SANBI
Biodiversity for Life
South African National Biodiversity Institute

SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE

Contract No: SANBI : G453/2022

REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA

PROCUREMENT DOCUMENT

MARCH 2023

Issued by:

South African National Biodiversity Institute
Private Bag X101
Silverton
0184
Gauteng

Contact:

Supply Chain Management

E-mail: sanbi.tenders@sanbi.org.za

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E-mail: zayn@splace.co.za

Name of tenderer: .....

Address: .....

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

Email: .....

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PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR THE SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI G453/2022**

Advertising date:	**17 March 2023**	**Closing date:**	**12 April 2023**
Closing time:	**11:00**	**Validity period:**	**90 days**

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 RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR THE SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA.

Tender documents will be available as from **17 March 2023** and will be available **ONLINE ONLY** on the SANBI website www.sanbi.org (click on "Opportunities"). It is estimated that tenderers should have a CIDB contractor grading of **5GB or higher**.

A compulsory site briefing session will take place on site on 28 March 2023 at 09h00 at the Pretoria National Botanical Garden, Gauteng. Only one representative per service provider will be allowed to attend the scheduled compulsory site briefing session. Bidders are encouraged to direct all technical and bidding procedure enquiries to the email addresses below.

Department:	Supply Chain Management
Email:	Sanbi.Tenders@sanbi.org.za
Cc:	zayn@splace.co.za
Cut-off date for enquiries:	3 **April 2023 at 12:00**

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

SANBI Representative (Technical Queries Only)	ZAS Architects & Planners 011 486 4103 zayn@splace.co.za
SANBI SCM Representative	sanbi.tenders@sanbi.org.za

The closing time and date for the receipt of tenders is **11:00** on **12 April 2023.**
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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR THE SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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).

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.

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

Clause number	Tender Data
	Part C3: Scope of Works C3.1 - Description of the works C3.2 - Construction **Part C4: Site Information** C4.1 - Site location **Annexures** Annexure A – Health & Safety Specifications Annexure B - Drawings
C.1.4	The employer's agent is: ZAS Architects & Planners **Contact Person:** Mr Z Shaikh **Tel:** 011 486-4103 **E-mail:** zayn@splace.co.za
C.2.1	Only those tenderers who satisfy the following eligibility criteria are eligible to submit tenders 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. (a) CIDB registration 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 **5 GB** class of construction work are eligible to have their tenders evaluated. Joint ventures are eligible to submit tenders provided that: 1. every member of the joint venture is registered with the CIDB; 2. the lead partner has a contractor grading designation in the **5 GB** class of construction work; and 3. the combined contractor grading designation calculated in accordance with the Construction Industry Development Regulations is equal to or higher than a contractor grading designation determined in accordance with the sum tendered for a **5 GB** class of construction work or a value determined in accordance with Regulation 25 (1B) or 25(7A) of the Construction Industry Development Regulations.
C.2.6	Failure to apply instructions contained in addenda may render a tenderer's offer non-responsive in terms of clause C.3.8.
C.2.7	The arrangements for a compulsory clarification meeting are as stated in the Tender Notice and Invitation to Tender. 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
C.2.8	Request clarifications at least 7 working days before the closing time.
C.2.12	Main tender offers are required to be submitted together with alternative tenders. 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.

Clause number	Tender Data
	Calculations, drawings and all other pertinent technical information and characteristics as well as modified or proposed Pricing Data must be submitted with the alternative tender offer to enable the Employer to evaluate the efficacy of the alternative and its principal elements, to take a view on the degree to which the alternative complies with the Employer's standards and requirements and to evaluate the acceptability of the pricing proposals. Calculations must be set out in a clear and logical sequence and must clearly reflect all design assumptions. Pricing Data must reflect all assumptions in the development of the pricing proposal. Acceptance of an alternative tender offer will mean acceptance in principle of the offer. It will be an obligation of the contract for the tenderer, in the event that the alternative is accepted, to accept full responsibility and liability that the alternative offer complies in all respects with the Employer's standards and requirements. The modified Pricing Data must include an amount equal to 5% of the amount tendered for the alternative offer to cover the Employer's costs in confirming the acceptability of the detailed design.
C.2.13.6	A two-envelope procedure will be followed as described in clause C.2.13.7.
C.2.13.7	Tenderers shall note the specific requirements for packaging of their tender documents and include only the following: • Financial: one (1) original document marked "Original" **including** Form of Offer and Acceptance, Estimated monthly expenditure and Priced Bills of Quantities; and • Technical: one (1) document pack **without any** pricing (files in PDF format) on a **memory stick** Financial or pricing details should **ONLY** be included in the printed document pack marked '**ORIGINAL**', and not in the PDF file(s) of the document(s) on the **memory stick**. **NB:** 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 **disqualified**. **INCLUSION OF ANY PRICING INFORMATION ANYWHERE ON THE MEMORY STICK WILL LEAD TO THE BID BEING DISQUALIFIED**. 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: • The address as stated in C.2.15.1 below • The identification details as stated in C.2.15.1 below • Name of the Tenderer • The words "Not be opened before the Tender opening" The Technical and Financial envelopes should also contain the details of the last three bullets on them. The financial envelope must contain the words NOT TO BE OPENED WITH THE TECHNICAL ENVELOPE
C.2.13.9	Telephonic, telegraphic, telex, facsimile or e-mailed tender offers will not be accepted.

Clause number	Tender Data
C.2.15.1	The Employer's address for delivery of tender offers and identification details to be shown on each tender offer package are: **Location of Tender box:** SANBI - Biodiversity Centre **Physical address:** Pretoria National Botanical Garden 2 Cussonia Avenue Brummeria Pretoria **Identification details:** **Tender number: SANBI : G453/2022** **Title of Tender:** **REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
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	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: (1) withdraws his tender; (2) gives notice of his inability to execute the contract in terms of his tender; or (3) fails to comply with a request made in terms of C.2.17, C.2.18 or C.3.9 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
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 **not be returned** to bidders
C.2.23	The tenderer is required to submit with his/her tender, the following **(failure to provide below documentation will result in the tender being rejected)**: 1) A copy of the Central Suppliers Database (CSD) registration report. 2) A printed copy of the Active Contractor's Listing off the CIDB website (www.cidb.org.za) 3) 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. 4) In the case of a Joint Venture/Consortium the tax Compliance status Pin must be submitted for each member of the Joint Venture/Consortium."
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 **Annexure A**.

Clause number	Tender Data
C.3.13	In addition to the requirements of the Condition of Tender, offers will only be accepted if: a) the tenderer submits **a copy of the CSD registration report or registration number** (refer to T2.1.13); b) the tenderer is registered with the Construction Industry Development Board in an appropriate contractor grading designation (refer to T2.1.12); c) 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; d) 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); e) the tenderer is registered and in good standing with the compensation fund issued by the Department of Labour (Letter of good standing with COIDA); f) 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. g) A copy of Tax Compliance Status Pin

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.

<table>
<tr><th colspan="3">FUNCTIONALITY CRITERIA</th></tr>
<tr><th>ID</th><th>CRITERIA</th><th>POINTS</th></tr>
<tr><td>1</td><td>Implementation method and project plan or programme
• Method to be followed in delivering this project
• Weekly plan/programme with milestones</td><td>25
(15)
(10)</td></tr>
<tr><td>2</td><td>Contractor’s Experience
• Three reference letters (from the client) regarding work of similar scope and scale completed in last three years
<table>
<tr><th>Sub-Criteria</th><th>Points</th></tr>
<tr><td>One reference letter</td><td>5</td></tr>
<tr><td>Two reference letters</td><td>10</td></tr>
<tr><td>Three reference letters or more</td><td>15</td></tr>
</table>
• List of at least five other similar projects with appointment letters, completion certificates and telephonic references indicating work of similar value completed in the last ten years
<table>
<tr><th>Sub-Criteria</th><th>Points</th></tr>
<tr><td>One Project</td><td>5</td></tr>
<tr><td>Two Projects</td><td>10</td></tr>
<tr><td>Three Projects</td><td>15</td></tr>
<tr><td>Four Projects</td><td>20</td></tr>
<tr><td>Five or more Projects</td><td>25</td></tr>
</table>
Notes:
Supporting documents required to support the claims above, (Corresponding orders/appointment letters, completion certificates and reference letters for projects must be submitted as proof). Bidders must submit all the requested documents as proof in order to be awarded the points.
• Both appointment letters and reference letters must be on the employer’s letterhead, dated and signed by the employer. The reference letters should highlight the scope of work completed in order to be awarded the points.
• Failure to complete and sign schedule of the tenderer`s experience will result in the bidder forfeiting these points.</td><td>40
(15)
(25)</td></tr>
<tr><td>3</td><td>Contractor's Resources – Personnel and Plant
Proposed personnel:</td><td>35</td></tr>
</table>

<table>
<tr><td></td><td>

- CV for proposed key personnel **(at least 3- Contracts Manager, Site Agent & OHS Officer)** indicating:
  - Previous work experience of similar projects
  - Total number of years' working experience in construction
  - Individual experience on similar work in last five years
  - Certified copies of Qualifications or artisan's certification or other recognised training courses completed
  - Valid Professional Registration for Contracts Manager (ECSA or SACPCMP) and OHS Agent (SACPCMP)

<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>

The Contracts Manager and Site Agent should have specific experience in line with the project (building and mechanical works) in order to be awarded the points.

Note: Each CV with 10 years or more experience will receive a maximum of 10 points.

Plant:

- Equipment owned by Contractor - registration documents
- Equipment to be rented (if any) – with preferred rental companies - letter of intent to hire

</td><td>(30)

(5)</td></tr>
<tr><td colspan="2">TOTAL</td><td>100</td></tr>
</table>

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 of 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:

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

3.3 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 complies 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

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 specific goals 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 specific goals. 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

(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.

The CIDB Standard Conditions of Tender are based on a procurement system that satisfies the following system requirements:	
Requirement	**Qualitative interpretation of goal**
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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

T2.1 List of Returnable Documents

1. RETURNABLE SCHEDULES REQUIRED FOR TENDER EVALUATION PURPOSES

Tender document name	Number of pages issued	Returnable document
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

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	■ Yes □ No
Medical Certificate for the confirmation of permanent disabled status (T2.1.11)	1 Page	■ Yes □ No
Proof of registration with Construction Industry Development Board (T2.1.12)	1 Page	■ Yes □ No
Copy of CSD Registration Certificate (T2.1.14)	1 Page	■ Yes □ No
Financial Reference (T2.1.15)	1 Page	■ Yes □ No
Equipment Datasheets (T2.1.20)	1 Page	■ Yes □ No
Proof of Liability Insurance (T2.1.19)	1 Page	■ Yes □ No
SBD 6.2 Local Content Declaration and Annexures B, C, D & E	7 Pages	■ Yes □ 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	■ Yes □ No
Compulsory Enterprise Questionnaire (T2.1.17)	3 Pages	■ Yes □ 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	■ Yes □ No
Priced Bill of Quantities	82 Pages	■ Yes □ No

C1.1 Offer portion of Form of Offer and Acceptance
C1.2 Contract Data (Part 2)
C1.3 Form of Guarantee

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	
T2.1.08	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	Proof of Liability Insurance	
SBD 8	Declaration of Bidder's Past Supply Chain Management Practices	
SBD 9	Certificate of Independent Quotation Determination	

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	

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

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.

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

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: .....

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			

	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.*

T2.1.04: SCHEDULE OF PROPOSED SUBCONTRACTORS

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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.

	Name and address of proposed Subcontractor	Nature and extent of work	Previous experience with Subcontractor
1			
2			
3			
4			

Name of representative	**Signature**	**Capacity**	**Date**
Name of organisation:			

T2.1.05: CAPACITY OF TENDERER

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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.)*

Skilled technicians employed		**Unskilled employees employed**	
Categories of technicians	**Number**	**Categories of employees**	**Number**

1.1. Provide full particulars of:

Machinery	**Equipment**	**Workshops**

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”.

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									

Name of Tenderer	**Signature**	**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”.

T2.1.06: PREFERENCE POINT SYSTEM

PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all tenders invited. It contains general information and serves as a claim form for preference points for specific goals.

NB: BEFORE COMPLETING THIS FORM, TENDERERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF THE TENDER AND PREFERENTIAL PROCUREMENT REGULATIONS, 2022

---

1. GENERAL CONDITIONS

1.1 The following preference point systems are applicable to invitations to tender:

- the 80/20 system for requirements with a Rand value of up to R50 000 000 (all applicable taxes included); and
- the 90/10 system for requirements with a Rand value above R50 000 000 (all applicable taxes included).

1.2 To be completed by the organ of state

(*delete whichever is not applicable for this tender*).

a) The applicable preference point system for this tender is the 90/10 preference point system.

b) The applicable preference point system for this tender is the 80/20 preference point system.

c) Either the 90/10 or 80/20 preference point system will be applicable in this tender. The lowest/ highest acceptable tender will be used to determine the accurate system once tenders are received.

1.3 Points for this tender (even in the case of a tender for income-generating contracts) shall be awarded for:

(a) Price; and

(b) Specific Goals.

1.4 To be completed by the organ of state:

The maximum points for this tender are allocated as follows:

	POINTS
PRICE	
SPECIFIC GOALS	
Total points for Price and SPECIFIC GOALS	**100**

1.5 Failure on the part of a tenderer to submit proof or documentation required in terms of this tender to claim points for specific goals with the tender, will be interpreted to mean that preference points for specific goals are not claimed.

1.6 The organ of state reserves the right to require of a tenderer, either before a tender is adjudicated or at any time subsequently, to substantiate any claim in regard to preferences, in any manner required by the organ of state.

2. DEFINITIONS

(a) **"tender"** means a written offer in the form determined by an organ of state in response to an invitation to provide goods or services through price quotations, competitive tendering process or any other method envisaged in legislation;

(b) **"price"** means an amount of money tendered for goods or services, and includes all applicable taxes less all unconditional discounts;

(c) **"rand value"** means the total estimated value of a contract in Rand, calculated at the time of bid invitation, and includes all applicable taxes;

(d) **"tender for income-generating contracts"** means a written offer in the form determined by an organ of state in response to an invitation for the origination of income-generating contracts through any method envisaged in legislation that will result in a legal agreement between the organ of state and a third party that produces revenue for the organ of state, and includes, but is not limited to, leasing and disposal of assets and concession contracts, excluding direct sales and disposal of assets through public auctions; and

(e) **"the Act"** means the Preferential Procurement Policy Framework Act, 2000 (Act No. 5 of 2000).

3. FORMULAE FOR PROCUREMENT OF GOODS AND SERVICES

3.1. POINTS AWARDED FOR PRICE

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

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

80/20 **or** **90/10**

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

Where

Ps = Points scored for price of tender under consideration

Pt = Price of tender under consideration

Pmin = Price of lowest acceptable tender

3.2. FORMULAE FOR DISPOSAL OR LEASING OF STATE ASSETS AND INCOME GENERATING PROCUREMENT

3.2.1. POINTS AWARDED FOR PRICE

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

80/20 **or** **90/10**

$$\boldsymbol{Ps = 80\left(1 + \frac{Pt - P\,max}{P\,max}\right)} \text{ or } \boldsymbol{Ps = 90\left(1 + \frac{Pt - P\,max}{Pmax}\right)}$$

Where

Ps	=	Points scored for price of tender under consideration
Pt	=	Price of tender under consideration
Pmax	=	Price of highest acceptable tender

4. POINTS AWARDED FOR SPECIFIC GOALS

4.1. In terms of Regulation 4(2); 5(2); 6(2) and 7(2) of the Preferential Procurement Regulations, preference points must be awarded for specific goals stated in the tender. For the purposes of this tender the tenderer will be allocated points based on the goals stated in table 1 below as may be supported by proof/ documentation stated in the conditions of this tender:

4.2. In cases where organs of state intend to use Regulation 3(2) of the Regulations, which states that, if it is unclear whether the 80/20 or 90/10 preference point system applies, an organ of state must, in the tender documents, stipulate in the case of—

(a) an invitation for tender for income-generating contracts, that either the 80/20 or 90/10 preference point system will apply and that the highest acceptable tender will be used to determine the applicable preference point system; or

(b) any other invitation for tender, that either the 80/20 or 90/10 preference point system will apply and that the lowest acceptable tender will be used to determine the applicable preference point system,

then the organ of state must indicate the points allocated for specific goals for both the 90/10 and 80/20 preference point system.

Table 1: Specific goals for the tender and points claimed are indicated per the table below.

(Note to organs of state: Where either the 90/10 or 80/20 preference point system is applicable, corresponding points must also be indicated as such.

Note to tenderers: The tenderer must indicate how they claim points for each preference point system.)

The specific goals allocated points in terms of this tender	Number of points allocated (90/10 system) (To be completed by the organ of state)	Number of points allocated (80/20 system) (To be completed by the organ of state)	Number of points claimed (90/10 system) (To be completed by the tenderer)	Number of points claimed (80/20 system) (To be completed by the tenderer)
Categories of persons historically disadvantaged by unfair discrimination on the basis of race Information will be verified on CSD report. Points will be allocated based on the percentage of ownership per goal - 100% black ownership = 10 points				
Categories of persons historically disadvantaged by unfair discrimination on the basis of gender. Information will be verified on CSD report. Points will be allocated based on the percentage of ownership per goal - 100% female ownership = 10 points				

DECLARATION WITH REGARD TO COMPANY/FIRM

4.3. Name of company/firm…….

4.4. Company registration number: ……...

4.5. TYPE OF COMPANY/ FIRM

- ☐ Partnership/Joint Venture / Consortium
- ☐ One-person business/sole propriety
- ☐ Close corporation
- ☐ Public Company
- ☐ Personal Liability Company
- ☐ (Pty) Limited
- ☐ Non-Profit Company
- ☐ State Owned Company

[TICK APPLICABLE BOX]

4.6. I, the undersigned, who is duly authorised to do so on behalf of the company/firm, certify that the points claimed, based on the specific goals as advised in the tender, qualifies the company/ firm for the preference(s) shown and I 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 4.2, the contractor may be required to furnish documentary proof to the satisfaction of the organ of state that the claims are correct;

iv) If the specific goals have been claimed or obtained on a fraudulent basis or any of the conditions of contract have not been fulfilled, the organ of state may, in addition to any other remedy it may have –

(a) disqualify the person from the tendering 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 tenderer or contractor, its shareholders and directors, or only the shareholders and directors who acted on a fraudulent basis, be restricted 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, if deemed necessary.

……
SIGNATURE(S) OF TENDERER(S)

SURNAME AND NAME: …….
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.

DESIGNATION	NAME AND NATIONALITY OF: (i) NOMINEE (ii) ALTERNATE	SUMMARY OF QUALIFICATIONS, EXPERIENCE AND PRESENT OCCUPATION
<u>HEADQUARTERS</u> Partner/Director Project manager Other key staff (give designation)		

DESIGNATION	NAME AND NATIONALITY OF: (i) NOMINEE (ii) ALTERNATE	SUMMARY OF QUALIFICATIONS, EXPERIENCE AND PRESENT OCCUPATION
SITE OFFICE Site Agent Site Engineer/Technician Construction supervisor (give designation) Other key staff (give designation)		

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 .....
4	R .....
5	R .....
6	R .....
7	R .....
8	R .....
9	R .....
10	R .....
	COMPLETION OF CONTRACT
TOTAL	R .....

T2.1.10: DECLARATION OF INTEREST

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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.

   _____

   _____

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.

   _____

   _____

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.

_____

_____

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

COMMISSIONER OF OATHS

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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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.....

OFFICIAL STAMP OF
MEDICAL PRACTITIONER

.....
Signature

.....
Date

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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

The Tenderer shall provide a printed copy of the Active Contractor's Listing off the CIDB website. (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: .....

T2.1.14: COPY OF CSD REGISTRATION CERTIFICATE

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUMSANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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

T2.1.15: FINANCIAL REFERENCES

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUMSANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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

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

T2.1.16: RECORD OF ADDENDA TO TENDER DOCUMENTS

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUMSANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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)*

	Date	Title or Details
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:

- □ a member of any municipal council
- □ a member of any provincial legislature
- □ a member of the National Assembly or the National Council of Province
- □ a member of the board of directors of any municipal entity
- □ an official of any municipality or municipal entity
- □ 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)
- □ a member of an accounting authority of any national or provincial public entity
- □ an employee of Parliament or a provincial legislature

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:

- □ a member of any municipal council
- □ a member of any provincial legislature
- □ a member of the National Assembly or the National Council of Province
- □ a member of the board of directors of any municipal entity
- □ an official of any municipality or municipal entity
- □ 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)
- □ a member of an accounting authority of any national or provincial public entity
- □ an employee of Parliament or a provincial legislature

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.

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: .....

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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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.

T2.1.19: PROOF OF LIABILITY INSURANCE

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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

SBD 6.2

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 at no cost.

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

2. 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:

Description of services, works or goods **Stipulated minimum threshold**
BUILDING WORK:
Floor coverings, wall linings, etc **100%- 2 items**

Item No.	**Description of services, works or goods**	Unit	Quantity	Stipulated minimum threshold
	FLOOR COVERINGS			
	2mm Thick FloorworX Elite PUR Classic fully flexible vinyl floor tiles colour Light Grey			
1	**On floors**	**m²**	**1 118**	**100%**
	SKIRTINGS, NOSINGS, ETC			
2	**15 x 110mm High skirting**	**m**	**185**	**100%**
3	**10 x 10mm Aluminium trims**	**m**	**551**	**100%**

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

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

Currency	**Rates of exchange**
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

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

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.

5. Only locally produced or locally manufactured cement (for all civil and building construction) with the stipulated minimum threshold for local production and content will be considered.

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.**
NB

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thdti.gov.za/industrial development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, ……..... (full names),
do hereby declare, in my capacity 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.

(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:** _____

ANNEXURE C	**SATS 1286.2011**
Local Content Declaration – Summary Schedule	

NOTE: VAT to be excluded from all calculations

***(C1)* Tender No.**	**: G453/2022**			
***(C2)* Tender Description**	Renovations and Upgrades To The National Herbarium For SANBI at the Pretoria National Botanical Garden, Pretoria			
***(C3)* Designated product(s)**	FLOOR COVERINGS & SKIRTINGS, NOSINGS, ETC			
***(C4)* Tender Authority**	SANBI			
***(C5)* Name of Tendering Entity**				
***(C6)* Tender Exchange Rate**	**Currency**		**Rate**	
***(C7)* Specified local content %**				

		Calculation of local content						Tender summary			
Tender Item No's	***List of Items***	***Tender Price – each***	***Exempted imported value***	***Tender value net of exempted imported content***	***Imported value***	***Local value***	***Local content % (per item)***	***Tender Quantity***	***Total tender value***	***Total exempted imported content***	***Total imported content***
(C8)	***(C9)***	***(C10)***	***(C11)***	***(C12)***	***(C13)***	***(C14)***	***(C15)***	***(C16)***	***(C17)***	***(C18)***	***(C19)***
1	2mm Thick FloorworX Elite PUR Classic fully flexible vinyl floor tiles colour Light Grey: On floors						100%	1 118 m²			
2	15 x 110mm High skirting						100%	185m			
3	10 x 10mm Aluminium trims						100%	551m			

***(C20)* Total tender value**	
***(C21)* Total Exempt imported content**	
(C22) Total Tender value net of exempt imported content	
***(C23)* Total Imported content**	
***(C24*) Total local content**	
***(C25)* Average local content % of tender**	

SIGNATURE OF TENDERER AS PER LOCAL CONTENT DECLARATION

DATE

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

(D1)	**Tender No.**	**: G453/2022**			
(D2)	**Tender Description**	Renovations and Upgrades TO THE NATIONAL HERBARIUM FOR SANBI at The Pretoria National Botanical Garden, Pretoria			
(D3)	**Designated product(s)**				
(D4)	**Tender Authority**	SANBI			
(D5)	**Tendering Entity's Name**				
(D6)	**Tender Exchange Rate**	**Currency**		**Rate**	

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)***

***(D19)* Total exempt imported value** _____

This total must correspond with Annex C – C21

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** | |

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

***(E1)* Tender No.**	**: G453/2022**	**NOTE: VAT to be excluded from all calculations**
***(E2)* Tender Description**	Renovations and Upgrades TO THE NATIONAL HERBARIUM FOR SANBI at The Pretoria National Botanical Garden, Pretoria	
***(E3)* Designated product(s)**		
***(E4)* Tender Authority**	SANBI	
***(E5)* Tendering Entity's Name**		

LOCAL PRODUCTS (Goods, Services and Works)		
Description of items purchased	**Local suppliers**	**Value**
(E6)	***(E7)***	***(E8)***
2mm Thick FloorworX Elite PUR Classic fully flexible vinyl floor tiles colour Light Grey: On floors		
15 x 110mm High skirting		
10 x 10mm Aluminium trims		
***(E9)* Total local products (Goods, service and works)**		

***(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? (Companies or persons who are listed on this database were informed in writing of this restriction by the National Treasury after the *audi alteram partem* rule was applied).	Yes ☐	No ☐
4.1.1	If so, furnish particulars:		
4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? **To access this Register enter the National Treasury's website, www.treasury.gov.za, click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445.**	Yes ☐	No ☐
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 ☐	No ☐
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 ☐	No ☐
4.4.1	If so, furnish particulars:		

SBD 8

CERTIFICATION

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

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

……	……
Signature	Date
……	……
Position	Name of Bidder

SBD 9

CERTIFICATE OF INDEPENDENT QUOTATION DETERMINATION

1 This Standard Bidding Document (SBD) must form part of all quotations[1] 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).[2] 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:

[1] Includes price quotations, advertised competitive bids, limited bids and proposals.

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

SBD 9

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

: G453/2022: REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA
(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[3] 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;

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"

(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.

[3] 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 RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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 RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA

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 .....

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]

Acceptance

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

The terms of the Contract are contained in

Part C1	Agreements and Contract Data *[which includes this Agreement]*
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 .....

.....

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.

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 .....

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

PART C: THE CONTRACT

Part C1: Agreement and Contract Data

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**: G453/2022**

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.

