

# William Humphreys Art Gallery



an agency of the  
**Department of Sport, Arts and Culture**

1 Cullinan Crescent, Civic Centre, Kimberley 8301,  
(053) 831 1889

**TENDER DOCUMENT**

**INVITATION TO TENDER FOR PROFESSIONAL SERVICES:**

<b>MECHANICAL ENGINEERING SERVICES</b>
--

**FOR THE PROJECT**

**William Humphreys Art Gallery: Upgrading of Central HVAC System**

**REFERENCE NO: 6247**

**TENDER NO: WB01-2023**

**15 June 2023**

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

**ISSUED BY:**  
WILLIAM HUMPHREYS ART GALLERY

Effective date: 29 May 2023

Version 1 MECH ENG tender

**CONTENTS****Page****The Tender**

T1:	TENDERING PROCEDURES	
T1.1	Notice and Invitation to Tender.....	3
T1.2	Tender Data.....	4
T2:	RETURNABLE DOCUMENTS	
T2.1	List of Returnable Documents .....	10
T2.2	Returnable Schedules .....	10

**The Contract**

C1:	AGREEMENT AND CONTRACT DATA	
C1.1	Form of Offer and Acceptance .....	41
C1.2	Contract Data .....	45
C2:	PRICING DATA	
C2.1	Pricing Assumption .....	51
C2.2	Activity Schedule .....	59
C3:	SCOPE OF SERVICES	
C3	Scope of Services .....	61
C4:	SITE INFORMATION	
C4	Site Information .....	70

**Appendix A**

ECSA Scope of Engineering Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 2000, (Act No. 46 of 2000)

**Appendix B**

Report on current HVAC Mechanical Installation

**T1: TENDERING PROCEDURES****T1.1 Notice and Invitation to Tender**

- T1.1.1 The words “**tender**” and “**bid**” in this document or any documents referred to in this document are interchangeable and are deemed to have the same meaning, similarly the words “tenderer” and “tendering Service Provider” are interchangeable and are deemed to have the same meaning. Unless inconsistent with the context, the masculine gender includes the feminine and neuter genders and *vice versa*, and the singular includes the plural and *vice versa*. In this document, words and expressions signified in the text by the use of capital initial letters, shall have the meanings defined in the Standard Professional Services Contract except where the context otherwise requires.
- T1.1.2 The William Humphreys Art Gallery invites tenders for the provision of **PROFESSIONAL MECHANICAL ENGINEERING SERVICES** as further fully described in C3 Scope of Services hereof.
- T1.1.3 The address for collection of tender documents and the telephone number of the tender section at this address are as advertised in the Tender Bulletin.
- T1.1.4 Tender documents will be downloaded directly from National Treasury’s e-Tender Publication Portal at [www.etenders.gov.za](http://www.etenders.gov.za) free of charge.
- T1.1.5 A non-refundable deposit of **R 0** is payable, in cash only, on collection of the tender documents.
- T1.1.6 Queries relating to these documents may be addressed to the Employer’s authorised and designated representative who is the departmental project manager:
- Theo van den Berg: (MVD Kalahari Consulting Engineers and Town Planners)**  
**Tel no:** 053 – 831 1889  
**Cell no:** 082 775 6863  
**Fax:** N/A
- Physical address:** 186 du Toitspan Road  
 Kimberley  
 8301
- Postal address:** P.O. Box 580  
 Kimberley  
 8300
- Tumelo Semosa: William Humphreys Art Gallery (WHAG)**  
**Tel no:** 053 – 831 1724/5
- Physical address:** 1 Cullinan Crescent, Civic Centre  
 Kimberley  
 8301
- T1.1.7 The closing time for receipt of tenders is **12:00 on 14 July 2023**. Telephonic, facsimile, electronic and late tenders will not be accepted.
- T1.1.8 Requirements for sealing, addressing, delivery, opening and assessment of tenders are stated in T1.2 Tender Data.

**T1.2 Tender Data****T1.2.1 Standard Conditions of Tender**

The CIDB conditions of tender are the Standard Conditions of Tender as contained in Annexure C of the Construction Industry Development Board (CIDB) Standard for Uniformity in Engineering and Construction Works Contracts (8 August 2019 edition).

The Standard Conditions of Tender is not included in this tender document. Tenderers must obtain it on the CIDB's Website at:

[http://www.cidb.org.za/procurement/procurement\\_toolbox/cidb\\_pub/default.aspx](http://www.cidb.org.za/procurement/procurement_toolbox/cidb_pub/default.aspx)

