contractor

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

## Appointment and designation forms in the safety file

- The following registers:
  - Accident and/or incident register (*Annexure 1 of the General Administrative Regulations*)
  - Occupational Health and Safety representatives inspection register
  - Construction vehicles and mobile plant inspections by controller
  - Daily inspections of vehicles, plant and other equipment by the operator, driver and/or user
  - Designer's inspections and structures record
  - Inspection and maintenance of explosive powered tools
  - Inspection of electrical installations (including inspection of portable electrical tools, electrical equipment and other electrical appliances)
  - Fall protection inspections
  - First-aid box content
  - Record of first-aid treatment
  - Fire equipment inspections and maintenance
  - Record of hazardous chemical substances kept and used on site
  - Ladder inspections
  - Machine safety inspections (*including machine guards, lock-outs etcetera*);
  - Inspection registers and logbooks for lifting machines and – tackle (*including daily inspections by drivers/operators*)
  - Inspection of scaffolding
  - Inspection of stacking and storage
  - Inspections of structures
  - Pressure Equipment inspections; and
  - Inspection of welding equipment.
- All other applicable record.

The Client will conduct an evaluation of the Principal Contractor's Occupational Health and Safety file from time to time during a month, but at least once a month.

The Principal Contractor will conduct an evaluation of the Contractor's Occupational Health and Safety file from time to time during a month, but at least once a month.

Each Contractor must keep his/her Health and Safety File updated for the Principal Contractor, on a weekly basis. The Subcontractor will agree to comply with the terms of the Provisions of Section 37(2) of the Occupational & Safety Act, Act No. 85 of 1993 together with the Construction Regulations 2014 as amended.

Furthermore the sub ccontractor is to indemnify the Employer against any claims in this regard.

### SI 4.5.2 Non-conformance to any Health and Safety requirements

The Employer's Safety Consultant (Employer's Agent in terms of the Contract Data) has the right to impose penalties for non-conformance to any safety requirements in terms of the Act and Regulations and the safety specification / plan.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

A first and only written warning will be issued by the Safety Consultant (*and ratified by the Principal Agent*) to the Principal Contractor in the event of any non-conformance, by means of a contract instruction (*in terms of the Principal Building Agreement*). Immediate compliance (**within 1 (one) calendar day**) should be achieved after a written warning has been issued, to the full satisfaction of the Safety Consultant and or Safety Representative of the Principal Contractor, failing which a penalty will be imposed on the Principal Contractor.

This penalty will be recovered through a recovery statement and will be equal to an amount calculated at a rate of **R 3,000-00** per calendar day for each and every calendar day of default in terms of the Act and Regulations, safety specification and or safety plan.

The Principal Contractor will recover this penalty in full from the defaulting Sub-Contractor through the N/S recovery statement issued in terms of their Subcontract Agreement.

#### **SI 4.6 OCCUPATIONAL HEALTH AND SAFETY GOALS AND OBJECTIVES AND ARRANGEMENTS FOR MONITORING AND REVIEW OF OCCUPATIONAL HEALTH AND SAFETY PERFORMANCE**

The Principal Contractor is required to maintain a casualty incident frequency rate (CIFR) of at least 4 to this document: "Measuring Injury Experience" and report on this to the Client on a monthly basis.

#### **SI 4.7 NOTIFICATION OF CONSTRUCTION WORK**

The Principal Contractor must, where the contract meets the requirements laid down in Construction Regulation 4, within 7 days before the work is to be carried out, notify the Department of Labour of the intention to carry out construction work and use the form (*Annexure A in the Construction Regulations*) for this purpose. A copy of the notification must be held on the Occupational Health and Safety file and a copy must also be forwarded to the Client for record purposes.

#### **SI 4.8 TRAINING, AWARENESS AND COMPETENCE**

The contents and syllabi of all training required by the OHS Act and Regulations must be included in the Principal Contractor's Occupational Health and Safety plan.

##### **SI 4.8.1 General Induction Training**

All members of the Contractor's site management as well as all the persons appointed as responsible for Occupational Health and Safety in terms of the Construction and other Regulations will be required to attend a general induction session.

All employees of the principal and other Contractors must be in possession of proof of general induction training.

##### **SI 4.8.2 Site-specific Induction Training**

The Principal Contractor will be required to develop a contract work project specific induction training course based on the risk assessments for the contract work and train all employees and other Contractors and their employees in this.

All employees of the Principal and other Contractors must be in possession of proof that they have attended a site-specific Occupational Health and Safety induction training at all times.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

### SI 4.8.3 Other Training

All operators, drivers and users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training and where applicable licenses for this applicable construction vehicles & mobile plant.

All employees in jobs requiring training in terms of the OHS Act and Regulations must be in possession of valid proof of training.

Occupational Health and Safety training requirements [*as required by the Construction Regulations and as indicated by the Occupational Health and Safety Specification and the risk assessment(s)*] i.e.:

- General induction (*Section 8 of the OHS Act*)
- Site and job specific induction, including visitors (*Sections 8 and 9 of the Act*)
- Site and project manager
- Construction supervisor
- Occupational Health and Safety representatives (*Section 18 (3) of the Act*)
- Training of the appointees indicated in paragraphs 4.3.1 and 4.3.2 above
- Operators and drivers of construction vehicles and mobile plant (*Construction Regulation 23*)
- Basic fire prevention and protection (*Environmental Regulations 9 and Construction Regulation 29*)
- Basic first-aid (*General Safety Regulations 3*)
- Storekeeping methods and safe stacking (*Construction Regulation 28*); and
- Emergency, security and fire coordinator.

### SI 4.8.4 Awareness and Promotion

The Principal Contractor is required to have a promotion and awareness programme in place to create an Occupational Health and Safety culture within employees. The following are some of the methods that may be used:

- Toolbox talks (*Weekly*)
- Posters
- Videos
- Competitions
- Suggestion schemes
- Participative activities such as employee “*Occupational Health and Safety circles*”.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

#### SI 4.8.5 Notices and Signs

The following notices and signs are, where applicable, compulsory on the construction site as well as the Contractors' yards:

| Area and/or activity where notice or sign is required                                                                      | Notice or sign required in terms of                                                                |
|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Display of notices and signs                                                                                               | General Safety Regulation 2B and SABS Code 1186                                                    |
| Entry                                                                                                                      | General Safety Regulation 2C(2)                                                                    |
| First-aid                                                                                                                  | General Safety Regulation 3(6)                                                                     |
| Toilets and change rooms                                                                                                   | Facilities Regulation 2(5); 4(2)(f)                                                                |
| Storage of flammable materials                                                                                             | General Safety Regulation 4(8)(a)(i) and (ii) <i>(10(e) only applicable to Contractor's yards)</i> |
| Grinding wheels                                                                                                            | Driven Machinery Regulation 8(1)(7)                                                                |
| Machinery                                                                                                                  | General Machinery Regulation 9 <i>(Schedule D)</i>                                                 |
| Explosive powered tools                                                                                                    | Construction Regulation 21(2)(f)                                                                   |
| Prohibition on smoking and eating or drinking at the workplaces where high risk substances [FR5 (1)] are stored or handled | Facilities Regulation 6(b)                                                                         |
| Non-potable water                                                                                                          | Facilities Regulation 7(b)                                                                         |

#### SI 4.8.6 Competence

The Principal Contractor shall ensure that his and other Contractors' employees appointed are competent and that all training required doing the work safely and without risk to health of their or other persons, has been successfully completed before work commences.

The Principal Contractor shall ensure that follow-up and refresher training is conducted on a regular basis as well as the contract work progresses and the work situation changes.

Records of all training must be kept on the Occupational Health and Safety file for auditing purposes.

#### SI 4.9 CONSULTATION, COMMUNICATION AND LIAISON

The following arrangements will apply:

Occupational Health and Safety liaison between the Client, the Principal Contractor, the other Contractors, the designer and other concerned parties will be through the Occupational Health and Safety committee. In the absence of a Health and Safety committee, the Client and Principal Contractor will agree on an alternative communication forum to be implemented.

In addition to the above, communication may be directly to the Client or his appointed Agent, verbally *(followed up in writing within 14 days)* or in writing, as and when the need arises.

Consultation with the workforce on Occupational Health and Safety matters will be through their supervisors, Occupational Health and Safety representatives, the Occupational Health and Safety committee and their elected trade union representatives, if any.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

The Principal Contractor will be responsible for the dissemination of all relevant Occupational Health and Safety information to the other Contractors, for example design changes agreed with the Client and the designer, instructions by the Client and/or his agent, exchange of information between Contractors, the reporting of hazardous and/or dangerous conditions and/or situations etc.

The Principal Contractor will be required to do site safety walks with the Client and/or his Agent on a basis to be determined and agreed between the parties.

The Principal and other Contractors will be required to conduct toolbox talks with their employees on a weekly basis and records of these must be kept on the Occupational Health and Safety file. Employees must acknowledge the receipt of toolbox talks which record must, likewise be kept on the Occupational Health and Safety file. Toolbox talk topics must include applicable health and safety issues.

The Principal Contractor's most senior manager on site will be required to attend all the Client's Occupational Health and Safety meetings.

The Client or his Agent and the Principal Contractor will agree of the dates, times and venues of the Occupational Health and Safety meetings.

#### **SI 4.10 CHECKING, REPORTING AND CORRECTIVE ACTIONS**

##### **SI 4.10.1 Monthly compliance assessment by Client**

The Client will be conducting a monthly assessment to comply with Construction Regulation 5(1)(o) and to confirm that the Principal Contractor has implemented and is maintaining the agreed and approved Occupational Health and Safety plan.

##### **SI 4.10.2 Other assessments and inspections by the Client**

The Client reserves the right to conduct other ad-hoc assessments and inspections as deemed necessary. This could include among others site safety walks and Sub Contractor safety file audits.

##### **SI 4.10.3 Conducting an assessment**

A representative of the Principal Contractor must accompany the Client on all assessments and inspections and may conduct his/her own inspection at the same time. Each party will, however, take responsibility for the results of his/her own assessment and/or inspection.

##### **SI 4.10.4 Contractor's assessments and inspections**

The Principal Contractor is to conduct his own internal assessments and inspections to verify compliance with his own Occupational Health and Safety plan and management system as well as the requirements of this specification and the compliance of other Contractors under his/her control. These assessments and inspections must include an audit on documentation no less than once every month.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

#### **SI 4.10.5 Inspections by Occupational Health and Safety representatives and other appointees**

Occupational Health and Safety representatives must conduct weekly inspections of their areas of responsibility and report thereon to their foreman or supervisor whilst other appointees must conduct inspections and report thereon as specified in their appointments for example vehicle, plant and machinery drivers, operators and users must conduct daily inspections before start-up.

#### **SI 4.10.6 Recording and review of inspection results**

All the results of the abovementioned inspections must be in writing, reviewed at Occupational Health and Safety committee meetings, endorsed by the chairperson of the meeting and placed on the Occupational Health and Safety file.

#### **SI 4.10.7 Reporting of Inspection results**

The Principal Contractor is required to provide the Client Health and Safety Consultant with monthly reports and inspections.

### **SI 4.11 INCIDENT REPORTING AND INVESTIGATION**

#### **SI 4.11.1 Reporting of Accidents and Incidents**

The Principal Contractor must report all incidents where an employee is injured on duty to the extent that he/she:

- dies
- becomes unconscious
- loses a limb or part of a limb
- is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed

**or where –**

- a major incident occurred
- the health or safety of any person was endangered
- where a dangerous substance was spilled
- the uncontrolled release of any substance under pressure took place
- machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects
- machinery ran out of control

to the Client within two days and to the Provincial Director of the Department of Labour within seven days from date of incident (*Section 24 of the OHS ACT and General Administrative Regulation 8*), **except** that, where a person has died, has become unconscious for any reason or has lost a limb or part of a limb or may die or suffer a permanent physical defect, the incident must be reported to both the Client and the Provincial Director of the Department of Labour forthwith by telephone, telefax or e-mail. All other reports should still be completed and provided as required.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

The Principal Contractor is required to provide the Client with copies of all statutory reports required in terms of the OHS ACT within 7 days of the incident occurring.

The Principal Contractor is required to provide the Client with copies of all internal and external accident/incident investigation reports, including the reports contemplated in 4.11.2 below, within 7 days of the incident occurring.

#### **SI 4.11.2 Accident and Incident Investigation**

The Principal Contractor is responsible for the investigation of all accidents and/or incidents where employees and non-employees were injured to the extent that he, she and/or they had to be referred for medical treatment by a doctor, hospital or clinic.

The results of the investigation are to be entered into the accident and/or incident register.

The Principal Contractor is responsible for the investigation of all minor and non-injury incidents as described in Section 24(1)(b) and (c) of the OHS Act and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Principal Contractor is responsible for the investigation of all road traffic accidents, related to the construction activities, and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

The Client reserves the right to hold its own investigation into an incident or call for an independent external investigation.

### **SI 5 OPERATIONAL CONTROL**

#### **SI 5.1 EMERGENCY PREPAREDNESS, CONTINGENCY PLANNING AND RESPONSE**

The Principal Contractor must appoint a competent person to act as emergency controller and/or coordinator.

The Principal Contractor must conduct an emergency identification exercise and establish what emergencies could possibly develop. He/she must then develop detailed contingency plans and emergency procedures, taking into account any emergency plan that the Client may have in place.

The Principal Contractor and the other Contractors must hold regular practice drills of contingency plans and emergency procedures to test them and familiarize employees with them.

#### **SI 5.2 FIRST-AID**

The Principal Contractor must provide first-aid equipment (including a stretcher) and have qualified first-aider(s) on site as required by General Safety Regulation 3 of the OHS Act.

The contingency plan of the Principal Contractor must include arrangements for the speedily and timeously transportation of injured and/or ill person(s) to a medical facility or of getting emergency medical aid to person(s) that may require it.

The Principal Contractor must have firm arrangements with his other Contractors in place regarding the responsibility of the other Contractors injured and/or ill employees.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

**SI 5.3 MEDICAL CERTIFICATE**

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** of the Construction Regulations 2014.

**SI 5.4 SECURITY**

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period.

Access control must be controlled and handled by a security company that is registered by SIRA and the rule that non-employees will not be allowed on site unaccompanied.

The Principal Contractor must develop a set of project applicable security rules and procedures and maintain these throughout the construction period.

**SI 5.5 FALL PROTECTION PLAN (WORKING IN A FALL RISK POSITION)**

A pre-emptive risk assessment will be required for any work to be carried out above (2) two metres from the ground or any floor level and will be classified as "*work in elevated positions*".

As far as is practicable, any person working in an elevated position will work from a stable platform, ladder or other device that is at least as safe as if he or she is working at ground level and whilst working in this position be wearing a single belt with lanyard to prevent the person falling from the platform, ladder or other device utilized. This safety belt will be, as far as is possible, secured to a point away from the edge over which the person might fall and the lanyard must be of such a length and strength that the person will not be able to move over the edge.

Alternatively any platform, slab, deck or surface forming an edge over which a person may fall may be fitted with suitable guard rails at two different heights as prescribed in SANS 10085 code of practice for the design, erection, use and inspection of access scaffolding.

Where the requirement is not practicable, the person will be provided with a full body harness that will be worn and attached above the wearer's head at all times and the lanyard must be fitted with a shock absorbing device or the person must be attached to a fall arrest system that is approved by the Client.

Where the requirements are not practicable, a suitable catch net must be erected.

Employees working in elevated positions must be trained to do this safely and without risk to their Health and Safety.

Where work on roofs is carried out, the risk assessment must take into account the possibility of persons falling through fragile material, i.e. skylights and openings in the roof as well as the possibility of working in unsafe weather conditions.

**Updated medical certificate confirming the fitness of employees working at a fall risk position should be kept on the Health and Safety file at all times.**

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

## SI 5.6 STRUCTURES

The Principal Contractor must ensure that:

Only skilled employees are allowed to erect structures and that the skills of these employees are being verified at regular intervals.

Steps are taken to ensure that no structure becomes unstable or collapses due to construction work being performed on it or in the vicinity of it.

No structure is overloaded to the extent where it becomes unsafe.

He or she has received from the designer the following information:

- Information on known or anticipated hazards relating to the construction work and the relevant information required for the safe execution of the construction work
- A geo-scientific report (where applicable)
- The loading the structure is designed to bear
- The methods and sequence of the construction process
- Any other applicable information
- All drawings pertaining to the design are on site and available for inspection

## SI 5.7 ACCESS SCAFFOLDING

Access scaffolding must be erected, used and maintained safely in accordance with Construction Regulation 16 and SA National of Standards Code of Practice, SANS 10085 entitled, "*The Design, Erection, Use and Inspection of Access Scaffolding*".

Detailed consideration must be given to all scaffolding to ensure that it is properly planned to meet the working requirements, designed to carry the necessary loadings and maintained in a sound condition. It must also be ensured that there is sufficient material available to erect the scaffolding properly.

Scaffolding must be erected, altered or dismantled by person(s) who has/have adequate training and experience in this type of work or under the continuous supervision of such a person.

## SI 5.8 LIFTING EQUIPMENT

**SI 5.8.1 Lifting equipment must be designed and constructed in accordance with the manufactures/designers specifications as well as generally accepted technical standards and operated, used, inspected and maintained in accordance with the manufactures requirements as well as that of the Driven Machinery Regulation 18 of the OHS Act.**

The Driven Machinery Regulation requires that:

- Lifting equipment is clearly and conspicuously marked with the maximum mass load (MML) that it is designed to carry safely. When the MML varies with the conditions of use, the table of maximum loads should be used by the driver/operator
- Each winch on a lifting machine must at all-time have, at least, three full turns of rope on the drum when the winch has been run to its lowest limit

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

- Lifting equipment be fitted with a brake or other applicable device capable of holding the MML. This brake or device must automatically prevent the downward movement of the load when the lifting power is interrupted
- Lifting equipment fitted with a load limiting device that automatically arrest the lift when the load reaches its highest safe position or when the mass of the load is greater than the MML
- Every chain or rope on a lifting machine that forms an integral part of the machine must have a factor of safety as prescribed by the manufacturer of the machine and where no standard is available the factor of safety must be:
 

|                      |          |
|----------------------|----------|
| ▪ chains –           | 4 (four) |
| ▪ steel wire ropes – | 5 (five) |
| ▪ fiber ropes –      | 10 (ten) |
- Every hook or load attaching device must be designed such or fitted with a device that will prevent the load from slipping off or disconnecting
- Every lifting machine must be inspected and load tested by a competent person every time it has been dismantled and re-erected and every **12 months** after that. The load test must be in accordance with the manufacturers prescription or to 110% of the MML in addition all ropes, chains, hooks or other attaching devices, sheaves, brakes and safety devices forming an integral part of a lifting machine must be inspected every **6 months** by a competent person
- All maintenance, repairs, alterations and inspection results must be recorded in a log book and each lifting machine must have its own log book; and
- No person may be lifted by a lifting machine not designed for lifting persons unless in a cradle approved by an inspector of the Department of Labour

## SI 5.9 LIFTING TACKLE

The following requirements will apply to lifting tackle:

- All lifting tackle must be examined at intervals not exceeding **3 months** by person as prescribed in DMR 18(10)(e) Records of such inspections must be kept in the safety file. Manufactured of sound material, well-constructed and free from patent defects
- Clearly and conspicuously marked with an identity number
- Maximum mass load factor of safety:
 

|                                          |          |
|------------------------------------------|----------|
| ▪ Natural fiber ropes                    | 10 (ten) |
| ▪ Man-made fiber ropes and woven webbing | 6 (six)  |
| ▪ Steel wire ropes – single rope         | 6 (six)  |
| ▪ Steel wire ropes – combination slings  | 6 (six)  |
| ▪ Mild Steel chains                      | 5 (five) |
| ▪ High tensile/alloy steel chains        | 4 (four) |
- Steel wire ropes must be discarded (not used any further for lifting purposes) when wear and corrosion is evident and must be examined by a competent person every three months for this purpose and the results recorded in a designated log book
- Lifting tackle must be stored or protected as to prevent damage or deterioration when not in use.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

**SI 5.10 MACHINE OPERATORS**

The following requirements will apply to machine operators:

- Only certified and/or competent employees may be allowed to operate any machinery
- Every lifting machine operator must be trained specifically for the type of lifting machine that he or she is operating
- Operators of Jib cranes with a maximum mass load of 500 kg or more must be in possession of a certificate of training issued by an accredited (*by the Department of Labour*) training provider.

**SI 5.11 CONSTRUCTION VEHICLES AND MOBILE PLANT**

Construction vehicles and mobile plant will initially during the competency evaluation process be inspected by the Principal Contractor prior to being allowed on a project site and suppliers of hired vehicles, plant and equipment will be required to comply with this specification as well as the OHS Act and Regulations.

Construction vehicles and mobile plant must be:

- Of acceptable design and construction
- Maintained in good working order
- Used in accordance with their design and intention for which they were designed
- Operated and/or driven by trained, competent and authorised operators/drivers
- No unauthorised persons to be allowed to drive construction vehicles and mobile plant
- Provided with safe and suitable means of access
- Fitted with adequate signalling devices to make movement safe including reversing
- Excavations and other openings must be provided with sufficient barriers to prevent construction vehicles and mobile plant from falling into same
- Provided with roll-over protection
- Inspected daily before start-up by the driver, operator and/or user and the findings recorded in a register/log book
- Fitted with two head and two tail lights that is in good working condition whilst operating under poor visibility conditions; and
- Used for transporting persons must have seats firmly secured and sufficient for the number of persons being transported
- Operators and drivers of construction vehicles and mobile plant must be in possession of a valid medical certificate declaring the operator and/or driver physically and psychologically fit to operate or drive construction vehicles and mobile plant
- No loose tools, material etc. is allowed in the driver and/or operators compartment/cabin nor in the compartment in which any other persons are transported
- No person may ride on construction vehicles and mobile plant except for in a safe place designed and provided for this purpose
- The construction site must be organized to facilitate the movement of construction vehicles and mobile plant in such a manner that pedestrians and other vehicles are not endangered. Traffic routes to be suitable, sufficient in number and adequately demarcated
- Construction vehicles and mobile plant left unattended after hours adjacent to roads and areas where there is traffic movement must be fitted with lights, reflectors or barricades to prevent moving traffic from a sudden emergency, or to come into contact with the parked construction vehicles and mobile plant

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

- In addition construction vehicles and mobile plant left unattended after hours must be parked with all buckets, booms etc. full lowered, the emergency brakes engaged and, where necessary, the wheels chocked, the transmission in neutral and the motor switched off and the ignition key removed and stored safely
- Employees employed adjacent or on public roads must wear reflective safety vests
- All construction vehicles and mobile plant daily inspection records must be kept in the Occupational Health and Safety file.