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 quality 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]

TABLE OF CONTENTS

Section No.	Description
1.0	CONTRACTING AND OTHER PARTIES
2.0	CONTRACT AND SITE INFORMATION
3.0	INSURANCES AND SECURITIES
4.0	PRACTICAL COMPLETION DATES AND PENALTIES
5.0	DOCUMENTS AND GENERAL
6.0	CHANGES MADE TO THE STANDARD JBCC DOCUMENT
7.0	DECLARATION BY THE PRINCIPAL AGENT

CONTRACT DATA – EMPLOYER

1.0 CONTRACTING AND OTHER PARTIES

1.1 *[1.2]*	**Employer:**	South African National Biodiversity Institute		
	Postal Address:	Private Bag X101, Silverton, Gauteng	**Code:**	0184
	Physical Address:	Pretoria National Botanical Garden 2 Cussonia Avenue, Brummeria, Gauteng	**Code:**	0184
	Tel no.:	012 843 5000	**Fax no.:**	012 843 5205
	VAT no.			
	E-mail:			
1.2 *[5.1]*	**Principal Agent:**	ZAS Architects & Planners	**Person:**	Mr. Zayn Shaikh
	Postal Address:	P.O. Box 84260, Greenside	**Code:**	2034
	Tel no.:	011 486 4103	**Fax no.:**	086 515 1833
	E-mail:	zayn@splace.co.za		
1.2 *[5.2]*	**Agent (1):**		**Person:**	
	Agent's Service:			
	Postal Address:		**Code:**	
	Tel no.:		**Fax no.:**	
	E-mail:			
1.3 *[5.2]*	**Agent (2):**			
	Agent's Service:			
	Postal Address:		**Code:**	
	Tel no.:		**Fax no.:**	
	E-mail:			
1.4 *[5.2]*	**Agent (3):**		**Person:**	
	Agent's Service:			
	Postal Address:		**Code:**	
	Tel no.:		**Fax no.:**	
	E-mail:			
1.5 *[5.2]*	**Agent (4):**		**Person:**	
	Agent's Service:			
	Postal Address:		**Code:**	
	Tel no.:		**Fax no.:**	

E-mail: _____

1.6 *[5.2]*

Agent (5): _____ **Person:** _____
Agent's Service: _____
Postal Address: _____ **Code:** _____
Tel no.: _____ **Fax no.:** _____
E-mail: _____

1.7 *[5.2]*

Agent (6): _____ **Person:** _____
Agent's Service: _____
Postal Address: _____ **Code:** _____
Tel no.: _____ **Fax no.:** _____
E-mail: _____

1.8 *[5.2]*

Agent (7): _____ **Person:** _____
Agent's Service: _____
Postal Address: _____ **Code:** _____
Tel no.: _____ **Fax no.:** _____
E-mail: _____

1.9 *[5.5]* **Interest of principal agent or other agent in the project.** (Yes / No) **No**

Details where "yes": **N/A**

2.0 CONTRACT AND SITE INFORMATION

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

2.2 *[1.1]* **Works** identification: **THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**

2.3 *[1.1]* Site description: **Pretoria National Botanical Garden**

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

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.**

2.5 *[15.3]* Period for the commencement of the **works** after the contractor takes possession of the **site:** (Working days) **5 (Five)**

2.6 *[15.4]* , Completion of the works in **sections** is required. (Yes / No) **No** (No. of sections) **N/A**

[28.0]			
2.7 *[3.3], [31.1 6.2]*	Waiver of the **contractor's** lien or right of continuing possession is required.	(Yes / No)	**Yes**
2.8 *[16.1]*	Defined restrictions to the **site** area. Where "yes" the specific requirements are described below or detailed in the **contract documents**.	(Yes / No)	**Yes**
2.9 *[16.4]*	Geotechnical investigation of the **site** has been undertaken. Where "yes" the results are included in the **contract documents.**	(Yes / No)	**N/A**
2.10 [16.6]	Existing premises will be occupied. Where "yes" the specific requirements are described below or detailed in the **contract documents.**	(Yes / No)	**Yes**
2.11 *[16.7]*	Provision of temporary services is required. Where "yes" the specific requirements are described below or detailed in the **contract documents.**	(Yes / No)	**Yes**
2.11.1 **Water**	Option A Contractor – his cost Option B Employer – free of charge Option C Contractor – metered (contractor cost)	(A, B or C)	**A**
2.11.2 **Electricity**	Option A Contractor – his cost Option B Employer – free of charge Option C Contractor – metered (contractor cost)	(A, B or C)	**A**
2.11.3 **Telecom**	Option A Contractor – his cost Option B Employer – free of charge Option C Contractor – metered (contractor cost)	(A, B or C)	**A**
2.11.4 **Ablutions**	Option A Contractor – his cost Option B Employer – free of charge Option C Contractor – metered (contractor cost)	(A, B or C)	**A**
2.12 *[16.8]*	Protection of existing trees and shrubs is required. Where "yes" the specific requirements are described below or detailed in the **contract documents.**	(Yes / No)	**Yes**

3.0 INSURANCE AND SECURITIES

3.1 *[10.1.1], [12.6]*	Contract works insurance to be effected by:	(Employer / Contractor)	**Contractor**
	For the sum of:	(Amount)	**Contract Sum Plus 20%**

	With a deductible of:	(Amount)	**R20 000**
3.2 *[10.1.2], [11.1-3], [12.6]*	Supplementary / Special insurance to be effected by:	(Employer / Contractor)	**N/A**
	For the sum of:		
	With a deductible of:	(Amount)	**N/A**
3.3 *[10.1.3], [12.6]*	Public liability insurance to be effected by:	(Employer / Contractor)	**Contractor**
	For the sum of:	(Amount)	**R5 000 000 per claim**
	With a deductible of:	(Amount)	**R20 000**
3.4 *[11.1.1]*	Support insurance to be effected by:	(Employer / Contractor)	**N/A**
	For the sum of:	(Amount)	**N/A**
	With a deductible of:	(Amount)	**N/A**
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

		Date	Penalty Amount
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:	**9 months (incl Builders Holiday) after possession of the site**	**R3 000-00 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**
5.3 *[3.10]*	The **contractor** shall provide a schedule of rates.	(Yes / No)	**No**	(Addendum No.)	**Refer to Bill of Quantities**
5.4 *[3.11]*	Changes made to **JBCC** standard documents.	(Yes / No)	**Yes**	(Addendum No.)	**Refer to Point 6 below**
5.5 *[15.1.1]*	On acceptance of the tender the **priced document** is to be submitted within the stated **working days.**			(No. of days)	**Priced document to be submitted with Tender**
5.6 *[22.2]*	Work to be undertaken by **direct contractors.**	(Yes / No)	**No**	(Addendum No.)	**N/A**
5.7 *[24.9]*	On achievement of practical completion the **contractor** is to hand over all certificates and manuals etc. related to the works.				
5.8 *[31.1]*	Interim **payment certificate** to be issued by:			(Date of Month)	**25th**

5.8 *[4.1]* The following items of works shall be designed by the Contractor:

(1)	Roof structure/ trusses to roof slab	(2)	Purpose made skylight
(3)	Cladding of ducts with Alu – Panels	(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**.

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 affect 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]

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.

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

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

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

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

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

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

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 *[34.2]* *Add the following clause:*

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 *[34.5]* *Add the following:*

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

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

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 *[34.10]* 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.

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

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

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

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

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

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 *[39.2]* *Add the following clause:*

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 *[39.2.1]* *Add the following clause:*

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

6.43 *[39.2.2]* *Add the following clause:*

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

6.43 *[39.2.3]* *Add the following clause:*

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.

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 quality 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]*

TABLE OF CONTENTS

Section No.	Description
1.0	CONTRACTING PARTY
2.0	SECURITIES
3.0	PAYMENT AND ADJUSTMENT OF PRELIMINARIES
4.0	EMPLOYER CHANGES TO JBCC STANDARD DOCUMENTS
5.0	THE TENDER

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 ad 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 **contract value** shall be adjusted according **CPAP** [3.1]	(Yes / No)	**No**
3.2.5	Payment of preliminaries [3.1.1-2]	(A or B)	
3.2.6	Adjustment of preliminaries [3.2.1-2]	(A or B)	

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)	**Yes. Refer to EC 6**

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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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
Silveron
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 : G453/2023** for **REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA** (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.

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 aforegoing, 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 : G453/2023** for **REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**

(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.

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 aforegoing, 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)

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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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

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.

PART C: THE CONTRACT

Part C2: Pricing Data and Bill of Quantities

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
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C2.1 Pricing Instructions 103

C2.2 Bill of Quantities 105

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 RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

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.

PART C: THE CONTRACT

Part C2: Pricing Data and Bill of Quantities

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

C2.2 Bill of Quantities

C2.2 Bill of Quantities

CONTENTS

SECTION NO. 1 PRELIMINARIES & GENERAL
SECTION NO.2 BUILDING WORK
SECTION NO.3 FIRE & MECHANICAL WORK
SECTION NO.4 ELECTRICAL WORK
SECTION NO.5 PROVISIONAL SUMS
FINAL/ MAIN SUMMARY

SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE

Contract No: SANBI : G453/2022

REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA

C2.2 Bill of Quantities

CONTENTS

SECTION NO. 1 PRELIMINARIES & GENERAL
SECTION NO.2 BUILDING WORK
SECTION NO.3 FIRE & MECHANICAL WORK
SECTION NO.4 ELECTRICAL WORK
SECTION NO.5 PROVISIONAL SUMS

SECTION NO. 1 PRELIMINARIES & GENERAL

ITEM NO	SANBI Biodiversity for Life South African National Biodiversity Institute	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 1				
	BILL NO. 1				
	PRELIMINARIES				
	BUILDING AGREEMENT AND PRELIMINARIES				
	NOTES i) The Agreement is to be the form of offer and acceptance (agreement) C 1.1 of bid document and JBCC Series 2000 Principal Building Agreement, Edition 5.0, July 2007, including Contract Data CE and EC and all other JBCC support documentation that together form the contract between the Employer and Contractor				
	ii) The Preliminaries are to be the JBCC Series 2000 Preliminaries, May 2005 as amended for use with the JBCC Principal Building Agreement and shall be deemed to be incorporated herein				
	iii) 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				
	iv) Where standard clauses or options are not applicable to this contract such modifications, or corrections as, are necessary are given under each relevant clause				
	v) Where any items are not relevant to this specific Agreement such items are marked NOT APPLICABLE in the amount column (N/A)				
	vi) Option A as set out in clause B10.3.1 hereinafter, is to be used for the adjustment of the preliminaries. Each item priced is to be allocated to one or more of the three categories, where "F" denotes a fixed amount (amount which shall not be varied), "V" denotes an amount which shall be varied in proportion to the contract value as compared with the contract sum and "T" denotes an amount which shall be varied in proportion to the contract period.				
	vii) Items not priced in these preliminaries shall be deemed to be included elsewhere and as priced as such				
	viii) Should there be any discrepancy between these Preliminaries and the Agreement, these Preliminaries shall take precedence				
	SECTION A: PRINCIPAL BUILDING AGREEMENT				
	DEFINITIONS (A1)				
1	Definitions and interpretation (clause 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).				

ITEM NO	SANBI Biodiversity for Life South African National Biodiversity Institute	UNIT	QUANTITY	RATE	AMOUNT
	F:..... V:..... T:.....	Item	1		R -
	OBJECTIVE AND PREPARATION (A2 TO A14)				
2	Offer, acceptance and performance obligations (clause 2) F:..... V:..... T:.....	Item	1		R -
3	Documents (clause 3) [3.6] Replace the last sentence with the following: The original signed set of contract documents shall be held by the Employer. F:..... V:..... T:.....	Item	1		R -
4	Design responsibility (clause 4) [4.1] Replace the clause with the following: The following items of works shall be designed by the Contractor: (1) Roof structure/ trusses to roof slab (2) Purpose made skylight (3) Cladding of ducts with Alu – Panels F:..... V:..... T:.....	Item	1		R -
5	Employer's agents (clause 5) [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. F:..... V:..... T:.....	Item	1		R -
6	Contractors site representative (clause 6) F:..... V:..... T:.....	Item	1		R -
7	Compliance with regulations (clause 7) Occupational Health and Safety Act, 1993 as amended Without limiting the generality of the provisions of clause 7.1 of the Agreement, the Contractor's attention is drawn to the provisions of the Construction Regulations, 2003 issued in terms of the Occupational Health and Safety Act, 1993.The Contractor is to enter into an agreement with the Employer in which it is specifically stated that the Employer shall prepare a documented Health and Safety specification for the works (refer to Health & Safety Specification attached to this BoQ) and to ensure that the contractor has made provision for the cost of health and safety measures prescribed during the execution of the Works F:..... V:..... T:.....	Item	1		R -
8	Works risk (clause 8) [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. F:..... V:..... T:.....	Item	1		R -

ITEM NO	SANBI Biodiversity for Life South African National Biodiversity Institute	UNIT	QUANTITY	RATE	AMOUNT
9	Indemnities (clause 9) 9.3]Add the following clause: The Employer's rights to claim damages for the Contractor's omissions and actions will not be affected. F:..... V:..... T:.....	Item	1		R -
10	General insurances (clause 10) [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] F:..... V:..... T:.....	Item	1		R -
11	Special insurances (clause 11) [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 affect 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. 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 F:..... V:..... T:.....	Item	1		R -
12	Effecting insurances (clause 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] [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. F:..... V:..... T:.....	Item	1		R -
13	Assignment (Clause 13) F:..... V:..... T:.....	Item	1		R -
14	Security (clause 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 This clause shall be amended as follows 14.9 Such selected security shall be provided within fourteen (14) calendar days of written acceptance of the contractor's tender 14.10 The employer reserves the right to reject a construction guarantee if, in the opinion of the employer, the guarantor is	Item	1		R -

ITEM NO	SANBI Biodiversity for Life South African National Biodiversity Institute	UNIT	QUANTITY	RATE	AMOUNT
	not accredited F:..... V:..... T:.....				
	EXECUTION (A15 TO A23)				
15	Preparation for and execution of the Works (clause 15) [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] F:..... V:..... T:.....	Item	1		R -
16	Site and access (clause 16) F:..... V:..... T:.....	Item	1		R -
17	Contract instructions (clause 17) In addition to the provisions of sub-clause 17.3, contract instructions are to be recorded in triplicate in a contract instruction book, which is to be supplied and maintained on site by the Contractor F:..... V:..... T:.....	Item	1		R -
18	Setting out of the Works (clause 18) The Contractor shall notify the Principal Agent if any encroachments of adjoining foundations, buildings, structures, pavements, boundaries, etc. exist in order to make the necessary arrangements for the rectification of any such encroachments F:..... V:..... T:.....	Item	1		R -
19	Temporary works and plant (clause 19) F:..... V:..... T:.....	Item	1		R -
20	Nominated Subcontractors (clause 20) In addition to the provisions of sub-clause 20.1.2, the Contractor shall, at any time on being requested to do so by the Principal Agent, furnish a copy of the JBCC Nominated Subcontract Agreement to the Employer, within five (5) working days of such request F:..... V:..... T:.....	Item	1		R -
21	Selected Subcontractors (clause 21) In addition to the provisions of sub-clause 21.1.3, the Contractor shall, at any time on being requested to do so by the Principal Agent, furnish a copy of the JBCC Selected Subcontract Agreement to the Employer, within five (5) working days of such request F:..... V:..... T:.....	Item	1		R -
22	Employer's Direct Contractors (clause 22) F:..... V:..... T:.....	Item	1		R -
23	Contractor's Domestic Subcontractors (Clause 23) In addition to the provisions of sub-clause 23.1, the Contractor shall, at any time on being requested to do so by the Principal	Item	1		R -

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	Agent, furnish a copy of the Domestic Subcontract Agreement to the Employer, within five (5) working days of such request F:..... V:..... T:..... COMPLETION (A24 TO A30)				
24	Practical completion (clause 24) F:..... V:..... T:.....	Item	1		R -
25	Works completion (clause 25) [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: [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. [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. F:..... V:..... T:.....	Item	1		R -
26	Final completion (clause 26) [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. [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: [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. F:..... V:..... T:.....	Item	1		R -
27	Latent defects liability period (clause 27) [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.	Item	1		R -

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	[27.2] Replace the clause with the following: 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. F:..... V:..... T:.....				
28	Sectional completion (clause 28) F:..... V:..... T:.....	Item	1		R -
29	Revision of date for practical completion (clause 29) F:..... V:..... T:.....	Item	1		R -
30	Penalty for late or non-completion (clause 30) F:..... V:..... T:.....	Item	1		R -
	PAYMENT (A31 TO A35)				
31	Interim payment (clause 31) [31.4.2] Replace the clause with the following: A reasonable estimate of the value of materials and goods in terms of [31.6] unless the Employer elects not to pay for such. [31.9] Replace the clause with the following: 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. [31.11.2] Replace the last sentence with the following: 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 [31.12] Replace the clause with the following: 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). F:..... V:..... T:.....	Item	1		R -
32	Adjustment to the contract value (clause 32) F:..... V:..... T:.....	Item	1		R -
33	Recovery of expense and loss (clause 33) F:..... V:..... T:.....	Item	1		R -
34	Final account and final payment (clause 34) [34.1] Replace the clause with the following: 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.	Item	1		R -

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	[34.2] Add the following clause: 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] [34.5] Add the following: The final payment certificate shall be issued by the Employer. [34.9] Replace the clause with the following: 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. [34.10] 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. [34.12] Replace the last sentence with: 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). F:..... V:..... T:.....				
35	Payment to other parties (clause 35) F:..... V:..... T:.....	Item	1	R	-
	TERMINATION (A36 TO A39)				
36	Termination by Employer - Contractor's default (clause 36) [36.1] Replace the clause with the following: The Employer may, without prejudice of any other rights available to him, cancel this agreement where the Contractor: [36.2] Replace the clause with the following: 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. F:..... V:..... T:.....	Item	1	R	-
37	Termination by Employer - loss and damage (clause 37) [37.2] Replace the clause with the following: 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. F:..... V:..... T:.....	Item	1	R	-
38	Termination by Contractor - Employer's default (clause 38) F:..... V:..... T:.....	Item	1	R	-
39	Termination - cessation of the Works (clause 39) [39.2] Add the following clause: 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: [39.2.1] Add the following clause: An amount not exceeding ten per cent (10%) of the contract sum.	Item	1	R	-

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	[39.2.2] Add the following clause: Ten per cent (10%) of the value of incomplete work.				
	[39.2.3] Add the following clause: The Contractor's actual damage or loss as determined by the Employer after receipt of evidence substantiating any such damage or loss. F:..... V:..... T:.....				
	DISPUTE (A40)				
40	Settlement of disputes (clause 40)	Item	1	R	-
	40.2.2] Replace the clause with the following: 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. F:..... V:..... T:.....				
	CONTRACT AGREEMENT (A41)				
	POST TENDER PROVISIONS				
41	Post tender provisions (clause 41) The contractor is to complete and submit with his tender the JBCC Principal Building Agreement Contract Data CE F:..... V:..... T:.....	Item	1	R	-
	41.1 Information provided				
	Clause applicable				
	41.2 Contract data				
	Clause applicable				
	41.3 Dispute resolution body				
	Clause applicable				
	41.4 Payment guarantee				
	Clause not applicable employer shall not provide payment guarantee				
	41.5 Building industry holiday				
	Clause not applicable				
	41.6 Further provisions				
	Clause applicable				
	CONTRACT DATA CE				
	1.0 Contracting party				
	Clause applicable				
	2.0 Securities				
	Applicable as amended in accordance with clause 14				
	3.0 Payment and adjustment of preliminaries				
	3.1 Payment of preliminaries				
	Option B applicable (clause 3.2.5)				

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	3.2 Adjustment of preliminaries				
	Option A applicable (clause 3.2.6)				
	3.2.3 Payment certificate, cash flow				
	Clause applicable				
	3.2.4 Contract value adjustment				
	The contract value shall not be adjusted				
	Accordingly to CPAP (3.11).				
	Base month N/A				
	3.2.5 Payment of preliminaries				
	Option B applicable				
	3.2.6 Adjustment of preliminaries				
	Option A applicable				
	4.0 Employer charges to JBCC Standard Documents				
	4.1 Clause applicable				
	5.0 Tender				
	5.1 - 5.8.6 Tender and bid sum to be calculated in terms of the conditions and offer in the bid documents.				
	Tender shall remain in full legal force for (120) calendar days				
	CONTRACTUAL AGREEMENT (A42)				
42	Clause 42.0 - Contractual agreement	Item	1	R	-
	The required information of the parties and the amount of the contract sum shall be inserted in the agreement for signature of the agreement by the parties				
	F:..... V:..... T:.....				
	42.1. Agreement				
	Clause applicable				
	42.2 Contracting parties				
	Employer: South African National Biodiversity Institute				
	Pretoria National Botanical Garden 2 Cussonia Avenue, Brummeria, Gauteng				
	Tel 012 843 5000..... Fax 012 843 5205.....				
	42.3 Contract sum				
	Clause applicable				
	42.4 Signature of parties				
	Clause applicable				

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	CONTRACT DATA EC 1.0 Contracting and other parties 1.1 Employer: Employer: South African National Biodiversity Institute Pretoria National Botanical Garden 2 Cussonia Avenue, Brummeria, Gauteng 1.2 Principal Agent: ZAS Architects & Planners 42.1.2 Principal Agent: ZAS Architects & Planners 1.3-1.8 As nominated by employer Clause applicable 1.9 Interest of agents Clause applicable-No interest 1.10 Contract data schedule Clause applicable 2.0 Contract and site information 2.1 The law applicable to this agreement: RSA 2.2 Works identification 2.2 THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA Building 2.3 Site description 2.3.1 Pretoria National Botanical Garden 2.4 Possession of the site is to be given 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. 2.5 Period for the commencement of the works after the contractor takes possession of the site Within five (5) working days 2.6 Completion of the in sections is required No 2.7 Waiver of the contractor's lien or right of continuing possession is required Yes 2.8 Defined restrictions to site areas. Yes. As described in Bills of Quantities				

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	Where applicable 2.9 Geotechnical investigation of the site has been taken. Yes 2.10 Existing premises will be occupied YesNo. As described in Bill of Quantities Where applicable 2.11 Provision of temporary services is required Yes 2.11.1 Water Option A Contractor-his cost 2.11.2 Electricity Option A Contractor-his cost 2.11.3 Telecom Option A Contractor-his cost 2.11.4 Ablutions Option A Contractor-his cost 2.12 Protection of existing trees and shrubs is required Yes. As described in Bill of Quantities Where applicable 3.0 Insurances and Securities 3.1 Contract works insurance to be effected by the contractor for the sum of contract sum plus 20% with a deductible R20 000 of the above insured amount. 3.2 Supplementary/ Special insurance to be effected by the contractor : N/A 3.3 Public liability insurance to be effected by the contractor for the sum R5,000 000,00 with a deductible of R20 000,00 3.4 Support insurance to be effected by the employer. Not required 3.5 Special insurance to be effected by. [11.1.2-3, 12.1] Not Required 4.0 PRACTICAL COMPLETION DATES AND PENALTIES 4.1 For the works as a whole: Within 9 months (incl Builders Holiday) after possession of the site The penalty per calendar day, R3000,00 (VAT Inclusive) 4.2 For the work in sections. Not applicable 5.0 DOCUMENTS AND GENERAL				

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	5.1 Construction document copies to be supplied to the contractor free of charge Three (3) 5.2 The priced document may be used as a specification of materials and goods and work methods. Yes 5.3 The contractor shall provide a schedule of rates. Yes 5.4 Changes made to JBCC standard documents. Yes as listed in preliminaries bill 5.5 On acceptance of the tender the priced document is to be submitted within the stated working days Documents submitted with bid. 5.6 Work to be undertaken by direct contractors No 5.7 On achievement of practical completion the contractor is to hand over manuals etc. related to the works as listed by principal agent 5.8 Interim payment certificate to be issued by 25 day of each month 6.0 CHANGES MADE TO THE STANDARD JBCC DOCUMENT Changes made detailed in preliminaries section of the Bill of Quantities 7.0 DECLARATION BY THE PRINCIPAL AGENT Clause applicable SECTION B: PRELIMINARIES DEFINITIONS AND INTERPRETATION (B1)				
44	Definitions and interpretation (B1.1 to B1.4.6) F:..... V:..... T:.....	Item	1	R	-
	DOCUMENTS (B2)				
45	Checking of documents (B2.1) F:..... V:..... T:.....	Item	1	R	-
46	Provisional bills of quantities (B2.2) See Schedule of Variables (B12) F:..... V:..... T.....	Item	1	R	-
47	Availability of construction documentation (B2.3) Construction documentation is not complete See Schedule of Variables (B12) F:..... V:..... T:.....	Item	1	R	-
48	Interests of agents (B2.4)	Item	1	R	-

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	See Schedule of Variables (B12) F:..... V:..... T:.....				
49	Priced documents (B2.5) Price documents to be submitted with all bid documents issued Notwithstanding the provisions of this clause, the contractor shall deposit/submit the priced documents within the time as stated in 5.5 of the Data EC Rates (items) Where appropriate, rates for similar items in these bills of quantities should be the same Prior to signing of the Principal Building Agreement the Principal Agent shall be at liberty to make such adjustments to individual rates, whether they are Subcontractor's rates or not, as well as eliminate errors or discrepancies or which he considers to be imbalanced, unreasonable or unrealistic rates, without altering the tender sum F:..... V:..... T:.....	Item	1		R -
50	Tender submission (B2.6) This clause is amended by substituting "JBCC Form of Tender" with "Official Form of Tender": F:..... V:..... T:.....	Item	1		R -
	THE SITE (B3)				
51	Defined works area (B3.1) See Schedule of Variables (B12) F:..... V:..... T:.....	Item	1		R -
52	Geotechnical investigation (B3.2) See Schedule of Variables (B12) F:..... V:..... T:.....	Item	1		R -
53	Inspection of the site (B3.3) F:..... V:..... T:.....	Item	1		R -
54	Existing premises occupied (B3.4) See Schedule of Variables (B12) F:..... V:..... T:.....	Item	1		R -
55	Previous work - dimensional accuracy (B3.5) F:..... V:..... T:.....	Item	1		R -
56	Previous work - defects (B3.6) F:..... V:..... T:.....	Item	1		R -
57	Services - known (B3.7) See Schedule of Variables (B12)	Item	1		R -

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	F:..... V:..... T:.....				
58	Services - unknown (B3.8)	Item	1		R -
	F:..... V:..... T:.....				
59	Protection of trees (B3.9)	Item	1		R -
	See Schedule of Variables (B12)				
60	F:..... V:..... T:.....				
	Articles of value (B3.10)	Item	1		R -
	F:..... V:..... T:.....				
61	Inspection of adjoining properties (B3.11)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
	MANAGEMENT OF CONTRACT (B4)				
62	Management of the Works (B4.1)	Item	1		R -
	The Contractor shall obtain all necessary particulars of Subcontractors' work timeously so that provision for recesses, chases, holes, etc. can be made				
	F:..... V:..... T:.....				
63	Programming for the Works (B4.2)	Item	1		R -
	F:..... V:..... T:.....				
64	Progress meetings (B4.3)	Item	1		R -
	F:..... V:..... T:.....				
65	Technical meetings (B4.4)	Item	1		R -
	F:..... V:..... T:.....				
66	Labour and plant records (B4.5)	Item	1		R -
	F:..... V:..... T:.....				
	SAMPLES, SHOP DRAWINGS AND MANUFACTURERS INSTRUCTIONS (B5)				
67	Samples of materials (B5.1)	Item	1		R -
	F:..... V:..... T:.....				
68	Workmanship samples (B5.2)	Item	1		R -
	F:..... V:..... T:.....				
69	Shop drawings (B5.3)	Item	1		R -
	F:..... V:..... T:.....				
	TEMPORARY WORKS AND PLANT (B6)				
70	Deposits and fees (B6.1)	Item	1		R -
	F:..... V:..... T:.....				
71	Enclosure of the works (B6.2)	Item	1		R -

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	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
72	Advertising (B6.3)	Item	1		R -
	Advertisements on the hoarding or elsewhere on the site will be allowed, subject to the written approval of the Principal Agent				
	F:..... V:..... T:.....				
73	Plant, equipment, sheds and offices (B6.4)	Item	1		R -
	In addition to the provisions of sub-clause 6.4.1, scaffolding shall not be permitted to be erected from buildings on adjacent sites				
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
74	Main notice board (B6.5)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T::.....				
75	Subcontractors notice board (B6.6)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
	TEMPORARY SERVICES (B7)				
76	Location (B7.1)	Item	1		R -
	F:..... V:..... T:.....				
77	Water (B7.2)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
78	Electricity (B7.3)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
79	Telecommunication equipment (B7.4)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
80	Ablution facilities (B7.5)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
	PRIME COST AMOUNTS (B8)				
81	Responsibility for prime cost amounts (B8.1)	Item	1		R -
	F:..... V:..... T:.....				

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	ATTENDANCE ON NOMINATED/SELECTED SUBCONTRACTORS (B9)				
82	General attendance (B9.1)	Item	1		R -
	In addition to the provisions of clause B9.1, the Contractor shall, at his own expense, provide the following additional general attendance:				
	Make good after Nominated/Selected Subcontractors				
	F:..... V:..... T:.....				
83	Special attendance (B9.2)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
84	Commissioning - Fuel, water and power (B9.3)	Item	1		R -
	F:..... V:..... T:.....				
	FINANCIAL ASPECTS (B10)				
85	Statutory taxes, duties and levies (B10.1)	Item	1		R -
	In addition to the provisions of clause B10.1, all individual amounts in these bills of quantities exclude Value Added Tax (VAT) VAT is to be calculated as a lump sum and added to the total value of all values in the Final Summary under the item provided for VAT				
	F:..... V:..... T:.....				
86	Payment of preliminaries (B10.2)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				
87	Adjustment of preliminaries (B10.3)	Item	1		R -
	Notwithstanding the provisions of sub-clause B10.3.1				
	(Alternative A) and for the purpose of adjusting the Time Related amount, only revision of the date for practical completion granted by the Employer for variations, omissions, additions and substitutions referred to in sub-clauses 29.2 and 29.3 of the Principal Building Agreement, shall be taken into account				
	As an allowance, the first ten (10) ten working days of the construction period is regarded as an administration period and shall be deducted from both the initial and the revised construction periods for calculation purposes				
	F:..... V:..... T:.....				
88	Payment certificate cash flow (B10.4)	Item	1		R -
	F:..... V:..... T:.....				
	GENERAL (B11)				
89	Protection of the Works (B11.1)	Item	1		R -
	See Schedule of Variables (B12)				
	F:..... V:..... T:.....				