Clause number	
	<p>The conditions of tender are the Standard Conditions of Tender as contained in Annexure C of the CIDB Standard for Uniformity in Engineering and Construction Works Contracts as per Government Notice No. 423 published in Government Gazette No. 42622 of 8 August 2019 and as amended from time to time. (See <a href="http://www.cidb.org.za">www.cidb.org.za</a>).</p> <p>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.</p> <p>Each item of data given below is cross-referenced to the clauses marked "F" in the Standard Conditions of Tender to which it mainly applies.</p> <p>By submitting a tender in response to T1.1 Notice and Invitation to Tender above, the tenderer binds himself to a <i>pactum de contrahendo</i> (contract aimed at conclusion of another contract), the terms of which are contained in the Standard Conditions of Tender and T1.2 Tender Data.</p>
C.1.1	The Employer is the <b>William Humphreys Art Gallery</b>
C.1.2	<p>For this Contract the single volume approach is adopted.</p> <p>This procurement document has been formatted and compiled under the headings for a single volume approach as contained in table 5 of the CIDB's "Standard for Uniformity in Construction Procurement."</p> <p>The tendering Service Provider's attention is specifically drawn to the T2 Returnable Documents identified in the T2.1 List of Returnable Documents and in the T2.2 Returnable Schedules. The Returnable Documents must be obtained, and the Returnable Schedules must be completed by a tenderer when submitting a tender. The tenderer must complete these documents, including the "Offer" document in C1.1 Form of Offer and Acceptance, and deliver his tender back to the Employer bound as it was received.</p> <p>The tender document, issued by the Employer, comprises the following separate identifiable documents collectively forming the "Tender Document in a single volume":</p> <p><u>The Tender</u></p> <p>T1: Tendering Procedures</p> <p style="padding-left: 40px;">T1.1 Notice and Invitation to Tender</p> <p style="padding-left: 40px;">T1.2 Tender Data</p> <p>T2: Returnable Documents</p> <p style="padding-left: 40px;">T2.1 List of Returnable Documents</p> <p style="padding-left: 40px;">T2.2 Returnable Schedules</p> <p><u>The Contract</u></p> <p>C1: Agreement and Contract Data</p>

	<p>C1.1 Form of Offer and Acceptance C1.2 Contract Data</p> <p>C2: Pricing Data C2.1 Pricing Assumptions C2.2 Activity Schedule</p> <p>C3: Scope of Services</p> <p>C4: Site Information</p>
C.1.4	The Employer's agent for the purpose of this tender is deemed to be the authorised and designated representative of the Employer, who will be the departmental project manager as noted in T1.1.6 Notice and Invitation to Tender.
C.2.1	<p><b><u>Tenders will only be considered for acceptance if</u></b> (i.e. will only be regarded as responsive if):</p> <ol style="list-style-type: none"> <li>1. The tendering Service Provider is a mechanical engineering business undertaking, which is under the fulltime supervision of a registered professional mechanical engineer or a registered professional mechanical engineering technologist, and which is owned and controlled by registered professionals by at least a percentage determined by the Engineering Council of South Africa, in its Code of Professional Conduct, in terms of number, shareholding and voting power, registered professionals, registered in terms of the Engineering Profession Act, 2000 (Act no 46 of 2000), who hereafter will be referred to as <b>registered principals</b> of the business undertaking  <b>or</b>  a multi-disciplinary professional practice, that also practises mechanical engineering work, which mechanical engineering division/section is under the fulltime supervision of a registered professional mechanical engineer or a registered professional mechanical engineering technologist, and which is owned and controlled by at least a percentage determined by any of the relevant professional Councils for cases pertaining to multi-disciplinary practices/business undertakings, in their respective Codes of Professional Conduct, in terms of number, shareholding and voting power, registered professionals, registered in terms of the  Architectural Profession Act, 2000 (Act no 44 of 2000),  Landscape Architectural Profession Act, 2000 (Act no 45 of 2000),  Engineering Profession Act, 2000 (Act no 46 of 2000),  Construction and Project Management Profession Act, 2000 (Act no 48 of 2000) and/or  Quantity Surveying Profession Act, 2000 (Act no 49 of 2000),  who hereafter will be referred to as <b>registered principals</b> and the mechanical engineering division/section is under the fulltime supervision of a registered professional in the mechanical engineering discipline.</li> <p>In the event of any legal entity, as meant above, being a listed public Company on the stock exchange, the percentages related to ownership and control referred to are to be made relevant to persons duly appointed as Directors of such entity.</p> <li>2. Copies of certificates or other documentation clearly proving current professional registration with the relevant council, including registration numbers, of all the registered principals mentioned in 1 above are included with the tender as part of the returnable documentation. In the event of any legal entity, as meant above, being a private Company with shareholding, the same information/documentation as for registered principals must be provided with the tender, in respect of all Directors formally appointed to manage the business undertaking. Sole Proprietors, Partners in Partnerships, and Members of Close Corporations are principals as defined in 1 above and information/documentation in respect of such persons must be provided as described.</li> <li>3. The information, required in respect of 1 and 2 above, has been provided for all Service Providers tendering in consortium or joint venture.</li> </ol>

4. At least one registered professional mechanical engineer, of whom the same documentation as in 2 above has been included in the tender, of the tendering Service Provider has been listed in C1.2.3, clause 7.1.2 Key Persons.

[The Employer retains the right to verify current professional registration required in terms of 2, 3 and 4 above with the relevant council as part of the tender evaluation process. **In the event of any such person not currently being registered with the relevant council, it will render the tender as unacceptable (i.e. non-responsive) and excluded from further consideration.**]

5. All Returnable Documents mentioned in T2: Returnable Documents (T2.1 List of Returnable Documents and T2.2 Returnable Schedules) have been included in the tender.