## SI 5.12 ELECTRICAL INSTALLATIONS

The installation of temporary electricity for construction use shall be in accordance with Construction Regulation 24 and the Electrical Installation Regulations.

The Principal Contractor must ensure that:

- Existing services are located and marked before construction commences and during the progress thereof
- Where the abovementioned is not possible, employees with jackhammers etc. are protected against electric shock by the use of suitable protective equipment e.g. rubber mats, insulated handles etc
- Electrical installations and -machinery are sufficiently robust to withstand normal working conditions on site
- Temporary electrical installations must be inspected at least once per week by a competent person and a record of the inspections kept on the Occupational Health and Safety file
- Electrical machinery used on a construction site must be inspected daily before start-up by the competent driver/operator or any other competent person and a record of the inspections kept on the Occupational Health and Safety file; and
- A competent person appointed in writing must control all temporary electrical installations.

## SI 5.13 ELECTRICAL AND MECHANICAL LOCKOUT

An electrical and mechanical lockout procedure must be developed by the Principal Contractor and submitted to the Client for approval before construction commences. All Contractors on site must adhere to this lockout procedure.

## SI 5.14 USE AND STORAGE OF FLAMMABLES

The Principal Contractor must ensure that:

- No person is required or permitted to work in a place where there is the danger of fire or an explosion due to flammable vapors being present unless adequate precautions is taken
- No flammables is used or applied e.g. in spray painting, unless in a room or cabinet or other enclosure specially designed and constructed for the purpose unless there is no danger of fire or explosion due to the application of adequate ventilation
- The workplace is effectively ventilated. Where this cannot be achieved:
  - Employees must wear suitable respiratory equipment
  - No smoking or other sources of ignition is allowed in the area
  - The area is conspicuously demarcated as "*flammable*"

Signature Client H&S: \_\_\_\_\_

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

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

- Flammables stored on a construction site are stored in a well-ventilated, reasonably fire-resistant container, cage or room that is kept locked with access control measures in place and sufficient firefighting equipment installed and fire prevention methods practiced for example proper housekeeping
- Flammables stored in a permanent flammable store are stored so that no fire or explosion is caused i.e.:
  - Stored in a locked and well-ventilated reasonably fire resistant container, cage or room conspicuously demarcated as “*Flammable Store – No Smoking or Naked Lights*”
- The flammables store to be constructed of two-hour fire retardant walls, door and roof and separated from adjoining rooms or workplaces by means of a two-hour fire retardant fire wall
- Adequate and suitable firefighting equipment installed around the flammables store and marked with the prescribed signs
- All electrical switches and fittings to be of a flameproof design
- Any work done with tools in a flammable store or work areas to be of a non-sparking nature
- No Class A combustibles such as paper, cardboard, wood, plastic, straw etcetera to be stored together with flammables
- The flammable store to be designed and constructed to, in the event of spillage of liquids in the store, to contain the full quantity + 10% of the liquids stored
- A sign indicating the capacity of the store to be displayed on the door
- Only one day's quantity of flammable is to be kept in the workplace
- Containers (*including empty containers*) to be kept closed to prevent fumes/vapors from escaping and accumulating in low lying areas
- Metal containers to be bonded to earth whilst decanting to prevent build-up of static forces; and
- Welding and other flammable gases to be stored segregated as to the type of gas and empty and full cylinders.

## SI 5.15 HOUSEKEEPING

The Principal Contractor must ensure that:

- Housekeeping is continuously implemented and maintained
- Materials and equipment is properly stored
- Scrap, waste and debris is removed regularly
- Materials placed for use are placed safely and not allowed to accumulate or cause obstruction to the free-flow of pedestrians and vehicular traffic
- Waste and debris not to be removed by throwing from heights but by chute or crane
- Where practicable, construction sites are fenced off to prevent entry of unauthorized persons
- Catch platforms or -nets are erected over entry and exit ways or over places where persons are working to prevent them being struck by falling objects
- An unimpeded work space is maintained for every employee
- Every workplace is kept clean, orderly and free of tools and the likes that are not required for the work being done
- As far as is practicable, every floor, walkway, stair, passage and gangway is kept in good state of repair, skid-free and free of obstruction, waste and materials
- The walls and roof of every indoor workplace be sound and leak-free; and
- Openings in floors, hatchways, stairways and open sides of floors or buildings are barricaded, fences, boarded over or provided with protection to prevent persons from falling.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

**SI 5.16 STACKING AND STORAGE**

The Principle Contractor must ensure that:

- A competent person is appointed in writing to supervise all stacking and storage on a construction site
- Adequate storage areas are provided and demarcated
- The storage areas are kept neat and under control
- The base of any stack is level and capable of sustaining the weight exerted on it by the stack
- The items in the lower layers can support the weight exerted by the top layers
- Cartons and other containers that may become unstable due to wet conditions are kept dry
- Pallets and containers are in good condition and no material is allowed to spill out
- The height of any stack does not exceed 3 times the base unless stepped back at least half the depth of a single container at least every fifth tier or the approval of an inspector of the Department of Labour has been obtained to build the stacks higher with the aid of a machine. *(The operator of the machine must be protected against items falling from overhead or off the stack and no items may overhang)*
- The articles that make up a single tier are consistently of the same size, shape and mass
- Structures for supporting stacks are structural or brick wall sound and able to support the mass of the stack
- No articles are removed from the bottom of the stack first but from the top tier first
- Anybody climbing onto a stack can and does do it safely and that the stack is sufficiently stable to support him or her
- Stacks that are in danger of collapsing are broken down and restacked
- Stability of stacks are not threatened by vehicles or other moving plant and machinery
- Stacks are built in a header and stretcher fashion and that corners are securely bonded
- Persons climbing onto stacks do not approach unguarded moving machinery or electrical installations.

**SI 5.17 STORAGE OF FLAMMABLE AND HAZARDOUS CHEMICALS**

See paragraphs 5.18 and 5.23 below.

**SI 5.18 FIRE PREVENTION AND PROTECTION**

The Principal Contractor must ensure that:

- The risk of fire is avoided
- Sufficient and suitable storage of flammables is provided
- Sources of ignition is obviated wherever flammable or highly combustible material is present in the workplace, for example
- Notices prohibiting smoking is displayed and enforced
- Welding and flame cutting is only allowed under controlled conditions that includes written hot work permits
- Only spark-free hand and power tools are used
- No grinding, cutting and shaping of ferrous metals are allowed using electrically driven power tools that produces sparks
- Flameproof switches and fittings are to be used in the flammable atmosphere
- Good housekeeping is maintained to prevent the accumulation of unnecessary combustibles
- Adequate ventilation is maintained

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

- Adequate and suitable fixed and portable firefighting equipment are provided and maintained in good working order
- Maintenance must include:
  - Regular inspections by a competent person appointed in writing and records of such inspections should be kept in the Occupational Health and Safety file
  - Annual inspection and service by an accredited service provider
- All employees are instructed in the use of the firefighting equipment and know how to attempt to extinguish a fire
- A sufficient number of employees are appointed and trained to act as an emergency team to deal with fires and other emergencies

Employees are informed regarding emergency evacuation procedures and escape routes;

- Emergency escape routes are kept clear at all times and clearly marked
- Evacuation assembly points are demarcated and made known to employees;
- Evacuation is practiced to ensure that all persons are evacuated timeously
- Roll call is held after evacuation to account for all employees and to ensure that no-one including visitors have been left behind; and
- A clearly audible, to all persons on site, siren or alarm is fitted and regularly tested.

## **SI 5.19 EATING, CHANGING, WASHING AND TOILET FACILITIES**

### **SI 5.19.1 Toilets**

The provision of toilets for each sex is required in terms of the National Building Regulations and Construction Regulation 30.

Chemical toilets are allowed instead of the water borne sewerage type. Toilets have to be provided at a ratio of at least 1 toilet per 30 employees.

### **SI 5.19.2 Showers**

At least cold-water showers of some sort for each sex have to be provided at a ratio of at least 1 shower per 15 employees.

### **SI 5.19.3 Change Rooms**

Some form of screened off changing facility must be provided separately for each sex.

### **SI 5.19.4 Eating Facility**

Some form of eating facility sheltered from the sun, wind and rain must be provided.

### **SI 5.19.5 Living Accommodation**

Where the site is in a remote location and transport to home is not readily available, reasonable and suitable living accommodation must be provided.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

## **SI 5.20 PERSONAL AND OTHER PROTECTIVE EQUIPMENT (SECTIONS 8, 15 AND 23 OF THE OHS ACT & GSR 2)**

The Principal Contractor is required to proactively identify the hazards in the workplace and deal with them on an ongoing basis. He/she must either remove them or, where impracticable take steps to protect employees and make it possible for them to work safely and without risk to health under the hazardous conditions.

Personal protective equipment should, however, be the last resort and there should always first be an attempt to apply engineering and other solutions to mitigating hazardous situations before the issuing of personal protective equipment is considered.

Where it is not possible to create an absolutely safe and healthy workplace the Principal Contractor is required to inform employees regarding this and issue, free of charge, suitable equipment to protect them from any hazards being present and that allows them to work safely and without risk to health in the hazardous environment.

It is a further requirement that the Principal Contractor maintain the said equipment, that he/she instructs and trains the employees in the use of the equipment and ensures that the prescribed equipment is used by the employee/s.

Employees do not have the right to refuse to use and/or wear the equipment prescribed by the employer and, if it is impossible for an employee to use or wear prescribed protective equipment through health or any other valid reason, the employee cannot be allowed to continue working under the hazardous condition(s) for which the equipment was prescribed but an alternative solution has to be found that may include relocating the employee.

The Principal Contractor may **not charge any fee** for protective equipment prescribed by him or her **but may charge for equipment under the following conditions:**

- Where the employee requests additional issue in excess of what is prescribed
- Where the employee has patently abused or neglected the equipment leading to early failure;
- Where the employee has lost the equipment.

All employees shall, as a minimum, be required to wear the following personal protective equipment on any of the Client's projects:

- New protective overalls
- New protective footwear
- New protective headwear; and
- Eye/face & hand protection where necessary.

## **SI 5.21 PORTABLE ELECTRICAL TOOLS AND EQUIPMENT**

Portable electrical tools and equipment includes every unit that takes electrical power from a 15 ampere plug point and is moved around for use in the workplace i.e. drills, saws, grindstones, portable lights, etcetera. In addition electrical appliances such as fridges, hotplates, heaters, and etcetera must be inspected and maintained to the same standards as portable electrical tools and appliances.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

The use, inspection and maintenance of portable electrical tools and equipment must be governed by the following:

- Regular inspections by a competent person appointed in writing
- Inspection results must be recorded in a register
- Only competent authorized persons are allowed to use portable electrical tools and equipment; and
- The correct protective equipment is worn / used whilst operating portable electrical tools and equipment.

This equipment:

- Must be maintained in good condition at all times to prevent an electrical shock to the user
- The main source should incorporate an earth leakage protection device or receive power through a double wound transformer or be double insulated and clearly marked as such; and
- All equipment must be fitted with a switch to allow for safe and easy starting and stopping.

## **SI 5.22 PORTABLE LIGHTS**

The following requirements apply to portable lights:

- Must be fitted with a robust non-hygroscopic non-conducting handle
- Live metal parts which may become live must be protected against contact
- The lamp must be protected by a strong guard
- The cable lead-in must withstand rough handling
- A register be kept for each piece of equipment with findings of regular inspections undertaken to evaluate the condition of these lights
- Inspections must be undertaken that concentrate on at least the plug, cord, switch and any obvious faults; and
- When used in wet/damp/metal container conditions, it must be protected.

## **SI 5.23 PUBLIC HEALTH AND SAFETY (SECTION 9 OF THE OHS ACT)**

The Principal Contractor is responsible for ensuring that non-employees affected by the construction work are made aware of the dangers likely to arise from said construction work as well as the precautionary measures to be observed to avoid or minimize those dangers. This includes:

- Non- employees entering the site for whatever reason
- The surrounding community; and
- Passersby the site.

Appropriate signage must be posted to this effect and all employees on site must be instructed to ensure that non-employees are protected at all times.

All non-employees entering the site must receive site applicable induction into the hazards and risks and the control measures for these.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

**SI 5.24 HAZARDOUS CHEMICAL SUBSTANCES**

The Principal Contractor must ensure that:

- Employees receive the necessary information and training to be able to use and store hazardous chemical substances safely
- Employees obey lawful instructions regarding
- The wearing and use of protective equipment
- The use and storage of hazardous chemical substances
- The prevention of the release of hazardous chemical substances
- The wearing of exposure monitoring and measuring equipment
- The cleaning up and disposal of materials containing hazardous chemical substances
- Housekeeping, personal hygiene and the protection of the environment
- The risk assessments required in terms of Construction Regulation 7 include employee exposure to hazardous chemical substances and that the necessary measures be taken to protect persons from being detrimentally affected by hazardous chemical substances present or used in the workplace
- Suppliers provide the necessary information in the form of a material safety data sheet regarding hazardous chemical substances required to ensure the safe use and storage of that substances
- An up-to-date list is kept on site of hazardous chemical substances stored and used together with the material safety data sheet of the said hazardous chemical substances
- Hazardous chemical substances containers be clearly marked as to the contents and main hazardous category e.g. "*Flammable*" or "*Corrosive*" and the reference number of the hazardous chemical substances on the list indicated above
- Hazardous chemical substances for example asbestos dust is not cleared by using compressed air but should be vacuumed
- No person eats or drinks in a hazardous chemical substances workplace; and
- Hazardous chemical substances waste is disposed of safely in terms of hazardous waste disposal requirements.

**SI 5.25 EXCAVATIONS (INCLUDING PILING)**

Where excavations or any part thereof will exceed 1.5 m in depth the Principal Contractor will be required to submit a method statement to the Client for approval before commencing with the excavation and the Client will issue a permit to precede once the risk assessment and method statement is approved.

Regardless of the above, all excavation work has to comply with the following:

- Excavation work must be carried out under the supervision of a competent person with at least two years practical experience in excavation work who has been appointed in writing
- Before excavation work begins the stability of the ground must be evaluated
- Whilst excavation work is being performed, the Principal Contractor must take suitable and sufficient steps to prevent any person from being buried or trapped by a fall or dislodgement of material
- No person may be required or permitted to work in an excavation that has not been adequately shored or braced

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

- Where the excavation is in stable material or where the sides of the excavation are sloped back to at least the maximum angle of repose measured relative to the horizontal plane, shoring or bracing may be left out **but only after** written permission has been obtained from the appointed competent person
- Shoring and bracing must be designed and constructed to safely support the sides of the excavation and prevent it from collapsing
- Where uncertainty exists regarding the stability of the soil the opinion of a competent professional engineer or professional technologist must be obtained whose opinion will be decisive. The opinion must be in writing and signed by the engineer or technologist as well as the appointed excavator
- No load or material may be placed near the edge of an excavation if it is likely to cause a collapse of the excavation, unless suitable shoring has been installed to be able to carry the additional load
- Neighbouring/adjoining buildings, structures or roads that may be affected or endangered by the excavation must be suitably protected
- Every excavation must be provided with means of access that must be within 6 meters of any employee within the excavation at any time
- The location and nature of any existing services such as water, electricity, gas, telecommunication etcetera must be established before any excavation is commenced with and any service that may be affected by the excavation must be protected and made safe for employees working in or near in the excavation
- Every excavation, including the shoring and bracing or any other method to prevent collapse, must be inspected by the appointed competent person as follows:
  - Daily before work commences
  - After every blasting operation
  - After an unexpected collapse of the excavation or part thereof
  - After substantial damage to any support
  - After rain
- The results of any inspections must be recorded in a register kept on site
- Every excavation accessible to the public or that is adjacent to a public road or thoroughfare or that threatens the safety of persons, must be adequately barricaded or fenced off to at least one meter high and as close to the excavation perimeter as practicable
- Provided with warning lights or visible boundary indicators after dark or when visibility is poor
- Upon entering an excavation the requirements of General Safety Regulation 5 must be observed:
  - Any confined space may only be entered after the air quality has been tested to ensure that it is safe to breathe and does not contain any flammable or noxious air mixture.
- The confined space must be purged and ventilated of any hazardous or flammable gas, vapor, dust or fumes
- The safe atmosphere must be maintained
- Employees are to be provided with breathing apparatus and wearing a safety harness with a rope with the free end of the rope being continuously attended to by a person outside the confined space
- Furthermore, an additional person, trained in resuscitation, to be in full-time attendance immediately outside the confined space
- Additional serviceable breathing and rescue apparatus is kept immediately outside the confined space for rescue purposes

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

- All pipes, ducts etcetera that may leak into the confined space to be blanked off sufficiently to prevent any leakage or seepage
- The employer must ensure that all employees have left the confined space after the completion of work
- Where flammable gas is present on or in a confined space no work may be performed in close proximity to the flammable atmosphere that may ignite the flammable gas or vapor.

## **SI 5.26 WORKING IN CONFINED SPACES (SUCH AS MANHOLES)**

### **SI 5.26.1 VENTILATION**

The confined space or manhole cover and two adjacent covers must be opened (*i.e. a total of three manholes*) and the confined space or manhole be allowed to ventilate for at least 15 minutes before entering the manhole. All open manholes must be barricaded and manned at all times.

A gas monitor must be lowered to the bottom of the confined space or manhole with a rope to test the presence of any toxic/flammable gas. If any gas is detected, the space or line must be force ventilated by means of a blower for at least 15 minutes where after the air must be tested again. Under no circumstances may any space or manhole be entered while there is a toxic/flammable gas present.

After the undertaking of the necessary work, the person in charge of the activities must confirm that all the employees are accounted for and ensure that all the manholes are properly closed and barricading removed.

### **SI 5.26.2 LATERAL SUPPORT**

Lateral support is a specialized operation. The results of the preliminary examination of the structure to be underpinned and any adjacent structure will determent the working method to be adopted.

The Engineer in charge must specify the precise plan of operations and timetable, together with a list of the necessary material and equipment.

Before the work begins all the equipment and materials required for safety measures should be provided and ready for use.

Lateral support operations should be carried out under the direction of a competent experienced person who should be in constant attendance at the site.

### **SI 5.26.3 ENTERING A MANHOLE**

When entering a confined space or manhole, the person entering the space or manhole must wear a safety harness, fully operational gas detector as well as a self-rescuer. A lifeline must be attached to the safety harness and a person on the surface must be in continuous contact with the person in the manhole. At least one person on the surface must be trained in basic first-aid (*level 1*).

No person shall remain within a confined space or manhole for a period of more than one hour at a time. A minimum of 5 minute rest periods on the surface must be taken after this period before re-entering.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

Should the alarm sound on the gas monitor, the employees must exit the confined space or manhole and the immediate area must also be evacuated immediately. The area must be properly ventilated and re-tested before re-entering the confined space or manhole. Professional support should be called for if necessary.

Employees must be provided with flameproof lighting when entering deep manholes or manholes with flammable gases. No naked lights, smoking or unprotected electrical apparatus which may cause sparks, shall be permitted in any manhole or confined space or in their vicinity.

#### **SI 5.26.4 GENERAL**

All employees working in confined spaces or manholes must be issued with fully functioning gas monitoring equipment and safety harnesses as well as self-rescuers where applicable. All these employees must be trained (*including refresher training on a continuous basis*) in the use thereof.

Where over-pumping between manholes is involved, only leak free pumping machines and conveyance tubes must be used and allowed.

#### **SI 5.26.5 SAFETY EQUIPMENT**

All teams must be issued with fully functional gas monitoring equipment and safety harnesses and self-rescuers where applicable. All employees must be trained (*including refresher training on a continuous basis*) in the use thereof.

#### **SI 5.26.6 GENERAL RECORDS**

The following records shall be implemented and maintained by the Principal Contractor:

- Confined space entry permits
- Confined space entry registers
- Safety harness registers

#### **SI 5.26.7 TRAINING**

All employees that have to enter a confined space or manholes must be formally trained before being required to enter such areas (*new employees to complete this training before working in a confined space*).

Refresher courses must be attended by employees at least every 2 years or immediately if new methodologies or equipment are adopted or acquired.

Continuous onsite training and support by supervisory staff should be undertaken.

#### **SI 5.27 TEMPORARY WORKS**

Temporary Works must be carried out under the supervision of competent person designated in writing.

Temporary Works structures must be so designed, erected, supported, braced and maintained that it will be able to support any vertical or lateral loads that may be applied.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

No load may be imposed onto the structure that the structure is not designed to carry.

Temporary Works must be erected in accordance with the structural or brick wall design drawings for such Temporary Works and if there is any uncertainty, the designer must be consulted before proceeding with the erection/use of the Temporary Works.

All drawings pertaining to the Temporary Works must be kept available on site.

All equipment used in the erection of Temporary Works must be checked by a competent person before use.

The foundation or base upon which the Temporary Works is erected must be able to bear the weight and keep the structure stable.

Employees erecting Temporary Works must be trained in the safe work procedures for the erection, moving and dismantling of the Temporary Works.

Safe access and emergency escape must be provided for employees.

A competent person must inspect the Temporary Works structures that have been erected before, during and after pouring of concrete or the placing of any other load and thereafter daily until the Temporary Works is stripped. The results of all inspections must be recorded in a register kept on site.

The Temporary Works must be left in place until the designated competent person has authorised its stripping in writing.

Any damaged Temporary Works must be repaired and/or rectified without delay.

Deck panels must be secured against displacement.

The slipping of employees and other persons on release agents on deck panels must be prevented at all times.

Employees' health must be protected against the use of solvents, oils or other similar substances.

## **SI 5.28 DEMOLITION WORK**

Demolition work must be carried out under the supervision of a competent person who has been appointed in writing.

- A detailed structural or brick wall engineering survey of the structure to be demolished must be carried out and a method statement on the procedure to be followed in demolishing the structure or brick wall must be developed by a competent person, before any demolition may be commenced
- As demolishing progresses the structural or brick wall or brick wall integrity of the structure must be checked at intervals as determined in the method statement by the appointed competent person in order to prevent any premature collapse.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

Steps must be taken to ensure that where a structure or brick wall is being demolished:

- No floor, roof or any other part of the structure is overloaded with debris or material that would make it unsafe
- Precautions are taken to prevent the collapse of the structure or brick wall when any frame or support is cut or removed
- Shoring or propping is applied where necessary
- No employee is required or allowed to work under unsupported overhanging material; and
- The stability of an adjacent building, structure or brick wall or road is maintained at all times
- The location and nature of any existing services such as water, electricity, and gas etcetera must be established before any demolition is commenced with and any service that may be affected by the demolition must be protected and made safe for employees and other persons
- Every stairwell in a building being demolished must be adequately illuminated
- Convenient and safe means of access must be provided
- A catch platform or net must be erected over every entrance to the building or structure being demolished where the likelihood exists of material or debris falling on employees and/or persons entering and leaving and every other area where the likelihood exists of material or debris falling on employees and/or persons must be fenced or barricaded
- No material may be dropped on the outside of the building unless the area into which it is dropped is fenced off or barricaded.