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90	Protection/isolation of existing/sectionally occupied Works (B11.2) See Schedule of Variables (B12) F:..... V:..... T:.....	Item	1		R -
91	Security of the works (B11.3) F:..... V:..... T:.....	Item	1		R -
92	Notice before covering work (B11.4) F:..... V:..... T:.....	Item	1		R -
93	Disturbance (B11.5) See Schedule of Variables (B12) F:..... V:..... T:.....	Item	1		R -
94	Environmental disturbance (B11.6) F:..... V:..... T:.....	Item	1		R -
95	Works cleaning and clearing (B11.7) F:..... V:..... T:.....	Item	1		R -
96	Vermin (B11.8) F:..... V:..... T:.....	Item	1		R -
97	Overhand work (B11.9) F:..... V:..... T:.....	Item	1		R -
98	Instruction Manuals and guarantees (B11.10) F:..... V:..... T:.....	Item	1		R -
99	As built information (B11.11) F:..... V:..... T:.....	Item	1		R -
100	Tenant installation (B11.12) F:..... V:..... T:.....	Item	1		R -
	SCHEDULE OF VARIABLES (B12) PRE-TENDER INFORMATION				
101	Pre-tender information (B12.1) F:..... V:..... T:.....	Item	1		R -
	12.1.1 Provisional bills of quantities (B2.2) The quantities are provisional: No 12.1.2 Availability of construction documentation (B2.3) Construction documentation is complete: Yes				

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	12.1.3 Interests of agents (B2.4) The agents have no interest in this project apart from their professional interest 12.1.4 Defined Works area (B3.1) The works will be defined and restricted to specific areas only as determined by the Principal Agent and shall be dealt with at the compulsory site inspection meeting 12.1.5 Geotechnical investigation (B3.2) N/A 12.1.6 Existing premises occupied (B3.4) Yes 12.1.7 Previous work - dimensional accuracy (3.5) existing building, etc. demolitions No 12.1.8 Previous work defects Existing buildings, etc. demolitions complete (3.6) or in part No 12.1.9 Services - known (B3.7) As shown on drawings 12.1.10 Protection of trees (B3.9) No trees are to be removed without prior instruction from the Principal Agent and existing trees to be protected from damage for the full duration of the contract 12.1.11 Inspection of adjoining properties (B3.11) Not applicable 12.1.12 Enclosure of the Works (B6.2) Contractor to make provision for own enclosures, temporary barriers, etc. of the works. If permanent site fencing is utilized contractor is to maintain same for the duration of the contract 12.1.13 Offices (B6.4.3) Office accommodation shall be minimum 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric light and fitted with boarded floor, table and ten chairs 12.1.14 Main notice board (B6.5) The main notice board shall be strongly made, 2,17m wide and 1,715m high, with 19mm thick surround projecting 13mm over face The board is to have a flush even surface and is to be divided into four sections and painted navy blue and ivory white				

ITEM NO	SANBI Biodiversity for Life South African National Biodiversity Institute	UNIT	QUANTITY	RATE	AMOUNT
	The lettering is to be 50mm and 100mm "sans serif" in ivory white on the blue background and in 100mm "sans serif" in navy blue on the ivory white background The inscription, in one language only, which must bear the approval of the Employer, will be given to the Contractor by the Principal Agent The board must be adequately supported No other names or notice boards may be erected without the written approval of the Principal Agent Sketch drawings of all proposed names or notice boards must be submitted to the Principal Agent for approval, before being prepared and erected on site These sketch drawings must not only show the full content of the proposed names or notice boards, but also the position and locality in which the boards will be erected 12.1.15 Subcontractors notice board (B6.6) A notice board is required: No 12.1.16 Water (B7.2) Option A applicable 12.1.17 Electricity (B7.3) Option A applicable 12.1.18 Telecommunications (B7.4) Telephone: Yes - Site Facsimile: Yes - Offices E mail: Yes - Offices 12.1.19 Ablution facilities (B7.5) Option A applicable 12.1.20 Protection of existing/sectionally occupied works (B11.2) Protection is required: Yes 12.1.21 Special attendance (B9.2) Not Applicable 12.1.22 Protection of the works (B11.1) The sections where construction works is in progress needs to be barricaded and sealed off from access to the general public 12.1.23 Disturbance (B11.5) Contractor to take note that the works is to be carried out within a public area and precaution is to be taken with regard to minimizing disturbance, dust, movement, noise, etc. Steps for prevention and minimization of				

ITEM NO	SANBI Biodiversity for Life South African National Biodiversity Institute	UNIT	QUANTITY	RATE	AMOUNT
	above factors will be pre-determined on site with the principal Agent				
	12.1.24 Environmental disturbance (B11.60)				
	Clause applicable				
	No specific requirements				
	POST-TENDER INFORMATION				
102	Post-tender information (B12.2)	Item	1	R	-
	F:..... V:..... T:.....				
	12.2.1 Payment of preliminaries				
	Option A applicable				
	12.2.2 Adjustment of preliminaries				
	Option A applicable				
	12.2.3 Additional agreed preliminaries items: No				
	SECTION C: SPECIFIC PRELIMINARIES				
103	PROPRIETARY BRANDED PRODUCTS	Item	1	R	-
	The contractor shall take delivery of, handle, store, use apply and/or fix all proprietary branded products in strict accordance with the manufacturers' instruction after consultation with the manufacturer's authorised representative				
	F:..... V:..... T:.....				
104	GUARANTEES				
	Where guarantees are called for, the contractor shall obtain a written guarantee, addressed to the employer, from the firm supplying the materials and/or doing the work and shall deliver same to the principal agent on the certified completion of the contract. The guarantee shall state that workmanship, materials and installation are guaranteed for a specific period from the date of certified completion of the contract, and that any defects that may arise during the specified period shall be made good at the expense of the firm supplying the materials and/or doing the work, upon written notice from the principal agent to do so. This guarantee will not be enforced if the work is damaged by defects in the construction of the building in which case the responsibility for replacement shall be the sole judge of the cause responsible for defects in the work and his decision shall be final and binding in terms of clause 40.2 of the agreement.				
	F:..... V:..... T:.....				
105	OVERTIME	Item	1	R	-
	Should overtime be required to be worked for any reason whatsoever, the costs of such overtime are to be borne by the contractor unless the principal agent has specifically authorised in writing, prior to the execution thereof, that costs for such overtime are to be borne by the employer.				
	F:..... V:..... T:.....				
106	AS BUILT DRAWINGS	Item	1	R	-
	The position of construction breaks and the extent of individual concrete pours are to be recorded by the contractor on the structural engineer's drawings and are to be submitted to the				

ITEM NO	SANBI Biodiversity for Life South African National Biodiversity Institute	UNIT	QUANTITY	RATE	AMOUNT
	principal agent and the structural engineer for their records. F:..... V:..... T:.....				
107	SITE INSTRUCTIONS Site instructions issued on site are to be recorded in triplicate in a site instruction book which is to be maintained on site by the contractor F:..... V:..... T:.....	Item	1		R -
108	LABOUR RECORD At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number and description of tradesmen and labourers employed by him and all subcontractors on the works each day. F:..... V:..... T:.....	Item	1		R -
109	PLANT RECORD At the end of each week the contractor shall provide the principal agent with a written record, in schedule form, reflecting the number, type and capacity of all plant, excluding hand tools, currently used on the works. F:..... V:..... T:.....	Item	1		R -
110	NON CESSION OF MONIES The contractor shall not cede nor assign his rights or claims to any monies due or to become due under this contract F:..... V:..... T:.....	Item	1		R -
111	GENERAL SPECIFICATION The general specification for the works is the Model Preambles For Trades November 2008 as published by the Association of Quantity Surveyors. Tenderers are to avail themselves of the full contract thereof and the document will be deemed to be part of the conditions of tender and contract F:..... V:..... T:.....	Item	1		R -
112	OCCUPATIONAL HEALTH AND SAFETY ACT - SECTION 37(2) The tenderers attention is drawn to the fact that the Occupational Health and Safety Act (Act 85 of 1993) is in force. Copies of the Act are available from the Government Printing Works, 149 Bosman Street, Pretoria (Private Bag X85, Pretoria, 0001, Tel No. (012) 334-4500). Tenderers are expected to be fully acquainted with the requirements of the Act. A pro-forma "Agreement in terms of the Occupational Health and Safety Act - Part C 1.5" is included in these bid documents. Tenderers are advised to study this pro-forma in order to make themselves fully conversant with the requirements and responsibilities of the Act and the Municipality. Tenderers are to provide for the above-mentioned requirements and to allow for all cost implications regarding the above including risk assessment, safety plan and monitoring system for the duration of the contract.	Item	1		R -

ITEM NO	SANBI Biodiversity for Life South African National Biodiversity Institute	UNIT	QUANTITY	RATE	AMOUNT
	F:..... V:..... T:..... SUMMARY OF PRELIMINARIES Tenderer's to submit breakdown of overall preliminaries as indicated hereunder Total preliminaries: 1. Fixed related R ..... 2. Value related R ..... 3. Time related R				
	Sub Total Carried to Final/ Main Summary				R -

SECTION NO.2 BUILDING WORK

SANBI
Biodiversity for Life
South African National Biodiversity Institute

SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 1				
	ALTERATIONS				
	The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted				
	View site				
	Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained				
	Explosives				
	No explosives whatsoever may be used for demolition purposes unless otherwise stated				
	General				
	Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent				
	Unless otherwise described all materials are to become the property of the contractor and are to be removed from the site				
	The contractor shall carry out the whole of the works with as little mess and noise as possible and with a minimum of disturbance to tenants in the building and to adjoining premises and their tenants. He shall provide proper protection and provide, erect and remove when directed, any temporary tarpaulins that may be necessary during the progress of the works, all to the satisfaction of the principal agent				
	Doors, fanlights, windows, fittings, frames, linings, etc which are to remain the property of the employer shall be carefully taken out, temporarily stored, transported over a distance of approximately 10km to store and handed over to the employer				

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Doors, fanlights, windows, fittings, frames, linings, etc which are to be re-used shall be thoroughly overhauled before refixing including taking off, easing and rehanging, cramping up, re-wedging as required and making good cramps, dowels, etc, and oiling, adjusting and repairing ironmongery as necessary, replacing any glass damaged in removal or subsequently and stopping up all nail and screw holes with tinted plastic wood to match timber, unless otherwise described. Re-painting or re-varnishing is given separately				
	Prices for taking out of doors, windows, etc shall include for removal of all beads, architraves, ironmongery, etc				
	Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc				
	With regard to building up of openings in existing walls, cement screeds and pavings, granolithic, tops of walls, etc, shall be levelled and prepared for raising of brickwork				
	Making good of finishes shall include making good of the brick and concrete surfaces onto which the new finishes are applied, where necessary				
	The contractor will be required to take all dimensions affecting the existing buildings on the site and he will be held solely responsible for the accuracy of all such dimensions where used in the manufacture of new items (doors, windows, fittings, etc)				
	TEMPORARY BARRICADES, SCREENS, ETC				
	Temporary barricades, screens, roofs, etc including removal				
1	Allow for all safety signage, hoarding and barricading	Item	1	R	-
	REMOVAL OF EXISTING WORK				
	Taking out and removing skylight with louvre windows				
2	Take out and removing 3 950 x 7 015 x 500mm high skylight on top of flat concrete roof and make good to roof slab to receive new skylight (skylight elsewhere) Refer to 04-LOUT-3(01-A6.1) HERBARIUM NEW SKYLIGHTS	No	2	R	-
	Breaking up and removing unreinforced concrete, refer to 04-LOUT-5(01-B5.2) HERBARIUM ENTRANCE WEST WING				
3	80mm Thick surface beds	m²	75	R	-
	Breaking up concrete				
4	80mm Thick surface beds	m²	3	R	-
	Breaking down external stonework wall				
5	400mm High stone wall	m	21	R	-
	Carried to section summary			**R**	**-**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Breaking down and removing brickwork, etc including making good of opening and finishes to install new shopfront/ Doors (shopfront & Doors elsewhere) 04-LOUT-4(01-B5.1) HERBARIUM MEETING ROOM SHOPFRONT				
6	One brick walls	m²	45		R -
	Breaking down and removing brickwork, 04-LOUT-5(01-B5.2) HERBARIUM ENTRANCE WEST WING				
7	Half brick wall	m²	50		R -
	Taking out and removing doors, windows, and making good to receive new windows (window elsewhere}				
8	Windows	No	43		R -
	Taking out and removing glazing to windows and door ,Refer to 04-LOUT-11A HERBARIUM SAFETY GLAZING SCHEDULE & 04-LOUT-11B HERBARIUM SAFETY GLAZING SCHEDULE				
9	Glazing	m²	28		R -
	Taking down and removing roofs, floors, panelling, ceilings, partitions, etc and preparing existing roof structure for new roof covering (roof covering elsewhere) 04-LOUT-1(01-A1) HERBARIUM ROOF REFURBISHMENTS				
10	Corrugated sheet steel roof covering	m²	2 045		R -
11	Eaves	m	379		R -
12	Gutters	m	379		R -
13	Fascia Board	m	379		R -
	Reparing & Polish ceilings,skirting & etc				
14	Hardwoord ceiling panels	m²	10		R -
	Taking up wood block floor covering and reinstate				
15	Timber floor	m²	7		R -
	Taking up and removing.				
16	Vinyl tile floor covering	m²	910		R -
17	Vinyl tile skirting	m	185		R -
18	Aluminium trims	m	551		R -
	Hacking up/off and removing waterproofing				
19	Cantilever concrete slab	m²	202		R -
	Taking out drainage services				
20	Downpipes	m	398		R -
	Carried to section summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	Making good cement screeds				
21	Floors where one brick walls removed	m	1		R -
	Making good internal cement plaster				
22	Walls where one brick walls removed	m²	1		R -
	ALLOWANCE				
23	Allow amount of R 30 000.00 (Thirty Thousand Rand) for sundry alterations not known during the tender stage	Item	1		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 2				R -
	Page 3				R -
	Page 4				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT

PROVISIONAL BILL OF QUANTITIES

SECTION 2

BILL NO.02

BULK EXCAVATION, FILLING, ETC

User Note:
NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this Bill

NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project

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SUPPLEMENTARY PREAMBLES

Nature of ground

A soils investigation has been carried out on the site by the engineer and the report is annexed to these bills of quantities. (Annexure C3.5.2)

Subterranean water

No subterranean water is expected

Excavation for working space in rock

Notwithstanding clause 11, page 8 of the Standard System of Measuring Building Work, excavation for working space in rock will be measured in cubic metres to the extent executed and given as "extra over" bulk excavation or trench and hole excavation as the case may be

Carting away of excavated material
Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations or, alternatively, from stock piles situated on the building site

Filling

Notwithstanding the reference to prescribed multiple handling in clause 1, page 6 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material

Testing

Prices for filling are to include for all necessary density tests in accordance with SANS 1200D

EXCAVATION, FILLING, ETC OTHER THAN BULK

EXCAVATIONS ETC

Excavation in earth not exceeding 2m deep

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1	Trenches	m³	31		R -
	Extra over all excavations for carting away				
2	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor	m³	18		R -
	Risk of collapse of excavations				
3	Sides of trench and hole excavations not exceeding 1,5m deep	m²	90		R -
	FILLING ETC				
	Earth filling obtained from the excavations and/or prescribed stock piles on site, compacted to 90% Mod AASHTO density				
4	Backfilling to trenches, holes, etc	m²	14		R -
	Earth filling supplied by the contractor compacted to 90% Mod AASHTO density				
5	Under ramp	m²	78		R -
	Compaction of surfaces				
	Compaction of ground surface under floors etc including scarifying for a depth of 150mm, breaking down oversize material, adding suitable material where necessary and compacting to 95% Mod AASHTO density	m²	78		R -
	Keeping excavations free of water				
6	Keeping excavations free of all water other than subterranean water	item	1		R -
	SOIL POISONING				
	Approved soil insecsticides as per SANS 10124				
7	In bottom of foundation footings	m²	123		R -
8	Under floors etc including forming and poisoning shallow furrows against foundation walls etc, filling in furrows and ramming	m²	76		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 6				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT

PROVISIONAL BILL OF QUANTITIES

SECTION 2

BILL NO. 03

CONCRETE, FORMWORK AND REINFORCEMENT

NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this Bill

NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project

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SUPPLEMENTARY PREAMBLES

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under clause 7, "Tests" of SANS 1200 G, shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the principal agent.The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the principal agent. (Test cubes are measured separately)

Formwork

Descriptions of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use

The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself

Formwork to soffits of solid slabs etc shall be deemed to be to slabs not exceeding 250mm thick unless otherwise described

Formwork to soffits of slabs, beams, etc shall be deemed to be propped up exceeding 1,5m and not exceeding 3,5m high unless otherwise described

Formwork to sides of bases, pile caps, ground beams, etc will only be measured where it is prescribed by the engineer for design reasons.Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations, provision for which is made in "Earthworks"

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	REINFORCED CONCRETE CAST AGAINST EXCAVATED SURFACES				
	25MPa/19mm concrete				
1	Strip footings	m^3	10		R -
	ROUGH FORMWORK (DEGREE OF ACCURACY II)				
	Rough formwork to sides				
2	Strip footings	m^2	19		R -
	Sundry				
	30MPa/19mm concrete				
3	100 x 100 mm upstand beam	m^2	0		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 8				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 4				
	PRECAST CONCRETE				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this Bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project				

	SUPPLEMENTARY PREAMBLES				
	Sizes				
	Blocks, sills, etc measured linear shall be made in suitable lengths. Large size setting out drawings shall be prepared where necessary and submitted to the principal agent for approval before moulds are made				
	General				
	Where kerbstones, blocks, etc are laid in ground descriptions shall be deemed to include necessary excavation, filling in and ramming				
	PRECAST CONCRETE COPINGS ETC				
	Modcon Concrete Solutions precast concrete finished smooth on exposed surfaces including bedding, jointing and pointing				
1	Coping size 300 x 70 x 50 mm thick,	m	12		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 9				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO.5				
	MASONRY				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this Bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project				

	SUPPLEMENTARY PREAMBLES				
	BRICKWORK				
	Sizes in descriptions				
	Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick				
	Hollow walls				
	Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole				
	Bagged and sealed walls				
	Walls in two skins described as "bagged and sealed" shall be deemed to include having the outer face of the inner skin bagged with 1:6 cement and sand mixture and sealed with two coats bitumen emulsion waterproofing coating				
	Pointing				
	Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc				
	Galvanised hoop iron cramps, ties, etc				
1	30 x 1,2mm L-shaped Wall tie 700mm long built into brickwork.	m	15		R -
	FOUNDATIONS				
	Brickwork of NFX bricks (14 MPa nominal compressive strength) in class I mortar				
2	One brick walls	m²	10		R -
3	350mm Hollow wall	m²	3		R -
4	345mm wall	m²	10		R -
	Carried to section summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SUPERSTRUCTURE				
	FACEBRICK				
	Corobrik® Midrand 27-36MPa Roan Imperial FBX clay face brick,size 222 x 106 x 73mm, manufactured in accordance with SANS 227:2007,				
5	One brick wall	m²	86		R -
6	Half brick wall	m²	13		R -
7	350mm Hollow wall	m²	12		R -
8	345mm wall	m²	19		R -
	Brickwork reinforcement				
9	150mm Wide reinforcement built in horizontally	m	5		R -
	PAVEMENT				
	SABS approved 200 x 95 x 65mm thick pavers ,52MPa Cederberg Paver Cororbrick Springs Factory laid in Basket weave bond pattern on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I.Paving to be inspected and re-sanded after three months				
10	Main fire exscape exit	m²	35		R -
	SABS approved 200 x 95 x 65mm thick pavers ,83.7MPa Onyx Paver Cororbrick Springs Factory laid in Basket weave bond pattern on 25mm compacted sand bed with fine jointing sand swept and vibrated into joints, all laid on subgrade conforming to SANS 1200 D Degree Of Accuracy I.Paving to be inspected and re-sanded after three months				
11	Boarders	m²	6		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 10				R -
	Page 11				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 6				
	WATERPROOFING				
	The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted				
	SUPPLEMENTARY PREAMBLES				
	Waterproofing				
	Waterproofing of roofs, basements, etc shall be laid under a ten year guarantee. Waterproofing to roofs shall be laid to even falls to outlets etc with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs				
	WATERPROOFING TO ROOFS ETC				
	One layer Derbigum SP4 waterproofing membrane, with 75mm side laps and 100mm end laps, sealed to primed surface to falls and crossfalls by 'torchfusion' finished with two coats Roofcote bituminous aluminium paint				
1	On cantilever slabs	m²	202	R	-
	375 micron embossed black polyolefin DPC				
2	In walls	m²	11	R	-
	One layer Derbigum CG3 and one layer Derbigum CG4H (horticultural) waterproofing membrane, with 100mm side laps and 150mm end laps, sealed to primed surfaces by 'torch-fusion' followed by 150 micron polythene sheeting loose laid with 50mm laps sealed with pressure sensitive tape, to receive drainage layer of Delta MS8 to vertical and Delta MS20 to horizontal surfaces , to receive soil and plants.				
3	Planters	m²	66	R	-
	Carried to section summary			**R**	**-**
	Section Summary				
	Page 12			R	-
	Sub Total Carried to Building Works Summary			**R**	**-**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 7				
	ROOF COVERINGS, ETC				
	The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted				
	PROFILED METAL SHEETING AND ACCESSORIES				
	Global Roofing Solutions 0,58mm thick 700mm cover Klip-Lok 700™ profile Z275 spelter Colour: As per Roof Plan finish top coat and backing coat ISQ550 galvanised steel roof sheeting, fixed to timber intermediate purlins at max. 2500mm centres and eaves and ridge purlins at max. 2100mm centres using KL700 clips fixed with 10No.16 x 16mm long self drilling wafer head PH2 screws, No. 3 drill point fasteners, all in accordance with the manufacturer's specifications. Eaves and ridge purlins at 2100mm centres using KL700 clips fixed with 10No.11 x 45mm long self drilling wafer head PH2 screws, type 17 drill point fasteners, all in accordance with the manufacturer's specifications.				
1	Roof covering with pitches not exceeding 25 degrees	m²	2 255		R -
2	Ridge coverings 462mm girth	m	181		R -
3	Valley Flashing	m	59		R -
4	Head wall flashings 462mm girth	m	35		R -
5	Side wall flashings 462mm girth	m	13		R -
6	Cover flashings 185mm girth	m	257		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 13				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 8				
	CARPENTRY AND JOINERY				
	The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted				
	PREAMBLES				
	For preambles refer to "General Specification of Labour and Material and Methods to be used MPW100"				
	SUPPLEMENTARY PREAMBLES				
	Timber				
	Timber shall be treated in accordance with clause 8.1 of OW 371 and Tenderers shall allow accordingly (Treatment required for this project)				
	All softwood to be South African Pine				
	Particle board				
	Particle board shall comply with the following specifications:a) SABS 1300 Particle board: exterior and flooring typeb) SABS 1301 Particle board: interior type				
	Joinery				
	Descriptions of frames shall be deemed to include frames, transomes, mullions, rails, etc				
	Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes				
	Decorative laminate finish				
	Laminate finish shall be glued under pressure. Edge strips shall be butt jointed at junctions with adjacent similar finish				
	Descriptions				

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	The term "planted on" shall mean the nailing of one timber member to another.The term "screwed on" shall mean the countersunk screwing of one timber member to another.The term "screwed on and pelleted" shall mean the screwing of one timber member to another with the heads of screws sunk and pelleted.The term "plugged" shall mean the countersunk screwing of a timber member to and including plastic plugs in brickwork or concrete.The term "plugged and pelleted" shall mean the screwing of a timber member to and including plastic plugs in brickwork or concrete with heads of screws sunk and pelleted.The term "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete				
	Desriptions of floors, ceilings, joinery, etc. shall be deemed to include for all square cutting.Descriptions of items given in lineal metre shall be deemed to include for mitres, stopped ends, fitted intersections, etc.Descriptions of rounded angles, rebates, grooves, chamfers, moulded edges, etc. shall be deemed to include for angles, ends, etc.				
	ROOF TRUSSES a. All the roof trusses to be designed and constructed with softwood structural timber to include for live loads, wind loads and to take profiled metal roof covering, purlins and fibre cement or gypsum pasterboard ceilings with brandering. Each roof truss shall have all its members accurately cut and close butted together and rigidly fixed by CSIR approved patented galvanised metal spike connectors, fixed on both sides of each intersection by an approved method, all in accordance with the manufacturer's instructions. b. Unless otherwise described all rafter feet are to extend approximately 850mm beyond the length of the tie beam, with end splayed cut. c. The design, manufacture and transportation of the roof trusses, bracing, etc. shall be under the control of a registered Engineer and it shall be required from the manufacturer of the trusses to lodge a written guarantee that his construction has been designed by a qualified Structural Engineer and that he is in possession of a capability certificate issued by the Institute for Timber Construction and approved by the Representitive/Agent d. All timber shall be stress-graded pine or glued laminated timber for construction or engineering purposes in accordance with the specifications of SABS Specification No 563 or as defined in SABS Specification No.1245. Stress-grades shall be marked as specified, vix V4, M4, V6, M6, etc. e. Erection must be carried out as described in "The Erection and Bracing of Timber Roof Trusses" published by the Truss Plate Association of South Africa Ltd. and the National Timber Research Institute, CSIR. f. Descriptions of roof trusses shall be deemed to include for design, manufacture, supply, hoisting and fixing in position, trimming ends, notching, ALL TEMPORARY AND PERMANENT BRACING, fixing blocks, etc. g. All timber must be Grade 7				
	DOORS				
	Solid flush doors with 3.2mm plain hardboard covering to both sides, hung to steel frames				
1	40mm Door 813 x 2 032mm high	No	1		R -
	Carried to section summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	EAVES, VERGES, ETC				
	Everite high density plain ungrooved/ grooved Nutec fascia boards				
3	300 x 15mm, Fascias and barge boards, fixed to 38 x 38/52mm tilter batten	m	397		R -
	Sundry items				
	Polycarbonate Awning with 3 mm thick solid Acrylic (Perspex) boards aluminium brackets all fixed in accordance with the manufacturer's specifications fixed @ max 1000mm centres.				
4	Roof Canopy	No	3		R -
	Hunter Douglas SA Alupanel XT aluminium composite panel cladding comprising of composite aluminium panels, consisting of a 0,5mm thick aluminium alloy AA3004 facing sheet bonded to a polyethylene core, colour Silver (Code: 9006) PVDF Kynar 500 paint coating, fixed to aluminium sub-structure with fixing bracket on 50mm returns, hooked into aluminium channel and finger bracket system fixed to sub-structure with minium fixing zone of 85mm. The whole to be designed and installed by an approved specialist, all in accordance with the manufacturer's instructions.				
5	Cladding Alu - Panels	No	90		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 15				R -
	Page 16				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT

PROVISIONAL BILL OF QUANTITIES

SECTION 2

BILL NO. 9

CEILINGS, PARTITIONS AND ACCESS FLOORING

The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted

SUPPLEMENTARY PREAMBLES

Descriptions

Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins or shot pinned to brickwork or concrete

Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres, and where described as "bolted" the bolts have been given elsewhere

Ceilings

Unless otherwise described ceilings shall be deemed to be horizontal

Bulkheads

Bulkheads are defined as those portions of ceilings which are stepped down from the general ceiling level in a particular room or area and which generally occur along the perimeter. Their purpose is either to conceal services or to create architectural features

Bulkheads have only been described as such where they conform to the above definition and where the horizontal or vertical dimensions do not exceed 900mm. Where these dimensions are more than 900mm such portions of ceilings have been included in the appropriate general items of ceilings

Unless otherwise described bulkheads shall be deemed to be horizontal along the length

Steel components

All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	CEILINGS, ETC.				
	SUSPENDED CEILINGS				
	Hunter Douglas Luxalon® 84C aluminium ceiling system comprising 5000 x 84 x 12,5mm deep with Luxacote® finish colour (to Architects approval) standard panels with flush join profiles				
1	Ceilings suspended under Eaves	m²	455		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 18				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 10				
	FLOOR COVERINGS, WALL LININGS, ETC				
	The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted				
	SUPPLEMENTARY PREAMBLES				
	Fixing				
	Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc				
	FLOOR COVERINGS				
	2mm Thick FloorworX Elite PUR Classic fully flexible vinyl floor tiles colour Light Grey				
1	On floors	m²	1 118		R -
	SKIRTINGS, NOSINGS, ETC				
2	15 x 110mm High skirting	m	185		R -
3	10 x 10mm Aluminium trims	m	551		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 19				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 11				
	IRONMONGERY				
	The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted				