6. (a) The tendering Service Provider has provided the required information/documentation to enable an evaluation panel to perform functionality and risk assessments as described in 6(b) and 6(c) hereafter and referred to in T2.1 – sub paragraph 4.

(b) Tender offers are judged by an evaluation panel in terms of functionality, which functionality will be evaluated against the following criteria on a scoring system of 1 to 5, weighted as indicated:

**Note:** Functionality will be applied as a prequalification criterion. Such criteria are used to establish minimum requirements whereafter bids will be evaluated solely on the basis of price and preference.

Functionality Criteria		Weighting Factor
<b>1. <u>Compliance to Terms of Reference</u></b>		<b>25</b>
Not Registered	Proof ECSA registration as professional engineer/ engineer/ technologist.	0
Registered Professional	Proof ECSA registration as professional engineer/ technologist.	5
<b>2. <u>Previous experience and proof of similar work successfully commissioned (Contactable Reference / Completion Certificate)</u></b>		<b>35</b>
Poor	Proof of previous projects Completed successfully – 0 - 1 Central HVAC design project design and project management	1
Average	Proof of previous projects Completed successfully - 2 - 3 Central HVAC and project management	2
Good	Proof of previous projects Completed Successfully - 4 - 5 Central HVAC project design and project management.	3
Very Good	Proof of previous projects Completed Successfully - 6 - 7 Central HVAC projects for design and project management.	4

Excellent	Proof of previous projects Completed Successfully - 8 or more -Central HVAC project design and project management	5
-----------	---	---

<b>3. <u>Provide a detailed Methodology or approach paper for the demonstration of understanding of scope</u></b>		<b>25</b>
Poor	No Proof of Understanding of the desired work or approach paper/methodology submitted, or irrelevant methodology	0
Average	Provide a Technically sound methodology considering the following KPI: 1. Construction approach, 2. Task in chronological order for both construction and maintenance services, 3. Job Creation, 4. Details of required studies aligned with the project needs.	2
Good		3
Very Good		4
Excellent		5

<b>4. <u>Level of expertise and qualifications of personnel in the relevant or project related field. Company Profile and CV's to be provided for Key Personnel</u></b>		<b>15</b>
Poor	Amount of experience years of listed personnel – start from 5 -10 combined years in related projects	1
Average	Amount of experience years of listed personnel – 11 - 15 combined years in related projects	2
Good	Amount of experience years of listed personnel – 16 - 20 combined years in related projects.	3
Very Good	Amount of experience years of listed personnel – 20 -25 combined years in related projects.	4
Excellent	Amount of experience years of listed personnel - 26 and above combined years in related projects.	5
<b>Total</b>		<b>100 Points</b>

(Weightings will be multiplied by the scores allocated during the evaluation process to arrive at the total functionality points)

<b>Minimum functionality score to qualify for further evaluation:</b>	<b>70</b>
---	-----------

(c) Tender offers are judged by an evaluation panel in terms of risk to the Employer. Such risk will be evaluated against the criteria listed below. An assessment of unacceptable risk on any single criterion will constitute unacceptable risk for the award as a whole, resulting in the tender to be disqualified and removed from further consideration.

<p><b>The risk criteria are as follows:</b></p>	
<p><b>Description of risk criteria and sub criteria</b></p> <p>(Note: Information provided in the returnable documentation must be provided in sufficient detail to enable the evaluation panel to evaluate the risk criteria set out below. The Employer reserves the right to request further clarification, elucidation, additional documentation/information, etc. as may be required to evaluate the tender. The afore mentioned can also entail that the persons, named in the schedule of Key Persons (C1.2.3 Data provided by the Service Provider, clause 7.1.2), be invited to an interview.</p>	
A	<p>Allocation of <b>suitably qualified and appropriately experienced human resources</b>, both in respect of principals and/or other staff (professional, technical and/or administrative) of the tendering Service Provider to the project, as described in the schedule of Key Persons in terms of clause 7.1.2 of the General Conditions of Contract, as proof that the tendering Service Provider will be able to react/respond appropriately to the Services required herein.</p> <p>[An opinion will be formed by each of the members of an evaluation panel according to his/her assessment of the qualifications and experience of the human resources allocated to the project in terms of the Key Persons (C1.2.3 Data provided by the Service Provider, clause 7.1.2), from information contained in curriculum/curricula vitae submitted with the tender. Members of the evaluation panel will discuss their respective risk perceptions in order to reach consensus, failing which the specific risk will be put to the vote. <b>No risk assessment will be performed for this criterion in the absence of relevant information/ curricula vitae with the tender and will therefore render the tender as unacceptable and excluded from further consideration.]</b></p>
B	<p>The tendering Service Provider's <b>experience and performance on comparable projects</b> during the past 5 years. Aspects to be regarded as "comparable" includes (but may be extended according to circumstances): size of projects (measured against monetary value, or other project quantifying parameters), nature of projects (building, engineering, high/low rise, etc.), locality/area of execution (site-specific influences, knowledge of local conditions, etc.), complexity of project, projects for similar client department irrespective of end purpose of buildings/facilities created or in progress of being created and time scales of projects (normal, fast track, etc.) and stage of its/their development.</p> <p>[An opinion will be formed by each of the members of an evaluation panel according to his/her assessment of the experience and performance of the tendering Service Provider from information submitted with the tender (in written-, report- and/or brochure format), and upon further investigations/reference checks that may be performed, for which purpose the tendering Service Provider must include names and contact particulars of present and previous Employers to whom services are/were rendered. The Employer retains the right to contact references not mentioned by the tendering Service Provider. Members of the evaluation panel will discuss their respective risk perceptions in order to reach consensus, failing which the risk assessment will be put to the vote. <b>No risk assessment will be performed for this criterion in the absence of relevant information with the tender and will therefore render the tender as unacceptable and excluded from further consideration.]</b></p>
C	<p><b>Confirmation of the required level of professional indemnity insurance</b> specified in terms of Contract Data clause 5.4.1 (C1.2.3 Data provided by the Service Provider).</p> <p>[If confirmation/proof of professional indemnity insurance is not duly confirmed in C1.2.3 Data provided by the Service Provider, the risk to Employer will be regarded as unacceptable and render the tender unacceptable on grounds of not being to specification. The Employer retains the right to request documentary proof of such insurance as part of the tender evaluation process. <b>Unconfirmed professional indemnity insurance will render the tender as unacceptable i.t.o. risk and excluded from further consideration.]</b></p>