Waste and debris may only be disposed of from a height in a chute with the following design:

- Adequately constructed and rigidly fastened
- Inclined >45 degrees and enclosed on all four sides
- Fitted with a gate or control mechanism to control the flow of material that may not freefall down the chute
- Discharged into a container or a barricaded area; and
- Demolition equipment may only be used on floors or slabs that are able to support it.

Asbestos related work must be conducted to the requirements of the Asbestos Regulations promulgated under the OHS ACT and in particular Asbestos Regulation 21, i.e.:

- Demolition of asbestos may only be carried out by a registered (*with the Department of Labour*) asbestos contractor
- All asbestos materials likely to become airborne must be identified; and
- A plan of work must be submitted for approval to an Approved Asbestos Inspection Authority (AAIA), whom is approved by the Department of Labour, 30 days prior to commencement of demolishing work unless the plan was drawn up by an AAIA and a signed (*by all parties*) copy is submitted to the Department of Labour 14 days before commencement of the demolishing.

During demolition work:

- All asbestos containing material must be disposed of safely
- Employees must be issued with appropriate PPE and the proper use thereof enforced; and
- After the demolition has been completed the area/premises must be thoroughly checked to ensure that all asbestos waste has been removed

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

- No employee is allowed to:
  - Use compressed air or permit the use of compressed air to remove asbestos dust from any surface or employee or person;
  - Smoke, eat, drink or keep food or beverages in an area not specifically designated for this; and
  - Apply asbestos by spraying.
- Lead related work must be conducted to the requirements of the Lead Regulations promulgated under the OHS Act
- Where demolition works will involve the use of explosives, a method statement must be developed by a competent person in accordance with applicable explosives legislation.

#### **SI 5.29 EXPLOSIVE POWERED TOOLS**

The Principal Contractor shall not use or permit any person to use an explosive powered tool, unless:

- it is provided with a protective guard around the muzzle end, which effectively confines any flying fragments or particles
- The firing mechanism is so designed that the explosive powered tool will not function unless-
- It is held against the surface with a force of at least twice its weight; and
- The angle of inclination of the barrel to the work surface is not more than 15 degrees from a right angle, provided that the provisions of this requirement will not apply to explosive powered tools in which the energy of the cartridge is transmitted to the bolts, nails or similar relevant objects by means of an intermediate piston which has a limited distance of travel.

The Principal Contractor shall ensure that:

- Only cartridges suited for the explosive powered tool and the work to be performed are used;
- The explosive powered tool is cleaned and examined daily before use and as often as may be necessary for its safe operation by a competent person who has been appointed
- That the safety devices are in proper working order prior to use
- When not in use, the explosive powered tool and the cartridges are locked up in a safe place, which is inaccessible to unauthorised persons
- The explosive powered tool is not stored in a loaded condition
- A warning notice is displayed in a conspicuous manner wherever the explosive powered tool is used
- The issuing and collection of cartridges and nails or studs are- controlled and done in writing by a person having been appointed in writing; and
- Recorded in a register and that the recipient has accordingly signed for the receipt thereof as well as the returning of any spent and unspent cartridges;

The Principal Contractor shall not permit or require any person to use an explosive powered tool unless such person has been:

- Provided with and uses suitable protective equipment; and
- Trained in the operation, maintenance and use of such tool.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

**SI 5.30 WELDING, FLAME CUTTING OR SIMILAR OPERATIONS**

A competent person will be appointed to supervise welding, flame cutting or similar operations on site.

The following rules will govern all welding and flame cutting or similar operations:

- The welder will be trained regarding the safe use/operation of the equipment
- The welder and his assistant will be provided with effective and appropriate personal protective equipment and/or clothing
- Cables and electrode holders will be effectively insulated
- The workplace will be effectively screened off to prevent bystanders from being affected by the welding rays or they will be provided with protective equipment
- Special precautions will be taken where welding is undertaken in confined spaces e.g. proper and sufficient ventilation will be provided
- In wet or damp conditions the welding equipment and the welder will be properly insulated and someone will be on standby to assist in the event of any emergency
- A qualified person will certify in writing that it is safe to enter and work in a specific confined space before welding or flame cutting is undertaken
- No welding, flame cutting, grinding, soldering or similar work shall be undertaken in respect of any drum, vessels or similar object or container where such object or container:
  - Is completely closed, unless the rise in internal pressure cannot render in dangerous; or
  - Contains any substance which, under the action of heat may explode or react to form dangerous or poisonous substances.
- Where pressure vessels/welding cylinders containing oxygen or acetylene are transported or used, the proper precautionary measures will be taken against bumping, falling, rolling etcetera.
- Gas welding hoses may only be joined with approved connectors and clamps
- No oil or grease may be applied to oxygen valves and fittings
- It is a sound practice to store pressure vessels and/or welding cylinders vertically and to secure them by means of a chain
- Acetylene cylinders may never be inclined in excess of 45°
- Proper and adequate fire prevention measures will be instituted and maintained for as long as the welding continues; and
- Where explosive and/or flammable vapors are present, welding will be done under “*hot work*” permits.

**SI 5.31 TRANSPORTATION OF EMPLOYEES**

Any vehicle used to transport employees must have seats firmly secured and adequate for the number of employees to be carried.

The Principal Contractor shall not allow employees to be transported in a goods vehicle unless the portion of the vehicle in which the employees are being conveyed is enclosed to a height of:

- at least 350 mm above the surface on which employees are seated; or
- at least 900 mm above the surface on which employees are standing,

in a manner and with a material of sufficient strength to prevent employees from falling from such vehicle when it is in motion.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

### SI 5.32 PILING DRIVING OPERATIONS

The Contractor appointed to do Piling Driving Operations will be competent and will also appointed.

The area where Piling Driving Operation is to be done will be barricaded. The necessary signs will be promptly displayed.

Daily checklist will be completed on piling machines and operators will comply with Construction Regulation 23(1)(k).

The Method statement and Risk assessment will be available.

### SI 5.33 HEALTH AND SAFETY POLICY

The Principal Contractor has to provide the Client, as an annexure to the Health and Safety Plan, with a detailed Health and Safety Policy outlining the Principal Contractor's stance on and principles adopted for Health and Safety.

### SI 5.34 COST FOR HEALTH AND SAFETY MEASURES DURING THE CONSTRUCTION PROCESS

To ensure that the appointed Principal Contractor comply with Construction Regulation 5(1)(g) and have made provision for the cost of Health and Safety measures during the construction process.

### SI 5.35 SITE ACCESS

The owner of any land on which excavation work is in progress or on any building is erected or demolished shall take precautions in the working area and on surrounding roads and footways to limit to a reasonable level the amount of dust arising from the work or surroundings thereof.

Access will be through the contractor's entrance. **Proper site identification must be issued to all workers.**

No person shall during the course of any building, demolition or excavation work use any machine, machinery, engine, apparatus, tool or contrivance, which in the opinion of the local authority may unreasonably disturb or interfere with the amenity of the neighbourhood.

The working hours state in Regulation F6(2)(a) of the National Building Regulations and Building Standards 103/1977 to be strictly obeyed:

- i. Working hours: Monday – Friday before 07:00 or after 18:00 on any day other than those days contemplated in subparagraphs ii and iii.
  - ii. Saturdays: before 07:00 or after 15:00.
  - iii. Public Holidays & Sundays: no work.
- Working on site outside these hours is prohibited unless arrangements have been made with the Project Manager for competent supervision and the correct equipment will be on site.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

- The site will be adequately fenced or hoarded and access to the site shall be controlled, signs will be placed on gates/ fence warning public of construction area. All visitors/ deliveries shall be recorded in the visitor's book in site/ foreman office.

### **SI 5.36 SITE ORGANOGRAM**

The Principal Contractor will display a site organogram and 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 are included and available in the site office.

### **SI 5.37 DUTY TO INFORM**

The Principal Contractor will inform the CLIENT of any information that is not covered in the Health and Safety Specifications.

## **SI 6 MEASUREMENT AND PAYMENT**

### **SI 6.1 MEASUREMENT AND PAYMENT**

SI 6.1.1 The scheduled items for health and safety will be included in the preliminary and general section of the schedule of quantities. Measurement will be in terms of Clause 8.1.2 of SABS 1200 A.

SI 6.1.2 The Contractor shall price all items scheduled in this section of the schedule of quantities to enable the Employer to comply with clause 5.1(g) of the Construction Regulations, 2014. Failure by the Contractor to price these items will force the Employer to reject the Contractor's tender in terms of clause 5.1(h) of the Construction Regulations, 2014.

SI 6.1.3 Payment for the scheduled items will be in terms of clause 8.2 of SABS 1200 A.

### **SI 6.2 SCHEDULING ITEMS**

#### **SI 6.2.1 FIXED-CHARGE ITEMS**

- a) Preparation of Health and Safety Plan.....Unit: Sum

The sum shall cover all costs involved in the preparing the Health and Safety Plan (which includes the risk assessment), which shall include the preparation of all permit applications and notifications as required by this specification and shall include the employment cost of all health and safety personnel employed for the preparation of the Contractor's Health and Safety Plan.

- b) Health and Safety Training (site specific and other) .....Unit: sum

The sum shall cover all costs involved in preparation of all the necessary Health and Safety Induction Training materials required from the training of the Contractor's employees, Subcontractors and all visitors to the Works.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

- c) Personal Protective Clothing and equipment.....Unit: Sum

The sum shall cover all costs involved in the initial provision of all personal protective clothing and equipment for the Contractor's employees and Subcontractors and any visitors to the Works, as required by this specification (which includes the requirements of the Occupational health and Safety Act, 1993 and its regulations, as amended)

- d) Fences, Signs and Barricades..... Unit: Sum

The sum shall cover all costs involved in the initial provision of all fences, signs and barricades necessary for the protection of all persons, plant, vehicles, equipment or facilities, as required by this specification (which includes the requirements of the Occupational Health and Safety Act, 1993 and its regulations, as amended)

- e) Establishment of Safety Administration..... Unit: Sum

The sum shall cover all costs involved in establishment of all administrative matters required by this specification which shall include, but not be limited to, the establishment of the Health and Safety File.

- f) Other Health and safety Fixed-charge Obligations.....Unit: Sum

The sum shall cover the fixed costs of all other obligations that are required for the safe execution of the Works in accordance with the requirements of this specification and that are not specifically covered in 10.2.1(a),(b),(c),(d) or (e).

#### **SI 6.2.2 TIME-RELATED ITEMS**

- a) Implementation and maintenance of Health and Safety Plan..... Unit: Month

The rate shall cover all the monthly costs involved in the implementation and maintenance of the Health and Safety Plan. This shall include but shall not be limited to the following:

- 1) The employment cost of all health and safety personnel including consultants, health and safety officers, inspectors, supervisors and issuers required in terms of the Contractor's Health and safety Plan,
- 2) Updating the Health and safety Plan as needed.
- 3) Carrying out of periodic audits and follow-up audits,
- 4) Compilation of ongoing risk assessments and risk assessment reports as are required by the Works,
- 5) Convening of regular safety meetings with the Safety Representatives,
- 6) Accompanying and supporting the Employer or his Safety Agent during ad hoc audits,
- 7) Compilation of monthly safety reports and statistics for the Employer or his Safety Agent.

- b) Implementation and maintenance of Training.....Unit: Month

The rate shall cover all the monthly costs involved in the implementation of the induction training of the Contractor's employees, Subcontractors and all visitors to the Works.

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

- c) Maintenance of Personal Protective Clothing and Equipment.....Unit: Month

The rate shall cover all the monthly costs involved in maintenance, repair or replacement of personal protective clothing required by the Contractor's employees or Subcontractors and all visitors to the Works.

- d) Maintenance of Fences, Signs and Barricades.....Unit: Month

The rate shall cover all the monthly costs involved in maintenance, repair or replacement for whatever reason of fences, signs and barricades used for the Works. The rate shall include for the provision of security guards for the safeguarding of the items provided should this be necessary.

- e) Implementation and maintenance of Safety Administration.....Unit: Month

The rate shall cover all the monthly costs involved in establishment of all administrative matters required by his specification which shall include, but not limited to, the maintenance of the Health and Safety File or the completion and recording of the safety check lists required by this specification.

- f) Other Health and Safety Time-related Obligations.....Unit: Month

The rate shall cover all the monthly time-related costs of all other obligations that are required for the proper execution of the Works in accordance with the requirements of this specification and that are not specifically covered in 10.2.2(a), (b), (c), (d) or (e).

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

**SI 7 MANDATARY AGREEMENT BETWEEN CLIENT AND PRINCIPAL CONTRACTOR**  
**OCCUPATIONAL HEALTH & SAFETY ACT 85 of 1993**  
**CONSTRUCTION REGULATIONS 2014**

# **1 AGREEMENT WITH MANDATARY**

In terms of Section 37(1) & (2)

**1.1 WRITTEN AGREEMENT ENTERED INTO AND BETWEEN**

---

(Hereinafter referred to as Client)

**1.1.1 AND**

---

**1.2 (PRINCIPAL CONTRACTOR)**

Signature Client H&S: \_\_\_\_\_

Signature: Principal Contractor: \_\_\_\_\_

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

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

**AGREEMENT WITH MANDATORY TO BE COMPLETED IN BLACK INK AND EACH PAGE AND ANY CHANGE MADE TO BE INITIALLED**

## Occupational Health & Safety Act of 1993 and Construction Regulations 2014

### Requirements:

1. Your attention is drawn to "General Duties of Employers to their Employees" as required by Section 8 of the Act
2. You are required to:
  - 2.1 Sign a written "Agreement with Mandatory" as required by Sect 37(1)) 2) of the Act before commencing any work on site.
  - 2.2 Ensure that all your employees receive the necessary Induction Training and have proof of thereof.  
**Note:** *You must ensure that all employees under your control are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences.*
  - 2.3 Ensure the provision of Welfare Facilities for your employees as per Construction Regulation 30.
  - 2.4 Provide the Client with your SHE Plan.
  - 2.5 Ensure that Method Statements, Risk Assessments and Safe Work Procedures are done and available.
  - 2.6 Provide the Client with written appointment of the person who is going to supervise the construction per Construction Reg. 8(7).
  - 2.7 Provide the Client with written designation of your nominated Health & Safety Representative as per Section 17(1).  
**Note:** *Your Health & Safety Representative will be expected to attend the Client safety meetings.*
  - 2.8 If you employ more than five (5) persons, you are required to provide your own First Aid Box GSR 3(2).
  - 2.9 If you employ more than ten (10) persons, you are required to provide your own qualified First Aider as per GSR 3(4).  
**Note:** *If you have difficulty in complying with items 2.7 & 2.8 above, you may arrange/come to an agreement with the Client to make use of his First Aid facilities in case of injury. You will be expected to communicate such an agreement to your employees.*
  - 2.10 When working with Hazardous Chemical Substances, comply with HCS Reg. 3.  
**Note:** *Asbestos and Lead Regulations are separate.*
  - 2.11 When using a Materials Hoist, comply with the requirements of Construction Reg. 19.
  - 2.12 When using Lifting Machines & Lifting Tackle, comply with DMR. 18.  
**Note:** *You may be required to appoint a Banksman to control Lifting / Slings operations.*
  - 2.13 When erecting / using Scaffolding comply with the requirements of SANS 10085 "Access Scaffolding".
  - 2.14 When erecting / using Suspended Platforms comply with the requirements of Construction Reg. 17.
  - 2.15 When doing Demolition Work, comply with Construction Reg. 14.
  - 2.16 When doing Blasting to comply with Explosives Regulations Chapter 10.
  - 2.17 When doing Excavation Work, comply with Construction Reg. 13.
  - 2.18 When doing Electrical Installations, comply with the requirements of Construction Reg. 24.  
**Note:** *Electrician to provide copy of registration as per Elect. Install. Reg. 9(3).*
  - 2.19 When using Construction Vehicles, comply with Construction Reg. 23.
  - 2.20 When using / erecting Temporary Works, comply with Construction Reg.12.
  - 2.21 When working over or in close proximity to Water, comply with Construction Reg.26.
  - 2.22 Ensure that good Housekeeping, Stacking & Storage principles are applied on this project as per Construction Reg. 27 & 28.
  - 2.23 Ensure that appropriate measures are taken to avoid the risk of Fire / Explosion and comply with requirements of Construction Reg. 29.
  - 2.24 If you are going to work at heights a Fall Protection Plan must be submitted (roof work included) as per requirements of Construction Reg. 10.
  - 2.25 When using Explosive Powered Tools, comply with GSR 19.

Signature Client H&S: \_\_\_\_\_ Signature: Principal Contractor: \_\_\_\_\_

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

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

- 2.26 When Welding, Flame Cutting / Soldering, comply with GSR 9.
- 2.27 When working in Confined Spaces, comply with GSR 5.
- 3 You are responsible for providing your own **legal safety documents** and **registers** to comply with the Act's requirements. *A copy of the OHS Act of 1993 and the Construction Regulations 2014 will be available for perusal in the Client's site office.*
- 4 You are required to comply with General Safety Regulation 2(1) to (7) and provide your employees with personal protective equipment which will allow them to carry out their work in a safe manner, e.g. hard hats, safety harnesses, gloves, safe footwear, eye protection, ear protection, waterproof clothing etc.
- 5 Reporting of Incidents and Occupational Diseases shall be done as per General Admin. Regulation 8 (Also see Sect 24 of the Act).
6. Compensation for Occupational Injuries & Diseases Act (No 130 of 1993). You are required to provide the Client/Client with proof of registration with the Compensation Commissioner/Federated Employer(s) Mutual when signing this agreement. If you are not registered, the Client/Client may deduct the necessary amounts from your progress payments and pay it over to the Commissioner to ensure that you are insured. **See Section 80 & 89 of the COID Act.**

Signature: \_\_\_\_\_ Signature: \_\_\_\_\_  
(Client) (Principal Contractor)

## AGREEMENT WITH MANDATARY

### In terms of Section 37(1) and (2)

#### Definition of Mandatary

- Includes an agent, a contractor or sub-contractor for work, but without derogating from his status in his own right as an employer or user

**Section 37(1)** Whenever an employee does or omits to do any act, which it would be an offence in terms of this Act for the employer of such employee or a user to do or omit to do, then, unless it is proved that-

- in doing or omitting to do that act the employee was acting without the connivance or permission of the employer or any such user;
- it was not under any condition or in any circumstance within the scope of the authority of the employee to do or omit to do an act, whether lawful or unlawful, of the character of the act or omission charged; and
- all reasonable steps were taken by the employer or any such user to prevent any act or mission of the kind in question, the employer or any such user himself shall be presumed to have done or omitted to do that act, and shall be liable to be convicted and sentenced in respect thereof; and the fact that he issued instructions forbidding any act or omission of the kind in question shall not, in itself, be accepted as sufficient proof that he took all reasonable steps to prevent the act or omission.

**Section 37(2)** The provisions of subsection (1) shall *mutatis mutandis* apply in the case of a mandatary of any employer or user, **except if the parties have agreed in writing to the arrangements and procedures between them** to ensure compliance by the mandatary with the provisions of this Act.

Signature Client H&S: \_\_\_\_\_ Signature: Principal Contractor: \_\_\_\_\_  
Date: \_\_\_\_\_ Date: \_\_\_\_\_

## ACCEPTANCE OF MANDATARY

In terms of the provisions of Section 37(2) of the Occupational Health & Safety Act 1993

I, \_\_\_\_\_

acting for and on behalf of

\_\_\_\_\_ **(Company/Close Corporation/  
Enterprise/Owner /User)** undertake to ensure that the requirements and provisions of the Act and Regulations are complied with.

Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_  
(Principal Contractor)

Designation: \_\_\_\_\_ Date: \_\_\_\_\_

Mandatory-Workmen's Compensation/Federated Employers Mutual No.: \_\_\_\_\_

**A copy of company/Close corporation "Letter of Good Standing" to be attached.**

Signature: \_\_\_\_\_ Print Name: \_\_\_\_\_  
(Client)

Designation: \_\_\_\_\_ Date: \_\_\_\_\_

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

Project / Site: \_\_\_\_\_

## CLIENT

Construction Regulation 5

5(1) A client must:

- (a) prepare a baseline risk assessment for an intended construction work project;
- (b) prepare a suitable, sufficiently documented and coherent site specific health and safety specification for the intended construction work based on the baseline risk assessment contemplated in paragraph (a)
- (k) **to appoint each Principal Contractor in writing for the project or part thereof on a construction site**

Signature Client H&S: \_\_\_\_\_ Signature: Principal Contractor: \_\_\_\_\_

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

# APPOINTMENT

I (Client), \_\_\_\_\_

of: (Company) \_\_\_\_\_

appoint (Name): \_\_\_\_\_

as the Principal Contractor for PROJECT/SITE:

\_\_\_\_\_

CONSTRUCTION COMPANY / CLOSE CORPORATION:

\_\_\_\_\_

## **Your attention is drawn to the following requirements:**

1. Ensure that the Provincial Director is notified of the intended construction work.
2. Provide the Client with a suitable and sufficiently documented health & safety plan, based on the Client's documented H & S specifications.
3. Take reasonable steps to ensure co-operation between all contractors so as to enable compliance with the Construction Regulations.
4. Provide appointed Contractors with the applicable sections of the health & safety specifications pertaining to their work.
5. Appoint each Contractor in writing for the construction work he/she has to carry out.
6. Take reasonable steps to ensure compliance by Contractors which shall include monthly safety audits
7. Stop any Contractor from executing work which is not in compliance with safety specifications or poses a threat to other persons.
8. Ensure that where changes are brought about to the design / construction, sufficient health & safety information and appropriate resources are made available to Contractors to execute their work safely.
9. Ensure that every Contractor is registered and in good standing with the Compensation Commissioner.
10. Ensure that potential Contractors, submitting tenders have made provision for the cost for health & safety during construction.
11. Ensure that a health & safety file, with all documentation required in terms of the Act & Regulations is open & kept available on site.
12. Keep a comprehensive and updated list of all Contractors accountable to the Client; as well as all agreements between the parties and the type of work to be done.
13. On completion of construction work, hand over a consolidated health & safety file to the Client.
14. Notify the Client of all incidents that have to be reported, recorded and investigated as per Sec. 24 of the Act and Gen. Adm. Reg. 8.
15. Ensure that method statements, risk assessments and safe work procedures are in place before commencement of construction work.
16. Ensure that all employees, including those of Contractors, undergo health & safety induction training pertaining to the construction hazards and be in possession of proof of the health & safety induction training given.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
(Client)

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

Signature Client H&S: \_\_\_\_\_ Signature: Principal Contractor: \_\_\_\_\_

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

## ACCEPTANCE OF APPOINTMENT

I, \_\_\_\_\_ Designation: \_\_\_\_\_  
(Principal Contractor)

hereby accept the requirements of this appointment.