	SUPPLEMENTARY PREAMBLES				
	Proprietary items				
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered On request returnable samples are to be provided to the principal agent for consideration				
	Finishes to ironmongery				
	Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list: BS - Satin bronze lacquered CH - Chromium plated SC - Satin chromium plated SE - Silver enamelled GE - Grey enamelled AS - Anodised silver AB - Anodised bronze AG - Anodised gold ABL - Anodised black PB - Polished brass PL - Polished and lacquered PT Epoxy coated SD Sanded				
	LOCKS				
	EN-SUITE LOCKS				
	The following locks are to be suitable for master key operation				
	Manufactured by "Geze"				
1	"IG950933338" Double cylinder lock	No	1	R	-
	HANDLES				
	Manufactured by "Geze"				
2	25mm "JD213/305 BIT" stainless steel pull handle	No	1	R	-
	Carried to section summary			**R**	**-**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	DOOR CLOSERS				
	Manufactured by "Geze"				
3	"AZ2003SR" TS2000G door closer with guide rail	No	1		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 20				R -
	Page 21				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 12				
	METALWORK				
	The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted				
	SUPPLEMENTARY PREAMBLES				
	Descriptions of bolts, anchors, etc				
	Descriptions of bolts shall be deemed to include nuts and washers				
	Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete				
	Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described				
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres				
	PRESSED STEEL DOOR FRAMES				
	1,6mm Double rebated frames suitable for one brick walls				
1	Frame for door 813 x 2032mm high	No	1		R -
	ALUMINIUM WINDOWS, DOORS ETC.				
	WINDOWS				
	Powder coated window unit complete with, subframes ironmongery, clear low E smart glass. Sealing etc and fixing to existing window frames				
2	Purpose made window, 700 x 900 mm high , W2	No	42		R -
	Powder coated windows units complete with ironmongery, 6,38mm Low-E glass, sealing, etc				
3	Purpose made window, 800 x 1 000mm high , W1	No	42		R -
	Powder coated window units complete with subframes, ironmongery, 6,38mm Low-E glass, sealing.				
4	Purpose made skylight, 6 595 x 2 680 mm wide with 730 mm and 2000 m high.fixed to frame.	No	2		R -
	Carried to section summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	CURTAIN WALLS, SHOPFRONTS, ETC				
	Anodized aluminium shopfront with Hulabond Panel cladding, Refer to Drawing 04-LOUT-4(01-B5.1) HERBARIUM MEETING ROOM SHOPFRONT				
5	Purpose-made shopfront,SF-001 - 1 763 x 2 000mm high	No	1		R -
6	Purpose-made shopfront,SF- 002 - 5 438 x 2 000mm high	No	1		R -
7	Purpose-made shopfront,SF-003 - 5 430 x 2 000mm high	No	1		R -
8	Purpose-made shopfront,SF-004 - 1 763 x 2000mm high.	No	1		R -
	Roof structure repair				
9	Allowance of R 785 280,00 for roof structure repair.	item	1		R -
	STAINLESS STEEL HANDRAILS, BALUSTRADES, ETC				
	Stainless steel welded and bolted balustrades to a concrete ramp refer to drawing 04-LOUT-5(01-B5.2) HERBARIUM ENTRANCE WEST WING				
10	Raking balustrading 1000mm high of 50mm Diameter continuous handrail welded to and including 50mm Post at 1000mm centre,25mm horizontal top & bottom support to 19mm vertical posts at 100mm centre, and cast pins conencting main posts to the Handrail (bolts to the satisfaction of the Architect)	m	24		R -
11	150 x 150 x 8mm thick base plate	No	28		R -
	Stainless steel welded and bolt handrail to a wall refer to drawing 04-LOUT-5(01-B5.2) HERBARIUM ENTRANCE WEST WING				
12	Raking Handrail with a 50mm top rail bolted to the wall with a 12mm Elbow at 900 centres and a 50mm cup flange	m	12		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 22				R -
	Page 23				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	SECTION 2				
	PROVISIONAL BILL OF QUANTITIES				
	BILL NO. 13				
	PLUMBING AND DRAINAGE (PROVISIONAL)				
	RAINWATER DISPOSAL				
	Ogee profile Colorbond pre-coated Zincalume seamless gutter in colour Silver White including matching rivet-fixed mitres and end caps internally sealed using Silicon Mastic, hung by nail fixed internal aluminium hangers at 800mm centres with rectangular fluted downpipes.				
1	Standard 150 x 100 x 0,5mm gutters including corners, stop ends, outlets, etc.	m	379		R -
	Rectangular fluted downpipes,in colour Silver White fixed to walls with pre-painted downpipe cleats using nail-in anchor fixings				
2	Standard 100 x 75 x 0,5mm downpipes including shoes, eave offsets,bends & etc to NGL	m	294		R -
3	Standard 100 x 75 x 0,5mm downpipes including shoes, eave offsets,bends & etc discharged to roof	m	7,8		R -
4	Standard 100 x 75 x 0,5mm downpipes including shoes, eave offsets,bends & etc connect to fullbore	m	69,6		R -
5	Standard 100 x 75 x 0,5mm downpipes including shoes, eave offsets,bends & etc connect to existing circular pipes	m	9		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 24				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO.14				
	TILING				
	NOTE: Tenderers are advised to study the Model Preambles for Trades before pricing this Bill				
	NOTE: Unless otherwise stated herein, all items in this Bill shall be deemed to be a fixed price for the duration of this project				

	SUPPLEMENTARY PREAMBLES				
	Fixing				
	Unless described as "fixed with adhesive to plaster (plaster elsewhere)" descriptions of tiling on brick or concrete walls, columns, etc shall be deemed to include 1:4 cement plaster backing and descriptions of tiling on concrete floors, etc shall be deemed to include 1:3 plaster bedding				
	Tiling described as "fixed with adhesive on power floated concrete" shall be deemed to include for approved tiling key-coat				
	Ceramic, porcelain, marble and granite tiles are to be fixed and grouted with suitable adhesives and grouts from the "Tal Professional" range of products as recommended by the manufacturer of the tiles				
	FLOOR TILING				
	600 x 600 x12.8mm thick,Terrazzo Tiles Type A1				
1	On floors and landings		46		R -
	300 x 300 x12.8mm thick,Terrazzo Tiles Type B 1				
2	On floors and landings		6		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 25				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO.15				
	GLAZING				
	SUPPLEMENTARY PREAMBLES				
	For preambles see "Model Preambles for Trades"				
	NOTE: Unless otherwise stated herein, all items in this bill shall be deemed to fall into Work Group No 150 for JBCC CPAP purposes				
	GLAZING				
	6,8 Laminated Safety Glass				
1	Panes exceeding 0,1m2 and not exceeding 0,5m2	m²	**12**		**R** -
2	Panes exceeding 0,5m2 and not exceeding 2m2	m²	**16**		**R** -
	Carried to section summary				**R** -
	Section Summary				
	Page 26				R -
	Sub Total Carried to Building Works Summary				**R** -

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO.16				
	PLASTERING				
	SCREEDS				
	On ramp				
1	35 mm thick on floors	m²	41,62		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 27				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 17				
	PAINTING				
	The Contractor must read each description throughout this bills of quantities in conjunction with and in the context of the obligations, requirements and specifications stated in the descriptions, the General Preambles for Trades (2017 Edition) and any supplementary Preambles to the General Preambles forming part of these Bills of Quantities No claim arising from brevity of description of items fully described in the said General Preambles for Trades or Supplementary Preambles to General Preambles will be granted				
	PAINTWORK ETC TO NEW WORK				
	ON PLASTER BOARD				
	Prepare, stop and prime with one coat Professional Water Based Gypsum Sealer (PGS1) with an overcoating time of 1 hour and finish with two coats Double Velvet (VEL 1) with 2 hours drying time between coats				
1	Fascias and barge boards, including priming metal jointing strips	m²	207	R	-
	Luxacote® finish colour (to Architects approval)				
2	Ceilings	m²	455	R	-
	ON METAL				
	Spot priming defects in pre primed surfaces with zinc chromate primer and applying one undercoat and two coats alkyd enamel paint on steel				
3	On door frames	m²	1	R	-
	ON WOOD				
	One coat wood primer, one coat undercoat and two coats gloss enamel paint				
4	On doors	m²	2	R	-
	Carried to section summary			**R**	**-**
	Section Summary				
	Page 28			R	-
	Sub Total Carried to Building Works Summary			**R**	**-**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES				
	SECTION 2				
	BILL NO. 18				
	STRUCTURAL STEELWORK				
1	203x133x30 I-Beam	Kg	2848,22		R -
2	CHS 60.3x3	Kg	253,88		R -
3	Purlins: 125x65x20x2.5	Kg	835,63		R -
4	50x50x3 L cross bracing at both ends	Kg	139,64		R -
	Columns				
5	Tube post 88.9x3	Kg	35,35		R -
6	15% allowance for connections to existing concrete, as well as internal connections	item	1		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 29				R -
	Sub Total Carried to Building Works Summary				**R -**

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SECTION 2 - BUILDING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
	BUILDING WORK SUMMARY				
	SECTION 2				
1	Alterations				R -
2	Earthworks				R -
3	Concrete,Reinforcement & Formwork				R -
4	Precast Concrete				R -
5	Masonry				R -
6	Waterproofing				R -
7	Roof Coverings				R -
8	Carpentry and Joinery				R -
9	Ceilings, Partitions and Access Flooring				R -
10	Floor coverings, wall linings, etc				R -
11	Ironmongery				R -
12	Metalwork				R -
13	Plumbing and Drainage				R -
14	Tiling				R -
15	Glazing				R -
16	Plastering				R -
17	Paintwork				R -
18	Structural steelwork				R -
	Sub Total Carried to Final/ Main Summary				R -

SECTION NO.3 FIRE & MECHANICAL WORK

CLIENT	**SANBI - SOUTH AFRICAN NATIONAL BOTANICAL INSTITUTE**
PROJECT	**HERBARIUM - REFURB**
CONTRACT	**AIR-CONDITIONING AND VENTILATION INSTALLATION**
BILL NO.	**BILL NO.1: COMPLIANCE**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	R c
1.1	**COMPLIANCE**				
1.1	Quality & Scope of Work	Item	-		
1.2	Compliance with Regulations and Standards	Item	-		
1.3	Compliance with OHS Regulations (latest version)	Item	-		
1.4	Clearing of rubble	Item	-		
1.5	Supports	Item	-		
1.6	Scaffolding	Item	-		
1.7	Protection against corrosion	Item	-		
1.8	Protection of Equipment against damage during construction	Item	-		
1.9	Programming and phasing of work on a live site	Item	-		
1.10	Transport and delivery	Item	-		
1.11	Rigging and crane hire	Item	-		
1.12	Guarantee of Equipment as per specification	Months	24		
1.13	Training of end user as specified	Item	-		
1.14	Provision of spare parts and all related accessories	Item	-		
1.15	Builders work as required	Item	-		
1.16	Electrical work as required	Item	-		
1.17	Workshop Drawings	Item	-		
1.18	**Testing, balancing and commissioning**	Item	-		
1.19	**Documentation**				
	Equipment Instructions laminated, bound together and inserted in holder inside outer panel door.				
1.20	O & M manuals including as built drawings in hard copy and on CD	Sets	3		
1.21	2 Year Service during guarantee period	Item	-		
	TOTAL SCHEDULE N0. 1: CARRIED TO SUMMARY PAGE				**R**

CLIENT **SANBI - SOUTH AFRICAN NATIONAL BOTANICAL INSTITUTE**
PROJECT **HERBARIUM - REFURB**
CONTRACT **AIR-CONDITIONING AND VENTILATION INSTALLATION**
BUILD NO. **BILL NO.2: HERBARIUM BLOCKS**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	R c
2.1	**DX Rooftop Package Units**				
2.1.1	FAU - 01, Total cooling - 158kW Sensible cooling - 158.7 kW Supply air - 15956 l/s Return air- 0 l/s Outside air- 15956 l/s External Static pressure - 420 pa Air-entering - 26.5°C DB / 17.9 °C WB Air-leaving coil - 16.8 °C DB / 14.8 °C WB Ambient - 35°C	No.	2		
2.1.2	300mm height Floor standing steel bracket complete with anti vibration pads to suite the air-handling unit	No.	2		
2,2	**Controls installation**				
2.2.1	Wall mounted remote controller	No.	2		
2.2.2	Return air temperature sensor	No.	2		
2.2.3	Supply air temperature sensor	No.	2		
2.2.4	Pressure sensor	No.	2		
2,2	**Electronic sensors, etc. including mounting brackets, bases, terminals, connections, duct openings, pipe pockets, flanges/clamps, attachments, finish of pipe/duct insulation, etc.**				
2.2.1	12mm PVC conduit chased into wall for room thermostat. All other conduits included with control wiring measured above.	m	60		
2.2.2	25mm PVC draw box chased into wall for room thermostat. All other draw boxes included with control wiring measured above.	no.	2		
2,4	**VENTILATION FANS**				
2.4.1	**EAF-01**- ø400 mm Axial fan, duty @ 220Pa , 600 L/s air flow, 1440rpm max and complete with a speed controller, 2-off (2D) matching sound attenuators.	No	1		
2.4.2	**EAF-02**- ø400 mm Axial fan, duty @ 220Pa , 580 L/s air flow, 1440rpm max and complete with a speed controller, 2-off (2D) matching sound attenuators.	No	1		
	TOTAL CARRIED FORWARD				

	TOTAL BROUGHT FORWARD				
	LOW PRESSURE GALVANISED DUCTWORK, EXTERNAL INSULATED				
2,5	**Rectangular galvanised sheet metal low pressure ducting and duct accessories complete, including hanger rods, fixing bolts, mild steel angle sections, flanges, necessary fixing material, etc, as per specification. (Insulation measured elsewhere)**				
2,5	**FOR FAU-01**				
	Ducting - Air supply and return system				
2.5.1	**Flexible connection betweein air-handling unit and metal duct including fasteners**				
2.5.1.1	1050 x 700 to 1000 x 1000mm , 200mm long	No	2		
2.5.1.2	1000 x 1000 to 1500 x 1500mm , 600mm long	No	2		
	Ducting with insulation Aluminium foil faced fibreglass external duct insulation on ducting, as per specification suitable for in-ceiling application, as specified				
2.5.2	**Ducting**				
2.5.2.1	1500 x 1500 mm , 12000mm long external double skin duct	No	8		
2.5.2.2	1000 x 1000 mm , 12000mm long external double skin duct	No	8		
2.5.2.3	800 x 600 mm , 25000 mm long	No	16		
2.5.2.4	800 x 450 mm , 25000 mm long	No	16		
2.5.2.5	600 x 400 mm , 25000 mm long	No	16		
2.5.2	**Transformation piece**				
2.5.2.1	1050 x 700 mm to 1000 x 1000 mm, 1200mm long external double skin transformation piece	No.	4		
2.5.2.2	1000 x 1000 mm to 800 x 600 mm, 600 mm long	No.	4		
2.5.2.3	800 x 600 mm to 800 x 450 mm, 600 mm long	No.	4		
2.5.2.4	800 x 450 mm to 600 x 400 mm, 600 mm long	No.	4		
2.5.2.5	1000 x 400 mm duct, 400mm long	No.	48		
2.5.4	**90° degree Bends insulated ducting with vanes**				
2.5.4.1	1000 x 1000 mm , 90 Deg Bends external double skin duct	No	20		
2.5.4.2	800 x 600 mm 90 deg bend	No.	8		
	TOTAL CARRIED FORWARD				

	TOTAL BROUGHT FORWARD				
2.5.5	**45° degree Bends insulated ducting with vanes**				
2.5.5.1	1000 x 1000mm	No.	4		
2.5.7	**Supply and Install duct Spigots**				
2.5.7.1	1000 x 400mm Spigots, 400mm long	No.	48		
2.5.8	**Insulated Ducting stop end**				
2.5.8.1	600 x 400 Stop ends	No.	8		
2.5.9	**Duct shoe**				
2.5.9.1	800 x 600 mm	No.	8		
2.5.2	**Trouser piece**				
2.5.2.1	800 x 600 mm to 800 x 600 mm and 1000 x 1000 mm trouser piece	No.	2		
2,6	**Air Terminals**				
2.6.1	**Diffusers and grilles**				
2.6.1.1	**DV-01 -** 200 extract disc valve	No	0		
2.6.1.2	**KRANTZ-1 ,** dia 400mm Krantz diffusers twist outlet c/w straightener	No.	0		
2.6.2	**Supply air grilles**				
2.6.2.1	**SAG-01** - 1000 x 400 Fixed type Curved bade grilles c/w OBD.	No.	48		
2.6.2	**Weather louvres**				
2.6.2.1	**WL-01** - 2000 x 1500 Weather louvre c/w OBD & W.M.S	No	4		
2,7	**Sound attenuators**				
2.7.1	1400 x 1000 x 1500 mm long	No.	2		
2,8	**Balancing damper**				
2.8.1	800 x 600mm BD	No.	8		
	TOTAL SCHEDULE N0. 3: CARRIED TO SUMMARY PAGE				**R**

CLIENT	**SANBI - SOUTH AFRICAN NATIONAL BOTANICAL INSTITUTE**
PROJECT	**HERBARIUM - REFURB**
CONTRACT	**AIR-CONDITIONING AND VENTILATION INSTALLATION**
BILL NO.	**BILL NO.3: PROVISIONAL SUMS**

ITEM NO	DESCRIPTION	UNIT	QTY	RATE	R c
2.3	**PROVISIONAL SUMS**				
	Include the folowing Provisional Sums (which may be utilised or omitted at the discretion of the Engineer), in the Tender Price				
2.3.1	Provisional Sum for removal of existing services	Sum	1	R 120 000,00	R 120 000,00
2.3.2	Provisional Sum for unforseen clashes	Sum	1	R 80 000,00	R 80 000,00
2.3.3	Provisional Sum for Fire compliance	Sum	1	R 250 000,00	R 250 000,00
	TOTAL SCHEDULE 2 CARRIED TO SUMMARY PAGE				**R 450 000,00**

CLIENT	**SANBI - SOUTH AFRICAN NATIONAL BOTANICAL INSTITUTE**
PROJECT	**HERBARIUM - REFURB**
CONTRACT	**AIR-CONDITIONING AND VENTILATION INSTALLATION**
BILL NO.	**SUMMARY PAGE**

ITEM NO	DESCRIPTION	R c
1	BILL NO.1: COMPLIANCE	**R**
2	BILL NO.2: HERBARIUM BLOCKS	**R**
3	BILL NO.3: PROVISIONAL SUMS	**R**
	TOTAL FOR MECHANICAL SERVICES Sub-total Carried to Final/ Main Summary	**R**

MECHANICAL : AIR-CONDITIONING AND VENTILATION INSTALLATION CONENTS

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PART C3: BILL OF QUANTITIES

C3.1 PRICING INSTRUCTIONS

1. GENERAL

the bill and quantities forms part of the contract documents and must be read and priced in conjunction will all the other documents comprising the contract documents, which include the conditions of tender, condition of contract, the specifications (including the standard, project and particular specification) and drawings

2. QUANTITIES REFLECTED IN THE SCHEDULE

The quantities given in the Bills of Quantities are estimate only, and subjected to remeasurement during the execution of the work. The contractor shall obtain the Engineers detailed instruction for all the work ordering any material or executing work or making arrangements for it.

The work as finally completed in accordance with the Contract shall be measured and paid for as specified in the Bill of Quantities and in accordance with the General and Special condition of Contract, the standard, Project and Particular Specification and the Drawings. Unless otherwise stated, items are measured net in accordance with the Drawings, and no allowance has been made for wastage.

The validity of the contract will in no way be affected by differences between the quantities of the bill of quantities and the quantities finally certified

3. PROVISIONAL SUM

Where Provisional sums are provided for items in the Bill of Quantities, payment for the work done under such items will be made in accordance with clause 6.6 of the General Condition of contract 2015 3rd Edition. The Engineer / Employer reserves the right, during execution of the works, to adjust the stated amounts upwards or downwards according to the work done under the item, or the item may be ommitted altogether without affecting the validity of the contract.

The Tenderer shall not under any circumstances whatsoever delete or amend any of the sums inserted in the "amounts" column of the Bill of Quantities and in the Bill of Quantities and in the Summary of the Bill of Quantities unless ordered or authorized in writing by the Engineer / Employer before close of Tender. Unauthorized changes made by the Tenderer to the Provisional items in the Bill of Quantities, or to the provisional percentage and sums in the Summary of the Bill of Quantities will lead to the disqualification of the Tenderer.

4. PRICING OF THE BILL OF QUANTITIES

The prices and rates to be inserted by the Tenderer in the Bill of Quantities shall be the full inclisive priced to be paid by the Employer for the work described under the several items, and shall include full compansation for all cost and expences that may be required in and for the completion and maintenance during the defect and libility period of all the work described and as shown on the drawings as well as the overheads, profit, incidentals and the cost of all general risk, libilities and obligations set forth or implied in the documents on which the Tender is based.

Each item shall be priced and extended to the " Total" column by the Tenderer, with the exception of the items for which only rates are required, or items which already have Provisional Sums affixed thereto. If the Tenderer omits to price any item in the Bill of Quantities, then these items will be considered to have a nil rate or price

All items for which a terminology such as "inclusive" or 'not applicable" have been added by the Tenderer will be regarded as having a nil rate which shall be valid irrespective of any change in quantities during execution on the contract.

The Tenderer shall fill in rates for all the items where the words "rate only" appears in the "Total" column "Rate Only" items have been included where:

a) an alternative item or material is contemplated

b) Variation of specified components in the make-up of a pay item may be expected; and

c) No work under the item is forseen at tender stage but the possibility that such work may be required is not excluded.

For "Rate Only" items no quantities are given in the "Quantities" column but the quoted rate shall apply in the event work under this item is required. The Tenderer shall howover note that in terms of the Tender Data the Tenderer may be asked to consider any rates which the Engineer / Employer may regard as unbalanced.

All rates and amounts quoted in the Bill of Quantities shall be in rands and cents and shall be include all levies and taxes (other than VAT) . VAT will be added in the summary of the Bill of Quantities.

The tenderer shall be deemed to have inspected and examined the site and its surrounding and information available in connection therewith and to have satiesfied himself before submitting his tender

a) The nature of the site and its sarrounding

b) The extent and nature of the work and materials necessary for the excution and completion of the work

c) The means of access to the site and the accomodation required.

5. CORRECTION OF ENTRIES

Incorrect entries shall not be erased or obliterated with correction fluid but must be crossed out neatly. The correct figure must be entered above or adjescent to the deleted entry, and alteration must be initialled by the Tenderer.

6. ARITHMETIC ERRORS

Arithmatical errors found in the Bill of Quantities as a result of faulty miltiplication or additions, will be corrected by the Engineer at the tender evaluation stage

7. UNITS OF MEASUREMENT

The units of measure described in the Bill of Quantities are metric units for which the standard international abbreviations are used. Non-standard abbreviation which may

appear in the bill of Quantities are as follows:

No.	= Number
%	=Percentage
Sum	=Lump sum
PCsum	=Prime cost sum
Prov sum	=Provisional cost sum
m^3.km	=Cubic metre - kilometre

C3.2: GENERAL REQUIREMENTS

1. GENERAL

The project and standard drawings form part of the project specification and shall be read in conjunction with the project specification.

Conflicts, errors or discrepancies found in this specification or drawings shall be brought to the Engineer's attention for resolution.

Any deviations from the specifications, drawings and/or equipment specified shall be listed together with the alternatives offered and shall be submitted as part of the tender. If no deviations are listed, it will be assumed that the Tenderer complies with all the relevant technical parts of this specification.

All installations shall be complete in all respects and the Contractor shall allow for the completion and successful operation of the complete installation, irrespective of whether every separate item is specified or not.

2. SITE AND SITE INSPECTION

The site is situated in Main Road, Pretoria in Gauteng. The nearest main road is the M14 to the North of SANBI, nearby towns are Lynburnweg, Cussonia ave.

Tenderers are advised to visit the site and acquaint themselves with the nature and extent of the work involved before submitting their tenders.

3. COMPLETION DATE

Completion dates are stipulated in the preliminaries included in this document. The Contractor will be required to keep up with the main contract in accordance with the main contractor's program and to complete the mechanical installation concurrently with the main contract.

4. PROGRAM

Directly after acceptance of his tender, the Contractor shall submit time schedules for each activity for which he is responsible to the main contractor, for the inclusion thereof in the main contractor's program.

A copy of the program (and revisions thereto) shall be submitted to the Engineer well within time and at regular intervals.

The following items shall be programmed in consultation with the Main Contractor:

- Working drawings
- Approval of working drawings
- Equipment detail submission for approval
- Ordering of material
- Ducting installation
- Piping installation
- Approval of first fix
- Plant equipment installation
- Second fix
- Electrical installation
- Commissioning and testing
- Final inspection

5. FINISHING AND TIDYING

In view of the intense concentration of construction activities likely to be experienced during the contract period, progressive and systematic finishing and tidying will form an essential part of this contract. On no account must spoil, rubble, materials, equipment or unfinished operations be allowed to accumulate in such a manner as to unnecessarily impede the activities of other and in the event of this occurring, the Employer shall have the right to withhold payment for as long as may be necessary in respect of the relevant works in the area(s) concerned without prejudicing the rights of others to institute claims against the Contractor on the ground of unnecessary obstruction.

Finishing and tidying must be done on a daily basis and not simply be left to the end of the contract. All finishing and tidying shall be carried out to the best advantage of the project as a whole.

6. SCAFFOLDING AND PLANT

All plant required for the execution of the contract shall be supplied by the Contractor under this contract.

The Contractor shall provide his own scaffolding. For installation purposes the Tenderer shall allow for his own lifting equipment, cranes etc. which may be necessary to complete the installation as none of these facilities will be available on site.

7. SUPERVISORY STAFF AND IDENTIFICATION

At all times while on the premises, all artisans and labour members of the mechanical contractor’s and subcontractor’s staff will wear clothing adequately marked with the relevant contractor's name.

The work shall be done by, or at all times be under the personal supervision of a qualified artisan (or qualified technician) in the respective trade. Details of this operation and prospective work shall be given at the time of tendering in a covering letter.

8. QUALITY OF MATERIALS AND WORKMANSHIP

All materials shall be new, undamaged and free from rust or other defects. Only material of the best quality, which has been approved by the Engineer, shall be used.

The Contractor shall, upon the request of the Engineer, furnish him with documentary proof to his satisfaction that the material is of the quality specified. Samples of materials for testing, if required, shall be supplied by the Contractor, free of charge.

Where applicable, all material shall be in accordance with the relevant standard specifications of the South African Bureau of Standards and the British Standard Specifications.

The installation shall be carried out according to the latest modern engineering practices.

The Engineer reserves the right to reject any work or part thereof that, according to his judgement, does not meet the highest standards of material and workmanship and to enforce replacement of the work at the expense of the Contractor.

9. RATING OF EQUIPMENT

The Contractor shall supply the sizes and rating of all the equipment offered to the Engineer for approval prior to purchasing or ordering such equipment.

All equipment offered shall operate well within the manufacturer's ratings, and equipment to be operated beyond these limits will not be considered.

10. SPACE REQUIREMENTS AND ACCESS

Tenderers shall ensure that the equipment offered by them can be installed in the available space as shown on the drawings. Should it be found at a later stage that the equipment offered does not fit, all costs arising from the rectification of this problem shall be for the Contractor's account.

The equipment shall be installed in such a manner that complete access is provided for operating and maintenance purposes.

Tenderers shall also ensure that the equipment offered by them will pass through available building openings. Large equipment shall be made up in sections and each section shall be small enough for access through doors and other building openings. All additional costs involved for the modification of equipment or to change the make of equipment in order to allow access shall be for the account of the Contractor.

11. REGULATIONS AND STANDARDS

The equipment, installation, commissioning and maintenance shall in all respects comply with the following authorities and regulations:

a) The Occupational Health and Safety Act, Act No. 85 of 1993.

b) Local Municipal Regulations, by-laws and Ordinances.

c) Local Fire Department Regulations.

d) SANS 10400: 1990: The application of the National Building Regulations.

e) Local Electrical Supply Authority Regulations.

f) The wiring of premises Part1: Low-voltage installations, SANS 10142-1 as amended.

All losses, costs or expenditures, which may arise as a result of negligence to comply with any regulation applicable to this service as specified above, shall be for the account of the Contractor.

Where trade names and references to catalogues are found in the specification, the intention is to set a particular standard of equipment. Where “other approved” equipment is specified, the Tenderer shall obtain written approval from the Engineer before he may deviate from the specified equipment. This approval must be obtained at tender stage.

The Contractor shall work strictly according to this specification and shall ensure that only the best quality material is used, and that the installation is handed over as a complete working system.

12. DRAWINGS

The dimensions and positions of equipment shown on the Engineer’s drawings are schematic and for tender purposes only. The drawings are not suitable for manufacturing purposes. The responsibility for dimensional and layout accuracy remains with the Contractor. The exact positions will be pointed out on site where necessary.

The following drawings shall be submitted by the Contractor to the Engineer for approval, within four (4) weeks of acceptance of the tender:

a) **Builder’s work drawings**

All building requirements are to be indicated on these drawings to meet the dimensional requirements of the equipment and materials to be installed by the Contractor.

b) **Mechanical drawings**

These are workshop and equipment layout drawings required for the manufacture and installation of equipment, showing detailed dimensions.

c) **Electrical drawings**

These include switchboard layouts, circuit diagrams, interconnection diagrams, and cable and equipment schedules.

Any work done by the Contractor without an approved drawing shall be at the Contractor’s own risk, and any changes required to conform with the contract documents or co-ordinate his work with other trades, shall be for the account of the Contractor.

The approval of drawings by the Engineer shall not relieve the Contractor of his responsibilities to carry out the work in terms of the contract documents.

The mechanical and electrical drawings shall be updated during the contract period and shall be included in the operation manual at the end of the contract period as “as built” drawings.

13. OPERATION MANUALS AND MAINTENANCE INSTRUCTIONS

The Contractor shall submit three (3) copies of operation and maintenance manuals to the Engineer.