	<table><tr><td>D</td><td><b>Attendance</b> of compulsory clarification meeting, in terms of C.2.7 below, by a representative of the tendering Service Provider.  [Non-attendance, if compulsory in terms of C.2.7, will be regarded as a risk to the Employer in that salient information required for tender purposes would not have been to the knowledge of the tendering Service Provider, rendering any resultant tender to be incomplete. <b>Non-attendance will render the tender a risk to the Employer and therefore excluded from further consideration.</b> In the event of the clarification meeting not being compulsory, this risk criterion will not be applicable.]</td></tr><tr><td>E</td><td>Other – N/A</td></tr></table> <table><tr><td>F</td><td>Other – N/A</td></tr></table> <b>Note: Any tender not complying with all four of the above-mentioned stipulations, numbered 1 to 4 above, will be regarded as non-responsive and will therefore <u>not</u> be considered for further evaluation.</b>	D	<b>Attendance</b> of compulsory clarification meeting, in terms of C.2.7 below, by a representative of the tendering Service Provider.  [Non-attendance, if compulsory in terms of C.2.7, will be regarded as a risk to the Employer in that salient information required for tender purposes would not have been to the knowledge of the tendering Service Provider, rendering any resultant tender to be incomplete. <b>Non-attendance will render the tender a risk to the Employer and therefore excluded from further consideration.</b> In the event of the clarification meeting not being compulsory, this risk criterion will not be applicable.]	E	Other – N/A	F	Other – N/A
D	<b>Attendance</b> of compulsory clarification meeting, in terms of C.2.7 below, by a representative of the tendering Service Provider.  [Non-attendance, if compulsory in terms of C.2.7, will be regarded as a risk to the Employer in that salient information required for tender purposes would not have been to the knowledge of the tendering Service Provider, rendering any resultant tender to be incomplete. <b>Non-attendance will render the tender a risk to the Employer and therefore excluded from further consideration.</b> In the event of the clarification meeting not being compulsory, this risk criterion will not be applicable.]						
E	Other – N/A						
F	Other – N/A						
C.2.7	A tender clarification meeting will be held in respect of this tender on Site Attendance of said clarification meeting is compulsory.  The particulars for said bid clarification site inspection meeting or virtual bid clarification / site inspection meeting are: Location: <b>William Humphreys Art Gallery, 1 Cullinan Crescent, Civic Centre, Kimberley</b> Virtual Meeting: "N/A" Date: <b>26 June</b> Starting time: <b>11:00</b>						
C.2.13.3	Each tender offer communicated on paper shall be submitted as an original. <b>Each page of the tender document shall be initialled by the Authorised Signatory as per the Resolution of the Board of Directors, Consortia or Joint Venture in terms of PA15.1, PA15.2 or PA15.3.</b>						
C.2.13.4	Delete the last sentence of the paragraph: "Signatories for ... of the tender offer."						
C.2.13.5	The Employer's addresses for delivery of tender offers are as advertised in the Tender Bulletin.  In addition, the following identification details must be provided on the <u>back</u> of the envelope: <b>Tenderer's name, contact address and telephone number.</b> and in the top left corner on the back of the envelope: <b>"Tender no.       " (and fill in the tender number as on the front page hereof)</b> <b>Tender for Mechanical Engineering Services".</b>						
C.2.13.6	A two-envelope procedure will not be followed.						
C.2.15	The closing time for submission of tenders is <b>12:00 on 14 July 2023.</b>						
C.2.16	The tender validity period is <b>90 days</b> from date of tender closure.						
C.2.19	The tenderer shall provide access for inspections to his offices as may be required by the Employer.						
C.2.22	Not a requirement.						
C.2.23	The tenderer is required to submit with his tender all documents listed in T2 Returnable Documents, T2.1 and T2.2.						
C.3.4	The time and location for opening tender offers are: Time: tenders will be opened immediately or as soon as possible after the closing time; Location: <b>William Humphreys Art Gallery, 1 Cullinan Crescent, Civic Centre, Kimberley</b> at 12:15.						
C.3.5	A two-envelope procedure will not be followed.						