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

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

Signature Client H&S: \_\_\_\_\_

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

Signature: Principal Contractor: \_\_\_\_\_

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

## **ADDITIONAL SPECIFICATION**

### **SJ COVID-19 GUIDELINES FOR MANAGEMENT OF RISK ON CONSTRUCTION SITES**

#### **CONTENTS**

- SJ 01 SCOPE**
- SJ 02 SPECIFICATIONS, ACTS AND REGULATIONS**
- SJ 03 GENERAL REQUIREMENTS**
- SJ 04 DEGREE OF RISK PER SITE TYPE**
- SJ 05 RISK MITIGATION PLAN**
- SJ 06 MEASUREMENT AND PAYMENT**

#### **SJ 01 SCOPE**

This specification covers guidelines and requirements to reduce the risk of a COVID-19 outbreak in the workplace and the possible impact on workers and the public.

#### **SJ 02 SPECIFICATIONS, ACTS AND REGULATIONS**

##### **SJ 02.01 GENERAL STANDARD SPECIFICATIONS**

The latest edition, including all amendments up to the 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:

| <b>CODE</b> | <b>DESCRIPTION</b>                   |
|-------------|--------------------------------------|
| SH          | HIV/AIDS Requirements                |
| SI          | OHS Act: Health and Safety           |
| SANS 1200   | Standard Specifications. A. General. |

##### **SJ 02.02 ACTS AND REGULATIONS**

All regulations and statutory requirements as laid down in the latest edition of the following Acts and Regulations shall be adhered to:

| <b>ACT</b>         | <b>DESCRIPTION</b>                                                                      |
|--------------------|-----------------------------------------------------------------------------------------|
| Act No. 85 of 1993 | Occupational Health and Safety Act                                                      |
|                    | Construction Regulations, 2014                                                          |
|                    | Hazardous Biological Agents Regulation, 2000                                            |
| Act No. 57 of 2002 | Disaster Management Act                                                                 |
|                    | COVID-19 Occupational Health and Safety Measures in Workplaces Covid-19 (C19 OHS), 2020 |
|                    | Section 27(2) Regulations, 29 April 2020                                                |

**SJ 02.03      MANUFACTURERS' SPECIFICATIONS, CODES OF PRACTICE AND INSTALLATION INSTRUCTIONS**

All equipment and materials shall be installed, serviced and repaired strictly in accordance with the manufacturers' specifications, instructions and codes of practice.

**SJ 02.04      MUNICIPAL REGULATIONS, LAWS AND BY-LAWS**

All municipal regulations, laws, by-laws and special requirements of the Local Authority shall be adhered to unless otherwise specified.

**SJ 03      GENERAL REQUIREMENTS**

**SJ 03.01      IMPLEMENTING WORKPLACE CONTROLS**

The legislation governing workplaces in relation to COVID-19 is the Occupational Health and Safety Act (Act 85 of 1993) as amended, in conjunction with the Hazardous Biological Agents Regulation.

A COVID-19 specific risk assessment together with a written policy concerning the health and safety of all employees, clients, suppliers and sub-contractors who are associated with the Contractor, shall be drawn up and communicated to all the relevant parties, along with mitigation measures which need to be monitored and adjusted should the need arise.

**SJ 03.01.01      WORKPLACE CONTROLS**

- All offices (including site offices) will be sanitised before opening for business each day.
- Place posters that encourage staying home when sick, cough and sneeze-etiquette, and hand hygiene at the entrances of offices and sites.
- On-site induction with special emphasis on COVID-19 will be done with all employees upon return to work.
- Provide tissues and waste bins lined with a plastic bag so that they can be emptied without contact with the contents.
- Instruct employees to clean their hands frequently using soap and water, for at least 20 seconds or with an alcohol-based hand sanitiser that contains at least 70% alcohol.
- Continue routine environmental cleaning, which includes tools and equipment.
- Increase ventilation in offices by natural or mechanical means.
- Provide soap and water and/or alcohol-based hand sanitiser (at least 70%) in the workplace in multiple locations and in common areas to encourage hand hygiene.
- Practice social distancing (2m) as far as possible (no handshakes, hugs, kissing, horseplay or touching each other). Keep distance from each other while working on site. Supervisors will monitor this throughout the day.
- While queuing at the gate to enter the site, employees must stand in a line, with at least 2m between them.

- Desks for employees working in the office (site office) will be spaced at least 1.5m apart or where this is not possible, protective barriers will be erected between desks.
- It is compulsory to wear face masks at all times. Each employee will be issued with two cloth face masks to wear at work and while commuting, with appropriate training on the use of these masks. Arrangements will be made for the washing, drying and ironing of cloth masks.
- Temperature testing will be done on all employees every morning upon arrival to site, and also randomly during the day. All readings will be recorded, monitored and sent to the SHEQ department. The testing will be conducted by the site safety officer. On sites where a full-time safety officer is not available, the responsibility will fall onto the supervisor.
- During the temperature screening, employees will be screened for any additional symptoms such as body aches, loss of smell or taste, nausea, vomiting, diarrhoea, fatigue, weakness or tiredness. The results will be recorded in the Social Distancing Control Sheet and send to the SHEQ department. If an employee displays any of the symptoms, he will not be permitted to enter the site/offices.
- In addition to posters, brief employees and sub-contractors that anyone with a mild cough or low-grade fever (37.3 or more) needs to stay at home and take sick leave.
- Any employee who develops flu-like symptoms (i.e. cough, shortness of breath, fever) or any of the additional symptoms should inform his supervisor immediately.
- Where practical, the minimum number of employees will be allowed on site, and rotation, staggered working hours and shift work may be implemented. Promote working from home for employees who are able to do so.
- All visitors to site will undergo induction and temperature screening and must be in possession of the appropriate PPE (i.e. face mask) prior to being allowed access to site. No access will be granted to visitors not complying.
- All visitors will be required to sanitize their hands before entering the site as well as when they leave.
- Sub-contractors shall ensure that all of their employees are issued with face masks and any other necessary PPE, and that hand sanitiser and soap is available for their employees.
- Temperature testing will be done by the sub-contractor and records kept. Failure to do so will result in the sub-contractor's employee/s being put off-site until compliant.
- A copy of the Essential Service Permit must be available on site at all times. All sub-contractors to provide a copy of their Permit prior to being granted permission to work.
- All employees are obliged to comply with measures introduced in the workplace.

#### **SJ 03.01.02 WHAT TO DO WHEN AN EMPLOYEE ON SITE BECOMES ILL WITH COVID-19**

If someone becomes ill in the workplace and there is reason to suspect they may have contracted or come into contact with someone who has contracted the COVID-19 virus, the person must be isolated immediately, provided with a **FFP1 surgical mask**, and transport arranged for the employee to go home to be self-isolated or for medical examination. Ensure testing is done at an identified testing site.

The Department of Health and Department of Labour will be informed of any employees testing positive for COVID-19, whereafter an investigation will be conducted to establish the cause, including any control failures. The risk assessment will be reviewed to ensure necessary controls and PPE is in place. The risk of transmission will be assessed, the employees working area disinfected.

If an employee is confirmed to have COVID-19, his/her fellow employees will be informed of their possible exposure to COVID-19 in the workplace and referred for screening, but confidentiality must be maintained at all times, and no discrimination must be shown toward an employee who tested positive for COVID-19.

If evidence exist that the employee contracted COVID-19 as a result of Occupation Exposure, a Claim for Compensation will be lodged in terms of the Compensation of Occupational Injuries and Diseases Act 1993 (Act No. 130 of 1993) in accordance with Notice 193 published on 3 March 2020.

Once an employee was positively diagnosed with COVID-19 and isolated in accordance with the Department of Health Guidelines, the employee may only return to work after he has undergone a medical evaluation confirming the employee has tested negative for COVID-19. The employee will be required to wear a face mask, maintain social distancing and adhere to cough and sneeze-etiquette. The employee will also be monitored for symptoms upon his/her return to work.

#### **SJ 03.01.03    TRANSPORT**

- Where transport is provided, occupancy of the vehicle should be reduced in line with social distancing practice.
- All passengers must wear face masks or respirators.
- All passengers to sanitise their hands before getting into the transport, as well as when disembarking.
- Transport vehicles should be sanitised before and after each trip.
- Employees making use of public transport to ensure they wear face masks and sanitise their hands regularly (before getting into the transport and when disembarking) and attempt not to touch any surfaces unless absolutely necessary.

#### **SJ 03.01.04    MEETINGS**

Wherever possible, meetings are to be held via tele or video conference in order to maintain social distancing and prevent the possible spread of COVID-19.

Toolbox talk meetings, inductions and briefing sessions should be done in open areas with social distancing in place.

Progress meetings and technical meetings will be held in the site meeting building specified as 14 meter x 5 meter = 70m<sup>2</sup> to accommodate 12 persons. The conference table will accommodate 12 attendees, 2 meters apart. The room shall be well ventilated at a maximum temperature of 22°C.

**SJ 03.01.05    TRACKING RECORD LOG**

Example:

[illegible]

[illegible]

**SJ 04 DEGREE OF RISK PER SITE TYPE**

| BUILDING AND PROJECT TYPE                                                                         | SITE SET-UP AND STAFF WELFARE                                                                                                                                                                 | CONSTRUCTION STAGE                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lower Risk</b>                                                                                 | For most, but not all project construction stage risk may be as follows:                                                                                                                      | For most but not all sites, set-up risk may be as follows:                                                                                                                                                                                                                                |
| Industrial, Logistical, Roads and Bridge Construction                                             | <b>Lower Risk</b>                                                                                                                                                                             | <b>Lower Risk</b>                                                                                                                                                                                                                                                                         |
| <b>Medium Risk</b>                                                                                | <ul style="list-style-type: none"> <li>Excavation and groundworks</li> <li>Foundations and Piling</li> </ul>                                                                                  | <ul style="list-style-type: none"> <li>Large Sites</li> </ul>                                                                                                                                                                                                                             |
| Residential Accommodation                                                                         | <b>Medium Risk</b>                                                                                                                                                                            | <b>Medium Risk</b>                                                                                                                                                                                                                                                                        |
| High Risk                                                                                         | <ul style="list-style-type: none"> <li>Basement and Substructure</li> <li>Structural Frame</li> <li>Roofing</li> <li>Interior First Fix</li> <li>Interior Second Fix</li> </ul>               | <ul style="list-style-type: none"> <li>Site and management offices</li> </ul>                                                                                                                                                                                                             |
| Healthcare facilities, Correctional Centers, Military Bases, Police Stations, Magistrates Offices | <b>High Risk</b>                                                                                                                                                                              | <ul style="list-style-type: none"> <li>Scaffolding</li> <li>Travel to and from site and access to site</li> <li>Horizontal walkways and vertical access</li> <li>Staff changing and locker rooms</li> <li>Showers and toilets</li> <li>Confined Spaces</li> <li>Confined Sites</li> </ul> |
|                                                                                                   | <ul style="list-style-type: none"> <li>Cladding and Glazing</li> <li>M+E and Lifts</li> <li>Interior First Fix</li> <li>Interior Second Fix</li> </ul>                                        |                                                                                                                                                                                                                                                                                           |
|                                                                                                   | <p><b><u>GUIDLINE</u></b></p> <p>For each construction contract there will be different levels of risk and it will be critical to evaluate the specific risks of each individual project.</p> | <p><b><u>GUIDLINE</u></b></p> <p>For each construction site there will be different levels of risk and it will be critical to evaluate the specific risk of each individual project.</p>                                                                                                  |

**SJ 05 RISK MITIGATION PLAN**

| RISK DESCRIPTION                                                                                                                                                                                                                                               | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RESPONSIBILITY    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>Demographics of Labour:</b> <ul style="list-style-type: none"> <li>Inadequate procedures in place to identify potential infected employees and workers</li> <li>Manage the exposure to COVID-19 on the project, including visitors and suppliers</li> </ul> | <p>Contractor is to maintain a register of all employees and workers on the project, including Sub-Contractors (inclusive of employees and workers) and Professional Team, keeping records of the following information as a minimum (Note: the NIOH document that is currently available):</p> <ul style="list-style-type: none"> <li>Name</li> <li>Age of employee/visitor</li> <li>Contact Details</li> <li>Health status</li> <li>Socio-economic status/unskilled labour (work force)</li> <li>Accommodation arrangements (work force)</li> </ul> | <b>CONTRACTOR</b> |

| RISK DESCRIPTION                                                                                                            | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | RESPONSIBILITY                                                             |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| <p><b>Origin of labour and transportation</b></p> <p>Need to minimize the risk of exposure to virus whilst in transport</p> | <ul style="list-style-type: none"> <li>• <b><u>On site transportation:</u></b> Where on site transportation is done, a policy needs to be available for how such transportation will be made safe and limit any opportunity for cross infection. If possible, the Principal Contractor should provide their own transportation of work force. (Where not possible, use of public transport can be considered to comply to transport limitations)</li> <li>• <b><u>Parking areas:</u></b> Private and public vehicles are required to park outside of the construction site</li> <li>• Support staff for professional service providers are to work from office location or from home</li> <li>• <b><u>Education and information:</u></b> Information boards are required at entrance of sites and within Site Offices with information on the virus and precautions to be taken during working hours and traveling.</li> <li>• <b><u>Social Distancing:</u></b> <ul style="list-style-type: none"> <li>○ <b><u>On site:</u></b> As far as possible, work activities must be so arranged that social distance is kept to a minimum of 2 metre.</li> <li>○ <b><u>Site office:</u></b> seating arrangements must be of such that social distancing for roll players is kept to a minimum of 1 metre, ie; '<b><u>ONE CHAIR, SKIP CHAIR, ONE CHAIR, SKIP CHAIR</u></b>'.</li> <li>○ Roll players must be limited to Professional Team and principal contractor.</li> <li>○ Facial Masks must be worn at all times by all roll players.</li> <li>○ Contractor work force when on site and transportation to and from site, where hand gloves can be used, they should be worn at all times to minimize touching of possible contaminated surfaces and injury.</li> </ul> </li> </ul> | <p style="text-align: center;"><b>CONTRACTOR AND PROFESSIONAL TEAM</b></p> |

| RISK DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                             | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | RESPONSIBILITY           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <p><b>Public transportation across borders/towns/cities</b></p> <p>Where a return to work will necessitate travel between Provinces and cities for employees and workers to return to the project, The Principal Contractor and Sub-Contractors are to have in place procedures for or provision of transport for the return of workers to minimize the risk of exposure to the virus whilst in transit.</p> | <p><b>The contractor to source/recommend a transport service provider that complies with all travel restrictions and requirements as gazetted by the government, inter alia:</b></p> <ul style="list-style-type: none"> <li>• Maximum occupancy of vehicles to allow for social distancing</li> <li>• Vehicles sanitized before passengers board</li> <li>• Passengers provided with Face Masks and hand sanitizers provided within vehicles for passengers sanitization before boarding and after returning from vehicles for comfort breaks</li> <li>• Regular testing of body temperature</li> <li>• Adequate number of vehicles to be provided to comply with the maximum occupancy</li> <li>• Principal Contractor to put in place procedures for sanitization of personal belongings and luggage of work force on arrival at final destination</li> <li>• Permits to be provided per vehicle and per passenger from Authorising Authority</li> </ul> | <p><b>CONTRACTOR</b></p> |
| <p><b>Social Distancing:</b></p> <p>Construction site and facilities not set up in such a way that it will be possible as far as is practicable to maintain the required social distancing of 2 metres between persons when at work</p> <p><b>Risk:</b></p> <p>Manual labour for physical tasks and tasks that will not allow for social distancing;</p>                                                     | <p><b><u>Tasks that require more than 1 person to complete:</u></b></p> <ul style="list-style-type: none"> <li>• Providing adequate supplies of suitable PPE such as face masks, task specific gloves, safety glasses, disposable/additional coveralls;</li> <li>• PPE used during multi-person activities to be exchanged immediately after the task is completed;</li> <li>• Sealed bins to be provided for disposable PPE such as masks, disposable coveralls, disposable gloves, etc.;</li> <li>• Sealable bags provided to each person for keeping PPE requiring laundering, such as gloves and coveralls, and</li> <li>• Sanitizing/washing facilities provided for immediate sanitizing of hard hats, safety glasses, shoes, safety harnesses etc, on completion of multi-person tasks</li> </ul>                                                                                                                                                   | <p><b>CONTRACTOR</b></p> |

| RISK DESCRIPTION                                                                                                    | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | RESPONSIBILITY           |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <p><b>Site access by non-employees/security access</b></p> <p>Inadequate access control measures in places</p>      | <ul style="list-style-type: none"> <li>• Stop all non-essential visitors</li> <li>• All employees and non-employees to be screened with non-contact thermometers (Thermal Thermometers);</li> <li>• Body temperature checks with thermometer upon employee's arrival and departure;</li> <li>• Introduce staggered start and finish times to reduce congestion and contact at all times;</li> <li>• Take body temperatures of anybody stepping on or off site;</li> <li>• Monitor site access points to enable social distancing;</li> <li>• Number of access points to be reduced to enable controlled monitoring;</li> <li>• Ensure disinfectants are in place for disinfecting of shoes on entering/leaving the site;</li> <li>• Provide hand sanitizer for all entering the site to sanitize hands;</li> <li>• Allow social distancing of 2 metres in queues for all entering the site;</li> <li>• Regular cleaning of common contact surfaces areas, e.g.; desks, telephones handsets, site office door handles, chairs, etc.;</li> <li>• Drivers of suppliers of materials and goods and services must remain with their vehicles if load will allow it, if not, drivers are to wash hands before unloading goods and materials</li> </ul> | <p><b>CONTRACTOR</b></p> |
| <p><b>Alcohol and Drug Testing</b></p> <p>Lack of safe testing procedures in place for alcohol and drug testing</p> | <ul style="list-style-type: none"> <li>• Alcohol testing may only be done using single use test units, and must be disposed of in the appropriate contaminated waste bins provided on site;</li> <li>• Drug testing will only be done by an occupational health facility either using urine or blood sampling;</li> <li>• A protocol will be drawn up by the Principal Contractor to manage this with the occupational health service being used.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | <p><b>CONTRACTOR</b></p> |

| RISK DESCRIPTION                                                                                                                                                                             | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | RESPONSIBILITY                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <p><b>Medical Surveillance</b></p> <p>No methodology in place as part of the normal requirements for pre-placement, periodic and exit medicals that includes factors related to COVID-19</p> | <ul style="list-style-type: none"> <li>• The normal requirements of pre-placement, periodic and exit medicals will remain, with the Occupational health service providing a methodology of how they will be including factors relating to Covid-19. No lung functions or peak flows will be done until deemed safe to do so by the South African Thoracic Society.</li> <li>• It is preferable that occupational health service providers use a cloud-based record keeping service to ensure easy tracking and tracing. Free apps such as Square 1 is such an example.</li> <li>• Any person who contracts the virus may need to be reported to the Compensation Commissioner as an occupational disease where their work is to monitor and in contact with others. Such details are provided in the Compensation for Injuries and Diseases Act (COIDA).</li> <li>• Isolation of workers who have a temperature or any symptoms, and removal to the closest facility for testing and treatment, through the numbers provided. The PC is to ensure their policy on this includes such information.</li> <li>• Workers will be required to complete COVID-19 questionnaires prior to returning to site. Any worker with any symptoms is not to return to work, or notify the PC of same.</li> </ul> | <p><b>CONTRACTOR</b></p>               |
| <p><b>Ablution Facilities on Site</b></p> <p>Unhygienic ablution facilities leading to poor hygiene</p>                                                                                      | <ul style="list-style-type: none"> <li>• Restrict the number of people using toilet facilities at any one time. e.g. use a welfare attendant;</li> <li>• Hand washing facilities (soap and water, paper towel) to be available where possible, and if not, to provide hand sanitizer. Wash hands before and after using the facilities</li> <li>• Induction training to educate to ensure all users are hand washing correctly;</li> <li>• Enhance the cleaning regimes for toilet facilities particularly door handles, locks and the toilet flush handle. Flush toilets preferably 1:15 ratio unless increased cleaning regime present;</li> <li>• Portable toilets should be avoided wherever possible, but where in use these should be cleaned and emptied more frequently. Portable toilets to be provided at a 1:10 ratio;</li> <li>• Provide suitable and enough rubbish bins for hand towels with regular removal and disposal be cleaned and emptied more frequently;</li> <li>• Introduce staggered start and finish times to reduce congestion and contact at all times;</li> <li>• Consider increasing the number or size of facilities available on site if possible.</li> </ul>                                                                                                    | <p><b>CONTRACTOR AND EMPLOYEES</b></p> |

| RISK DESCRIPTION                                                                                                                                                   | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | RESPONSIBILITY           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <p><b>Waste Management for Covid-19 Waste</b></p> <p>Outdated waste management arrangements in place that leads to an increased risk of the spread of Covid-19</p> | <p>Waste management arrangements to be updated to include provision for the disposal of additional waste generated due to preventative measures implemented. All waste to be managed as hazardous waste.</p> <p><b>a. Disposal of any gloves, masks</b><br/>The contractor shall dispose of all used gloves and masks as hazardous waste and provide sealable bags and containers for the safe disposal of this waste.</p> <p><b>b. Paper towels</b><br/>The contractor shall provide adequate supplies of paper towels on site. At points where these towels are provided lined waste bins to be placed in order to collect all used towels and then to be disposed of in hazardous waste.</p> <p><b>c. Disinfectant solution</b><br/>The contractor to provide adequate supplies of disinfectant on site where the use of water and soap for cleaning is not practical. If disinfectant dispensers are not refilled it should be disposed with other hazardous waste.</p> <p><b>d. Wastewater</b><br/>Wastewater at washing points, toilets, and bathrooms to be contained in a drainage system that prevent surface spills. If wastewater is contained in waste buckets it must be sealed when removed and disinfected after it is cleaned.</p> | <p><b>CONTRACTOR</b></p> |
| <p><b>Site Meetings</b></p> <p>Not limiting the number of employees at all activities to the minimum required to do the work in a safe manner.</p>                 | <p>Only necessary meeting participants should attend.</p> <ul style="list-style-type: none"> <li>Attendees should be two metres apart from each other.</li> <li>Rooms should be well ventilated / windows opened to allow fresh air circulation.</li> <li>Consider holding meetings in open areas where possible.</li> <li>Technological alternatives to be exploited for meeting</li> <li>Attendance if possible (Zoom, Skype, MS Teams).</li> <li>Training and awareness to address procedures and the importance of social distancing.</li> <li>Toolbox talks to be conducted outdoors when possible in order for persons to maintain social distancing. Where inclement weather does not allow for this, toolbox talks to be conducted with smaller groupings of workers in a sheltered area large enough to maintain social distancing.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            | <p><b>CONTRACTOR</b></p> |