Manuals shall consist of:

a) Comprehensive literature of the different components of the installation.

b) Paper prints of all approved drawings and diagrams where applicable.

c) Start-up and shutdown procedures.

d) Commissioning data of all equipment in tabulated form.

e) Prescriptions for routine tests, which shall be performed by the user together with the time when such tests shall be, performed (e.g. pressure tests).

f) Schedule of apparatus and equipment complete with model numbers, optional extras, modifications, electrical requirements, etc.

g) Detailed daily, weekly, monthly, quarterly, bi-annual or annual preventative maintenance procedures where applicable.

h) Manufacturer's catalogues.

i) List of spares for all equipment.

j) Suppliers telephone numbers and addresses.

k) Wiring diagrams.

l) Test certificates.

The operation manuals shall be sturdily bound in a strong hard cover. Material in the manual shall be clear, legible and well arranged and provided with an index.

The above manuals shall be available three weeks before first handover / practical completion of the installation and no handover shall be considered without these manuals.

14. MAINTENANCE AND GUARANTEE

All equipment supplied and work done as part of this contract shall be maintained and guaranteed for a period of one year from date of practical completion.

The Contractor is responsible for all material and labour during this period.

The Contractor shall visit the installation uninterrupted and do the scheduled maintenance as prescribed in the operating instructions. On completion of the monthly visit a full report shall be prepared and submitted to the Engineer within seven (7) days from the visit.

In case of a breakdown, the Contractor shall react within reasonable time and repair the installation to the satisfaction of the Engineer. Should the Contractor, in the discretion of the Engineer, not react within reasonable time, the Engineer shall commission another Contractor and the cost thereof shall be recovered from the defaulting Contractor.

15. PAYMENT CLAIMS

In addition to the conditions of contract, the Contractor shall attach to his application for payment an explanation of material cost and labour cost. The following information is required with respect to material and labour:

- Estimated percentage delivered/completed at date of the previous claim.
- Estimated percentage delivered/completed at date of current claim.
- Total cost claimed at date of previous claim.

16. PAINTING

Where applicable the following painting specifications shall apply:

Iron and steel surfaces shall be properly cleaned by removing all dirt, oil, scale and rust by brushing and sanding until a clean shiny surface is obtained. Hereafter a metal primer shall be applied.

Galvanized surfaces shall be cleaned with a galvanizing cleaning agent and then washed with clean water to remove the factory applied protection against white rust. Hereafter a calcium plumbate primer shall be applied, followed by an undercoat between 24 and 72 hours after application of the primer.

Other surfaces shall be cleaned by removing all dirt and a primer as specified by the paint supplier for the particular surface shall be applied.

The primer coat shall be followed by a matt undercoat and a final topcoat of high gloss enamel of an approved colour. Each layer of paint shall be clearly distinguishable from each other by means of different colours and each layer shall be properly sanded before the following coat is applied.

All paint shall at least be of SABS quality for industrial use and shall be approved by the Engineer. Equipment shall be painted according to the National Colour Standards, SANS 1091.

17. DAMAGE AND PROTECTION OF WORKS

The Contractor shall take all precautions necessary for the protection of life, equipment and property in connection with the works during installation.

The Contractor shall be held completely responsible for any damage of equipment during transport and installation, as well as any damage to the building and shall repair any such damage at his own expense. Where equipment cannot be repaired to an “as new” condition, it will be completely replaced at the expense of the Contractor.

Equipment delivered to site shall be stored in a well-protected area where it cannot be damaged by either the weather or other trades.

18. WELDING

Welding shall be carried out in accordance with the current edition of SANS 10044 Parts 1 to 2 where applicable. All welding shall be performed according to the latest technology and where exposed, it shall be smoothly finished off.

19. BUILDING WORK AND REMOVAL OF EQUIPMENT

The following work shall be carried out by the builder/main Contractor.

a) Drilling and cutting of necessary holes in the concrete, brickwork, ceilings and wooden doors, including making good to match finish.

b) Concrete plinths for installation of equipment.

c) Waterproofing of roof penetrations and plinths.

d) Provide drain points where required.

20. TESTING

The plant shall be tested and operated to meet the performance figures and duties specified. All safety features and interlocks shall be tested.

Pressure tests for water and piping shall be done at a test pressure of 1.5 times the maximum working pressure at the lowest point in the system, but not less than 700 kPa. All instrumentation, which could be damaged during the test, shall be removed from the pipe system.

The relevant system shall be filled with water and all high points shall be vented at least 24 hours before the test. The duration of the pressure test shall be 2 hours, after which no water leaks shall be visible and no pressure drop shall occur after corrections have been made for changes in ambient temperature during the test period.

Pressure tests shall be completed prior to insulating or covering piping. If leaks are found, welded connections shall be cut out and re-welded. Rectified piping shall be retested.

21. COMMISSIONING

The installation shall be commissioned in accordance with the relevant codes and recognised commissioning procedure or code approved by the consulting engineer:

The Contractor shall submit a commissioning program to the Consulting engineer at least two weeks prior to the commencement of commissioning and at the same time shall notify the consulting engineer of the code or procedure to which the plant will be commissioned.

The results of all checks and measurements shall be recorded in writing during the commissioning period. Commissioning records shall be handed over to the Consulting engineer prior to the first acceptance of the plant. The commissioning records shall also be included in the operation manuals.

22. STAFF TRAINING

The Contractor shall be responsible for the training of the Client's site staff after the commissioning has been completed. The site staff shall receive enough instruction to ensure that they are fully conversant with the equipment concerned. The operating manuals shall be used during training. Upon completion of the training exercise the contractor is to obtain the client's representative's written acceptance of this handover tuition, thus acknowledging his complete understanding of the operational procedures for this installation. Site staff shall be instructed on:

a) the general operating method of the plant;

b) starting and stopping instructions;

c) stopping the plant in an emergency and warning against restarting after an emergency;

d) positions and normal settings of control equipment;

e) safety measures;

f) operational checks on gauges, flow switches, indicator lights, etc.;

g) name, address and telephone number of competent person responsible for the maintenance of the plant.

23. SCOPE OF WORK

The specification covers the following:

The supply, delivery, installation and commissioning of the Heating, Ventilation & Air Conditioning Installation, comprising of:

- Full fresh air systems
- Axial fans
- Ducting
- DD Supply ait grilles
- Weather louvres

C3.3: DETAILED REQUIREMENTS

PART A: AIR HANDLING UNITS – FULL FRESH AIR

1. SCOPE

The following installations shall be specified under this section of the project specification: Air handling units Full Fresh Air Units:

- *AHU1 – Herbarium – West Wing*
- *AHU2 – Herbarium – East Wing*

2. DESIGN CRITERIA

DESIGN DATA	
Outdoor summer temperatures	31.7°C Db/17.8°C Wb
Outdoor winter temperatures	3.9°C Db/0.1°C Wb
Indoor conditions	22°C Db/ %RH uncontrolled (50-60%RH in Theatres)
Altitude above sea level	1100 m

3. APPLICABLE STANDARDS

The air-conditioning units and installation in general shall be in accordance with:

- SABS 0147: Refrigerating systems including plants associated with air-conditioning systems
- SANS 60335-2-40: Household and similar electrical appliances – Safety. Part 2 – 40: Particular requirements for electrical heat pumps, air conditioners and dehumidifiers
- SANS 10142-1-2003: The wiring of premises Part 1: Low-voltage installations
- SABS 1424-1987: Filters for use in air-conditioning and general ventilation
- SANS 1238:2005: Air-conditioning ductwork
- SANS 10173:2003: The installation, testing and balancing of air-conditioning ductwork

4. AIR HANDLING UNITS

4.1 GENERAL

The ahu units shall be of the heat pump type.

Full fresh units shall be of the air-cooled single package type. The units shall be self contained and completely charged, standard factory assembled, piped and wired. The units shall be properly assembled, thoroughly tested for all operating conditions and supplied with performance test certificates. Spares shall be freely available in South Africa.

The installation in general shall be to the supplier's recommendations. Any discrepancies between this specification and the supplier's recommendations that may influence the unit's performance or guarantee shall be clarified with the Engineer during tender stage.

Heat pump type rooftop package units shall have a defrosting cycle that will defrost the condensing coil during the winter months when heating is required.

Both condenser and evaporator coils shall be treated for corrosion with Blygold, Techni-Coat, Corium or any other method as approved by the Engineer. The special acrylic coating type by Daikin and the Goldfin corrosion treatment from LG shall also be acceptable.

An anti short cycle timer shall protect the compressors from immediate restart after shutdown or when switching from cooling to heating mode and vice versa.

A flow diagram describing fault finding procedures and a legend describing all buttons, lights and schematics shall be prepared and printed/plotted on hard paper. The diagram shall be laminated and neatly mounted inside the unit switchboard.

The unit shall be provided with hoisting plates for rigging and hoisting the unit. The hoisting plates shall be located in the base of the unit.

4.1.1 GENERIC UNIT REQUIREMENTS

Units shall comprise of compressors, condensers, evaporators, condenser fans, evaporator fans, condensate drain connections and pans, condensate drain, filter, motors, auxiliary and control equipment all completely packaged in a water-proof enclosure.

Heating shall be by means of a heat pump action by the reversal of the cooling cycle. All the necessary control equipment, valves and piping required to perform this function shall be supplied as part of this installation.

Unit casing shall be manufactured from mild steel plate, weatherproof and corrosion protected as follows or to a method as approved by the Engineer:

- Galvanised
- Electro plated

AHU shall be colour coated as follows or to a method as approved by the Engineer:

- Acrylic resin powder-coated and baked enamel finish
- Polyester powder-coated

Access panels shall be provided to allow maintenance of internal equipment such as filters, compressors, fans, coils, control equipment etc. All access panels shall be hinged with stainless steel or rust resistant brass hinges and shall have multiple latches and handles for easy opening. All external panels shall be of the double wall construction type.

Units shall have a stainless steel or hot dipped galvanised steel drain pan for positive drainage of condensate. Condensate shall be drained via the drain pan and drainpipes.

Filters shall be of the washable type and easily accessible for removal. Multi-wing propeller fans shall cool the condensers and shall be directly driven by weatherproof three phase squirrel cage induction motors. Evaporator fans shall be of the sirocco type, belt driven, speed adjustable and manufactured from galvanised steel. Compressors shall be of the hermetically sealed ***scroll / rotary / reciprocating*** type with internal vibration isolation and equipped with a crankcase heater.

Both the evaporator and condenser shall have cross finned coils, manufactured from seamless copper tubes and mechanically bonded to aluminium plate fins.

The control system shall be such that the unit will automatically change from heating to cooling and vice versa. The "auto restart after power failure" option shall be available on all units' settings. The units shall also be able to operate in a "fan only" mode.

Electrical interlocking shall be provided to ensure that:

- Compressors cannot run without both evaporator and condenser fans running.
- It shall not be possible to switch cooling and heating on simultaneously.

The mechanical contractor shall provide the engineer with performance test certificates and specifications of the rooftop package unit for approval prior to purchase.

4.2 PERFORMANCE SPECIFICATIONS

Cooling and heating capacities specified are room conditions and all equipment shall be de-rated to meet these requirements.

De-rating shall be done to compensate for the following:

- Altitude above sea level.
- Design conditions specified.

All units shall be capable of meeting total and sensible cooling requirements. Tenderers shall provide proof of de-rated capacities with their tender. All capacities specified shall be achievable at medium evaporator fan speed.

PROTECTION AND SAFETY DEVICES

Thermal protection shall be provided for the compressor, indoor and outdoor fan motors. Overcurrent relay shall be provided for the compressor, indoor and outdoor fan motors to ensure over current protection.

Reverse phase, three phase overload, overload during startup, phase imbalance, phase loss and low voltage protection shall be provided for all three phase motors.

Protection fuses shall be provided for all control and operating circuits.

The compressor shall have high and low refrigerant pressure switches for protection.

The indoor and outdoor units shall comply with the safety requirements as set out in:

- SANS 60335-2-40: Household and similar electrical appliances – Safety. Part 2-40: Particular requirements for electrical heat pumps, air-conditioners and dehumidifiers

4.3 ELECTRICAL

Generally the power to rooftop package units shall be provided by the electrical contractor in a weather-proof isolator mounted within 1 m from the unit. In this case the mechanical contractor shall do the entire electrical installation from the isolator to the rooftop package unit.

Where the electrical contractor provides a cable only to a distribution board that serves a group of rooftop package units, the mechanical contractor shall provide the distribution board, connect the incoming power cable and shall do all the electrical wiring from the distribution board to the rooftop package units. Cables from distribution boards to rooftop package units shall be installed in galvanised cable trays.

Where indirectly implicated through the specification of equipment that requires a distribution board for operation, a distribution board shall be provided even if it is not explicitly indicated on the project drawings. Tenderers shall clarify all uncertainties with the engineer during tender stage.

Where applicable, section 1.3 (electrical) of this project specification shall also apply to this section of the specification.

The entire electrical installation shall comply with:

- SANS 10142-1-2003: The wiring of premises Part 1: Low-voltage installations

On completion, the Contractor shall issue a compliance certificate for the entire electrical installation.

4.4 CONTROLS

The Controller shall be of the same manufacture as the rooftop package unit and shall display the following:

- Operation mode
- A checking display when abnormality occurs in the unit
- Setpoint temperature
- Operational lights
- Room temperature display
- Fan speed indication
- Key lock function

The controller shall allow the following operational functions:

- Manual ON/OFF.
- ON/OFF by seven day timer.
- Room temperature adjustment.
- Scheduled weekly timer
- Cooling / heating / ventilation selection.
- Automatic change-over between cooling and heating.

Where a remote controller type is installed against a wall, the controller shall be mounted over a flush mounted 100 mm x 50 mm electrical box. Control wiring shall be installed in a 20 mm

electrical conduit from the controller to the rooftop package unit. The conduit and outlet box shall be chased into the wall by the electrical contractor. The electrical contractor shall install the conduit from the outlet box to 100 mm above ceiling level directly above the controller.

The controller shall be of the hard-wired remote controller type, installed at the location where indicated on the project drawings. Temperature setpoint control shall be on the return air temperature measured with temperature sensors situated in the return air path of the rooftop package unit.

4.5 SMOKE DETECTION SYSTEM

AHUs shall immediately shut down in response to a fire signal from the building fire detection system.

The mechanical contractor shall provide the necessary relays that shall switch the units off when a fire signal is received. The electrical contractor shall provide the signal cable only to the rooftop package unit or distribution board.

5. INSTALLATION REQUIREMENTS

AHUs shall either be installed on concrete plinths or channel u-frames, whichever is indicated on the project drawings. Where mounted on concrete plinth, the unit shall be bolted with anchor bolts on top of neoprene vibration isolating pads and support surface.

Where installed on top of channel u-frames, the unit shall be mounted with spring isolators mounted on the channel U-frame. The channel U-frame shall be fitted loosely on the roof at the location where indicated on the project drawings. The channel U-frame shall be of heavy gauge steel type, hot dip galvanised and sufficiently strong to carry the load of the rooftop package unit. The U-frame shall be to a size as indicated on the project drawings.

Drain pipes shall be installed to drain condensate from the unit to the nearest gulley or drain point. The drain pipe shall be uPVC tubing with a diameter of not less than 32 mm. A U-trap to the supplier’s recommendation shall be provided to prevent the ingress of unconditioned ambient air. Drain pipes shall always be installed at a slope of 20 mm per 1 000 mm to ensure positive drainage.

6. DUCTING

6.1 GENERAL

Sheet metal ductwork shall be manufactured in accordance with SANS 1238, and installed balanced and tested as set out in SANS 10173. The installation and manufacture of ductwork shall strictly be in accordance with SANS standard specifications with specific attention given to the following:

- Changes in size and shape of ducting: refer to SANS 1238, section 6.3. Particular requirements are given on the following standard drawing: TYPICAL CHANGE IN SIZE AND SHAPE OF DUCT CROSS-SECTIONAL AREAS.

- Access openings, doors and covers: refer to SANS 1238, Section 5.3.

- Sealant requirements: refer to SANS 1238, Section 5.6.

- External ducting insulation: refer to SANS 10173, Section 5.4.

- Material thickness and duct stiffening for low pressure ductwork: refer to SANS 1238, Section 6 for rectangular ductwork and SANS 1238, Section 7 for circular ductwork.

- Radius and square bends as well as turning vanes: refer to SANS 1238, section 6.4. Typical bend layouts as set out in SANS 1238 are given on the following standard drawings: BENDS AND TURNING VANES FOR VARIOUS SIZE RECTANGULAR DUCTS, and BENDS AND TURNING VANES FOR VARIOUS SIZE CIRCULAR DUCTS.

- Unless the sheet-metal ductwork is inherently corrosion protected, all sheet-metal shall be protected against corrosion as outlined in SANS 1238, Section 8.

It shall be the responsibility of the installing contractor to ensure proper assembly and sealing of sheet-metal ductwork and insulation strictly in accordance with SANS specifications.

The air duct system shall be of the low-pressure type and the ductwork shall be manufactured of galvanised mild / stainless steel with general material requirements as set in section 5.1 & 5.2 of SANS 1238. The ductwork shall either be circular or rectangular in cross-section as indicated on the project drawings.

The first dimension given on the drawings for rectangular ductwork shall be read as the width on plan and the depth on section, and the second dimension shall be read as the depth on plan and the width on section.

The duct dimensions shown on the drawings are sheet metal dimensions. All final dimensions shall be checked on site or verified by means of architect's working drawings and structural drawings, before the fabrication of the ducting.

Sealing membranes and adhesives for affixing insulation shall meet the indexes for surface spread of flame, heat contribution and smoke production as set out in section 4 of SANS 1238.

The inner surfaces of ducting shall be smooth, and no internal insulation shall be used. Dampers, sound attenuators, duct splitters and turning vanes shall be installed where indicated on the drawings.

Flexible connections shall be provided between all fans, sound attenuators, air-handling units, and ducting. Flexible connections exposed to weather shall be provided with protecting galvanised sheet steel cover strips. The material used for flexible joints shall comply with the requirements as set out in SANS 1238, section 5.5. Flexible connections shall be provided on both sides of the equipment with a fixing method as indicated on the following standard drawing: FASTENING OF FLEXIBLE MATERIAL TO METAL DUCTWORK.

Ducting shall always be installed in such a way, that, especially in plant rooms, maximum height between the floor and the underside of ducting is achieved.

The installation and testing of hangers shall comply with the requirements as set out in SANS 10173. All hangers shall be treated against rust and shall be painted.

The ducting sections to be painted are indicated on the project drawings. The stainless-steel surface of the ducting shall not be damaged or marked in any way. The internal surface of

plenums and ducting shall be painted black where necessary, to prevent the visibility of the inside surface of the duct or plenum.

All galvanised ducting shall be prepared, coated and painted to the following method. All galvanized surfaces requiring painting shall be thoroughly cleaned with galvanised iron cleaner, rinsed and dried. It shall then be painted with one coat galvanised iron primer or self etch primer. Finally, the surface shall be given two coats of high gloss enamel paint to a colour as specified by the architect. All coats shall either be of the Plascon or Dulux type. If Dulux products are used then the final coat shall be "*Dulux Gloss Enamel*" or "*Dulux Roofguard*". If Plascon products are used then the final coat shall either be "*Plascon Wall 'n All*", "*Plascon Super Enamel*" or "*Plascon Roofpaint*".

Reinforcement, duct stiffening and fastening accessories shall be galvanised and installed where required. Only duct accessories manufactured from compatible materials, which comply with SANS 10173, shall be installed with the ductwork. Tie rods shall be manufactured from galvanised steel. Rivets, screws, bolts and other fastening equipment shall be corrosion proof.

6.2 LONGITUDINAL SEAMS AND TRANSVERSE JOINTS

Pieces of ductwork shall be joined with the necessary sealants, as applicable, as set out in SANS 10173, Section 5.

6.2.1 Rectangular Ductwork

Longitudinal seams and Transverse joints for rectangular ductwork shall be in accordance with SANS 1238, Section 6. The types of seams and joints outlined in the SANS standard are depicted on the following standard drawings for clarity:

- LONGITUDINAL SEAMS AND TRANSVERSE JOINTS FOR RECTANGULAR LOW PRESSURE DUCTWORK.
- LONGITUDINAL SEAMS AND TRANSVERSE JOINTS FOR RECTANGULAR MEDIUM AND HIGH PRESSURE DUCTWORK.

As an alternative to transverse joints specified in SANS 1238, other flanged joints such as MEZ-flanges will also be considered provided that they meet the SANS requirements. MEZ-flanges or equivalent products shall be manufactured from cold rolled steel and hot-dip galvanised after manufacture.

6.2.2 Circular Ductwork

Longitudinal Seams and Transverse Joints for circular ductwork shall be according to SANS 1238, Section 7. Particular details on the seams and joints are outlined on the following standard drawings: LONGITUDINAL SEAMS AND TRANSVERSE JOINTS FOR CIRCULAR PRESSURE DUCTWORK.

6.3 THE HANGING AND SUPPORTING OF DUCTWORK

6.3.1 Ducting With Insulation And Vapour Barrier

Hangers and supports for rectangular and circular ductwork shall comply with SANS 10173, section 5.3 *"Ductwork with a vapour barrier"*. The hanger and support types are depicted in the following drawing: HANGERS AND SUPPORTS FOR DUCTING WITH INSULATION

6.3.2 Ducting With No Insulation

Hangers and supports for rectangular and circular ductwork with no insulation shall comply with SANS 10173, section 5.3 *"Ductwork with no vapour barrier"*. The hanger and support types used for ducting with insulation may be used. In addition to these types, the types depicted in the following standard drawing may also be used: HANGERS AND SUPPORTS FOR DUCTING WITH NO INSULATION.

6.4 DUCTING INSULATION

All air ducts carrying heated or cooled air, except where ducting run in conditioned spaces or specifically stated to the contrary shall be externally thermally insulated. Internal insulation shall not be acceptable. All joints and valves, dampers etc. shall also be adequately insulated. All ducting insulation material and installation shall comply with the requirements as set out in SANS 10173, section 5.4.2.1.

External duct insulation shall be highly resistant, organic glass fibre blanket bonded with resin, faced and vapour protected with an aluminium foil cover laminate. The external insulation shall be of the Europair FRK Duct Wrap type or other approved with similar properties as given in the table below. "Other approved" means approved by the engineer during the tender stage.

Type	Thickness (mm)	Volumetric Mass (kg/m³)	Thermal Conductivity (W/mºC)	Temperature Limits	Fire Rating
Duct Wrap 25	*25*	*18*	*0.040 @ 35 ºC*	*120 ºC*	*Class 1*
Duct Wrap 40	*40*	*16*	*0.040 @ 35 ºC*	*120 ºC*	*Class 1*
Duct Wrap 50	*50*	*16*	*0.040 @ 35 ºC*	*120 ºC*	*Class 1*

Insulating material shall be fixed to the duct with adhesive and strapped or clamped at intervals not exceeding 300 mm. Mechanical fastener pins may also be used on the bottom and sides of the duct. The Contractor shall reinstate the integrity of the vapour barrier after the pins have been fixed. Joints in the insulation shall be taped by means of an aluminium type of the same quality as the foil facing with a minimum overlap 50 mm. No vapour seal shall be left punctured.

All insulated ductwork shall be provided with a vapour barrier to the requirements as set out in SANS 10173, section 5.4.2.3. If an alternative insulation material to Europair FRK Duct Wrap type is used that is not faced with an aluminium foil then a continuous vapour barrier shall be secured to the insulation and adequately sealed with an adhesive aluminium tape or equal method. The vapour barrier material shall comply with the requirements for flammability of sealing membranes of SANS 1238.

Ducting running in areas exposed to the weather elements shall be provided with an additional protective layer applied over the existing vapour barrier.

Galvanised sheet metal shall cover the insulated ductwork to shed water and provide protection against physical damage. The galvanised sheet metal cladding shall at least be 0.6 mm in thickness and secured tightly to the insulation. In the case of a vapour barrier, care shall be taken to ensure that the vapour barrier is not damaged in any way. If the vapour barrier is damaged in the process of installing the cladding then the contractor shall repair, seal and reinstate the integrity of the vapour barrier as needed.

6.5 FLEXIBLE DUCTING

Flexible ducting shall comply with the requirements as set out in SANS 10173, section 5.7. Flexible ducting shall be proprietary manufactured with a fire rating to SABS 0177 Part 3 Class 1. The flexible ducting shall have an adequate working pressure and temperature range to suit the application of the installation.

Flexible ducting shall at all times be kept to a length not exceeding 1.5m. Flexible ducting shall not have more than the equivalent of one 90º bend and bends shall be of maximum possible radius. Flexible ducting shall be supported with sufficient and correct brackets that will ensure maintenance of shape.

Flexible ducting shall be provided between air terminals, diffusers and all locations as indicated on the project drawings.

The inner core shall be of aluminium laminate with a heavy duty steel helix core. The flexible ducting shall be insulated with 25/40/50 mm fibreglass insulation and provide with reinforced multiple layer aluminium laminated outer vapour barrier. The flexible ducting shall be of the Europair Euroflex thermally insulated Isodec Type 25/40/50 A.

6.6 TESTING OF DUCTWORK

All ducting shall be leak tested in accordance with SANS 10173, section 4.3. No ducting shall have leakage rates in excess of 5 % of the required air flow rate in any section of ductwork or in excess of the SANS permissible leakage rates, whichever is the smallest.

7. AIR TERMINALS AND DAMPERS

7.1 GENERAL

Where selected by the contractor, air diffusion equipment shall be selected in accordance with the manufacturer's recommendations, capable of passing the specified air quantity at the appropriate throw without creating excessive resistance, noise or local draughts. All air diffusing equipment shall be capable of meeting the NC level requirements, as specified in section 1.2 – sound control, for the space environment where the equipment is installed.

In all instances where spigot boxes (plenums) are used for the connection of air diffusion equipment, the inside surfaces shall be painted black to prevent visibility of the internal surface from ground level.

During commissioning of the system, each grille, diffuser, valve etc. shall be set to deliver the specified air quantity. It is the Contractor's responsibility to check regenerated noise levels of grilles offered against the overall acoustic performance of the system required. Noisy grilles that exceed the NC level requirements of the given space shall be replaced at the Contractor's expense with more suitable types.

7.2 WEATHER LOUVERS

Weather louvers shall be of the Europair, WL type with standard blade spacing of 50 mm.

Weather louvers shall be manufactured of extruded aluminium, naturally anodised or epoxy powder coated to a colour as specified by the engineer. Weather louvers shall be constructed with drip edges to blades and rigid frames to enable building in. The top and bottom blade of each weather louver shall be fitted flush with the frame and shall be smooth without grooves, channels or recesses where dirt or water can accumulate. Weather louvers shall be watertight and shall prevent the entrainment of raindrops at a face velocity of up to 3 m/s. Plastic bird mesh screens shall be fitted behind the blades. Galvanised expanded metal or wire mesh screens with 12 mm opening sizes shall also be accepted.

Weather louvers smaller than 450 x 300 mm, shall be of the Europair RA type with RB blades and 19 mm spacing between blades. Europair RARB grilles shall be installed horizontally at the location where indicated on the project drawings.

7.3 FIXING OF WALL-MOUNTED GRILLES AND LOUVRES

All wall-mounted grilles and louvers shall be fixed to a hard wood frame. The timber frames shall be supplied with the grilles as part of this installation.

The timber frames shall be manufactured in such a way that the flanges of the grilles is mounted flush with the wall and extend past the outer edge of the timber frames by approximately 5 mm. The timber frames shall be provided with the necessary cleats with which to mount them in brick or concrete walls. The depth of the timber frames shall be similar to the walls in which they are fitted.

7.4 SUPPLY AIR DIFFUSERS AND SUPPLY AIR GRILLES

Where Europair type SD or DD grilles are specified on the project drawings, the supply air grilles shall be manufactured of extruded type anodising grade aluminium and shall be provided with opposed blade volume control dampers, unless specified otherwise on the project drawings. Volume control dampers fitted with supply air grilles shall conform to SANS 1238, section 6.5 requirements. The blades shall be adjustable from the front of the grille.

7.5 VOLUME CONTROL DAMPERS

Volume control dampers shall be of the opposed multi-blade damper (OBD) type or alternatively be of the butterfly-valve type suitable for use in circular ducting.

Volume control dampers shall be installed in ducting where indicated on the project drawings. The Contractor shall balance the ducting system after installation and set the required flow rates to the various air terminals as specified on the project drawings. The Contractor shall test, balance and adjust the duct system to the requirements of SANS 10173: 2003, Section 8.

All dampers, whether it is an OBD or a butterfly valve, shall in all cases comply with requirements of SANS 1238, Section 6.5. The damper frames and blades shall be constructed of galvanised mild steel, assembled with galvanised bolts, nuts and washers. Extruded aluminium blades shall also be acceptable. Blades shall have a mill, anodized or epoxy powder finish. All volume control dampers shall have manually quadrant operation. Dampers shall be gear operated.

Dampers creating unacceptable vibrations and noise levels will be rejected and will need to be replaced at the Contractor’s expense. Volume control dampers shall be of the Europair type or other approved. “Other Approved” means approved by the Engineer.

7.6 FIRE DAMPERS

Fire dampers shall be installed according to the manufacturer's and SABS requirements and recommendations. Fire dampers shall be located where indicated on the project drawings.