C.3.9.3	Omit the wording and replace with the following: “Notify the tenderer of all errors, omissions and/or rate imbalances that are identified in the tender offer and request the tenderer to, within a stipulated time, accept the total of prices as corrected in accordance with C.3.9.4.”
C.3.9.4	Omit the wording of the first sentence and replace with: “In cases where tender offers contain errors, omissions and/or rate imbalances, these are to be corrected as follows:”
C.3.9.4 (continued)	Add sub-paragraph c) as follows: “c) If the tenderer does not accept the corrected tender offer or cannot reach consensus with the Employer on a corrected tender offer, the tenderer is to be classified as not acceptable/non-responsive and removed from further contention.”
C.3.11	The procedure for the evaluation of responsive tenders is Method 2.
C.3.17	The number of paper copies of the signed contract to be provided by the employer is <u>one</u> .

## T2: RETURNABLE DOCUMENTS

**This tender document in its entirety, all returnable documents which must be attached to this tender document, and all returnable schedules must be returned when the tender is submitted.**

**T2.1 List of Returnable Documents** (to be obtained/compiled by the tenderer and attached to this tender). All documents must be duly completed and signed where applicable.

1. Copies of present registration with the **Engineering Council of South Africa** as “Professional”, with the registration numbers, of all the registered principals and professionals mentioned under T1.2 Tender Data, clause C.2.1, item 2 and 6, as well as in C1.2.3 Data provided by the Service Provider, clause 7.1.2 Key Persons.
2. A valid original or certified copy of B-BBEE status level verification certificate.
3. An exposition, with necessary annexures, in suitable format and in sufficient detail, providing all the information necessary for the evaluation panel to be able to evaluate the functionality and risk set out in T1.2 Tender Data, clause C.2.1.
4. Proof of business address (not older than three (3) months).

**T2.2 Returnable Schedules** (all bound into this tender document – to be completed by tenderer) All documents must be duly completed and signed where applicable.

1. Form of Offer and Acceptance (C1.1). Provide proof of registration with National Treasury Central Supplier Database by completing the Supplier Registration Number on the form of offer
2. Data provided by the Service Provider (C1.2.3).
3. Ownership Particulars, PA-16.1 (PSB) (form PA-16.1 (PSB) is bound in hereafter).
4. Particulars of Tenderer’s Projects, WHAG-09 (PSB) (form WHAG-09 (PSB) is bound in hereafter).
5. If applicable, a Tender Clarification Meeting Certificate, WHAG-16.1 (PSB) for compulsory clarification meeting (form WHAG-16.1 (PSB) is bound in hereafter).
6. Declaration of Interest and Tenderer’s Past Supply Chain Management Practices, PA-11 (form PA-11 is bound in hereafter).

7. Resolution, PA-15.1 (or resolutions for each tendering Service Provider tendering in consortium or joint venture, PA-15.2 plus special resolution, PA-15.3) (forms PA-15.1 to 3 are bound in hereafter). A resolution, PA-15.1 (for a single Service Provider tendering herein) or PA-15.2 plus special resolution, PA-15.3 (for multiple Service Providers tendering in consortium or joint venture herein) (forms PA-15.1 to 3 are bound in hereafter).
8. Certification of Independent Bid Determination, PA-29 (form PA-29 is bound in hereafter).
9. Preference Points Claim Form, PA-16 (form PA-16 is bound in hereafter).
10. Activity Schedule for Value Based Fees (C2.2.2) – only if remuneration is stipulated as “value based” in C2.1.1.1.
11. ~~Activity Schedule for Time Based Fees (C2.2.3) – only if remuneration is stipulated as “time based” in C2.1.1.1.~~
12. If applicable, a security clearance form for projects requiring a security clearance.

## PA-16.1 (PSB): OWNERSHIP PARTICULARS

- NB:** 1. This form is to be read with the Notice and Invitation to Tender and F.2.1 sub paragraphs 1 and 2 of the Tender Data pertaining to this Tender and completed according to the definitions and information contained in said documents.
2. **Failure to complete this form may result in the tender being disqualified.**

<b>Project title:</b>	Mechanical engineering services for: William Humphreys Art Gallery: Upgrading of Central HVAC System inclusive of BMS.
<b>Bid No.:</b>	WB01-2023

### 1. REQUIRED DOCUMENTARY PROOF

The following documentation must be included in the tender as part of the Returnable Documents. Failure to provide the said documentation may result in the tender being disqualified.