| RISK DESCRIPTION                                                                                                                                          | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RESPONSIBILITY           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| <p><b>Signage</b></p> <p>Conflicting messages/notices displayed on the site in contravention with current requirements to respond to Covid-19</p>         | <p>The Principal Contractor is to review all current signs and notices displayed on site. The PC is to avoid conflicting messages/notices that have been in place prior to lockdown and review accordingly.</p> <p><b>a. Access rules</b></p> <p>The contractor shall install additional signage with site rules specific to the prevention of spreading the COVID-19 virus at the access control points of the site.</p> <p><b>b. Notices/Posters with protocols</b></p> <p>Notices and posters shall be placed and installed to raise awareness and regarding protocols to be followed on site. These notices and posters shall be placed conspicuously at various points on the site including the following places:</p> <ul style="list-style-type: none"> <li>• Entrance</li> <li>• Site notice board</li> <li>• Site Office</li> <li>• Eating areas</li> <li>• Next to toilets and bathrooms</li> <li>• Hand washing stations</li> <li>• Storerooms</li> </ul> | <p><b>CONTRACTOR</b></p> |
| <p><b>Emergency Planning</b></p> <p>Emergency plan not completed and undated in line with current Regulations of the National Disaster Management Act</p> | <p>An updated emergency plan is to be completed that is in line with the current Regulations of the National Disaster Management Act.</p> <p><b>a. First aid</b></p> <p>Extra gloves, and disinfectants are to be available, first aiders are to be issued with at least FFP2 masks should they be required to respond</p> <p><b>b. Evacuation plans</b></p> <p>Evacuation plans should consider social distancing.</p> <p><b>c. Isolation of potentially infected workers</b></p> <p>The emergency plan is to consider how anyone who arrives on site and displays any of the symptoms, or has a raised temperature.</p>                                                                                                                                                                                                                                                                                                                                            | <p><b>CONTRACTOR</b></p> |

| RISK DESCRIPTION                                                                                                                                                                | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | RESPONSIBILITY                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <p><b>Welfare facilities</b></p> <p>Lack of procedures and arrangements for the provision of welfare facilities to prevent the spread of Covid-19 between employees on site</p> | <p>The Principal Contractor shall adapt arrangements regarding the provision of welfare facilities to be in line with Government guidelines and requirements.</p> <p><b>a. Clean, storage for food and personal belongings</b></p> <p>The Principal Contractor to provide lockable storage for all employees on site, which shall be disinfected daily. Training and awareness to address procedures and the importance of good hygiene practice.</p> <p><b>b. No personal belongings to be kept on site</b></p> <p>Apart from extra clean personal clothing no other personal belongings allowed on site except if kept in locker provided by the Principal Contractor.</p> <p><b>c. No communal drinking facilities (shared cups etc.)</b></p> <p>The Principal Contractor to provide adequate supplies of bottled water to all employees on site. Empty bottles to be disposed of as normal waste. Training and awareness to address procedures and the importance of good hygiene practice.</p> <p><b>d. Eating areas</b></p> <p>The Principal Contractor is to limit the number of employees at all activities to the minimum. Stagger lunchbreaks and resting periods for work teams. Training and awareness to address procedures and the importance of good hygiene practice and social distancing.</p> <ul style="list-style-type: none"> <li>Workers are required to stay on site once they have entered it and not use local shops.</li> <li>Dedicated eating areas should be identified on site to reduce food waste and contamination.</li> </ul> <p>Where catering is provided on site, it should provide pre-prepared and wrapped food only;</p> <ul style="list-style-type: none"> <li>Payments should be taken by contactless card wherever possible;</li> <li>Crockery, eating utensils, cups etc. should be disposable if supplied;</li> <li>Drinking water should be provided with enhanced cleaning measures of the tap mechanism introduced;</li> <li>Tables should be cleaned and disinfected between each use;</li> <li>All rubbish should be put straight in the bin and not left for someone else to clear up;</li> <li>All areas used for eating must be thoroughly cleaned at the end of each break and shift, including chairs, door handles, vending machines and payment devices.</li> </ul> | <p><b>CONTRACTOR AND EMPLOYEES</b></p> |

| RISK DESCRIPTION                                                                                             | MITIGATION PLAN/ACTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | RESPONSIBILITY    |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| <b>Consequence Management</b><br><br>Inadequate processes and procedures in place for consequence management | <ul style="list-style-type: none"> <li>When non-compliance activities are noted, that activity will be stopped. Should the remedial actions not take place the site will be shut down till the corrective actions have been implemented.</li> <li>Employees that do not work according to the SSHSS and SSHSP must be disciplined according to the company's disciplinary codes and practices.</li> <li>Supervisory employees on site must ensure compliance, and when non conformances are noted disciplinary actions should also be followed.</li> <li>Principal Contractor's should note that they could be fined and even according to the Disaster Management Act, arrested.</li> </ul> | <b>CONTRACTOR</b> |

## **SJ 06      MEASUREMENT AND PAYMENT**

### **SJ 06.01      APPOINTMENT OF A COVID-19 AWARENESS CHAMPION.....Unit: Month**

The unit of measurement shall be for the number of months the Awareness Champion is employed.

The tender rate shall include the training of the person on basic COVID-19 information and regulations and to ensure that the person has the necessary skills to handle questions and apply correct procedures regarding the COVID-19 regulations.

### **SJ 06.02      ARRANGING AWARENESS WORKSHOP.....Unit: Number**

The unit of measurement shall be for the number of events arranged.

The tender rate shall include the cost of the service provider, suitable venue and all tuition material and performing assessment procedures.

### **SJ 06.03      PROVIDING PERSONAL PROTECTIVE EQUIPMENT (PPE) (TO BE ALLOWED FOR IN P&G AND H&S).....Unit: Month**

The unit of measurement shall be for the number of months the Contractor must provide PPE to all workers on site.

The tender rate shall include for face masks, gloves, tissues, towels etc. for all workers for the full construction period of 36 months.

### **SJ 06.04      PROVIDING SANITIZING/WASHING FACILITIES.....Unit: Month**

The unit of measurement shall be for the number of months the Contractor must provide sanitizing and washing facilities on site for the total 36 month contract period.

The tender rate shall include for providing sanitizing and washing facilities for all construction workers at all the different construction sites for all PPE equipment as specified.

**SJ 06.05      ADDITIONAL ABLUTION FACILITIES (TO BE ALLOWED FOR IN P&G AND H&S)**  
 .....Unit: Number

The unit of measurement shall be for the number of facilities on the different construction sites.

The tender rate shall include for the construction of sanitizing and washing facilities consisting of a concrete floor area min 3 x 3 meter with 3 hand wash basins and IBR roof covering, including 5000ℓ water tank on stand, as well as soak away for grey water. The facilities to be maintained for the duration of construction at each site.

**SJ 06.06      SITE MEETING VENUE (TO BE ALLOWED FOR IN P&G AND H&S)**  
 .....Unit: Sum

The unit of measurement shall be for the additional cost relating to the site meeting venue building as specified in SANS 1200 and PS 5.4.

The additional rate shall include for the additional m<sup>2</sup> size of the building and furniture which will consist of a separate chair and an 800mm x 600mm table desk for each of the 12 places.

**SJ 06.07      PROVIDE NOTICES AND POSTERS**.....Unit: Month

The unit of measurement shall be for the posters and information notices and booklets to raise awareness and to share information about COVID-19.

The posters and notices must be maintained at places as indicated in Item 1.10.7 at all the different construction sites for the duration of construction.

**SJ 06.08      PROVIDE SCREENING FACILITY**.....Unit: Month

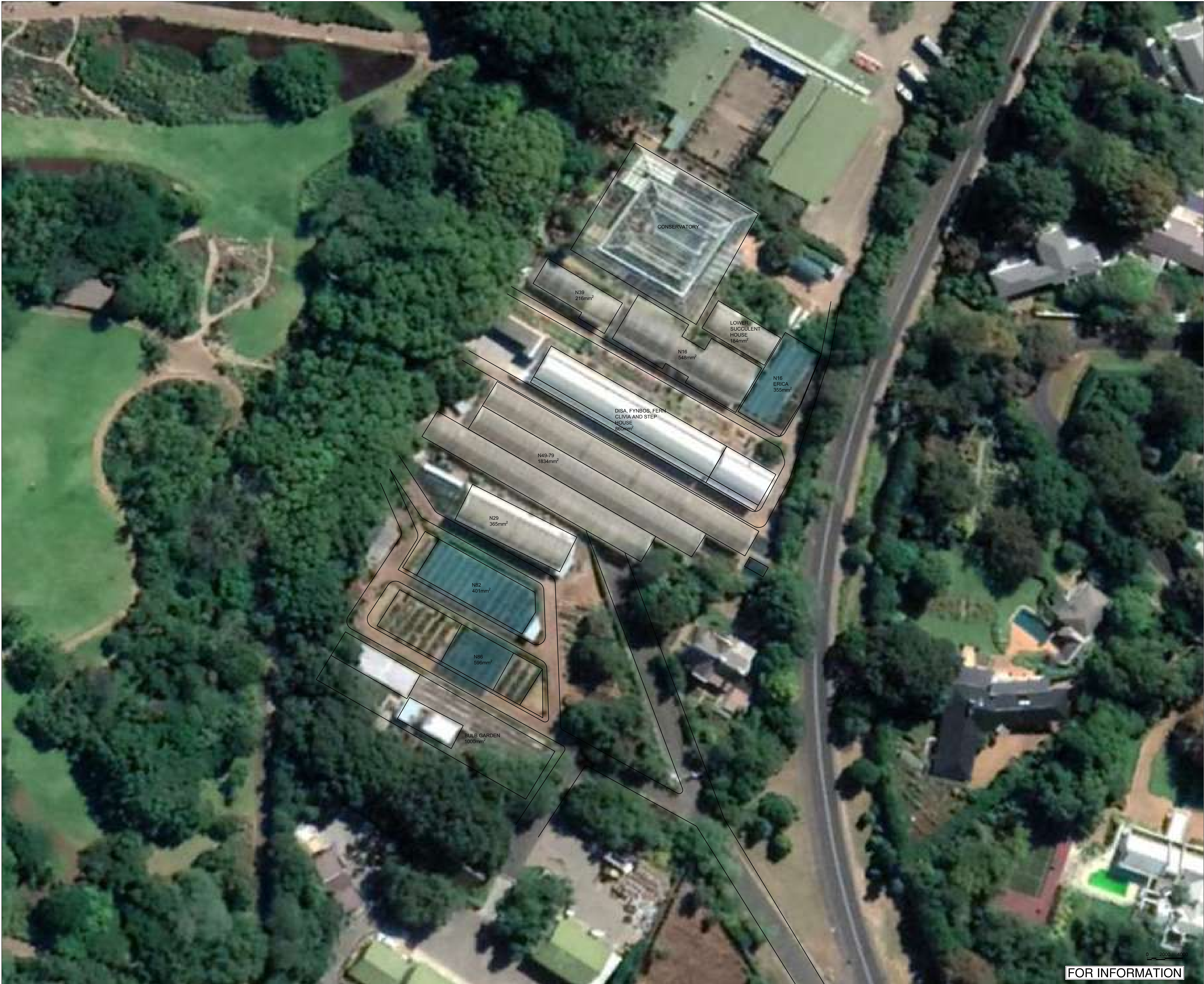
The unit of measurement shall be for the provision of a screening facility to accommodate workers daily at the start of every working day, including provision of infrared forehead thermometers and the maintenance of the equipment for the duration of the 24 month contract period.

**South African National Biodiversity Institute**

Request for bids for the appointment of a contractor for the repairs and upgrades of the existing nurseries and associated glasshouse infrastructure for the South African National Biodiversity Institute at the Kirstenbosch National Botanical Garden, Cape Town  
Contract No: SANBI G408/2021

**ANNEXURE B: DRAWINGS**

| <b>DRAWING NO.</b> | <b>DRAWING TITLE</b>              |
|--------------------|-----------------------------------|
| 0533-01            | Site Plan Layout 1                |
| 0533-02            | Site Plan Layout 2                |
| 0533-03            | Nursery Plan Layout and Section 1 |
| 0533-04            | Nursery Plan Layout and Section 2 |
| 0533-05            | Nursery Plan Layout and Section 3 |
| 0533-06            | Nursery Plan Layout and Section 4 |



| No. | DATE     | AMENDMENT              | D.P.W. |
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UPGRADE OF EXISTING  
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GLASSHOUSE  
INFRASTRUCTURE.

project number

0533

drawing title

SANBI KIRSTENBOSCH:  
SITE PLAN LAYOUT 1

|                |        |          |           |
|----------------|--------|----------|-----------|
| ref.no.        | __     | designed | R ISHMAIL |
| scale          | 1:500  | drawn    | K JURIES  |
| date           | AUG'21 | checked  | S ISHMAIL |
| drawing number |        |          | revision  |
| 0533-01        |        | B        |           |



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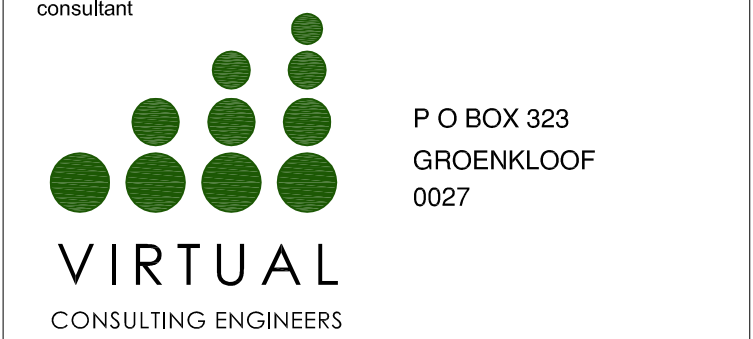
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GLASSHOUSE  
INFRASTRUCTURE.

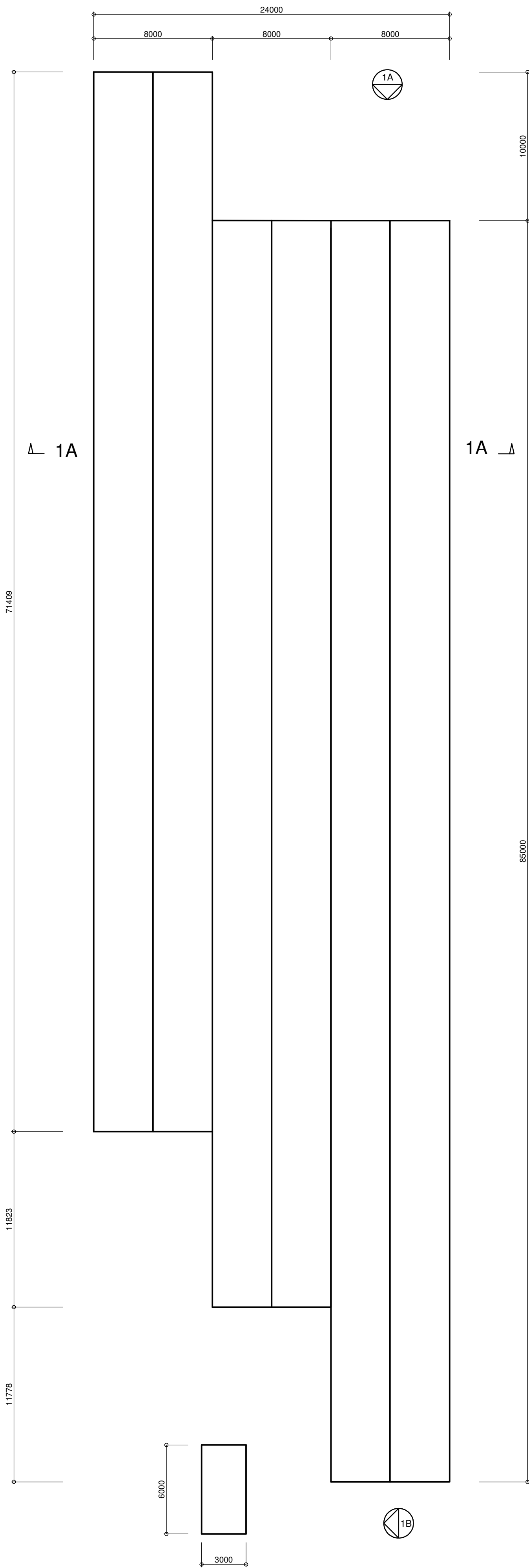
project number

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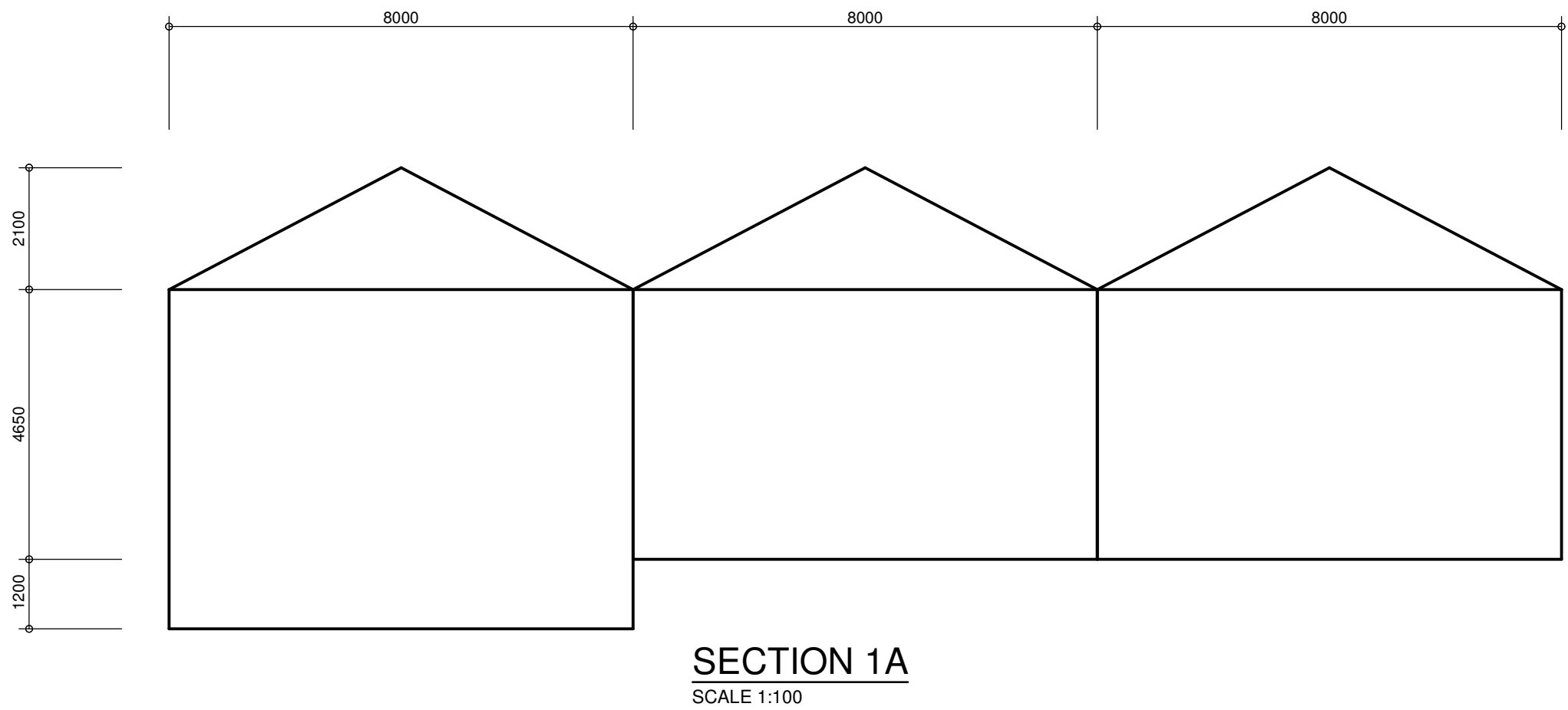
drawing title

SANBI KIRSTENBOSCH:  
SITE PLAN LAYOUT 2

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| scale          | 1:250   | drawn    | K JURIES  |
| date           | AUG'21  | checked  | S ISHMAIL |
| drawing number | 0533-02 | revision | B         |



N49-79 PLAN LAYOUT  
SCALE 1:200



VIEW 1A



VIEW 1B

- NOTE:
1. POLYCARB ROOF SHEETING TO BE REMOVED AND NEW POLYCARB SHEETING TO BE INSTALLED.
  2. POLYCARB SIDE CLADDING TO BE REMOVED AND NEW POLYCARB SIDE CLADDING TO BE INSTALLED.
  3. DAMAGED INSECT NETTING TO BE REMOVED AND NEW INSECT NETTING TO BE INSTALLED (WHERE APPLICABLE).
  4. DAMAGED ALUMINET TO BE REMOVED AND NEW ALUMINET TO BE INSTALLED (WHERE APPLICABLE).
  5. MANUAL PULLEY SYSTEM TO BE REPLACED IN SECTIONS.
  6. DAMAGED TIMBER RAFTERS AND GUM POLES TO BE REMOVED AND NEW RAFTERS AND GUM POLES TO BE INSTALLED.