Fire/smoke control dampers shall in all instances comply with the requirements of SABS 193 as amended and shall bear the SABS mark with proven low leakage in the closed position. Each fire damper shall be clearly marked as per clause 5 of SABS 193. Fire dampers shall have at least a 2 hour resistance rating when tested in accordance with SABS 193.

Fire dampers shall be flanged both sides, and an access panel shall be provided in the ducting at each fire damper, preferably on the upstream side of the damper. The open or closed status of the damper shall be clearly indicated outside the casing for inspection purposes.

Fire dampers shall be actuated by means of an electrical solenoid (power on: damper closes), when specified. A fusible link shall always be incorporated in the assembly to provide normal closure in the event of increasing temperature within the duct. Actuation by means of electro-magnets (power off: damper closes), will not be accepted. Solenoids and electrical actuators shall be provided within an enclosure. Open electrical connections shall not be accepted.

Each fire damper shall be wired to the switchboard with a LED signal to show if the damper has been closed. Alternatively, a red LED shall be installed in the ceiling below each fire damper to indicate closure of damper. All fire dampers shall be clearly identified on a synoptic drawing at the control board as to indicate the installed position of each fire damper in the controlled area. Labels shall be installed on the ceiling grid below all fire dampers indicating their positions, and reading: "Fire damper above".

Dampers shall be sized so that the nominal free air area when in the open position is not less that the connected duct free air area.

Fire dampers shall be installed as to form part of a continuous barrier to passage of fire when in a closed position. Where a fire damper cannot be fitted immediately adjacent to the fire wall, the section of ducting between the damper and the wall shall be of at least the same metal thickness and fire rating as the damper casing.

Dampers shall be self-supporting in case of duct destruction due to heat. Care shall be exercised that the supporting frame be installed so that the closing device is accessible.

Sheet metal sleeves shall be provided for housing the fire dampers where fire dampers are mounted in walls. These sleeves shall be built into the walls by the Building Contractor. Retaining angles shall be installed on the four sides of the fire damper sleeve on both sides of the wall. The angles shall be fastened to the sleeves only, and not to the wall. The retaining angles shall lap the masonry by a minimum of 25 mm around the entire opening. Recommended minimum angle sizes are:

Largest Dimension of Fire Damper	Angles
Up to 1 200 mm	38 x 38 x 3,2 mm
1 200 mm to 1800 mm	44 x 44 x 3, 2 mm
Over 1 800 mm	51 x 51 x 4,8 mm

Clearance shall be provided between the sleeve and the masonry opening on the top and at the sides of the fire damper to allow for expansion. Allow a gap of 1 mm for each 100 mm of sleeve width or depth, but the gap shall no exceed 15 mm.

All fixing and installation materials, i.e. bolts and nuts, rawl-bolts and mortar works shall be as per fire damper manufacturer's specification and shall not affect the fire rating of the fire damper installation. Combustible materials such as plastic or similar rawl-bolts and plugs are not permitted.

7.7 FILTERS

All rooftop package units shall be fitted with a primary pleated filter, mounted at the location where indicated on the project drawings.

Frames and filters shall be constructed in such a manner that the passage of unfiltered air is prevented. Gaskets shall be provided between filters and filter holding frames to prevent the bypass of unfiltered air. Primary filters shall slide into the filter holding frame and shall easily be removed without the need to destruct the ductwork to which the filter holding frame is fixed.

Each filter bank shall be supplied with an identification label stating type of filters, quantity of filter elements, model numbers and all other information necessary for re-ordering filter material.

Filters shall be adequately protected against dirt during construction and shall not be operated until the system is thoroughly cleaned.

7.7.1 PRIMARY FILTERS

Primary filters shall be of the 50 mm pleated washable panel type and be of the Peter McLeod Manufacture. The media shall be synthetic and shall be of the self-supporting type. The media shall fit into and extend to seal all round in the panel frame to ensure that no air bypasses the media. The filter outer panel frame shall be of galvanised steel.

All filter accessories including the channel filter holding frames and clips shall be standard products of the filter manufacturer. Filter holding frames shall be manufactured from galvanised steel with epoxy powder coating. Filter holding frames shall be bolted or riveted together, where necessary, and shall be suitably reinforced in larger arrangements to withstand all possible operating conditions. An airtight seal shall be provided where filter holding frames are joined together. All metal parts shall be sufficiently protected against corrosion.

Primary filter panels shall fit into channel holding frames with sealing gaskets located between filter panel and channel holding frame. Where the channel holding frames are located on the downstream side of the filter, at least two spring loaded clips shall be used to ensure a positive seal against the edge gaskets and to keep filter panel in place. Where the channel holding frames are located at the upstream side of the filter, at least four spring loaded clips shall be used. All clips shall be from stainless steel.

The primary filter shall be of filtration class G3 / G4 have an average ASHRAE arrestance of 90 %, SABS tested. The dust holding capacity shall not be less than 150 g per square meter. The initial (clean) and final (dirty) resistance of the filter shall be 65 Pa and 250 Pa respectively. The above-mentioned features shall be based on a rated face velocity of 2.5 m/s.

8. SOUND ATTENUATORS

This part of the specification shall be read in conjunction with section 1.2, Sound Control. All rooftop package units shall be supplied with sound attenuators installed as indicated on the project drawings

All sound attenuators shall be off type. If sizes are not specified, sound attenuators shall be selected to comply with the noise levels as specified in section 1.2, Sound Control.

C3.4 SCHEDULE OF EQUIPMENT

SCHEDULE OF EQUIPMENT

1. INTRODUCTION 2

2. PURPOSE OF THE DOCUMENT 2

3. FULL FRESH AIR UNITS 3

1. Introduction

This equipment schedule shall be read in conjunction with the following documents and drawings:

a Project specification

b Latest revision HVAC drawings

2. Purpose of the Document

This equipment schedule is issued to supplement the HVAC design drawings and is NOT intended for procurement purposes.

The final responsibility for equipment selection, to meet all specifications, lies with the contractor.

3. Full fresh air Units

Unit Ref	Qty	Type	Capacity (kW)			Fan Duty		Power			Notes
			Sensible	Total	Heating	Airflow (ℓ/s)	External Static Pressure (Pa)	Supply (V/ø/Hz)	Absorbed (kW)		
									Summer	Winter	
HERBARIUM-WEST											
AHU-1	1	FULL FRESH AIR UNIT	158.0	158.0	273.4	15956	420	400/3/50	16	35	Full fresh air requirement: 15956ℓ/s
HERBARIUM-EAST											
AHU-2	1	FULL FRESH AIR UNIT	158.0	158.0	273.4	15956	420	400/3/50	16	35	Full fresh air requirement: 15956ℓ/s

SECTION NO.4 ELECTRICAL WORK

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Bill No 01 BASEMENT				
1	**Distribution Boards**				
	Upgrading existing distribution boards				
	a) Install new circuit breakers				
	b) Re-wiring				
	c) Update legend card				
	d) New cover plate				
1,1	DB5				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	a) 1 x 30A - 1 pole				
	b) 2 x EL 60A 2 pole				
	c) 6 x 20A 1 pole				
1,2	VbA3				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	a) 1 x 30A - 1 pole				
	b) 2 x EL 60A 2 pole				
	c) 6 x 20A 1 pole				
	Amount Carried Forward				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Amount Brought Forward				R -
2	**Conduit and Accessories**				
	Make exiting surface installed conduit, trunking and cable tray installation tidy				
	a) Remove existing wire ways and cables				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	b) Install new wire ways				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	c) Re-install existing wires and cables				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
3	**Luminaries**				
	Upgrade existing light installation				
	a) Remove existing light fittings				
	Supply	No	20	R -	R -
	Install	No	20	R -	R -
	b) Install new light fittings				
	Supply	No	20		
	Install	No	20	R -	R -
4	**Light Switches**				
	Upgrade light switches				
	a) Remove existing light switched				
	Supply	No	8	R -	R -
	Install	No	8	R -	R -
	b) Install new light switches				
	Supply	No	8	R -	R -
	Install	No	8	R -	R -
	Amount Carried Forward				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Amount Brought Forward				R -
5	**Switched Socket Outlet**				
	Upgrade switched socket outlets				
	a) Remove existing sockets				
	Supply	No	6	R -	R -
	Install	No	6	R -	R -
	b) Install new socket outlets (3&2 pin)				
	Supply	No	6	R -	R -
	Install	No	6	R -	R -
6	**Power at work station**				
	Upgrade power outlets at workstations				
	a) Add power cluster				
	Supply	No	0	R -	R -
	Install	No	0	R -	R -
7	**Isolators**				
	Upgrade isolators (AC)				
	a) Remove existing isolators				
	Supply	No	2	R -	R -
	Install	No	2	R -	R -
	b) Install new isolators IP65				
	Supply	No	2	R -	R -
	Install	No	2	R -	R -
8	**As Build Drawings and COC**				
	Supply the engineer with one set of as build drawings as specified and a COC				
	a) As build drawings				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	b) COC - Electrical installation				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	Amount Carried Forward To Summary				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Bill No 02 GROUND FLOOR				
1	**Distribution Boards**				
	Upgrading existing distribution boards				
	a) Install new circuit breakers				
	b) Re-wiring				
	c) Update legend card				
	d) New cover plate				
1,1	VBD1 - Main	Item	1	R -	R -
	a) 4 x 100A 3 pole CB				
	b) 1 x 250A 3 pole isolator				
	c) 3 x 30A 3 pole CB				
	d) 2 x 60A 2 pole EL				
	e) 6 x 20A 1 pole CB				
1,2	VBB2	Item	1	R -	R -
1,3	VB3	Item	1	R -	R -
1,4	VB4	Item	1	R -	R -
	1 x 100A 3 pole isolator				
	3 x 60A 2 pole EL				
	12 x 20A 1 pole CB				
	6 x 10A 1 pole CB				
	Amount Carried Forward				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Amount Brought Forward				R -
2	**Conduit and Accessories**				
	Make exiting surface installed conduit, trunking and cable tray installation tidy				
	a) Remove existing wire ways and cables				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	b) Install new wire ways				
	Supply	Item	1		
	Install	Item	1	R -	R -
	c) Re-install existing wires and cables				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
3	**Luminaries**				
	Upgrade existing light installation				
	a) Remove existing light fittings				
	Supply	No	55	R -	R -
	Install	No	55	R -	R -
	b) Install new light fittings				
	Supply	No	55	R -	R -
	Install	No	55	R -	R -
4	**Light Switches**				
	Upgrade light switches				
	a) Remove existing light switched				
	Supply	No	38	R -	R -
	Install	No	38	R -	R -
	b) Install new light switches				
	Supply	No	38	R -	R -
	Install	No	38	R -	R -
	Amount Carried Forward				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Amount Brought Forward				R -
5	**Switched Socket Outlet**				
	Upgrade switched socket outlets				
	a) Remove existing sockets				
	Supply	No	8	R -	R -
	Install	No	8	R -	R -
	b) Install new socket outlets (3&2 pin)				
	Supply	No	8	R -	R -
	Install	No	8	R -	R -
6	**Power at work station**				
	Upgrade power outlets at workstations				
	a) Add power cluster				
	Supply	No	55	R -	R -
	Install	No	55	R -	R -
7	**Isolators**				
	Upgrade isolators (AC)				
	a) Remove existing isolators				
	Supply	No	5	R -	R -
	Install	No	5	R -	R -
	b) Install new isolators IP65				
	Supply	No	5	R -	R -
	Install	No	5	R -	R -
8	**As Build Drawings and COC**				
	Supply the engineer with one set of as build drawings as specified and a COC				
	a) As build drawings				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	b) COC - Electrical installation				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	Amount Carried Forward To Summary				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Bill No 03 FIRST FLOOR				
1	**Distribution Boards** Upgrading existing distribution boards a) Install new circuit breakers b) Re-wiring c) Update legend card d) New cover plate				
1,1	VBC1 - Main a) 4 x 80A 3 pole CB b) 1 x 200A 3 pole isolator b) 1 x 200A 3 pole isolator b) 1 x 200A 3 pole isolator b) 1 x 200A 3 pole isolator	Item	1	R -	R -
1,2	VBC2	Item	1	R -	R -
1,3	VBC3	Item	1	R -	R -
1,4	VBC4	Item	1	R -	R -
1,5	VBC5 1 x 100A 3 pole isolator 3 x 60A 2 pole EL 12 x 20A 1 pole CB 6 x 10A 1 pole CB	Item	1	R -	R -
	Amount Carried Forward				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Amount Brought Forward				R -
2	**Conduit and Accessories**				
	Make exiting surface installed conduit, trunking and cable tray installation tidy				
	a) Remove existing wire ways and cables				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	b) Install new wire ways				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	c) Re-install existing wires and cables				
	Supply	Item	1		R -
	Install	Item	1	R -	R -
3	**Luminaries**				
	Upgrade existing light installation				
	a) Remove existing light fittings				
	Supply	No	28	R -	R -
	Install	No	28	R -	R -
	b) Install new light fittings				
	Supply	No	28	R -	R -
	Install	No	28	R -	R -
4	**Light Switches**				
	Upgrade light switches				
	a) Remove existing light switched				
		No	22	R -	R -
		No	22	R -	R -
	b) Install new light switches				
	Supply	No	22	R -	R -
	Install	No	22	R -	R -
	Amount Carried Forward				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Amount Brought Forward				R -
5	**Switched Socket Outlet**				
	Upgrade switched socket outlets				
	a) Remove existing sockets				
	Supply	No	12	R -	R -
	Install	No	12	R -	R -
	b) Install new socket outlets (3&2 pin)				
	Supply	No	12	R -	R -
	Install	No	12	R -	R -
6	**Power at work station**				
	Upgrade power outlets at workstations				
	a) Add power cluster				
	Supply	No	50	R -	R -
	Install	No	50	R -	R -
7	**Isolators**				
	Upgrade isolators (AC)				
	a) Remove existing isolators				
	Supply	No	6	R -	R -
	Install	No	6	R -	R -
	b) Install new isolators IP65				
	Supply	No	6	R -	R -
	Install	No	6	R -	R -
8	**As Build Drawings and COC**				
	Supply the engineer with one set of as build drawings as specified and a COC				
	a) As build drawings				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	b) COC - Electrical installation				
	Supply	Item	1	R -	R -
	Install	Item	1	R -	R -
	Amount Carried Forward To Summary				R -

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SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Bill No 04 SECOND FLOOR				
1	**Distribution Boards**				
	Upgrading existing distribution boards				
	a) Install new circuit breakers				
	b) Re-wiring				
	c) Update legend card				
	d) New cover plate				
1,1	VBD1 - Main	Item	1	R -	R -
	a) 4 x 80A 3 pole CB				
	b) 1 x 200A 3 pole isolator				
	c) 1 x 30A 3 pole CB				
	d) 1 x 60A 2 pole EL				
	e) 4 x 20A 1 pole CB				
1,2	VBD2	Item	1	R -	R -
1,4	VBD4	Item	1	R -	R -
1,3	VBD3	Item	1	R -	R -
1,4	VBD4	Item	0	R -	R -
1,5	VBD5	Item	1	R -	R -
	1 x 100A 3 pole isolator				
	3 x 60A 2 pole EL				
	12 x 20A 1 pole CB				
	6 x 10A 1 pole CB				
	Amount Carried Forward				R -

SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Amount Brought Forward				R -
2	**Conduit and Accessories**				
	Make exiting surface installed conduit, trunking and cable tray installation tidy				
	a) Remove existing wire ways and cables	Item	1	R -	R -
	b) Install new wire ways	Item	1	R -	R -
	c) Re-install existing wires and cables	Item	1	R -	R -
3	**Luminaries**				
	Upgrade existing light installation				
	a) Remove existing light fittings	No	33	R -	R -
	b) Install new light fittings	No	33	R -	R -
4	**Light Switches**				
	Upgrade light switches				
	a) Remove existing light switched	No	25	R -	R -
	b) Install new light switches	No	25	R -	R -
	Amount Carried Forward				R -

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SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
	Amount Brought Forward				R -
5	**Switched Socket Outlet**				
	Upgrade switched socket outlets				
	a) Remove existing sockets	No	8	R -	R -
	b) Install new socket outlets (3&2 pin)	No	8	R -	R -
6	**Power at work station**				
	Upgrade power outlets at workstations				
	a) Add power cluster	No	60	R -	R -
7	**Isolators**				
	Upgrade isolators (AC)				
	a) Remove existing isolators	No	6	R -	R -
	b) Install new isolators IP65	No	6	R -	R -
8	**As Build Drawings and COC**				
	Supply the engineer with one set of as build drawings as specified and a COC				
	a) As build drawings	Item	1	R -	R -
	b) COC - Electrical installation	Item	1	R -	R -
	Amount Carried Forward To Summary				R -

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SECTION 4 : ELECTRICAL WORK

Item	Description	Unit	Quantity	Rate	Amount
1	**Distribution Boards** Upgrading existing distribution boards a) Install new circuit breakers b) Re-wiring c) Update legend card d) New cover plate				
1,1	VB-Lift Room 1 x 50A 3 pole isolator 1 x 60A 2 pole EL 3 x 20A 1 pole CB 2 x 10A 1 pole CB	Item	1	R -	R -
2	**Lift Room Power and Lights** Upgrade electrical installation				
2,1	Power - 3 sockets	Item	1	R -	R -
2,2	Lights - 3 1200mm LED lights	Item	1	R -	R -
	Amount Carried Forward To Summary				R -

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SECTION 4 : ELECTRICAL WORK

Item	Description	Total
	Electrical Bills of Quantities	
1	Bill No 01 : Basement	**R**
2	Bill No 02 : Ground Floor	**R**
3	Bill No 03 : 1st Floor	**R**
4	Bill No 04 : 2nd Floor	**R**
5	Bill No 05 : 3rd Floor	**R**
6	Site Electrical	**R**
	Total Amount carried over to final/ main summary	**R**

1. Scope of work.

   The scope of the electrical works includes the following:
   a. Remove all old electrical switchgear for the existing DB's and replace with new.
   b. Rewire all the existing DB's and make wiring tidy.
   c. Replace all damages DB enclosed with new.
   d. New as-built SLD and COC's for all the DB.s
   e. Remove old/damaged light switched and replace with new
   f. Remove old/damaged socket outlets and replace with new
   g. Remove old/damaged light fitting and replace with new
   h. Make trunking and mesh wiring installation tidy.

2. Standards

   The following standard specifications shall apply:

- SANS 10142: The wiring of premises parts 1 and 2
- SANS 10400: The application of the National Building Regulations
- All municipal regulations pertaining to building codes and health and safety requirements
- South African Occupational Health and Safety Act (Act 85 of 1993)

3. List of drawings

   a. P22017-PD-ELE-100/0A Basement DB layout
   b. P22017-PD-ELE-101/0A Ground floor DB layout
   c. P22017-PD-ELE-102/0A First floor DB layout
   d. P22017-PD-ELE-103/0A Second floor DB layout

SECTION NO.5 PROVISIONAL SUMS

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SECTION 5 - PROVISIONAL SUMS

ITEM NO.	DESCRIPTION	QUANTITY	RATE	AMOUNT
	PROVISIONAL BILL OF QUANTITIES			
	SECTION 5			
	BILL NO. 19			
	PROVISIONAL AMOUNTS			
	NOTES:			
	1. The Contractor's attention is drawn specifically to the Principal Building Agreement clause 14.0 (Nominated Sub-Contractors), clause 15.0 (Selected Sub-Contractors) and clause 16 (work by others) and to the related Clauses in Bill No 1 - Preliminaries			
	2. The Contractor's attention is drawn also to the definition of attendance on nominated or selected sub-contractors and of fuel, power and water for commissioning of mechanical and other specialised installations given in the JBCC Preliminaries and is deemed to include the following: Access to the site and places where the subcontract work is to be carried out, including the reasonable use of any temporary personnel hoists erected by the contractor The provision of water and lighting and of single phase electric power to a position within 50 metres of the place where the subcontract or subcontractors work is to be carried out other than water, fuel and power for commissioning of any installation The provision of an area for the subcontractor toestablish temporary office accommodation andworkshops and for the storage of plant and materials and goods The use of erected scaffolding belonging to thecontractor, in common with others having the like right, while it remains erected on the site The use of ablution facilities and the like, where provided The use of the site telecommunication facilities, where provided, subject to payment by the subcontractor for usage thereofMaking good all trades and cleaning down and removal of rubbish on completion			
	3. Where special attendance includes the provision of hoisting facilities for a sub-contractor then the Contractor shall:-			
	* Ensure that the capacities of his hoisting equipment are sufficient to deal with the masses and the quantities of the items to be hoisted,			
	* Schedule the times of availability of the hoisting equipment for each sub-contractor,			
	* Provide all necessary personnel to operate the hoisting equipment,			
	all to enable the sub-contractor to execute the hoisting or lowering of his material, etc using the facilities provided by the Contractor			
	4. Under no circumstances may any Prime Cost - Provisional Amount, etc be extended at an amount lower than the amount given in this Bill			

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SECTION 5 - PROVISIONAL SUMS

ITEM NO.	DESCRIPTION		QUANTITY	RATE	AMOUNT
	PROVISIONAL AMOUNTS FOR NOMINATED/SELECTED SUB-CONTRACTS				
	CONCRETE REPAIRS				
1	Provide the sum of R20,000.00 (Twenty thousand rand) for additional Concrete repairs.	Item	1		R -
2	Provide for profit on the above	%IT	0		R -
3	Provide for attendance on the above	%IT	0		R -
	HIGH PRESSURE POWER WASHING TO FACEBRICK				
4	Provide the sum of R20,000.00 (Twenty thousand rand) for additional Power washing.	Item	1		R -
5	Provide for profit on the above	%IT	0		R -
6	Provide for attendance on the above	%IT	0		R -
	PLUMBING DUCTS				
6	Provide the sum of R15,000.00 (Twenty thousand rand) for additional Ducts Cleaning	Item	1		R -
7	Provide for profit on the above	%IT	0		R -
8	Provide for attendance on the above	%IT	0		R -
	Carried to section summary				**R -**
	Section Summary				
	Page 2				R -
	Sub-total Carried to Final/ Main Summary				**R -**

FINAL/ MAIN SUMMARY

SANBI
Biodiversity for Life
South African National Biodiversity Institute

Contract No: SANBI : G453/2022

SANBI COMBINED WORKS

FINAL/ MAIN SUMMARY

NO.	Items		Amount
1	**SECTION NO. 1 PRELIMINARIES & GENERAL**	R	
2	**SECTION NO.2 BUILDING WORK**	R	
3	**SECTION NO.3 FIRE & MECHANICAL WORK**	R	
4	**SECTION NO.4 ELECTRICAL WORK**	R	
5	**SECTION NO.5 PROVISIONAL SUMS**	R	
6	**CONTINCENCY**	R	900 000,00
	SUB- TOTAL EXCLUDING VAT	R	
	ADD: VALUE ADDED TAX @15%	R	
	TOTAL INCLUDING VAT CARRIED TO FORM OF OFFER AND ACCEPTANCE	R	

PART C: THE CONTRACT

Part C3: Scope of Work

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

		Page
C3.1	DESCRIPTION OF THE WORKS	115
C3.2	CONSTRUCTION	121
C3.3	MANAGEMENT	125

PART C: THE CONTRACT

Part C3: Scope of Work

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

C3.1. Description of the Works

C3.1.1 Employer's Objectives

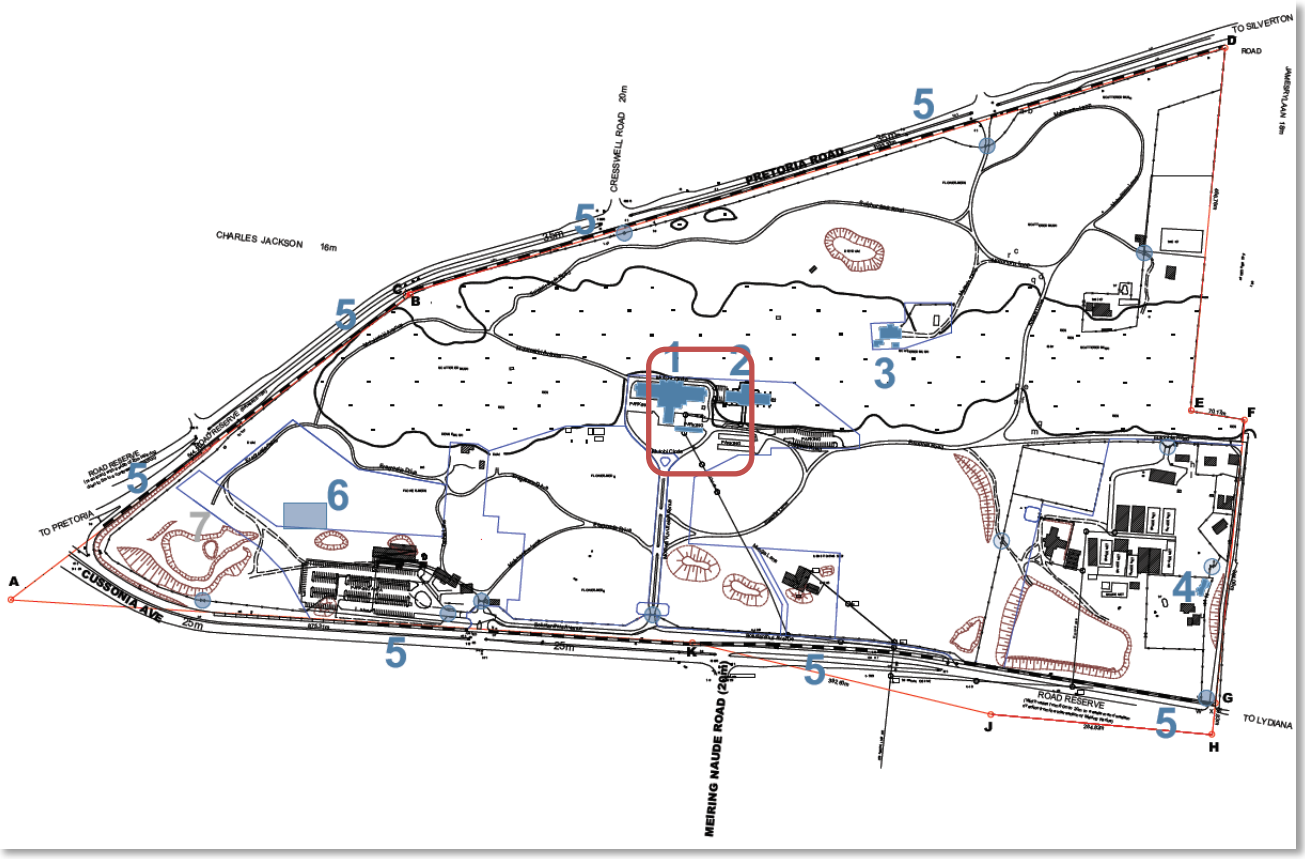
The employer's objective is to deliver improved infrastructure in the Pretoria National Botanical Garden.