<b>Legal Status of Tendering Entity:</b> <b>If the Tendering Entity is:</b>	<b>Documentation to be submitted with the tender:</b>
a. A close corporation, incorporated prior to 1 May 2011 under the Close Corporations Act, 1984 (Act 69 of 1984, as amended)	Copies of the Founding Statement – CK1
b. A profit company duly registered as a private company.  [including a profit company that meets the criteria for a private company, whose Memorandum of Incorporation states that the company is a personal liability company in terms of Section 8(2)(c) of the Companies Act, 2008 (Act 71 of 2008, as amended)].	Copies of: i. Certificate of Incorporation – CM1. ii. Shareholding Certificates of all Shareholders of the company, plus a signed statement of the company's Auditor, certifying each Shareholder's ownership / shareholding percentage relative to the total; and/or iii. Memorandum of Incorporation in the case of a personal liability company.
c. A profit company duly registered as a private company in which any, or all, shares are held by one or more other close corporation(s) or company(ies) duly registered as profit or non-profit company(ies).	Copies of documents referred to in a. and/or b. above in respect of all such close corporation(s) and/or company(ies).
d. A profit company duly registered as a public company.	Copy of Certificate of Incorporation – CM1, and a signed statement of the company's Secretary or Auditor confirming that the company is a public company.
e. A non-profit company, incorporated in terms of Section 10 and Schedule 1 of the Companies Act, 2008 (Act 71 of 2008, as amended).	Copies of: i. the Founding Statement – CK1; and ii. the Memorandum of Incorporation setting out the object of the company, indicating the public benefit, cultural or social activity, or communal or group interest.
f. A natural person, sole proprietor, or a Partnership	Copy(ies) of the Identity Document(s) of: i. such natural person/ sole proprietor, or ii. each of the Partners to the Partnership.
g. A Trust	Deed of Trust duly indicating names of the Trustee(s) and Beneficiary (ies) as well as the purpose of the Trust and the mandate of the Trustees.

**DETAIL OF ALL PARTNERS, PROPRIETORS, MEMBERS AND/OR SHAREHOLDERS OF THE SERVICE PROVIDER:**

Full Name #	Identity Number	Relevant Professional Council	Professional Registration Number	Date of Ownership	Percentage Owned	Percentage Voting
<b>Totals:</b>					<b>100 %</b>	<b>100 %</b>

# All registered principals, i.e. sole proprietors, partners in partnerships, members of close corporations and in the event of a legal entity being a private company with shareholding, all directors formally appointed to manage the business undertaking

## WHAG-09 (PSB): PARTICULARS OF TENDERER'S PROJECTS

<b>Project title:</b>	<b>William Humphreys Art Gallery: Upgrading of Central HVAC System</b>		
<b>Bid / quotation no:</b>	WB01-2023	<b>Closing date:</b>	14/07/2023
<b>Advertising date:</b>	15/06/2023	<b>Validity period:</b>	90 days

*Note: The Tenderer is required to furnish the following particulars and to attach additional pages if more space is required.*

### 1. PARTICULARS OF THE TENDERER'S CURRENT AND PREVIOUS COMMITMENTS

#### 1.1. Current projects

Projects currently engaged in	Name of Employer or Representative of Employer	Contact tel. no.	Contract sum of Project	Scope of Services (Work stages appointed for – eg 1 to 6)	Work stages completed	Work stages in progress
1						
2						
3						
4						
5						
6						
7						

**1.2. Completed projects.**

Projects completed in the last 5 (five) years		Name of Employer or Representative of Employer	Contact tel. no.	Contract sum of Project	Scope of Services (Work stages appointed for – eg 1 to 6)	Date of appointment	Date of completion
1							
2							
3							
4							
5							
6							
7							
8							
9							

Name of Tenderer	Signature	Date

**PA- 40: DECLARATION OF DESIGNATED GROUPS FOR PREFERENTIAL PROCUREMENT**

Name of Tenderer .....  
(tick applicable box)

☐ EME<sup>1</sup> ☐ QSE<sup>2</sup> ☐ Non EME/QSE

**1. LIST ALL PROPRIETORS, MEMBERS OR SHAREHOLDERS BY NAME, IDENTITY NUMBER, CITIZENSHIP AND DESIGNATED GROUPS.**

Name and Surname #	Identity/ Passport number and Citizenship##	Percentage owned	Black	Indicate if youth	Indicate if woman	Indicate if person with disability	Indicate if living in rural / underdeveloped area/township	Indicate if military veteran
1.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
7.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
8.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
9.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
10.		%	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

# Where Owners are themselves a Company, Close Corporation, Partnership etc, identify the ownership of the Holding Company, together with Registration number

## State date of South African citizenship obtained (not applicable to persons born in South Africa)

**2. DECLARATION:**

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

<sup>1</sup> EME: Exempted Micro Enterprise

<sup>2</sup> QSE: Qualifying Small Business Enterprise



- 1 The information and particulars contained in this Affidavit are true and correct in all respects.
- 2 The Broad-based Black Economic Empowerment Act, 2003 (Act 53 of 2003), Preferential Procurement Policy Framework Act, 2000 (Act 5 of 2000), the Preferential Procurement Regulations, 2022 as amended, National Small Business Act 102 of 1996 as amended and all documents pertaining to this Tender were studied and understood and that the above form was completed according to the definitions and information contained in said documents.
- 3 The Tenderer understands that any intentional misrepresentation or fraudulent information provided herein shall disqualify the Tenderer's offer herein, as well as any other tender offer(s) of the Tenderer simultaneously being evaluated or will entitle the Employer to cancel any Contract resulting from the Tenderer's offer herein.
- 4 The Tenderer accepts that the Employer may exercise any other remedy it may have in law and in the Contract, including a claim for damages for having to accept a less favourable tender as a result of any such disqualification due to misrepresentation or fraudulent information provided herein.
- 5 Any further documentary proof required by the Employer regarding the information provided herein, will be submitted to the Employer within the time period as may be set by the latter.