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|-----|----------|------------------------|--------|
| A   | 28.05.21 | ISSUED FOR INFORMATION | SI     |
| B   | 06.08.21 | ISSUED FOR INFORMATION | SI     |
| C   | 16.09.21 | ISSUED FOR INFORMATION | SI     |
| D   | 27.09.21 | ISSUED FOR INFORMATION | SI     |
| E   | 15.11.21 | ISSUED FOR INFORMATION | SI     |

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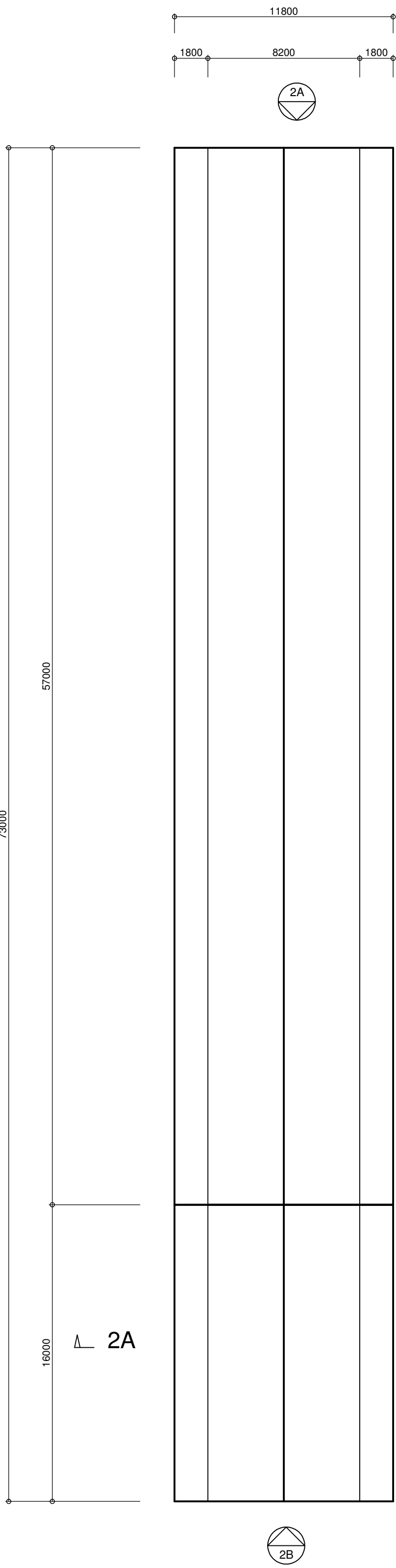
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GLASSHOUSE  
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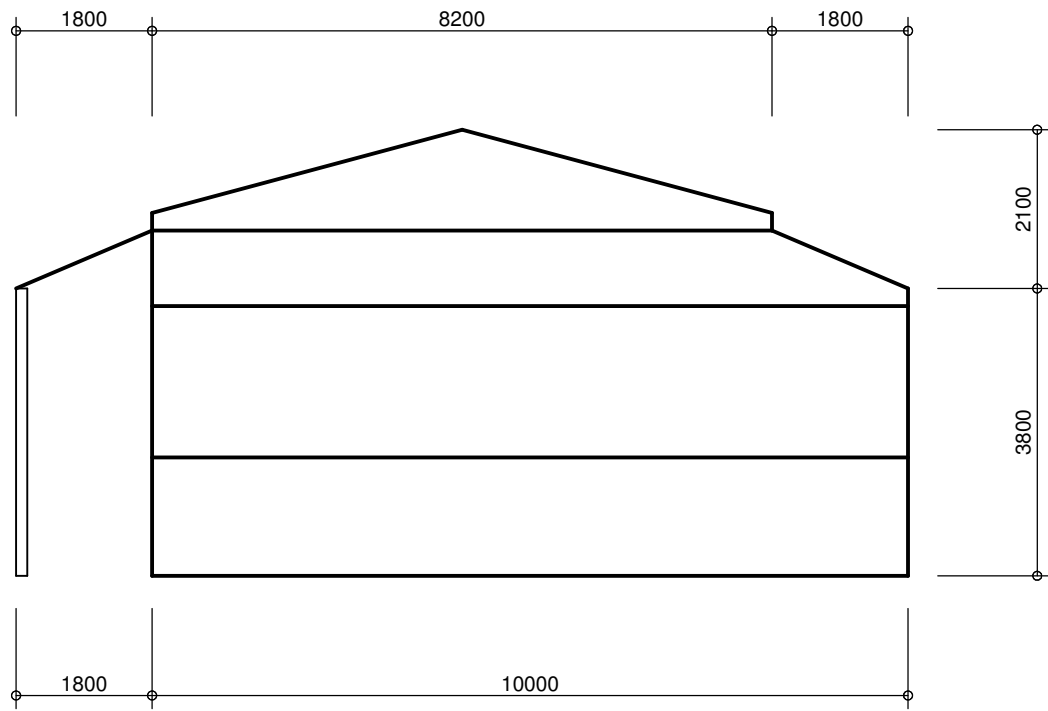
project number 0533  
drawing title  
SANBI KIRSTENBOSCH:  
NURSARY PLAN LAYOUT  
AND SECTION 1

ref.no. -- designed R ISHMAIL  
scale AS SHOWN drawn K JURIES  
date NOV/21 checked S ISHMAIL

drawing number 0533-03 revision E



DISA, FYNBOS, FERN, CLIVIA AND STREP HOUSE  
PLAN LAYOUT  
SCALE 1:200



SECTION 2A  
SCALE 1:100

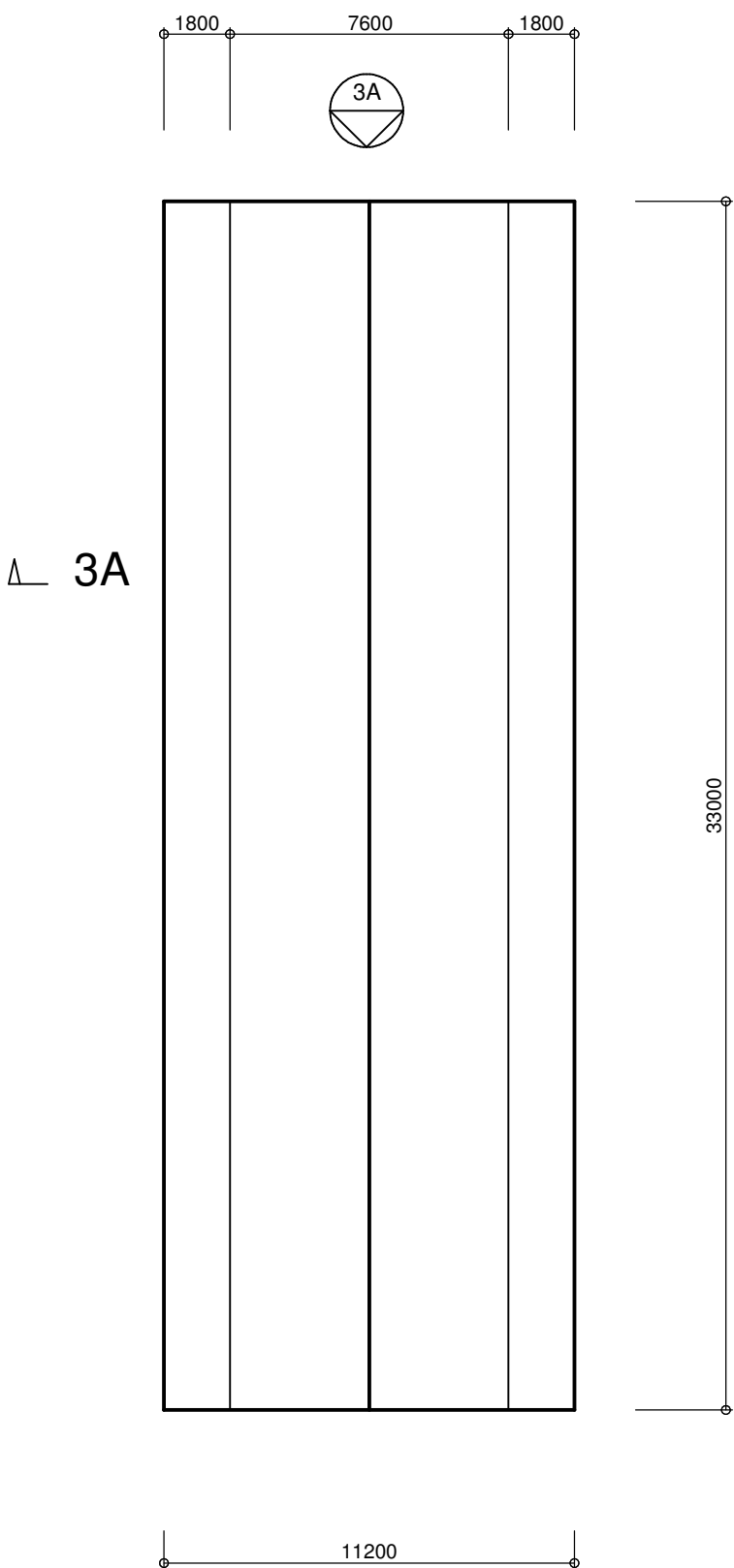
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  2. DAMAGED INSECT NETTING TO BE REMOVED AND NEW INSECT NETTING TO BE INSTALLED (WHERE APPLICABLE).
  3. DAMAGED ALUMINET TO BE REMOVED AND NEW ALUMINET TO BE INSTALLED (WHERE APPLICABLE).
  4. MANUAL PULLEY SYSTEM TO BE REPLACED IN SECTIONS.



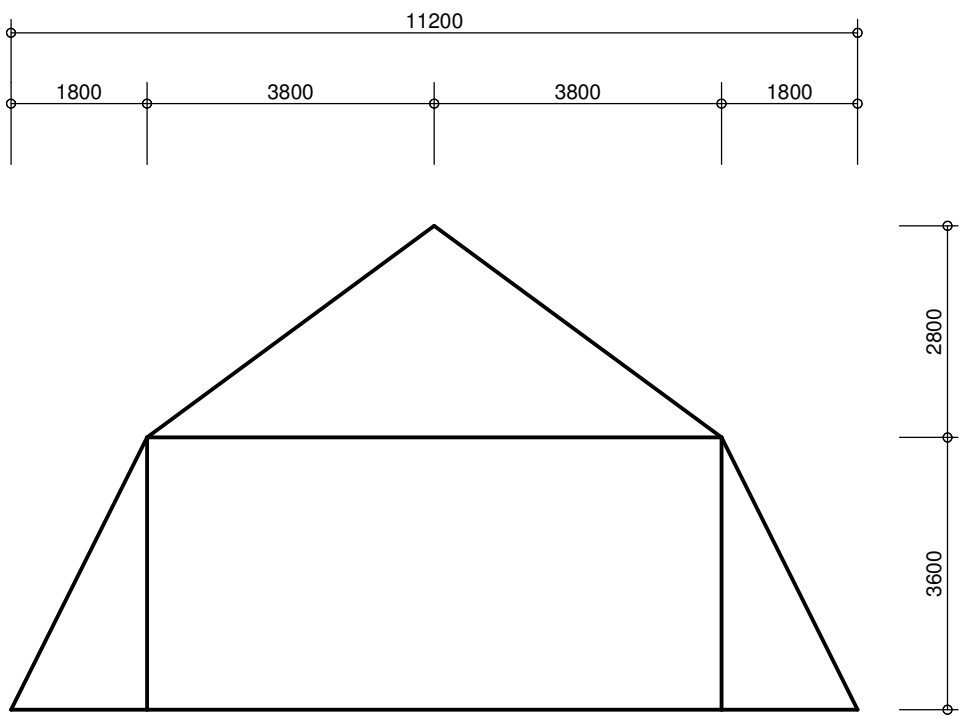
VIEW 2A



VIEW 2B



N29 PLAN LAYOUT  
SCALE 1:200



SECTION 3A  
SCALE 1:100

- NOTE:
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  2. POLYCARB SIDE CLADDING TO BE REMOVED AND NEW POLYCARB SIDE CLADDING TO BE INSTALLED.
  3. DAMAGED INSECT NETTING TO BE REMOVED AND NEW INSECT NETTING TO BE INSTALLED (WHERE APPLICABLE).
  4. DAMAGED ALUMINET TO BE REMOVED AND NEW ALUMINET TO BE INSTALLED (WHERE APPLICABLE).
  5. M12 BOLTS TO BE INSTALLED.
  6. M16 BOLTS TO BE INSTALLED.
  7. MITEK BRACKETS TO BE INSTALLED.
  7. DAMAGED TIMBER RAFTERS AND GUM POLES TO BE REMOVED AND NEW RAFTERS AND GUM POLES TO BE INSTALLED.



VIEW 3A

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| A   | 28.05.21 | ISSUED FOR INFORMATION | SI     |
| B   | 06.08.21 | ISSUED FOR INFORMATION | SI     |
| C   | 17.09.21 | ISSUED FOR INFORMATION | SI     |
| D   | 15.11.21 | ISSUED FOR INFORMATION | SI     |

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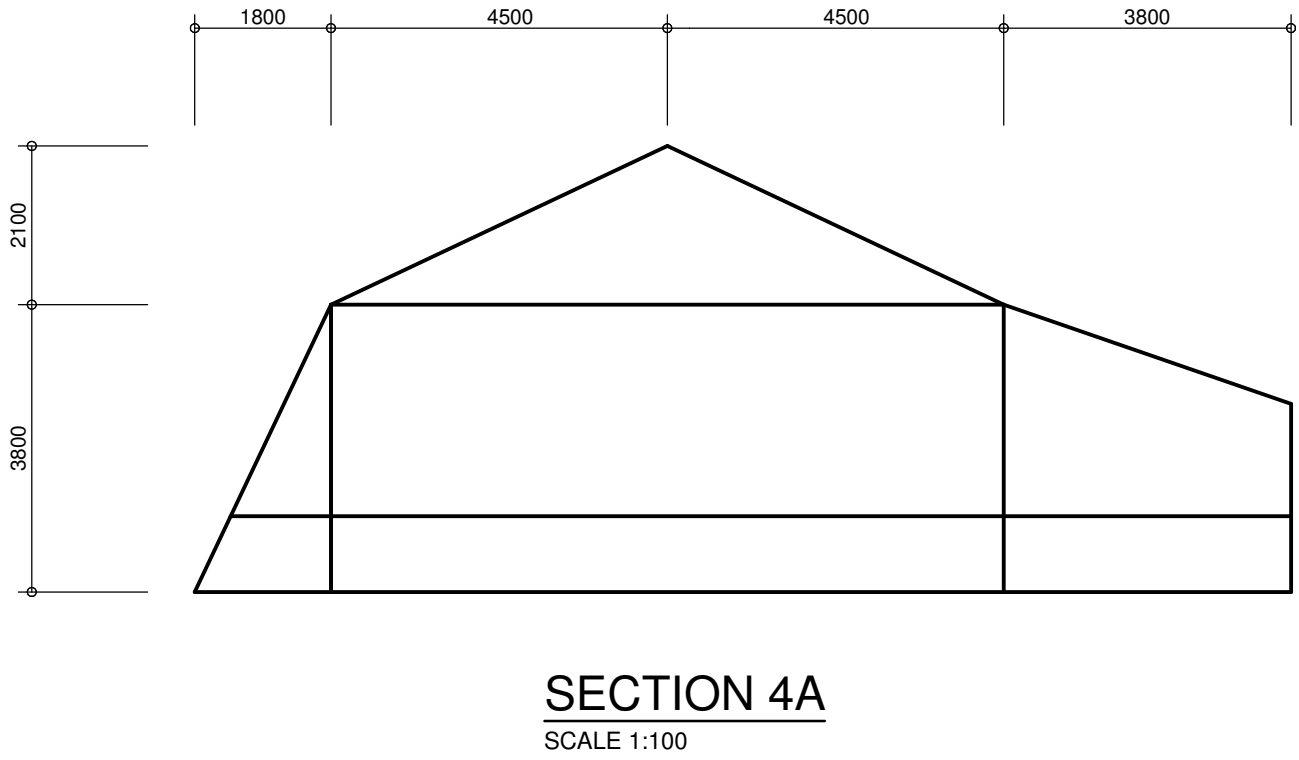
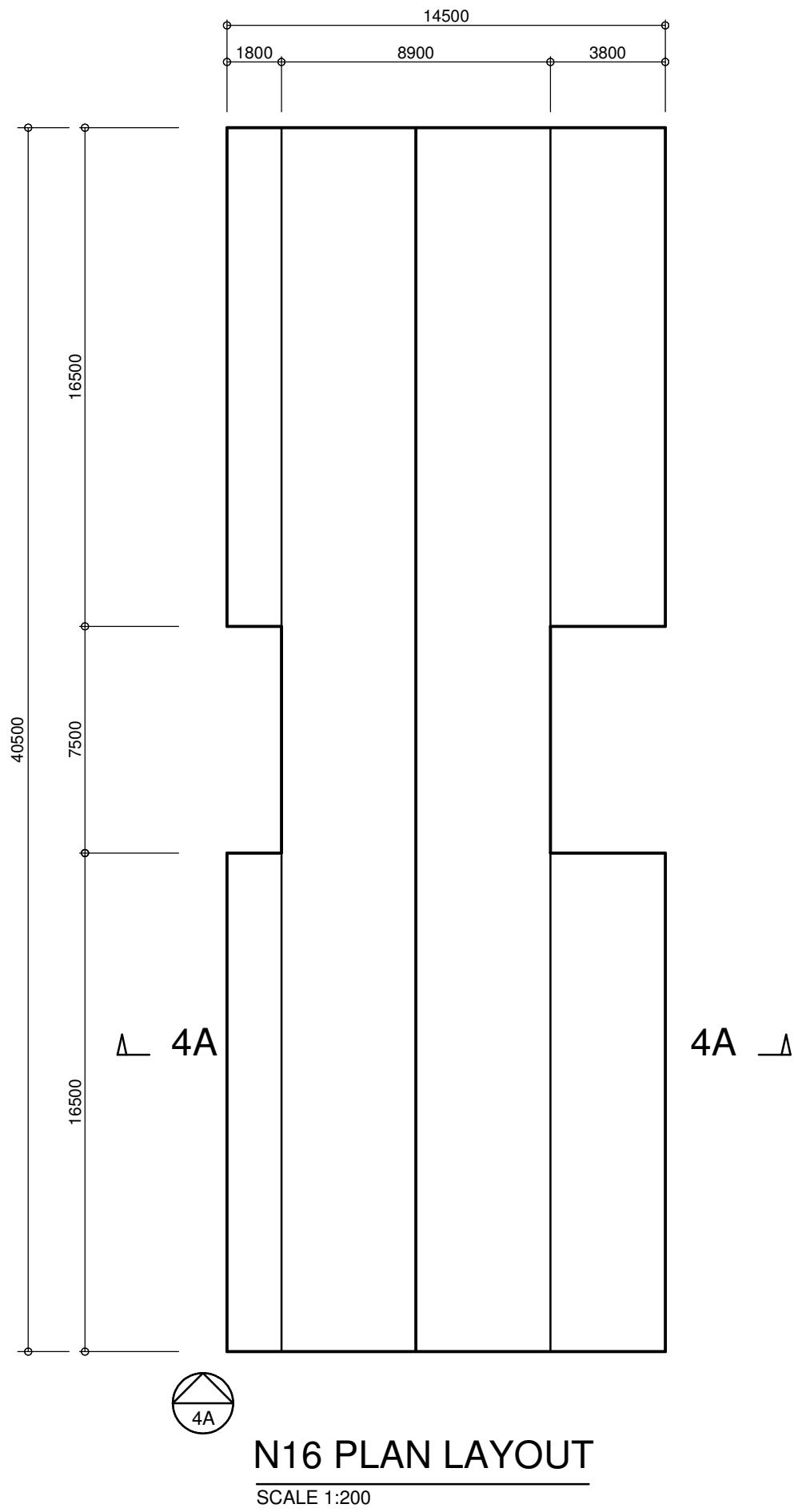
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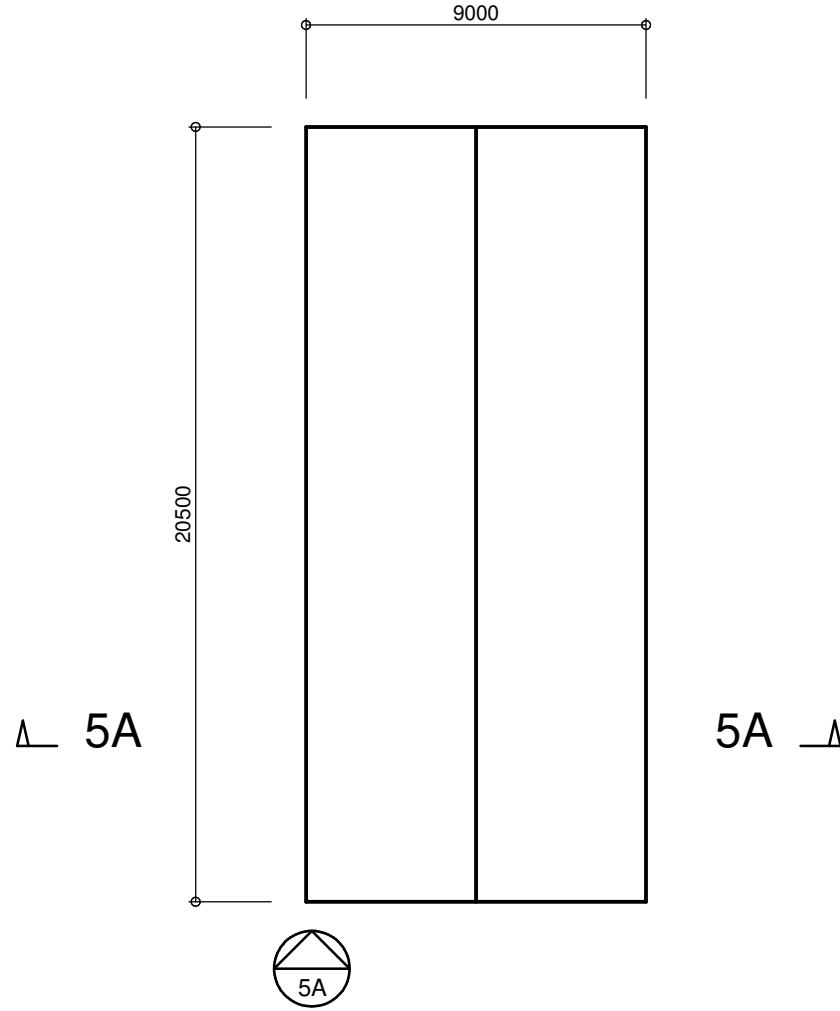
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AND SECTION 2

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date NOV'21 checked S TSHMAIL  
drawing number 0533-04