C3.1.2 Overview of the Works

The project entails the Renovations and Upgrades to the National Herbarium for SANBI at The Pretoria National Botanical Garden, Pretoria

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:



1) NATIONAL HERBARIUM BUILDING

Programme/ General Arrangement:

1. The building consists of three floors with a semi-basement. The floors are generally arranged around a central circulation core consisting of a staircase; 2x lift shafts and ablutions; with adjacent east and west wings at both ends.
2. The ground floor consists of offices along the East and West Wing as well as offices to the north of the central core and a Bookstore; Reception Area and Cafeteria south of the central core. Adjacent to the Reception Area is a large Meeting Room.
3. The first floor consists of a large room, which contain plant specimens along the West Wing (Wing A) and East (Wing B) as well as offices to the north of the central core and a Library Wing south of the central core.
4. The second floor consists of a large room, which contain plant specimens along the West Wing (Wing A) and East (Wing B) as well as offices to the north and south of the central core.

a)	**Roof Structure; Roof Covering; Roof Drainage System (gutter/downpipe/ fullbore)**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	Roof Cladding: Roof metal sheeting including trimmings.	1. A false timber framed metal sheet roof has been installed over majority of the flat slab roof. 2. Pierced fixed IBR roof metal sheeting had reached end of life cycle evidenced by membrane flashing along laps of sheeting and waterproofing of roof screws. [Seems to have been repaired recently.] 3. Some leaks evident especially West Wing and Library Wing.	1. Existing roof sheeting to be removed and replaced with factory pre-painted, concealed fix roof sheeting [Klip-Lok 700]. 2. Roof replaced on East Wing in 2010 to be retained, colour of new sheeting to match this. 3. New factory pre-painted metal flashings trimming to be provided.
	Roof Structure: Purlins, trusses, slabs.	1. Timber roof trusses/ purlins at eaves in a state of disrepair, provision to be made for replacing of say 20%, however can only be determined once	1. Timber roof trusses, especially at eaves to be assessed for structural integrity. Allow say for replacement of say 20%.

		roof sheeting removed and condition of trusses exposed. 2. It is suspected that the overhang portion of the timber roof truss is rotting in areas and causing the timber slat eave ceiling to dislodge.	2. Timber struts to be fixed to concrete slab as with 70x70 equal angles. 3. Hurricane clips and gang nail truss connectors to be installed.
	Roof: Eaves.	1. Timber slat eave ceiling dislodge in places due to overhang portion of the timber roof truss rotting.	1. Remove all existing eaves and replace with aluminum slats.
	Roof Drainage: Gutters & downpipes.	1. Industrial painted gutters generally in satisfactory condition, need to be replaced in sections; also would be impacted if/when trusses are repaired and or sheeting replaced. 2. Circular downpipes generally connect to exiting boreholes within columns; ducts, as well as corners of building. Downpipes will need to be replaced and or additional downpipes required; also would be impacted if/when trusses are repaired and or sheeting replaced. 3. Fascia cladding in front of gutters dislodging in certain areas.	1. Replace all gutters with new factory pre-painted extruded industrial gutters/ alternatively the gutters need to be cleaned, corrosive damage to be repaired or replaced in sections. 2. Fascia boards concealing gutters be removed and not reinstated. 3. Replace all downpipes with new factory pre-painted extruded industrial downpipes.
	Roof Drainage: Concrete Slabs.	1. The torch on waterproofing above the window ledges have reached end of life cycle evidenced by membrane cracks especially at Library Wing. (It would seem that the East and West Wing has been replaced recently) 2. Sign of leaking at expansion joints at wings.	1. Replace torch on waterproofing above the window ledges at Library Wing as well as north of the Central Core Block. 2. Polysulphide joint sealant at expansion joint to be reinstated.
	Roof Opening: Skylights.	1. Existing 2 bronze aluminum framed skylights (adjacent to main stair circulation core) cladded with multiwall polycarbonate sheeting; beading failing and no longer weathertight.	1. New skylight together with sub-frame, general arrangement – shop-drawings to be submitted to Architect for general arrangement approval prior manufacturing. 2. Providing solar-E glazing to skylight as per specification.
b)	**Assessment: Superstructure (Foundations, Columns, Beams, Walls, Railing/ Balustrades & Fences)**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	Structural Frame: Structural cracks/ spalling to concrete structure- floors/ columns/ slabs incl. joint sealant.	1. Structural crack/ spalling to concrete column adjacent to roof skylight east of circulation core. 2. Concrete spalling/ water marks to window ledge to be addressed.	1. Repairs to structural concrete frame. 2. Concrete spalling/ water marks to window ledge to be addressed by providing drip groove along entire length.
	Wall Envelope: Structural cracks to walls.	1. Perimeter brick wall to area behind Library Wing meeting room shifting away from concrete wall due to cantilevered slab settlement. 2. Wall cracking/ bulging and failing due to vegetation. (Main entrance from West wing.) Entrance narrow due to installation of access ramp along the stair.	1. Perimeter brick wall to area behind Library Wing south of Meeting Room to be demolished and naturally anodized aluminum shopfront with "Hulabond" panel cladding together with structural sub-frame. 2. Vegetation to be removed; entrance stair width to be

			increased, new entrance ramp and balustrade to be provided. (Main entrance from West wing.)
	Wall Envelope: Ducts Panels.	1. Timber subframe of 6x duct weathered in certain sections; fibre cement cover panels missing. (North façade)	1. New steel sub-frame to 6x ducts (North façade); together with new Alu panels.
c)	**Floor Coverings/ External Paving- Stormwater**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	Floor: Coverings including skirtings.	1. Existing vinyl sheets in Wing A & B (1st floor) lifting in places. 2. Timber floor boards above lift shaft loose and unsafe.	1. Existing vinyl sheets in Wing A & B to be stripped and replaced with new vinyl tiles surrounding archive storage cabinets. Skirting trim to be provided. 2. Reinstate timber floor above lift shaft.
d)	**Door & Window/ Ceils Elements & Joinery**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	General Doors and ironmongery.	1. None	1. None
	Fire Doors and ironmongery.	1. Fire escape door (4 off) to end of plant specimens room in Wing A, B; C; D to be confirmed if compliant in terms of fire and or glazing. 2. Fire entrance door (8 off) to plant specimens room in Wing A, B; C; D to be confirmed if compliant in terms of fire and or glazing.	1. Safety glazing in terms of SANS10400 Part N to be provided to non-compliant doors.
	Windows and glazing.	1. Friction stays to top hung opening sections in Wing A, B; C; D cannot stay in open position due to size. 2. Louver window sections closing mechanism failing and affecting air tightness on Ground floor offices, semi-basement room. (East Entrance), old lift motor room, circulation stairs. 3. Glazing below 1m not safety glass and does not comply with regulations. (main circulation stair)	1. Provide new open section windows with fix top pane within existing frame. Mosquito net opening sash to be maintained. 2. Provide new open section windows to existing louvre window frames. 3. Install safety glass glazing below 1m to comply with SANS10400 Part N.
	Specialist Equipment: Joinery fittings etc.	1. Hardwood veneer office partition panel water damaged due to roof leak (Wing C)	1. Replace hardwood veneer office partition panel water damaged due to roof leak (Wing C). Address source of leak if not addressed in recent roof upgrade.
e)	**Ceiling**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**

	Ceiling:	1. Hardwood tongue and groove ceiling panel damaged due to water leak. (Library Wing)	1. Address source of water leak and make good damaged sections of hardwood panel and varnish.
f)	**Painting/ Finishing Coat**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	Paint: roof/ walls/ ceils/ doors/ clean face brick etc.	1. Hardwood ceiling panel (Library Wing) and office partition panel (Wing C) damaged due to water leak to be varnished once repaired.	1. Hardwood ceiling/ office partition panel to receive Plascon Woodcare Clear Varnish to exterior new wood (NW 553).
g)	**Wet Services**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	Plumbing: reticulation, fittings.	1. Plumbing ducts intermittently blocks and floods the semi-basement at the central stair core. RE covers missing and base of ducts are unhygienic. 2. Sewer line from plumbing ducts to MH intermittently blocks and floods the semi-basement at the central stair core.	1. Plumbing duct covers etc. to be provided, pipes flushed and duct cleaned. 2. Sewer line from plumbing ducts to MH to be accessed.
h)	**Fire/ HVAC**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	HVAC	1. Evaporative cooling HVAC plant to be reinstated/ provided on roof plinths (south of central circulation core) for climate control of plant specimens to Wing A, B, C, D. 2. Evaporative cooling ducting to run along clearstory level along south and possible north length of Wing A, B, C, D. 3. Mechanical extraction of 2x plumbing ducts on either side of central circulation core not operational. 4. 2x Indoor units reported been not working within Herbarium Library, remotes were not in place.	Provision of 2x Full Fresh Air Units: 1. AHU1 – Herbarium – West Wing 2. AHU2 – Herbarium – East Wing
	Fire Protection: FHR, FE, Hydrants	1. Fire escape routes/ emergency evacuation to be assessed to confirm compliance to SANS Part T.	1. Additional escape to be provided at semi-basement West Wing.
i)	**Electrical**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	Electrical Fittings: Light fittings, fans, small power.	1. Some existing light installation in state of disrepair.	1. Upgrade existing light installation.

	Electrical: Electrical DBs.	1. All electrical DBs are in an unsafe state and not labeled. Need to be assessed and CoCs reissued.	1. All electrical DBs to be assessed and CoCs reissued.
	Electrical: Cable management- data, alarm, CCTV small power etc.	1. All redundant access control; telephone and data cables to be removed.	1. All redundant access control; telephone and data cables to be removed.
j)	**Assessment: Additions/ Alterations**		
No.	**Item**	**Comments/ Recommendation**	**Proposed Project Scope**
	Additions/ Alterations:	1. Concrete frame carport to receive roof. 2. Concrete structure spalling and require concrete repairs.	1. Provide factory pre-painted roof sheeting including steel structure to concrete frame of existing carport. Remove existing shade cloth and chain-link roof covering. 2. Concrete repairs to existing concrete structure.

The construction period will be **9 months (incl. builders holiday).**

C3.1.4 Location of the Works

The National Herbarium Building site is located at the Pretoria National Botanical Garden (PNBG), Cussonia Avenue, Pretoria.

C3.1.5 Description of Site and Access

The Site is located on the Remainder of Portion 97 of the Farm Koedoespoort 325-JR.
Access to the Site is from Cussonia Avenue, Brummeria.
Refer to the drawings provided. Detail to be discussed at site briefing.

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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
CONTRACT NO:	**SANBI : G453/2022**

Construction

C3.1.7 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.

C3.1.8 Plant and Materials

C3.1.8.1 Plant and Materials Supplied by the Employer
None

C3.1.8.2 Materials, Samples and Shop Drawings
All materials are to be SANS approved as directed by the Engineer.

C3.1.9 Construction Equipment

C3.1.9.1 Requirements for Equipment
The Contractor is required to use plant and equipment that is sufficient for the contract.

C3.1.9.2 Equipment Provided by the Employer
None

C3.1.10 Existing Services

C3.1.10.1 Known Services
None

C3.1.10.2 Treatment of Existing Services
Contractor to use caution.

C3.1.10.3 Use of Detection Equipment for the Location of Underground Services

There are no ground services expected to be disturbed during construction.

C3.1.10.4 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 off the services to the original state before it was damaged, as well as all cost associated with the damaged service.

C3.1.11 Site Establishment

C3.1.11.1 Services and Facilities Provided by the Employer

None.

C3.1.11.2 Facilities Provided by the Contractor

The onus lies with the main Contractor to find a suitable camp site, approved by the Employer.

C3.1.11.3 Storage

No requirements are specified.

C3.1.11.4 Other Facilities and Services

No requirements are specified.

C3.1.11.5 Vehicles and Equipment

No requirements are specified.

C3.1.11.6 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.

C3.1.11.7 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.

C3.1.12 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

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
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C3.2. Management

C3.2.1 Planning and Programming

C3.2.1.1 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.

C3.2.1.2 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.

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.

C3.2.1.3 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.

C3.2.2 Health and Safety

C3.2.2.1 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.

PART C: THE CONTRACT

Part C4: Site Information

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
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PART C: THE CONTRACT

Part C4: Site Information

PROJECT TITLE:	**REQUEST FOR BIDS FOR THE APPOINTMENT OF A CONTRACTOR FOR THE RENOVATIONS AND UPGRADES TO THE NATIONAL HERBARIUM FOR SANBI AT THE PRETORIA NATIONAL BOTANICAL GARDEN, PRETORIA**
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C4.1 Site Information

C4.1.1 Site Location

The site is located at the Pretoria National Botanical Gardens, Cussonia Ave, Pretoria.

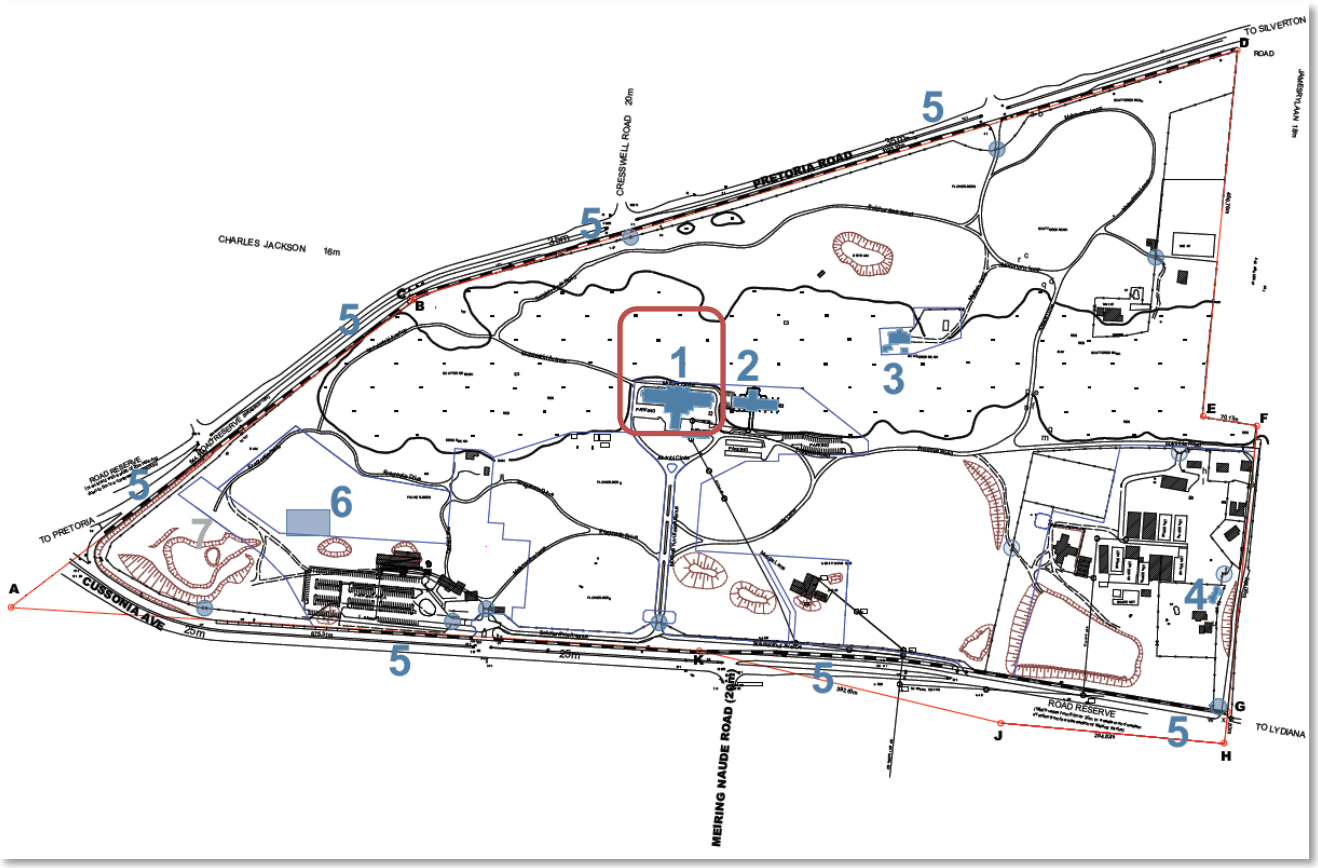

Figure 1: Location of National Herbarium Building

ANNEXURE A: HEALTH & SAFETY SPECIFICATIONS

C4.2 OHS Specifications

OCCUPATIONAL HEALTH AND SAFETY SPECIFICATION

Compiled for

THE SOUTH AFRICAN NATIONAL BIODIVERSITY INSTITUTE (SANBI) AT THE NATIONAL ZOOLOGICAL GARDEN IN PRETORIA

For

G360-2020-12 PRETORIA NATIONAL BOTANICAL GARDENS- COMBINED WORKS [PTA-CB]

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ANNEXURE A *19*

Occupational health and safety specification for G360-2020-12 PRETORIA NATIONAL BOTANICAL GARDENS- COMBINED WORKS [PTA-CB].

1 Scope

This health and safety specification in respect of an engineering and construction works contract:

a) provides the overarching framework within which the Principal Contractor is required to demonstrate compliance with certain requirements for occupation health and safety established by the Occupational Health and Safety Act of1993(Act No.85 of 1993) and its regulations, Construction Regulations 2014, Electrical installation regulations as well as applicable Municipality By laws.

b) establishes the manner in which the Principal Contractor is to manage the risk of health and safety incidents in the execution of the contract; and

c) establishes the manner in which the Principal contractor will interact with the Clients Agent.

Note: 1) This specification establishes specific requirements to enable the Client and the Principal contractor to satisfy the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), the Construction Regulations2014 as well as applicable Municipal By laws.

2) The Construction Regulations, 2014, require the Client or its appointed Agent to stop any Contractor from executing construction work which is not in accordance with the Contractor's health and safety plan for the site or which poses to be a threat to the health and safety of persons.

3) This specification establishes health and safety requirements Site specific requirements for health and safety as stated in the scope of work associated with a contract.

2 Definitions

Act: The Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

Competent person: any person having the knowledge, training and experience specific to the work or task being performed

Employer's Health and Safety Agent: the person appointed as agent by the Employer in terms of Regulation 4(5) of the Construction regulations and named in the contract data as the being the employer's agent responsible for health and safety matters

ergonomics: the application of scientific information concerning humans to the design of objects, systems and the environment for human use in order to optimize human well-being and overall system performance

hazard: a source of or exposure to danger

hazard identification: the identification and documenting of existing or expected hazards to the health and safety of persons, which are normally associated with the type of construction work being executed or to be executed

health and safety plan: a documented plan which addresses hazards identified and includes safe work procedures to mitigate, reduce or control the hazards identified.

healthy: free from illness or injury attributable to occupational causes

incident: an event or occurrence occurring at work or arising out of or in connection with the activities of persons at work, or in connection with the use of plant or machinery, in which, or in consequence of which:

a) any person dies, becomes unconscious, suffers the loss of a limb or part of a limb or is otherwise injured or becomes ill to such a degree that he 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 to continue with the activity for which he was employed or is usually employed;

b) a major incident occurred; or

c) the health or safety of any person was endangered and where:
   i) a dangerous substance was spilled;
   ii) the uncontrolled release of any substance under pressure took place;
   iii) machinery or any part thereof fractured or failed resulting in flying, falling or uncontrolled moving objects; or machinery ran out of control

inspector: a person designated as such under section 28 the Act

major incident: an occurrence of catastrophic proportions, resulting from the use of plant or machinery, or from activities at a workplace

reasonably practicable: practicable having regard to:

a) the severity and scope of the hazard or risk concerned;

b) the state of knowledge reasonably available concerning that hazard or risk and of any means of removing or mitigating that hazard or risk;

c) the availability and suitability of means to remove or mitigate that hazard or risk; and

d) the cost of removing or mitigating that hazard or risk in relation to the benefits deriving there from;

registered person: a person registered in terms of the Electrical Installation Regulations

risk: the probability that injury or damage will occur

safe: free from any hazard

scaffold: any temporary elevated platform and supporting structure used for providing access to and supporting workmen or materials or both

3 Structure

a) any building, steel or reinforced concrete structure (not being a building), railway line or siding, bridge, waterworks, reservoir, pipe or pipeline, cable, sewer, sewage works, fixed vessels , road, drainage works, earthworks, dam, wall, mast, tower, tower crane, batching plants, pylon, surface and underground tanks, earth retaining structure or any structure designed to preserve or alter any natural feature, and any other similar structure;

b) any formwork, false work, scaffold or other structure designed or used to provide support

c) or means of access during construction work; or

d) any fixed plant in respect of work which includes the installation, commissioning, decommissioning or dismantling and where any such work involves a risk of a person falling two metres or more

substance: any solid, liquid, vapour, gas or aerosol, or combination thereof

suitable: capable of fulfilling or having fulfilled the intended function or fit for its intended purpose

workplace: any premises or place where a person performs work in the course of his employment

4 Interpretation

The Act and its associated regulations shall have precedence in the interpretation of any ambiguity or inconsistency between it and this specification.

Compliance with the requirements of this specification does not necessarily result in compliance with the provisions of the Act.

5 Requirements

General requirement

The Principal Contractor shall:

a) create and maintain a safe and healthy work environment,

b) execute the works in a manner that complies with all the requirements of the Act and all its associated regulations, Applicable Municipal By Laws and in so doing, minimize the risk of incidents occurring; and

c) respond to the notices issued by the Client's Health and Safety Agent as follows:

1) Improvement Notice: improve health and safety performance over time so that repeat notices are not issued;

2) Contravention Notice: rectify contravention as soon as possible;

3) Prohibition Notice: terminate affected activities with immediate effect and only recommence activities when it is safe to do so.

Administration

Notification of intention to commence construction work

The Principal Contractor shall notify the Provincial Director of Labour in writing using a form Annexure 2 of the Construction Regulations issued in terms of the Act before construction work commences and retain a copy of such notification in the health and safety file where such work:

a) involves the demolition of a structure exceeding a height of3m;
b) involves the use of explosives to perform construction work;

c) involves the dismantling of fixed plant at a height greater than3m;

d) exceeds 30 days or will involve more than 300 person days of construction work; and includes:

   i) excavation work deeper than 1m

   ii) working at a height greater than 3 m above ground or a landing.

The Principal Contractor shall ensure that no work commences on an electrical installation which requires a new supply or an increase in electricity supply before the person who supplies or contracts or agrees to supply electricity to that electrical installation has been notified of such work.

The Principal Contractor shall ensure that no asbestos work is carried out before the Provincial Director of the Department of Labour has been notified in writing.

Copy of the Act

The Principal Contractor shall ensure that a copy of the Act and relevant regulations is available on site for inspection by any person engaged in any activity on the site.

Good standing with the compensation fund or a licensed compensation insurer

The Principal Contractor shall before commencing with any works on the site provide the Client's Health and Safety Agent with proof of good standing with the compensation fund or with a licensed compensation insurer.

Emergency procedures

The Principal Contractor shall submit for acceptance to the Client's Health and Safety Agent an emergency procedure which include but not limited to fire, spills, accidents to employees, exposure to hazardous substances, which:

a) identifies the key personnel who are to be notified of any emergency.

b) sets out details including contact particulars of available emergency services; and

c) the actions or steps which are to be taken during an emergency.

The Principal Contractor shall within 24 hours of an emergency taking place notify the Client's Health and Safety Agent in writing of the emergency and briefly outline what happened and how it was dealt with.

Health and safety file

The Principal Contractor shall maintain on site a health and safety file which contains copies of the following, as relevant:

a) documents required prior to commencing with physical construction activities

1) the Principal Contractor's health and safety policy, signed by the chief executive officer, which outlines the Contractor's objectives and how they will be achieved and implemented by the Contractor;

2) the notification made to the Provincial Director of Labour, and if relevant, the notification of the person who supplies or contracts or agrees to supply electricity to that electrical installation;

3) the letters of appointment, as relevant, of the construction Manager for the site in respect of construction works covered by the Construction Regulations and the registered person responsible for the electrical installation covered by the Electrical Installations Regulations;

4) a copy of the certificate of registration of the registered person responsible for the electrical installation covered by the Electrical Installation Regulations;

5) the approval of the design of the part of an electrical installation which has a voltage in excess of 1 kV by a person deemed competent in terms of the Electrical Installations Regulations;

6) proof of registration of the electrical contractor who undertakes the electrical installation in terms of the Electrical Installation Regulations;

7) the preliminary hazard identification undertaken by a competent person;

8) the organ gram which outlines the roles and responsibilities of the construction supervisor's assistants and safety officers; and

9) the Principal contractor's health and safety plan;

10) the emergency procedures;

11) the procedure for the replacement of lost, stolen, worn or damage personal protective clothing and

12) proof that the Principal contractor is registered and in good standing with the compensation fund or with a licensed compensation insurer;

b) documents required after construction activities have commenced

1) the letters of appointments, if relevant, of:

   i) persons who are required to assist the construction Manager;
   ii) safety officers;
   iii) health and safety representatives;
   iv) replacement construction supervisor, and
   v) assistants of construction supervisor.

2) any revisions to the organ gram which outlines the roles and responsibilities of the construction Manager's assistants and safety officers;

3) each and every subcontract agreement;

4) proof that every subcontractor is registered and in good standing with the compensation fund or with a licensed compensation insurer;

5) proof of all subcontractor's induction training whenever it is conducted;

6) copies of the minutes of the Principal Contractor's subcontractors health and safety meetings;

7) copies of each of the Principal Contractor's subcontractors' health and safety policy, signed by the chief executive officer, which outlines the subcontractor's objectives and how they will be achieved and implemented by the subcontractor;

8) the health and safety plans of all the Principal Contractor's subcontractors who are required to provide such plans;

9) a comprehensive and updated list of all the subcontractors employed on site by the Principal contractor, indicating the type of work being performed by such sub-contractors;

10) the outcomes of the monthly audits for compliance with the approved health and safety plan of each and every sub-contractor working on the site;

11) any report made to an inspector by the health and safety committee;
12) the minutes of all health and safety meetings and any recommendations made to the Principal Contractor by the health and safety committee;

13) the findings of all audit reports made regarding the implementation of the Principal Contractor's or a subcontractor's health and safety plan;

14) the inputs of the safety officer, if any, into the health and safety plan;

15) details of induction training conducted whenever it is conducted including the list of attendees;

16) proof of the following where suspended platforms are used:

    i) a certificate of system design issued by a professional engineer, professional certificated engineer or a professional engineering technologist;
    ii) proof of competency of erectors;
    iii) proof of compliance of operational design calculations with requirements of the system design certificate;
    iv) proof of performance test results;
    v) sketches indicating the completed system with the operational loading capacity of the platform;
    vi) procedures for and records of inspections having been carried out;
    vii) procedures for and records of maintenance work having been carried out;
    viii) proof that the prescribed documentation has been forwarded to the provincial director;

17) letters of appointments for competent persons to supervise the activities which law requires to be so supervised;

18) a copy of risk assessments made by competent persons

19) records of the register of inspections made by a competent person immediately before and during the placement of concrete or any other load on formwork;

20) the names of the first aiders on site and copies of the first aid certificates of competency;

21) the names of the persons who are in possession of valid certificate of competency in first aid and copies of such certificates;

22) details of all incidents together with the Contractor's report on such incident; and

23) the record of inspections carried out by the designers of structures to ensure compliance with designs.

The health and safety file shall be made available for inspection by any inspector, subcontractor, the Project Manager, the Client's Health and Safety Agent or employee of the Contractor upon the request of such persons.

The Principal Contractor shall hand over the health and safety file to the Client's Health and Safety Agent upon completion of the contract and if relevant, a certificate of compliance accompanied by a test report for the electrical installation in accordance with the provisions of the Electrical Installation Regulations.

Health and safety committee

The Principal Contractor shall convene health and safety meetings whenever more than two health and safety representatives have been appointed for the site. These meetings shall be attended by all health and safety representatives and persons nominated by the Principal Contractor. Such meetings shall be convened at least once every month to:

a) make recommendations to the Principal Contractor regarding any matter affecting the health or safety of persons on the site; and

b) discuss any incident on the site in which or in consequence of which any person was injured, became ill or died.

The Principal Contractor shall consult with the health and safety committee on the development, monitoring and review of the risk assessment.

The Principal Contractor shall ensure that minutes of the health and safety committee meetings are kept.

Inspections, formal enquires and incidents

The Principal Contractor shall inform the relevant safety representative:

a) beforehand of inspections, investigations or formal inquiries of which he has been notified by an inspector; and

b) as soon as reasonably practicable of the occurrence of an incident on the site.

The Principal Contractor shall record all incidents and notify the Client's Health and Safety Agent of any incident, except in the case of a traffic accident on a public road, as soon as possible after it has occurred and report such incidence to an inspector.

The Principal Contractor shall investigate all incidents and issue the Client's Health and Safety Agent with copies of such investigations.

Personal protective equipment and clothing

The Principal Contractor shall ensure that:

a) all workers are issued with the necessary personal protective clothing;

b) all workers are identifiable at all times by having the company for which they work for printed on the back or front of their overalls; and

c) clear procedures are in place for the replacement of lost, stolen, worn or damage personal protective clothing.

Appointments

Health and safety representatives

The Principal Contractor shall appoint in writing one health and safety representative for every 50 employees working on the site, whenever there are more than 20 employees on the site, to:

a) review the effectiveness of health and safety measures;

b) identify potential hazards and potential major incidents;

c) in collaboration with his employer, examine the causes of incidents;

d) investigate complaints by any employee of the Principal Contractor relating to that employee's health or safety on the site;

e) make representations to the Principal Contractor on matters arising from a), b), c) or d) or on general matters affecting the health or safety of the employees at the workplace;

g) inspect the site with a view to, the health and safety of employees, at regular intervals;

h) participate in consultations with inspectors at the workplace and accompany inspectors on inspections of the workplace; and

i) participate in any internal health or safety audit.

The Principal Contractor shall provide the health and safety representatives with the necessary assistance, facilities and training to carry out the functions established in4.3.1

c) as soon as reasonably practicable of the occurrence of an incident on the site.

The Principal Contractor shall record all incidents and notify the Client’s Health and Safety Agent of any incident, except in the case of a traffic accident on a public road, as soon as possible after it has occurred and report such incidence to an inspector.

The Principal Contractor shall investigate all incidents and issue the Client’s Health and Safety Agent with copies.

Personal protective equipment and clothing

The Principal Contractor shall ensure that:

d) all workers are issued with the necessary personal protective clothing;

e) all workers are identifiable at all times by having the company for which they work for printed on the back or front of their overalls; and

f) clear procedures are in place for the replacement of lost, stolen, worn or damage personal protective clothing.