**Signed by the Tenderer**

<b>Name of representative</b>	<b>Signature</b>	<b>Date</b>

**WHAG-16.1 (PSB): TENDER CLARIFICATION MEETING CERTIFICATE**

<b>Project title:</b>	<b>Mechanical engineering services for: William Humphreys Art Gallery: Upgrading of Central HVAC System</b>		
<b>Tender no:</b>	WB01-2023	<b>Reference no:</b>	6247

This is to certify that I, \_\_\_\_\_

representing \_\_\_\_\_

attended the tender clarification meeting on: \_\_\_\_\_

I further certify that I am satisfied with the description of the work and explanations given at the tender clarification meeting and that I understand the work to be done, as specified and implied, in the execution of this contract.

Name of Tenderer	Signature	Date

Name of WHAG Representative	Signature	Date

## PA-11: DECLARATION OF INTEREST AND TENDERER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

Failure to complete this form in full and signed by the duly authorized person, as indicated on PA-15.1, PA-15.2 or PA-15.3, shall render the Bid Non-responsive and will be removed from any and all further contention.

<b>Project title:</b>	William Humphreys Art Gallery: Upgrading of Central HVAC System		
<b>Bid no:</b>	WB01-2023	<b>Reference no:</b>	6247

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

### 1. CIDB registration number (if applicable)

--

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

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

3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Full Name of bidder or his or her representative: .....

3.2 Identity number:.....

3.3 Position occupied in the Bidding Entity (director, trustees, shareholder<sup>2</sup>, members, etc.)  
.....

3.4 Company Registration Number: .....

3.5 Tax Reference Number:.....

3.6 VAT Registration Number: .....

3.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / PERSAL numbers must be indicated in paragraph 4 below.

<sup>1</sup> "State" means –

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

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

3.7 Are you or any person connected with the bidder presently employed by the state? ☐ YES ☐ NO

3.7.1	<p>If so, furnish the following particulars:</p> <p>Name of person / director / trustees / shareholder / member: _____</p> <p>Name of state institution at which you or the person is connected to the tenderer is employed: _____</p> <p>Position occupied in the state institution: _____</p> <p>Any other particulars: _____</p>		
3.7.2	If you are presently employed by the state, did you obtain the appreciate authority to undertake remunerative work outside employment in the public sector?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.7.2.1	If yes, did you attach proof of such authority to the tender document? <small>(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the tender.)</small>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.7.2.2	<p>If no, furnish reasons for non-submission of such proof: _____</p> <p>_____</p> <p>_____</p>		
3.8	Did you or your spouse, or any of the company's directors / trustees / shareholders / members or their spouses conduct business with the state in the previous twelve months?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.8.1	<p>If so, furnish particulars: _____</p> <p>_____</p> <p>_____</p>		
3.9	Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid?	Yes <input type="checkbox"/>	No <input type="checkbox"/>

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".

Effective date 20 September 2021

Page 2 of 5  
PA-11 Version: 2021/02

3.9.1	If so, furnish particulars: _____ _____ _____		
3.10	Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between the bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.10.1	If so, furnish particulars: _____ _____ _____		
3.11	Do you or any of the directors /trustees/shareholders/ members of the company have any interest in any other related companies whether or not they are bidding for this contract?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.11.1	If so, furnish particulars: _____ _____ _____		

#### 4. Full details of directors / trustees / members / shareholders.

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

- Please provide separate annexure if space provided in the table is insufficient.

**5. DECLARATION OF TENDERER / BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES**

Item	Question	Yes	No
5.1	<p>Is the tenderer or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector?</p> <p>(Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the <i>audi alterem partem</i> rule was applied).</p> <p><b>The Database of Restricted Suppliers now resides on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>) and can be accessed by clicking on its link.</b></p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.1.1	<p>If so, furnish particulars:</p> <hr/> <hr/>		
5.2	<p>Is the tenderer 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 (Act No 12 of 2004)?</p> <p><b>The Register for Tender Defaulters can be accessed on the National Treasury's website (<a href="http://www.treasury.gov.za">www.treasury.gov.za</a>). Click on the icon "Register for Tender Defaulters" or submit your written request for a hard copy of the Register to facsimile number (012) 3265445.</b></p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.2.1	<p>If so, furnish particulars:</p> <hr/> <hr/>		
5.3	<p>Was the tenderer 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?</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.3.1	<p>If so, furnish particulars:</p> <hr/> <hr/>		
5.4	<p>Was any contract between the tenderer and any organ of state terminated during the past five years on account of failure to perform on or comply with the contract?</p>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.4.1	<p>If so, furnish particulars:</p> <hr/> <hr/>		

- Please provide detailed particulars in separate annexure should the space provided be insufficient.

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".

Effective date 20 September 2021

Page 4 of 5  
PA-11 Version: 2021/02

6. 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.