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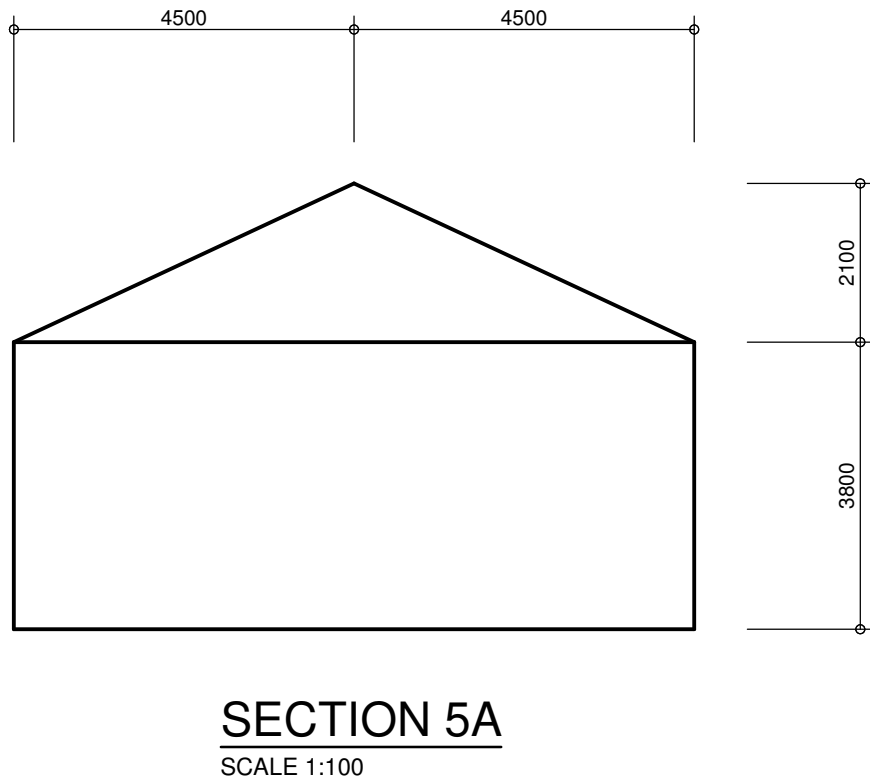


VIEW 4A



LOWER SUCULENT HOUSE  
PLAN LAYOUT

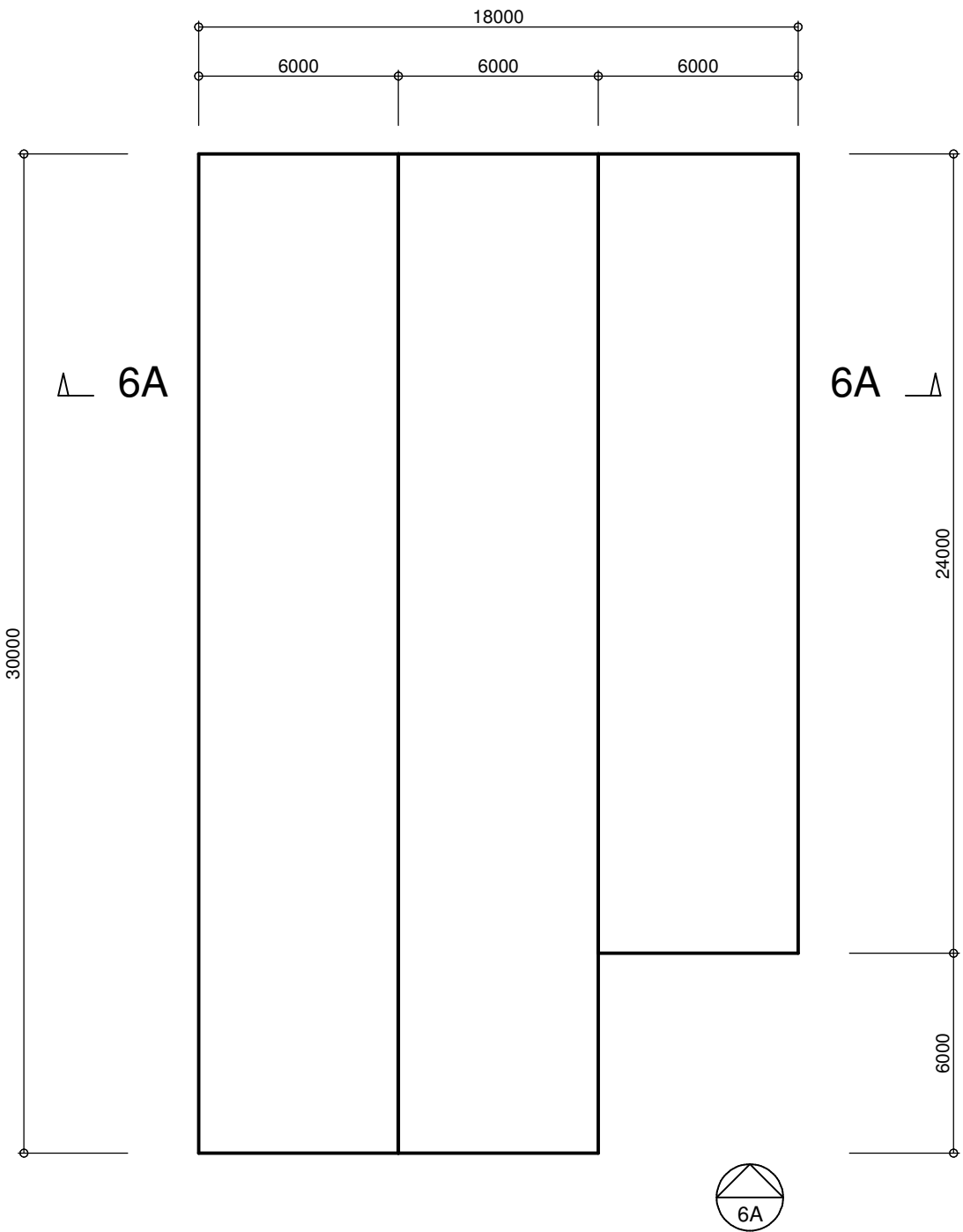
SCALE 1:200



VIEW 5A

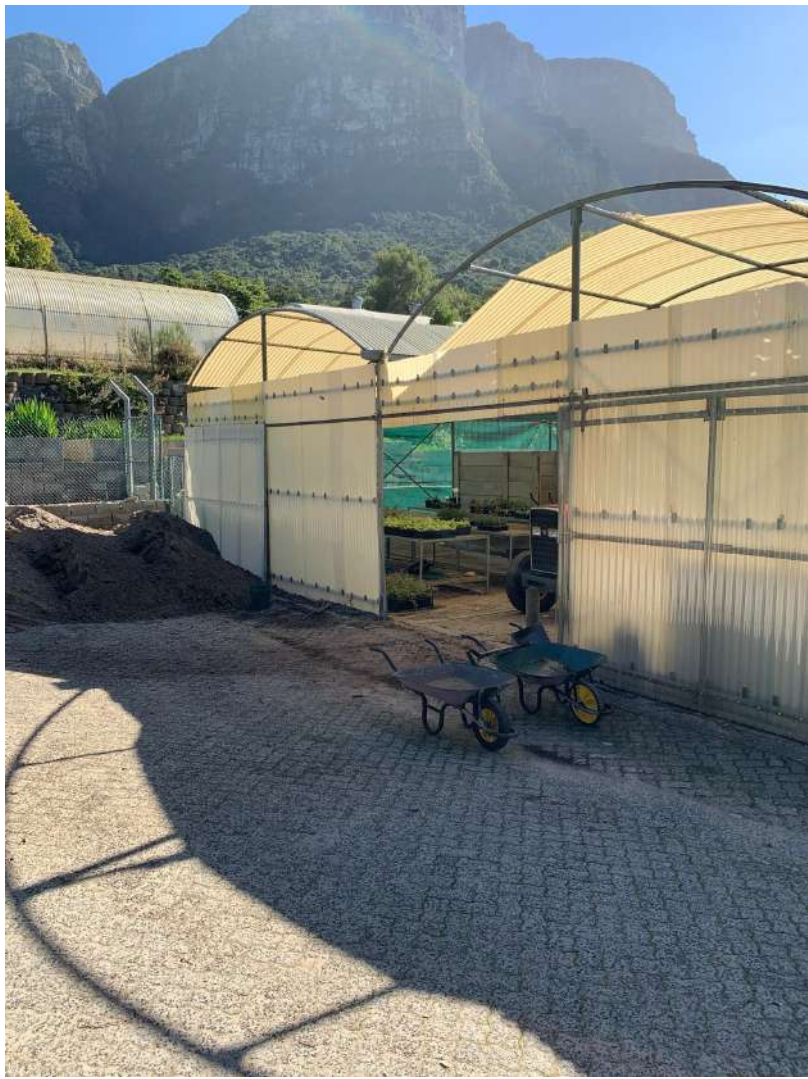
- NOTE:
1. POLYCARB SHEETING TO BE REMOVED AND NEW POLYCARB SHEETING TO BE INSTALLED.
  2. 1.8M SLIDING DOOR TO BE INSTALLED.
  3. DAMAGED INSECT NETTING TO BE REMOVED AND NEW INSECT NETTING TO BE INSTALLED (WHERE APPLICABLE).
  3. DAMAGED ALUMINET TO BE REMOVED AND NEW ALUMINET TO BE INSTALLED (WHERE APPLICABLE).
  4. MANUAL PULLEY TO BE REPLACED IN SECTIONS.

- NOTE:
1. POLYCARB SHEETING TO BE REMOVED AND NEW POLYCARB SHEETING TO BE INSTALLED.
  2. DOUBLE DOORS TO BE SERVICED.
  3. DAMAGED INSECT NETTING TO BE REMOVED AND NEW INSECT NETTING TO BE INSTALLED (WHERE APPLICABLE).
  3. DAMAGED ALUMINET TO BE REMOVED AND NEW ALUMINET TO BE INSTALLED (WHERE APPLICABLE).
  4. POLYPROPYLENE SHEETING TO BE INSTALLED.

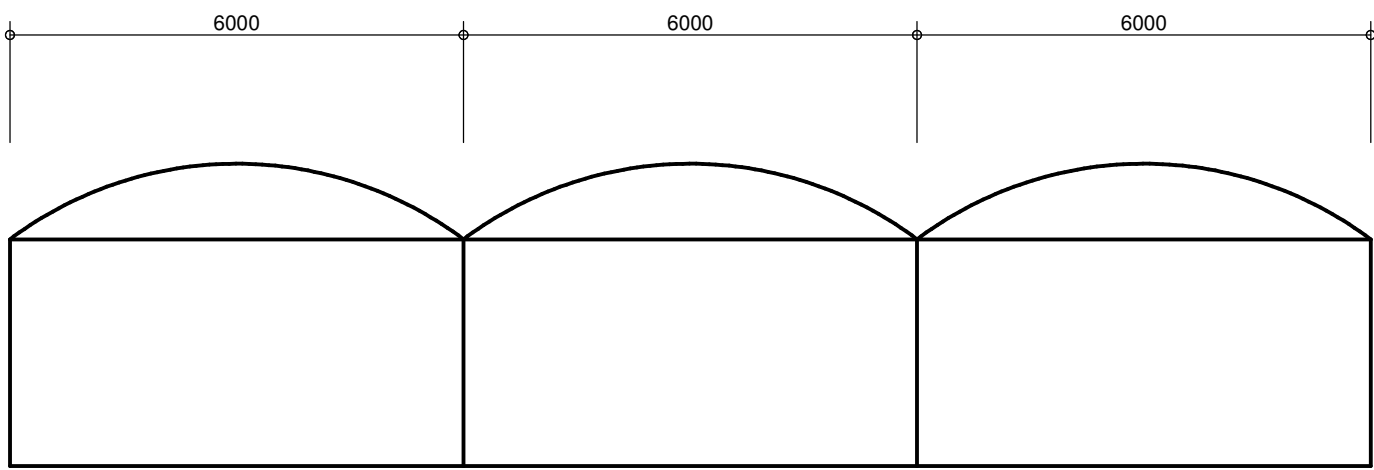


PLANT PRODUCTION BUILDING 1  
PLAN LAYOUT

SCALE 1:200



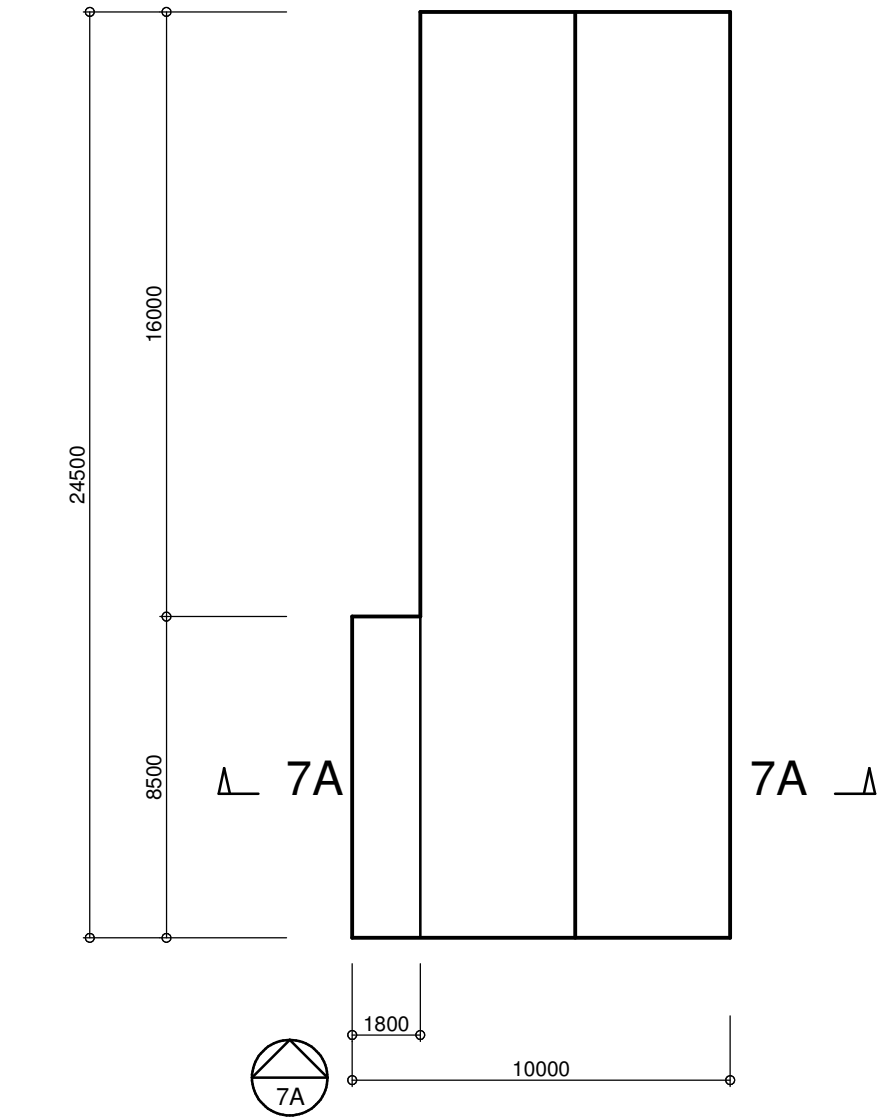
VIEW 6A



SECTION 6A

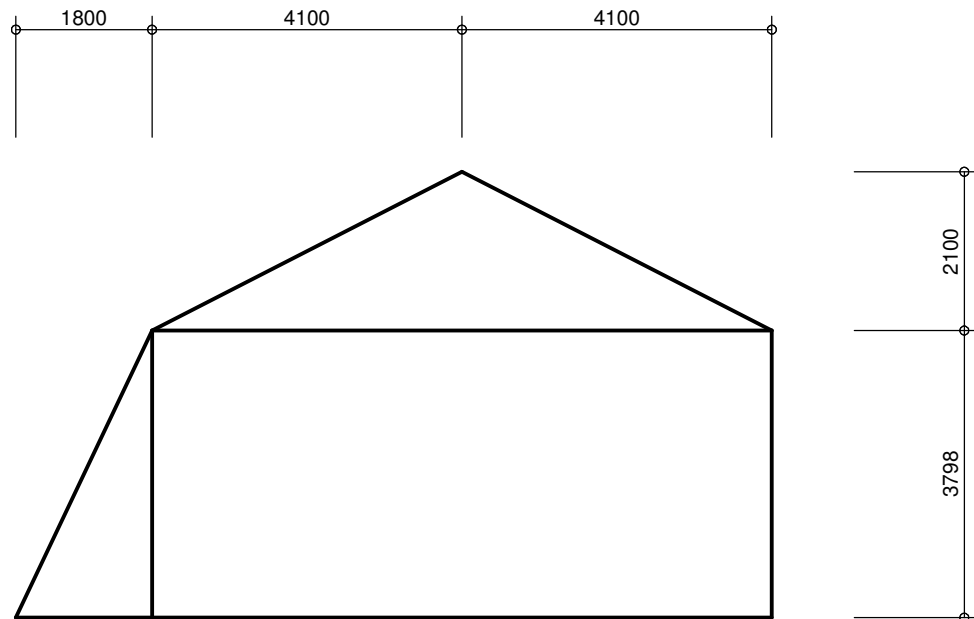
SCALE 1:100

- NOTE:
1. DAMAGED POLYCARB SHEETING TO BE REMOVED AND NEW POLYCARB SHEETING TO BE INSTALLED.
  2. DAMAGED POLYCARB CLADDING TO BE REMOVED AND NEW POLYCARB CLADDING TO BE INSTALLED.



N39 PLAN LAYOUT

SCALE 1:200



SECTION 7A

SCALE 1:100

- NOTE:
1. POLYCARB SHEETING TO BE REMOVED AND NEW POLYCARB SHEETING TO BE INSTALLED.
  2. DOUBLE DOORS TO BE SERVICED.
  3. DAMAGED INSECT NETTING TO BE REMOVED AND NEW INSECT NETTING TO BE INSTALLED (WHERE APPLICABLE).
  4. DAMAGED SHADE NETTING TO BE REMOVED AND 80% SHADE NET TO BE INSTALLED.
  5. DAMAGED SHADE NETTING TO BE REMOVED AND 40% SHADE NET TO BE INSTALLED.
  6. MANUAL PULLEY SYSTEM TO BE REPLACED IN SECTIONS.



VIEW 7A

0 2000 4000

FOR INFORMATION

| No. | DATE     | AMENDMENT              | D.P.W. |
|-----|----------|------------------------|--------|
| A   | 28.05.21 | ISSUED FOR INFORMATION | SI     |
| B   | 06.08.21 | ISSUED FOR INFORMATION | SI     |
| C   | 17.09.21 | ISSUED FOR INFORMATION | SI     |
| D   | 27.09.21 | ISSUED FOR INFORMATION | SI     |
| E   | 15.11.21 | ISSUED FOR INFORMATION | SI     |

LEGEND

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Date: \_\_\_\_\_  
Approved by: \_\_\_\_\_  
Date: \_\_\_\_\_

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date: N/A  
professional registration no.: N/A

cad file name 0533-05 page type A1

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South African National Biodiversity Institute

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IMPACT. ENGINEERED.

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discipline  
STRUCTURAL

service  
SANBI KIRSTENBOSCH:  
INVESTIGATION, DESIGN  
PROCUREMENT AND  
CONSTRUCTION MONITORING  
FOR THE REPAIRS AND  
UPGRADE OF EXISTING  
NURSERIES AND  
GLASSHOUSE  
INFRASTRUCTURE.

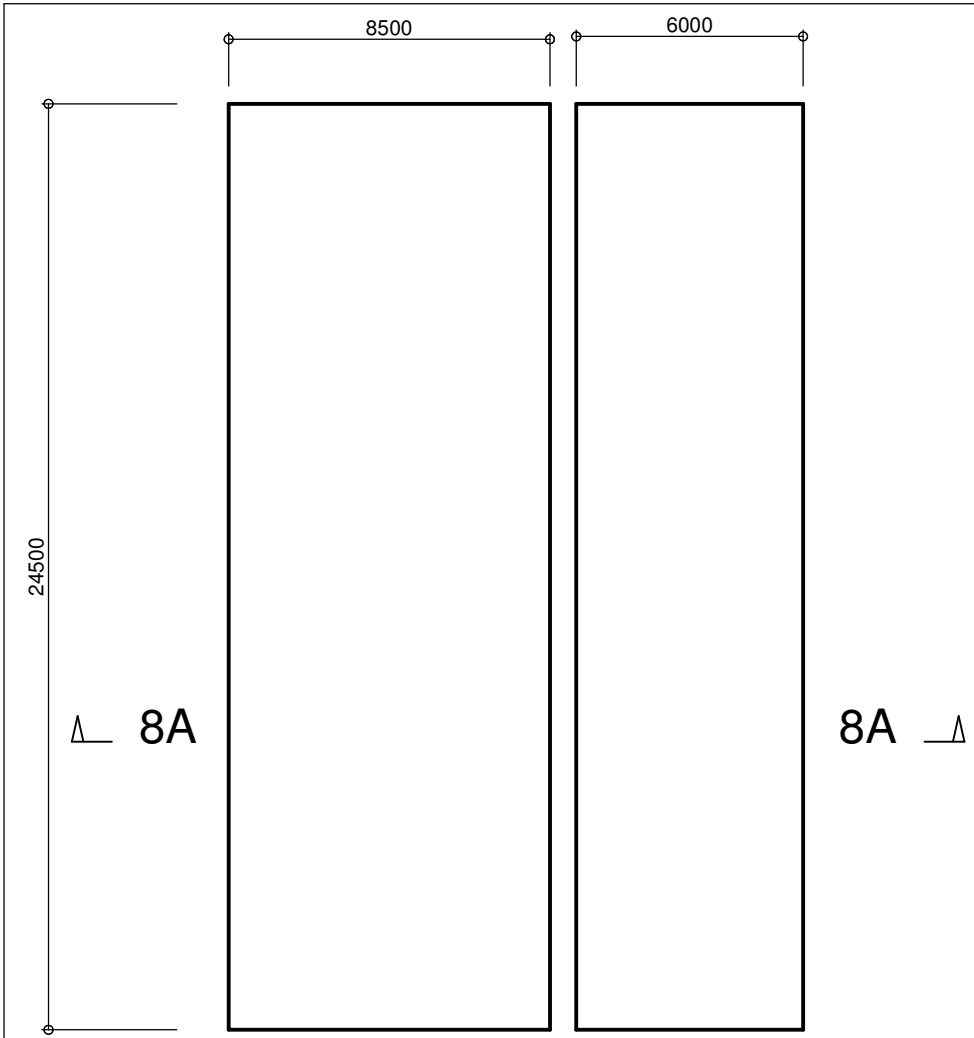
project number 0533

drawing title  
SANBI KIRSTENBOSCH:  
NURSARY PLAN LAYOUT  
AND SECTION 3

ref.no. -- designed R TSHMAIL  
scale AS SHOWN drawn K JURIES  
date NOV'21 checked S TSHMAIL  
drawing number