Appointments

Health and safety representatives

The Principal Contractor shall appoint in writing one health and safety representative for every 50

employees working on the site, whenever there are more than 20 employees on the site, to:

f) review the effectiveness of health and safety measures;

g) identify potential hazards and potential major incidents;

h) in collaboration with his employer, examine the causes of incidents;

i) investigate complaints by any employee of the Principal Contractor relating to that employee's health or safety on the site;

j) make representations to the Principal Contractor on matters arising from a), b), c) or d) or on general matters affecting the health or safety of the employees at the workplace;

j) inspect the site with a view to, the health and safety of employees, at regular intervals;

k) participate in consultations with inspectors at the workplace and accompany inspectors on inspections of the workplace; and

l) participate in any internal health or safety audit.

The Principal Contractor shall provide the health and safety representatives with the necessary assistance, facilities and training to carry out the functions established in4.3

Appointment of construction Manager and supervisor as well as safety officer

The Principal Contractor shall, prior to commencing the work, appoint a full-time competent employee in writing as the construction Manager for the site, with the duty of supervising the performance of the work falling within the scope of the contract and may appoint one or more competent employees to assist the appointed construction Manager.

The Principal Contractor may, having considered the size of the project, the degree of dangers likely to be encountered or the accumulation of hazards or risks on the site, appoint a full-time or part-time construction safety officer registered with a professional body in accordance with construction Regulations 2014 in writing, who has in the Principal Contractor's opinion the necessary competencies and resources, to assist the Principal Contractor in the control of all safety related aspects on the site.

The Principal Contractor shall compile and maintain an organ gram which outlines the roles and responsibilities of the construction Manager's assistants and safety officers.

Competent persons

The Principal Contractor shall appoint in writing competent persons to supervise or inspect, as relevant, any of the following:

a) . formwork and support work operations;

b) excavation work;

c) demolition work;

d) scaffolding work operations;

e) suspended platform work operations;

f) material hoists;

g) operation of batch plants;

h) explosive power tools;

i) vehicles and mobile equipment;

j) fire equipment; and

g) the stacking and storage of articles on the site.

The Contractor shall appoint in writing competent persons to:

a) induct employees in health and safety; and

b) prepare a fall protection plan.

Client's health and safety agent

The Client's Health and Safety Agent shall:

a) audit the Principal Contractor's compliance with the requirements of this specification prior to the commencement of any physical construction activities on the site;

b) accept or reject all safety plans, giving reasons for rejecting such plans;

c) monitor the effective implementation of all safety plans;

d) conduct periodic and random audits on the health and safety file to establish compliance with the requirements of this specification;

e) visit the site at regular intervals to conduct site inspections, and based upon such visits issue, wherever necessary, Improvement Notices, Contravention Notices and Prohibition Notices, to the Contractor or any of the Contractor's subcontractors with a copy to the Project Manager and, where relevant, to the Contractor.

The Principal Contractor shall invite the Client's Health and Safety Agent to audit compliance with the requirements of this specification before commencing with any physical construction activity on the site.

Creating and maintaining a safe and healthy work environment

General

The Principal Contractor shall with respect to the site and the construction works that are contemplated:

a) cause a preliminary hazard identification to be performed by a competent person before commencing any physical construction activity;

b) evaluate the risks associated with such work constituting a hazard to the health and safety of such employees and the steps that need to be taken to comply with the Act; and

c) as far as is reasonably practicable, prevent the exposure of such employees to the hazards concerned or, where prevention is not reasonably practicable, minimize such exposure.

The Principal Contractor shall ensure that:

a) all reasonably practicable steps are taken to prevent the uncontrolled collapse of any new or existing structure or any part thereof, which may become unstable or is in a temporary state of weakness or instability due to the carrying out of construction work;

b) no structure or part of a structure is loaded in a manner which would render it unsafe; and

c) account of information, if any, provided by the designer of the structure is taken into account in the risk assessment;

Note: The information provided by the designer should outline known or anticipated dangers or hazards relating to the works and make available all information required for the safe execution of the work. It should provide as relevant, geotechnical information (or make reference to reports provided in the site information), the loading the structure is designed to withstand, the methods and sequence of construction.

The Principal Contractor shall carry out regular inspections and audits to ensure that the works are being performed in accordance with the requirements of this specification.

Risk assessment

The Principal Contractor shall before the commencement of any work on site and during construction work, cause a risk assessment to be performed by a competent person appointed in writing. Such an assessment shall as a minimum:

a) identify the risks and hazards to which persons may be exposed to;

b) analyze and evaluate the identified risks and hazards;

c) document a plan of safe work procedures, including the use of any personal protective equipment or clothing and the undertaking of periodic “toolbox talks” or inductions before undertaking hazardous work, to mitigate, reduce or control the risks and hazards that have been identified;

d) provide a monitoring plan; and

e) provide a review plan.

Note: A risk assessment is an important step in protecting workers as well as complying with the law. It helps to focus on the risks that really matter in a particular workplace – the ones with the potential to cause real harm. Workers and others have a right to be protected from harm caused by a failure to take reasonable control measures. The following four steps are recommended:

1) **Identify the hazards** by looking at what could reasonably be expected to cause harm, ask employees or their representatives what they think, obtain advice from trade associations or publications on health and safety, check manufacturer’s instructions or data sheets for chemicals and equipment as they can be very helpful in spelling out the hazards and putting them in their true perspective, review accident and ill-health records, think about long-term hazards to health (e.g. high levels of noise or exposure to harmful substances) as well as safety hazards etc.

2) **Identify who may be harmed and how** by identifying how groups of people might be harmed
i.e. what type of injury or ill health might occur.

3) **Evaluate the risks and decide on precautions** by doing everything ‘reasonably practicable’ to protect people from harm i.e. by looking at how things are done, what controls are in place and how the work is organised and comparing this against good practice to see if more can be done to bring practices up to standard. Consider if the hazard can be got rid of all together, and if not how can the risks be controlled so that harm is unlikely, e.g. try a less risky option (e.g. switch to using a less hazardous

chemical); prevent access to the hazard (e.g.by guarding); organise work to reduce exposure to the hazard (e.g. put barriers between pedestrians and traffic); issue personal protective equipment (e.g. clothing, footwear, goggles etc); and provide welfare facilities (eg first aid and washing facilities for removal of contamination).

4) **Record the findings** by writing down the findings of the risk assessment.

The Principal Contractor shall ensure that as far as is reasonably practicable, ergonomic related hazards are analyzed, evaluated and addressed in the risk assessment.

Notwithstanding the provisions of the fall protection plan, the Principal Contractor shall ensure that:

a) all unprotected openings in floors, edges, slabs, hatchways and stairways are adequately guarded, fenced or barricaded or that similar means are used to safeguard any person from falling through such openings;

b) no person works in an elevated position, unless such work is performed safely as if working from a scaffold or ladder;

c) notices are conspicuously placed at all openings where the possibility exists that a person might fall through such openings;

d) fall prevention and fall arrest equipments:

   i) suitable and of sufficient strength for the purpose or purposes for which it is being used having regard to the work being carried out and the load, including any person, it is intended to bear; and
   ii) securely attached to a structure or plant and the structure or plant and the means of attachment thereto is suitable and of sufficient strength and stability for the purpose of safely supporting the equipment and any person who is liable to fall;

e) fall arrest equipment is only used where it is not reasonably practicable to use fall prevention equipment; and

f) suitable and sufficient steps are taken to ensure, as far as is reasonably practicable, that in the event of a fall by any person, the fall arrest equipment or the surrounding environment does not cause injury to the person.

Where roof work is being performed on a construction site, the Contractor shall ensure that it is indicated in the fall protection plan that:

a) the roof work has been properly planned;

b) the roof erectors are competent to carry out the work;

c) no employees are permitted to work on roofs during inclement weather conditions or if weather conditions are a hazard to the health and safety of the employees; prominent warning notices are to be placed where all covers to openings are not of

d) sufficient strength to withstand any imposed loads and where fragile material exists;

e) the areas mentioned in paragraph *(d)* are to be barricaded off to prevent persons from entering;

f) suitable and sufficient platforms, coverings or other similar means of support have been provided to be used in such a way that the weight of any person passing across or working on or from fragile material is supported; and

g) there is suitable and sufficient guard-rails or barriers and toe-boards or other similar means

of protection to prevent, so far as is reasonably practicable, the fall of any person, material or equipment.

Health and safety plans

The Principal Contractor shall prior to commencing the works to which this specification applies, submit to the Client's Health and Safety Agent for approval a suitable and sufficiently documented health and safety plan, based on this specification and the risk assessment that is conducted.

The health and safety plan shall as a minimum provide:

a) the information contained in Table 1 in respect of each of the hazards associated with work falling within the scope of the contract (see Figure 1);and

Table 1: Example of the format of a health and safety plan

What are the hazards relating to work tasks?	Who might be harmed and how?	What are the safe work procedures for the site?	What further action is necessary (monitoring and review)?	Action by whom	Action by when

b) an outline of the manner in which the Principal contractor intends complying with the requirements of this specification.

The Principal contractor shall discuss the submitted health and safety plan with the Clients' Health and Safety Agent, modify such plan in the light of the discussions and resubmit the modified plan for approval.

The Principal contractor shall apply the approved health and safety plan from the date of its commencement and for the duration of the works to which this specification applies.

The Principal contractor shall conduct periodic audits for compliance with the approved health and safety plan at intervals agreed upon with the Employer's Health and Safety Agent, but at least once every month.

The Principal contractor shall update the health and safety plan whenever changes to the works are brought about

Fall protection plan

The Principal contractor shall require a competent person to prepare a fall protection plan in compliance with the requirements of the Construction Regulations.

The Principal contractor shall ensure that the construction supervisor is in possession of the most recently updated version of the fall protection plan.

Responsibilities towards employees and visitors

The Principal Contractor shall as far as is reasonably practicable, cause every employee to be made conversant with the hazards to his health and safety attached to any work which he has to perform, any article or substance which he has to produce, process, use, handle, store or transport and any plant or machinery which he is required or permitted to use, as well as with the precautionary measures which should be taken and observed with respect to those hazards or safe work procedures.

The Principal contractor shall ensure that all employees under his or her control are:

a) informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be

determined in the risk assessment; and

b) issued with proof of health and safety induction training issued by a competent person and carry proof of such induction when working onsite.

The Principal contractor shall cause a record of training to be kept which indicates the names, identity numbers and job description of all those who attended such training.

The Principal contractor shall not allow or permit any employee to enter the site, unless such person has undergone health and safety induction training pertaining to the hazards prevalent on the site at the time of entry.

The Principal contractor shall ensure that each visitor to a construction site, save where such visitor only visits the site office and is not in direct contact with the construction work activities:

a) undergoes health and safety instruction pertaining to the hazards prevalent on the site; and

b) is provided with the necessary personal protective equipment.
d)

The Principal contractor shall provide suitable on-site signage to alert workers and visitors to health and safety requirements. Such signage shall include but not be limited to:

a) unauthorized entrance prohibited;

b) signage to indicate what personal protective equipment is to be worn; and

c) activity related signs.

The Principal contractor shall not permit any person who is or who appears to be under the influence of intoxicating liquor or drugs, to enter or remain at workplace.

Subcontractors

The Principal contractor may only subcontract work in terms of a written subcontract and shall only appoint a subcontractor should he be reasonably satisfied that such a subcontractor has the necessary competencies and resources to safely perform the work falling within the scope of the contract. Such a subcontract shall require that the subcontractor to:

a) co-operate with the Principal contractor as far as is necessary to enable both the Principal contractor and sub-contractor to comply with the provisions of the Act; and

b) as far as is reasonably practicable, promptly provide the Principal contractor with any information which might affect the health and safety of any person at work carrying out work or any person who might be affected by the work of such a person at work or which might justify a review of the health and safety plan.

The Principal contractor shall provide any sub-contractor who is submitting a tender or appointed to perform a sub-contract falling within the scope of the contract, with the relevant sections of this specification and any work specific information which might be pertinent to the sub-contract.

The Principal contractor shall take reasonable steps as are necessary to ensure:

a) co-operation between all sub-contractors to enable each of those sub-contractors to comply with the requirements of the Act and associated regulations; and that each sub-contractor's health and safety plan is implemented

The Principal contractor shall conduct periodic audits for compliance with the approved

health and safety plan of each and every sub-contractor working on the site at intervals agreed upon with such subcontractors, but at least once per month.

The Principal contractor shall stop any subcontractor from executing construction work which is not in accordance with the Contractor's or subcontractor's health and safety plan for the site or which poses a threat to the health and safety of persons.

The Principal contractor shall ensure that where changes to the works occur, sufficient health and safety information and appropriate resources are made available to subcontractor to execute the work safely.

The Principal contractor shall ensure that:

a) every subcontractor is registered and in good standing with the compensation fund or with a licensed compensation insurer prior to work commencing onsite;

b) potential subcontractors submitting tenders have made provision for the cost of health and safety measures during the construction process; and

c) every subcontractor has in place a documented health and safety plan prior to commencing any work on site which falls within the scope of the contract.

The Principal contractor shall receive, discuss and approve health and safety plans submitted by subcontractors.

The Principal contractor shall ensure that all subcontractors are informed regarding any hazard as stipulated in the risk assessment before any work commences, and thereafter at such times as may be determined in the risk assessment.

The Principal contractor shall reasonably satisfy himself that all employees of subcontractors are informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the risk assessment.
The Principal contractor shall satisfy himself that ensure that all subcontractor employees deployed in the site are:

a) informed, instructed and trained by a competent person regarding any hazard and the related work procedures before any work commences, and thereafter at such times as may be determined in the risk assessment; and

b) issued with proof of health and safety induction training issued by a competent person and carry proof such induction when working onsite.

First aid, emergency equipment and procedures

The Principal contractor shall where more than five employees are employed at a workplace, provide a first aid box or boxes at or near the workplace which shall be available and accessible for the treatment of injured persons at that workplace. Such first aid boxes shall contain suitable first aid equipment.

The Principal contractor shall ensure that where there are more than 10 employees employed on the site that for every group of up to 50 employees at that workplace, at least one person readily available during normal working hours, who is in possession of a valid certificate of competency in first aid.

Facilities for workers

The Principal Contractor shall provide and keep clean and fit for use at or within reasonable access of the site:

a) at least one shower facility for every 15workers;

b) at least one sanitary facility for every 30workers;

c) changing facilities for each sex; and

d) Sheltered eating areas.

The Principal contractor shall provide reasonable and suitable living accommodation for the workers at construction sites which are remote from their homes and where adequate transportation between the site and their homes, or other suitable living accommodation, is not available.

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

……..……. (*Place*)

(*Full name*)…… (*Signature*) ……

On behalf of ……..**(Principal contractor/Agent)**

Contractor Responsible Manager (*responsible for signing Client's 'contract on behalf of the Principal contractor*)

Witnesses

1. …….

2. ……..……

Signed this …… day of ……...20……

at ……..……..…… (*Place*)

(*Full name)*…….(*Signature*)……

On Behalf of **Client/Agent.**

(Contracts and/or Project Manager)

Witnesses

1. ……...

2. …….

ANNEXURE A

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993
Regulation 3 of the Construction Regulations, 2003

NOTIFICATION OF CONSTRUCTION WORK

1.(a) Name and postal address of principal contractor:

_____

(b) Name and tel. no of principal contractor's contact person:

_____

2. Principal contractor's compensation registration number:

_____

3.(a) Name and postal address of client:

_____

(b) Name and tel no of client's contact person or agent:

_____

4.(a) Name and postal address of designer(s) for the project:

_____

(b) Name and tel. no of designer(s) contact person:

_____

5. Name and telephone number of principal contractor's construction supervisor on site appointed in terms of regulation 6.(1).

_____

6. Name/s of principal contractor's sub-ordinate supervisors on site appointed in terms of regulation 6.(2).

_____

7. Exact physical address of the construction site or site office:

_____

8. Nature of the construction work:

_____

_____

_____

9. Expected commencement date: _____

10. Expected completion date: _____

11. Estimated maximum number of persons on the construction site.

_____

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

13. Name(s) of contractors already chosen.

_____

_____

_____

_____ _____

Principal Contractor Date

_____ _____

Client Date

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

GOVERNMENT NOTICE

DEPARTMENT OF LABOUR

No. R. ..... _ .

.....2003

Occupational Health and Safety Act, 1993

Incorporation of Safety Standards in the Construction Regulations, 2003

Under section 44 of the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), I, Thembelani Waltermade Nxesi, Minister of Labour, after consultation with the Advisory Council for Occupational Health and Safety, hereby incorporate in the Construction Regulations, 2003 the health and safety standards specified in the Schedule.

M M S Mdladlana Minister of Labour.

SCHEDULE

1. Regulation 14(1)
The South African Bureau of Standards' Code of Practice SABS 085, as amended, entitled "The Design, Erection, Use and Inspection of Access Scaffolding".

2. Regulation 15(2)*(a)*
The South African Bureau of Standards' Standard Specification SABS EN 1808, as amended, entitled" Safety Requirements on Suspended Access Equipment – Design calculations, stability criteria, construction-tests".

The South African Bureau of Standards' Standard Front-end Specification SABS 1903, as amended, entitled "Safety Requirements on Suspended Access Equipment – Design calculations, stability criteria, construction-tests".

Department of Labour

GUIDE TO THE GENERAL ADMINISTRATIVE REGULATIONS, 2003

Chief Directorate

of

Occupational Health and Safety

1. INTRODUCTION

2. As the name of the regulation indicates, the General Administrative Regulations determines the administrative procedure of the Occupational Health and Safety Act. This procedure was not placed in the Act itself owing to the fact that changes can be made to a Regulation with greater ease than that of a Section in the Act. A change to a Section of the Act needs to be passed by parliament whereas the Minister of the relevant Department can approve a change in a Regulation.

3. The General Administrative Regulations, as is the case with all other regulations, is an extension of the Act and should therefore be seen as a complete unit.

3.1 Terms, which were previously defined in the Act, are not redefined in the Regulations. If a specific definition does not appear in the Regulations, then it should be available in Section 1 of the Act.

4. DEFINITIONS

5. All new phrases as well as words (expressions and words which differ from the standard dictionary definitions) that are used in this regulation, which have not been defined in the Act, will be defined in this regulation. Where the Act or regulation refers to “mean” the definition in the Act or regulation must be considered and where there’s reference made to “It Includes” definition from the Act and regulation including the oxford dictionary must be considered

6. ACCESS TO PREMISES

7. It is prohibited for an employer to refuse an inspector entry to perform his or her function because an inspector is entitled by the law to enter employer’s workplace.

8. Employers should always ensure that inspectors are accompanied by a person who has knowledge and experience of the activities and safety requirements of the workplace.

9. EXEMPTIONS

10. Any exemption, which has been granted to any person, shall be signed by the Chief Inspector of the Department of Labour. An person who wishes to apply for an exemption should forward his/her application to the office of the Chief Inspector in Pretoria. The application for exemption should indicate proof that the health and safety of persons who are likely to be affected by the exemption will not bee prejudiced in consequences of it. Health and safety representatives and committees must be consulted during the whole process and given time to comment.

11. COPY OF THE ACT

11.1 Employees together with employers have certain duties and rights, which have been assigned to them in terms of the Act. In order to comply with the provisions of the Act and regulations, each employee must have access to a copy of the Act. This regulation requires that—

11.1.1 Each employer with 5 or more employees shall have a copy of at least one Act, which will be made readily available for perusal by the employee. Owing in the fact that a workplace can be made up of a very large area, and that the legislator did not intend to be unreasonable, various concessions are made. For example, a meter-reader in the town of Brits’ workplace is the Municipal area of Brits. In such a case it is expected that a copy of the Act be made available at the point where the employee reports for duty in the morning, or any other suitable position as agreed upon with the employer.

11.1.2 Each employer with less than 5 employees, shall, if requested provide a copy of the Act for perusal by the employees. This includes farm workers and domestic servants.

11.1.3 The copy of the Act may be an electronic reproduction or from a library. The Act and Regulations are amended from time to time, and it is therefore important to remember that one must obtain a copy of the latest amendments to keep up to date with the current legislation.

12. HEALTH AND SAFETY COMMITTEES

12.1 Health and Safety committees are made up of all the Health and Safety Representatives together with an equal amount of employer appointee

representatives to represent the employer (there can be more than one committee to avoid a large congregation of representatives). If more than two committees are established, each health and safety representative must be member of at least one of the committees. These committees are the point around which self-regulation revolves.

12.2 Employer should provide necessary equipment, facilities and stationery required by the committee in order them to perform their functions.

12.3 It is important to keep the records of the meeting as they can be used as evidence for action taken to eliminate hazards and vice versa

13. NEGOTIATIONS AND CONSULTATIONS BEFORE DESIGNATION OF HEALTH AND SAFETY REPRESENTATIVES

13.1 The regulation prescribes the items which must be agreed upon during negotiations between the employer and employees representatives. If a dispute arises between the employees and employers or his authorised representative, the matter should be referred for arbitration. Both parties shall submit a statement within a prescribed period to both the arbitrator and the other party concerned.

13.2 The statement is to contain the following information:

13.2.1 The proposal for the arrangements and procedures for the nomination of the Health and Safety Representatives.

13.2.2 The decision which is sought.

13.3 The arbitrator should then:

13.3.1 Determine when and where the arbitration procedure shall be held. The arbitration may be held in the absence of the party who failed to submit a statement to the arbitrator and other party;

13.3.1.1 Determine whether a pre-hearing conference shall be held;

13.3.1.2 Determine which arbitration procedures shall be followed;

13.3.1.3 Determine the procedures for the admission of evidence;

13.3.1.4 Determine the admissibility of hearsay evidence; and

13.3.1.5 Determine other relevant procedural matters.

13.3.2 In terms of Section 17(2) of the Act both parties are to come to a decision within 14 days as to who the arbitrator shall be. If no decision can be made, the president of the Labour Court is to be notified in writing. The president of the Labour Court in consultation with the Chief Inspector shall appoint an arbitrator, whose decision shall be final. This arbitrator will be entitled to receive remuneration as is payable to an additional member of the Labour Court.

14. DESIGNATION OF HEALTH AND SAFETY REPRESENTATIVES

14.1 The employer must designate Health and Safety Representatives as follows:

14.1.1 Shops and offices— one for up to 100 employees; and

14.1.2 Workplaces other than shops and offices— one for up to 50 employees.

14.2 The employer shall ensure that employees designated as health and safety representatives meet the following requirements:

14.2.1 Employed in a full-time capacity in the specific workplace or section thereof;

14.2.2 Acquainted with conditions and activities at that workplace or section thereof, and

14.2.3 Taking into account the nature of hazards associated with the activities of the workplace or section thereof, the employer shall provide as far as is reasonable practicable health and safety training to the health and safety representatives on how to identify health and safety risks and how to conduct inspections of the workplace or section thereof.

15. REPORTING OF INCIDENTS AND OCCUPATIONAL DISEASES

15.1 Section 24 of the Act refers to certain incidents occurring at the workplace, or in connection with the use of machinery whereby a person dies or is injured to be extent where he is likely to die or could have resulted in a major incident. Such incidents should be reported to the Provincial Director on a WCL 1 or WCL 2 form within seven days.

15.2 Certain other types of incidents must be reported to the Provincial Director telephonically, facsimile or similar means of communication and these types of incidents are as follows—

15.2.1 Where a person, as a result of the incident;
15.2.2 Dies;
15.2.3 Becomes unconscious;
15.2.4 Suffers the loss of a limb or part thereof;
15.2.5 Is injured to the extent that he is likely to die;
15.2.6 Is injured to the extent that he is likely to be permanently disabled;
15.2.7 Is injured to the extent that he is likely to be off for a period of 14 days or more;
15.2.8 Cannot perform his normal duties (those duties for which he was employed).

15.3 An incident of major consequence arising out of the use of industrial equipment or machinery or industrial practices at a workplace.

15.4 The health and safety of any person is endangered and where –

15.4.1 A dangerous substance was spilled.
15.4.2 The uncontrolled release of any substance under pressure (pressure greater than 1 atmosphere) took place.
15.4.3 Machinery or any part thereof fractured or failed, resulting in flying, falling or uncontrolled moving objects; or
15.4.4 Machines, which ran out of control

15.5 These incidents should also be recorded and investigated in accordance to Regulation 8 of the General Administrative Regulations.

15.6 If an injured person is to die as a result of an incident, which has already been reported in terms of the above, the employer or user should report such death to the Provincial Director.

15.7 Any registered medical practitioner should, in terms of Section 25 of the Act, report all (to the employer and Chief Inspector) cases of occupational diseases or any other disease, which he believes arose out of a person's employment, which he/she has treated. This must be done within 14 days in the form of a WCL 22 form.

15.8 Any other person may in writing, give notice of any disease suspected to be an occupational disease, to the employer and chief inspector.

16. RECORDING AND INVESTIGATION OF INCIDENTS

16.1 The employer or user of machinery should keep record and investigate all incidents referred to in terms of Section 24 of the Act together with any other incident, which resulted in the person concerned having had to receive medical treatment other than first aid.

16.2 These incidents must be recorded in the form of Annexure 1 of these regulations and be kept for a period of at least 3 years. This record shall be kept on the premises and available for perusal by an inspector.

16.3 The employer, a designated person, a health and safety representative or a member of the health and safety committee must investigate the above-mentioned incidents. This investigation should take place within 7 days from the date of incident and completed as soon as is reasonably practicable or within the contracted period of contract workers.

16.4 The employer should record the result of the investigation in the Annexure 1. The purpose of the investigation is to establish the cause of the incident together with the safety measures that can be implemented to prevent the re-occurrence of such incidents in the future.

16.5 The health and safety committee shall examine this record at their next meeting.

17. WITNESS AT AN INQUIRY

17.1 The chief inspector can, in terms of Section 32, direct an inspector to hold a formal inquiry as a result of an incident reported in terms of Section 24 (refer to Regulation 6). In such an instance, the inspector shall inform the employer or user of machinery of his intentions, and request the following from him/her:

17.1.1 That all persons witness to the incident; and

17.1.2 That any other person as required by the inspector be notified in connection with the time, date and venue of the formal inquiry.

17.2 The employer or user of machinery is to establish which persons are likely not to attend the inquiry and shall advise the inspector of the names and addresses of such persons to allow the inspector to subpoena such persons.

18. RETURNS

18.1 An employer or user shall furnish the inspector with such information as requested for the purpose of the Administration of the Act.

ANNEXURE B: DRAWINGS

ARCHITECTURAL

DRAWING NO.	DRAWING TITLE
SANBI-CW/STG004	DRAWING REGISTER
04-LOUT-1(01-A1)	HERBARIUM ROOF REFURBISHMENTS
04-LOUT-2(01-A4)	HERBARIUM CONCRETE LEDGES
04-LOUT-3(01-A6.1)	HERBARIUM NEW SKYLIGHTS
04-LOUT-4(01-B5.1)	HERBARIUM MEETING ROOM SHOPFRONT
04-LOUT-5(01-B5.2)	HERBARIUM ENTRANCE WEST WING
04-LOUT-6(01-B7.1)	HERBARIUM DUCT PANELS
04-LOUT-7A(01-D2)	HERBARIUM BASEMENT FIRE DOORS
04-LOUT-7B(01-D2)	HERBARIUM GROUND FLOOR FIRE DOORS
04-LOUT-7C(01-D2)	HERBARIUM FIRST FLOOR FIRE DOORS
04-LOUT-7D(01-D2)	HERBARIUM SECOND FLOOR FIRE DOORS
04-LOUT-8(01-H2.1)	HERBARIUM NEW BASEMENT FIRE ESCAPE
04-LOUT-9(01-C)	HERBARIUM LAB FLOOR COVERINGS
04-LOUT-10(01-D3)	HERBARIUM WINDOW GLAZING
04-LOUT-11A(01-D3)	HERBARIUM SAFETY GLAZING SCHEDULE
04-LOUT-11B(01-D3)	HERBARIUM SAFETY GLAZING SCHEDULE
06A-FINSC	SPECIFICATION-FINISHING SCHEDULE

CIVIL/ STRUCTURAL

DRAWING NO.	DRAWING TITLE
C001	STEEL ROOF PLAN LAYOUT & DETAILS
C002	DUCT PANELS PLAN LAYOUT & DETAILS
C003	NEW COLUMN CONNECTION PLAN LAYOUT & DETAILS
C004	RAMP & STAIR PLAN & DETAILS
C005	RETAINING WALL PLAN LAYOUT & DETAILS
C006	SKYLIGHT PLAN LAYOUT & SECTION
C007	RC BEAM REINFORCEMNET DETAILS

MECHNANICAL

DRAWING NO.	DRAWING TITLE
ME-400-HVAC	GROUND FLOOR HVAC LAYOUT
ME-401-HVAC	FIRST FLOOR HVAC LAYOUT
ME-402-HVAC	ROOF LEVEL HVAC LAYOUT
ME-403-HVAC	HVAC DETAILS & SECTIONS LAYOUT

ELECTRICAL

DRAWING NO.	DRAWING TITLE
P20012-PD-ELE-100	BASEMENT FLOOR POWER LAYOUT
P20012-PD-ELE-101	GROUND FLOOR POWER LAYOUT
P20012-PD-ELE-102	FIRST FLOOR POWER LAYOUT
P20012-PD-ELE-103	SECOND FLOOR POWER LAYOUT