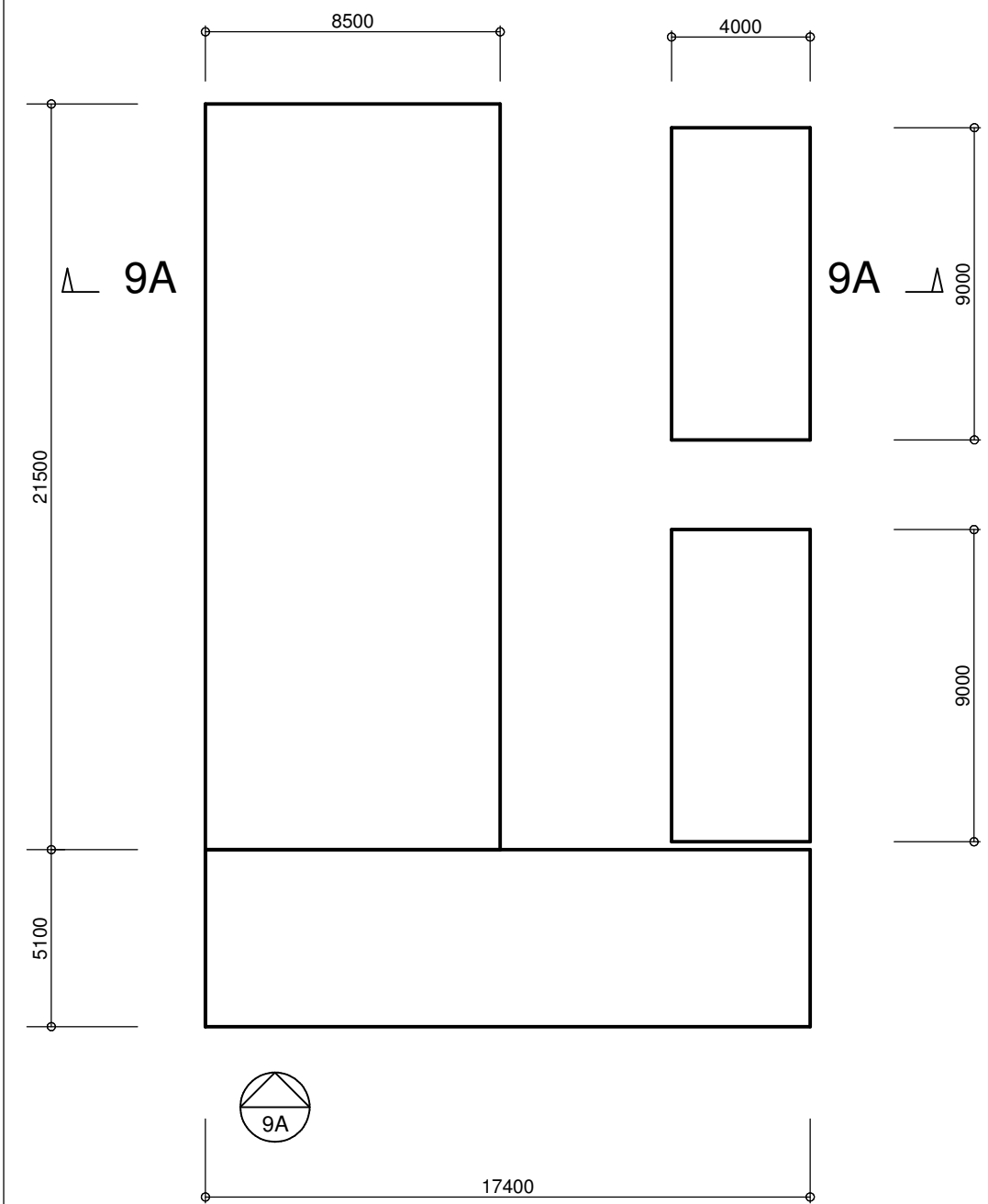
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revision  
E



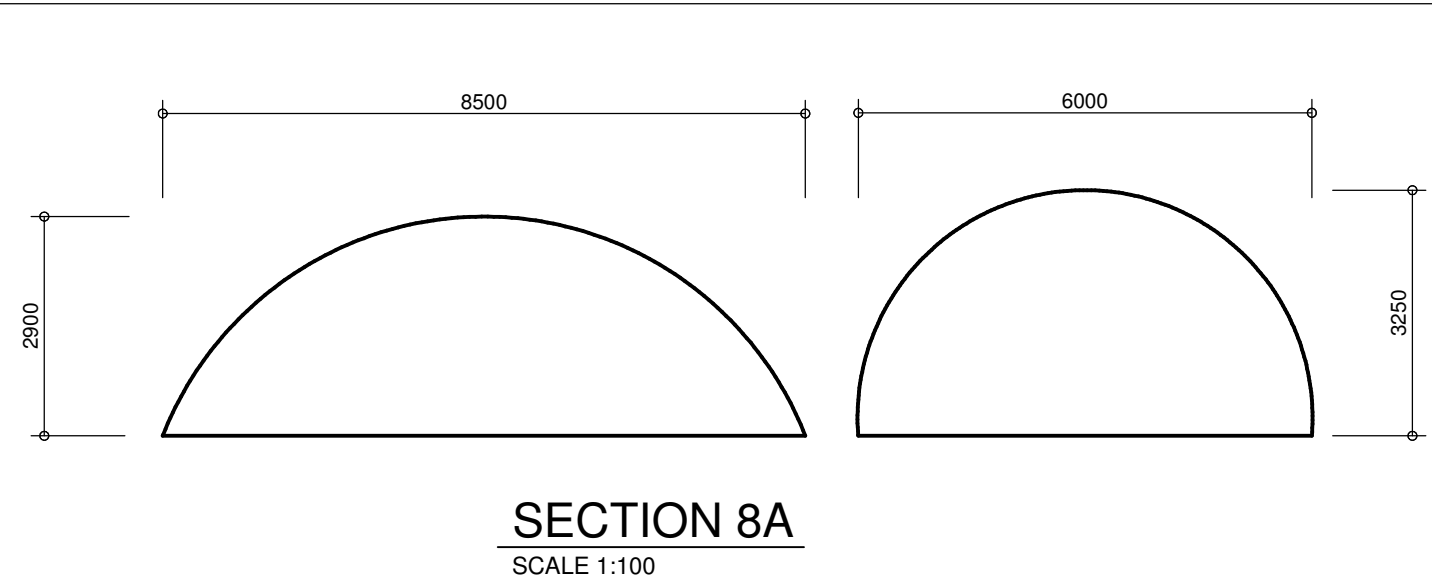
**CYCAD TUNNEL 1 AND 2  
PLAN LAYOUT**  
SCALE 1:200

- NOTE:
1. DAMAGED POLYCARB SHEETING TO BE REMOVED AND NEW POLYCARB SHEETING TO BE INSTALLED.
  2. DAMAGED POLYCARB CLADDING TO BE REMOVED AND NEW POLYCARB CLADDING TO BE INSTALLED.

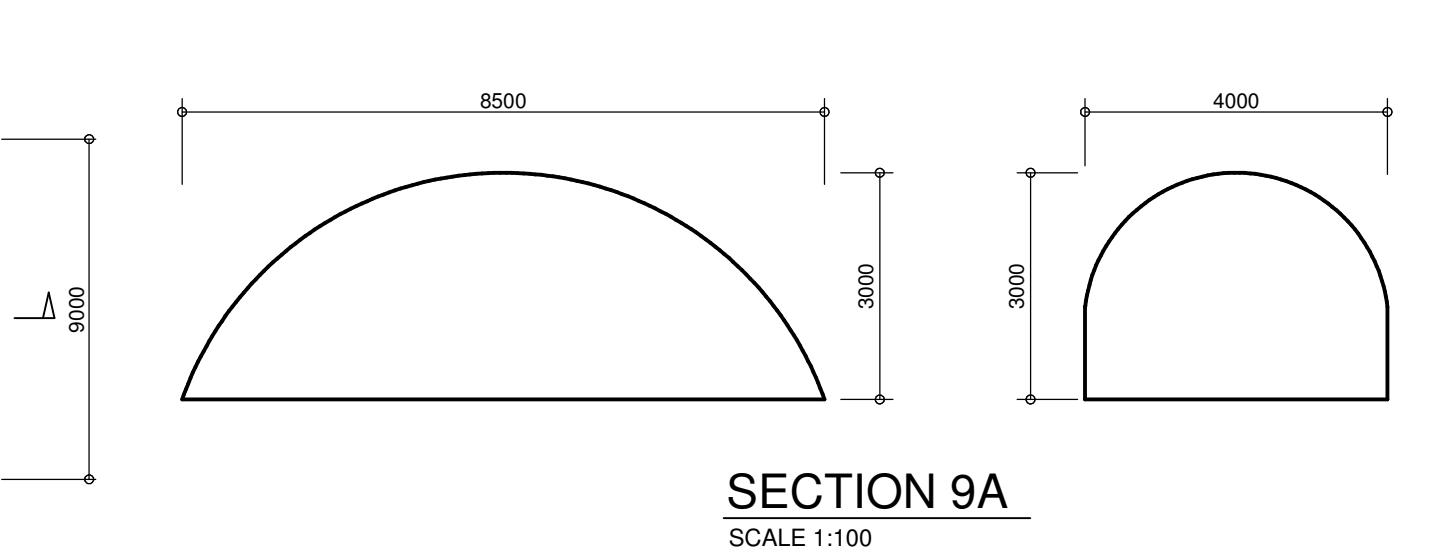


**RESEARCH FACILITY AND TUNNELS  
PLAN LAYOUT**  
SCALE 1:200

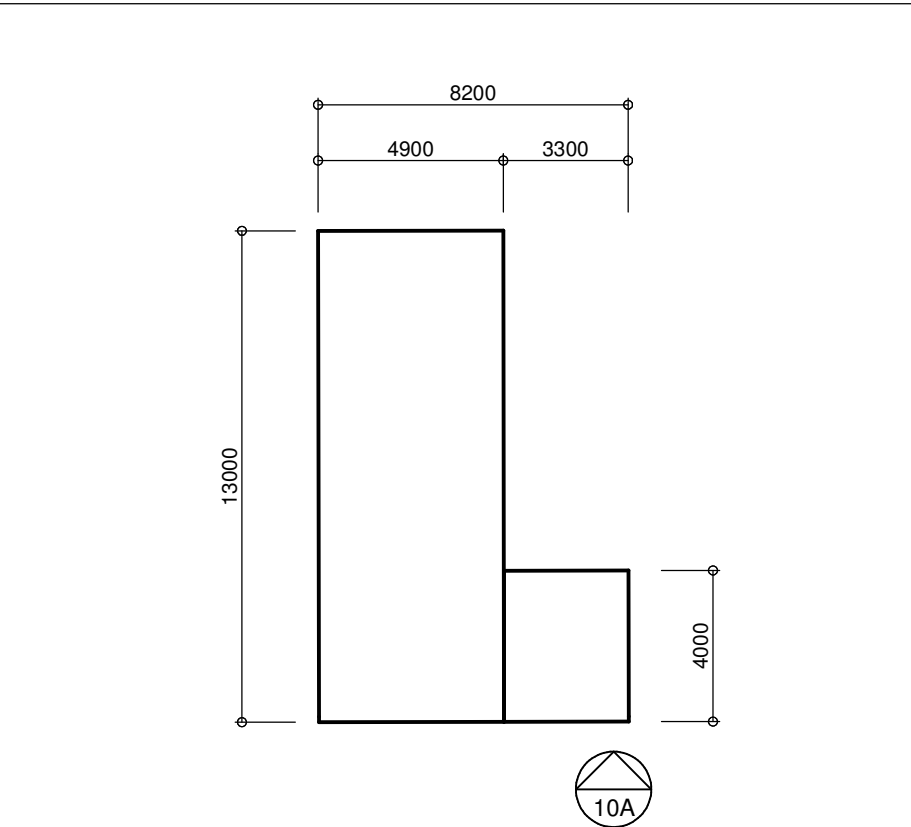
- NOTE:
1. DAMAGED POLYCARB SHEETING TO BE REMOVED AND NEW POLYCARB SHEETING TO BE INSTALLED.
  2. EXISTING WALKWAY TO BE REMOVED AND NEW WALKWAY TO BE INSTALLED.
  3. POLES TO BE PREPARED AND PAINTED.



**VIEW 8A**



**VIEW 9A**

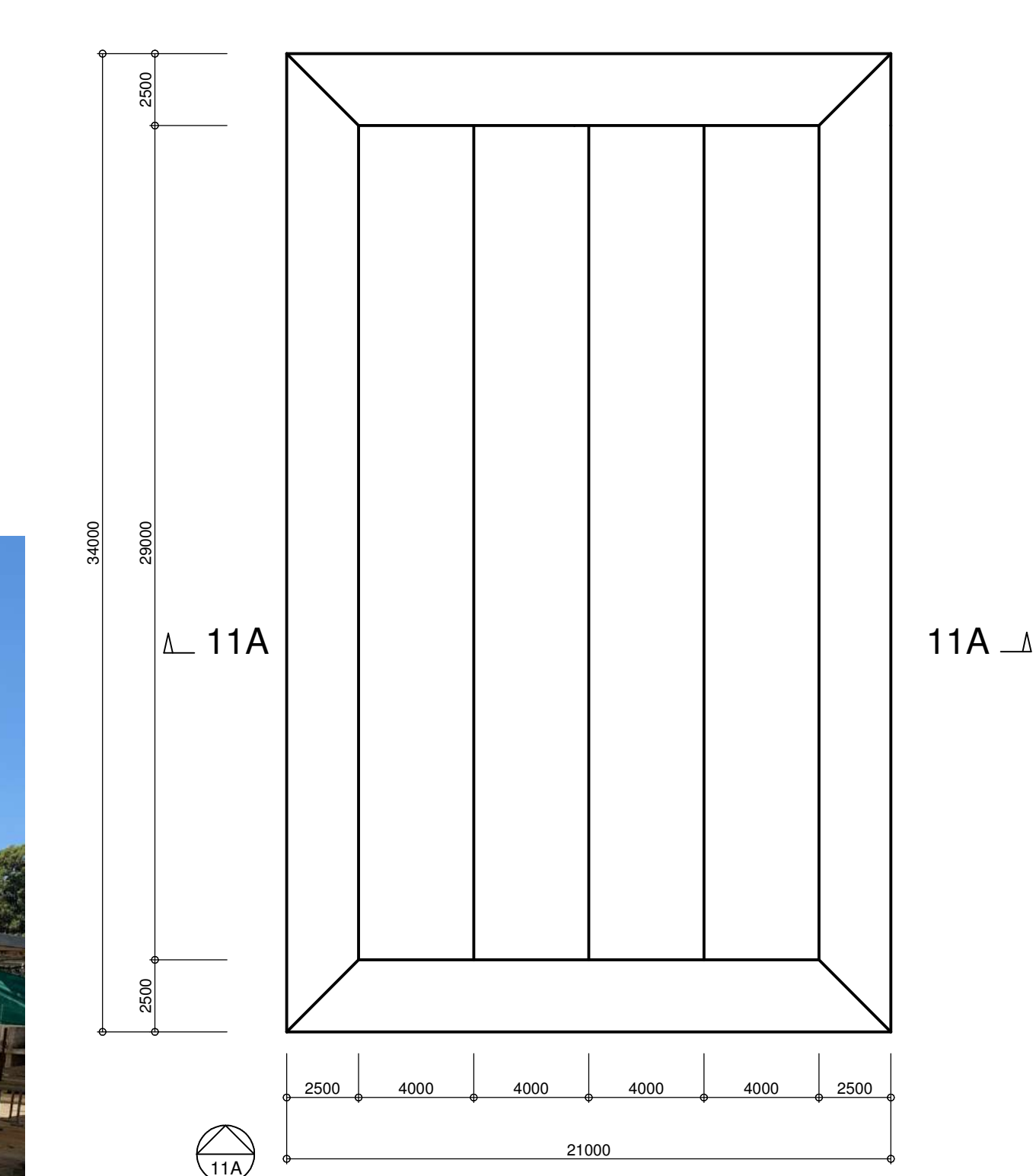


**RESEARCH FACILITY STOREROOM  
PLAN LAYOUT**  
SCALE 1:200

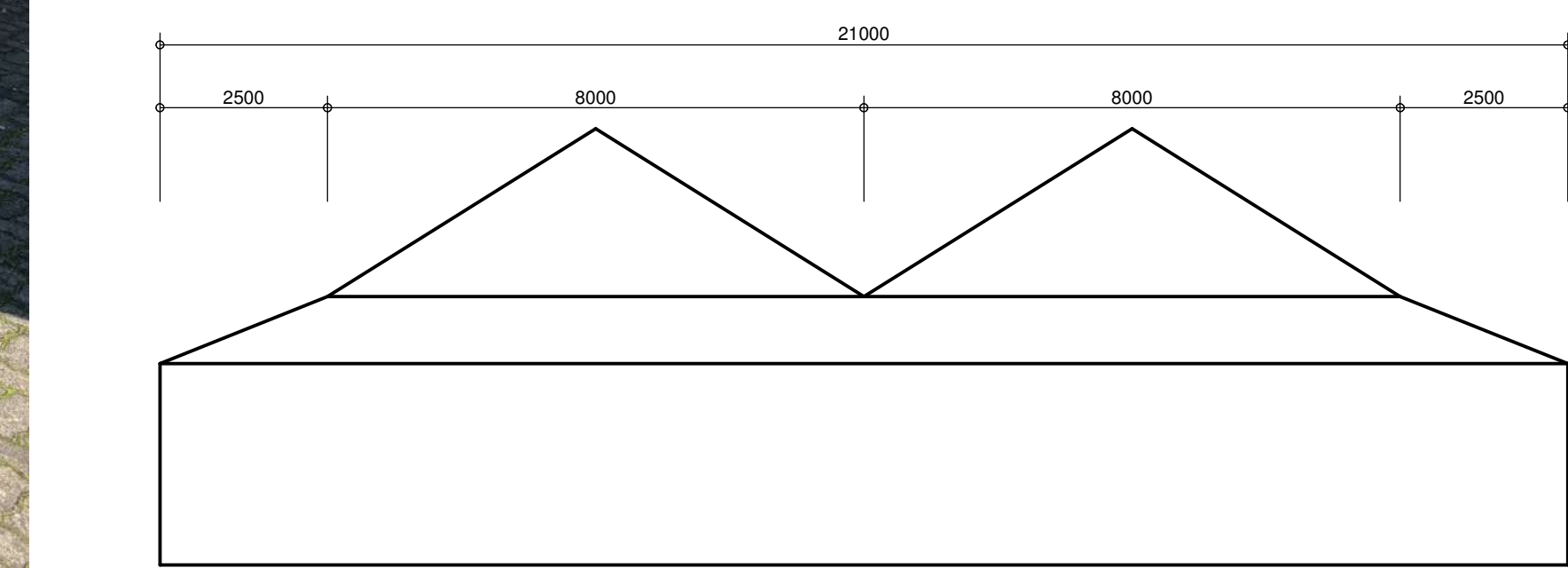
- NOTE:
1. DAMAGED IBR SHEETING TO BE REMOVED AND NEW IBR SHEETING TO BE INSTALLED.
  2. RUSTED STEEL BEARERS TO BE REMOVED AND GALVANIZED STEEL BEARERS TO BE INSTALLED.
  3. ALUMINET TO BE INSTALLED.



**VIEW 10A**



**PLANT PRODUCTION BUILDING 2  
PLAN LAYOUT**  
SCALE 1:200



**SECTION 11A**  
SCALE 1:100

- NOTE:
1. DAMAGED POLYCARB SHEETING TO BE REMOVED AND NEW POLYCARB SHEETING TO BE INSTALLED.
  2. DAMAGED POLYCARB CLADDING TO BE REMOVED AND NEW POLYCARB CLADDING TO BE INSTALLED.
  3. ALL DAMAGED ALUMINET TO BE REMOVED AND NEW ALUMINET TO BE INSTALLED (WHERE APPLICABLE).
  4. DAMAGED INSECT NETTING TO BE REMOVED AND NEW INSECT NETTING TO BE INSTALLED (WHERE APPLICABLE).

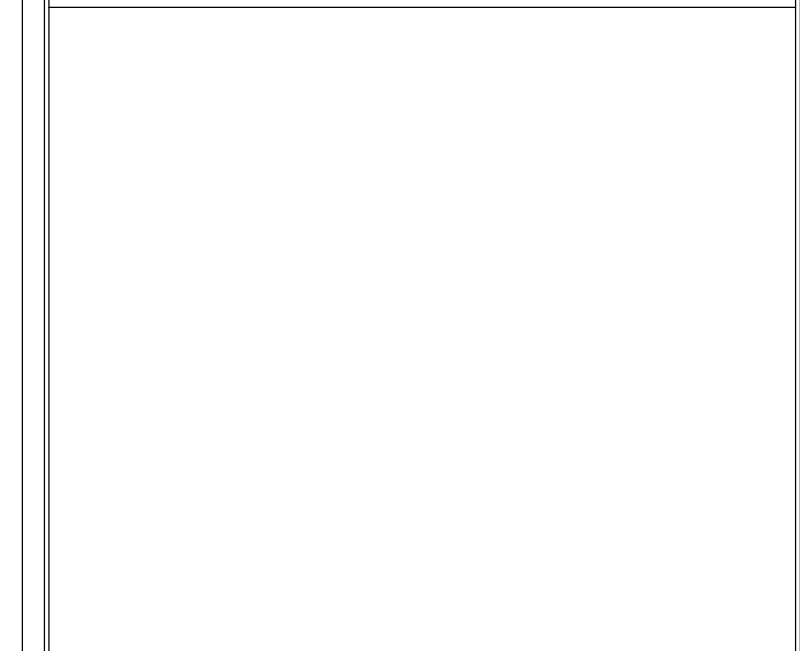
**SECTION 11A**  
SCALE 1:100

0 2000 4000

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| B   | 06.08.21 | ISSUED FOR INFORMATION | SI     |
| C   | 17.09.21 | ISSUED FOR INFORMATION | SI     |
| D   | 15.11.21 | ISSUED FOR INFORMATION | SI     |

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client

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GLASSHOUSE  
INFRASTRUCTURE.**

project number 0533

drawing title **SANBI KIRSTENBOSCH:  
NURSARY PLAN LAYOUT  
AND SECTION 4**

ref. no. -- designed R ISHMAIL  
scale AS SHOWN drawn K JURIES  
date NOV/21 checked S ISHMAIL  
drawing number

0533-06

revision  
D