Name of Bidder	Signature	Date	Position

This form is aligned to SBD 4 and 8.

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”.  
Effective date 20 September 2021

## PA-15.1: 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 Tender to William Humphreys Art Gallery in respect of the following project:

---

*(project description as per Tender Document)*

Tender Number: \_\_\_\_\_ *(Tender Number as per 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 Tender, and any and all other documents and/or correspondence in connection with and relating to the Tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the Tender to the Enterprise mentioned above.

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			



13			
14			
15			
16			
17			
18			
19			
20			

**Note:**

1. \* Delete which is not applicable.
2. **NB:** This resolution must, where possible, be signed by all the Directors / Members / Partners of the Tendering Enterprise.
3. In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Tendering Enterprise (attach proof of shareholding / ownership hereto).
4. Directors / Members / Partners of the Tendering Enterprise may alternatively appoint a person to sign this document on behalf of the Tendering Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Tendering Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).
5. 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**

## PA-15.2: 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 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 William Humphreys Aet Gallery in respect of the following project:

\_\_\_\_\_  
(project description as per Tender Document)

Tender Number: \_\_\_\_\_ (Tender Number as per Tender Document)

- 1 \*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.

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

Physical address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (code)

Postal Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (code)

Telephone number: \_\_\_\_\_ Fax number: \_\_\_\_\_

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

The tendering enterprise hereby absolves the William Humphreys Art Gallery from any liability whatsoever that may arise as a result of this document being signed.

**Note:**

1. \* Delete which is not applicable.
2. **NB:** This resolution must, where possible, be signed by all the Directors / Members / Partners of the Tendering Enterprise.
3. In the event that paragraph 2 cannot be complied with, the resolution must be signed by Directors / Members / Partners holding a majority of the shares / ownership of the Tendering Enterprise (attach proof of shareholding / ownership hereto).
4. Directors / Members / Partners of the Tendering Enterprise may alternatively appoint a person to sign this document on behalf of the Tendering Enterprise, which person must be so authorized by way of a duly completed power of attorney, signed by the Directors / Members / Partners holding a majority of the shares / ownership of the Tendering Enterprise (proof of shareholding / ownership and power of attorney are to be attached hereto).
5. 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**

## PA-15.3: 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 tender for the project mentioned below: *(legally correct full names and registration numbers, if applicable, of the Enterprises forming a consortium/joint venture)*

1	<hr/>
	<hr/>
2	<hr/>
	<hr/>
3	<hr/>
	<hr/>
4	<hr/>
	<hr/>
5	<hr/>
	<hr/>
6	<hr/>
	<hr/>
7	<hr/>
	<hr/>
8	<hr/>
	<hr/>

Held at \_\_\_\_\_ *(place)*

on \_\_\_\_\_ *(date)*

### RESOLVED that:

- A. The above-mentioned Enterprises submit a tender in consortium/joint venture to William Humphreys Art Gallery in respect of the following project:

\_\_\_\_\_  
 \_\_\_\_\_  
*(project description as per Tender Document)*

Tender Number: \_\_\_\_\_ *(tender number as per Tender Document)*

B. 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 tender, and any and all other documents and/or correspondence in connection with and relating to the tender, as well as to sign any Contract, and any and all documentation, resulting from the award of the tender to the Enterprises in consortium/joint venture mentioned above.

C. The Enterprises constituting the consortium/joint venture, notwithstanding its composition, shall conduct all business under the name and style of:

\_\_\_\_\_

D. The Enterprises to the consortium/joint venture accept joint and several liability 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 Department in respect of the project described under item A above.

E. Any of the Enterprises to the consortium/joint venture intending to terminate the consortium/joint venture agreement, for whatever reason, shall give the Department 30 days' written notice of such intention. Notwithstanding such decision to terminate, the Enterprises shall remain jointly and severally liable to the Department for the due fulfilment of the obligations of the consortium/joint venture as mentioned under item D above.

F. 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 Department, cede any of its rights or assign any of its obligations under the consortium/joint venture agreement in relation to the Contract with the Department referred to herein.

G. 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 Department in respect of the project under item A above:

Physical address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (code)

Postal Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (code)

Telephone number: \_\_\_\_\_ Fax number: \_\_\_\_\_

E-mail address: \_\_\_\_\_

	Name	Capacity	Signature
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			

The tendering enterprise hereby absolves the William Humphreys Art Gallery from any liability whatsoever that may arise as a result of this document being signed.

**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 tender, as named in item 2 of Resolution PA-15.2.
3. Should the number of the Duly Authorised Representatives of the Legal Entities joining forces in this tender exceed the space available above, additional names, capacity and signatures must be supplied on a separate page.
4. Resolution PA-15.2, duly completed and signed, from the separate Enterprises who participate in this consortium/joint venture, must be attached to this Special Resolution (PA-15.3).

## PA-29: CERTIFICATION OF INDEPENDENT BID DETERMINATION

<b>Project title:</b>	<b>Mechanical engineering services for: William Humphreys Art Gallery: Upgrading of Central HVAC System</b>		
<b>Tender no:</b>	WB01-2023	<b>Reference no:</b>	6247

### INTRODUCTION

1. This PA-29 [Certificate of Independent Bid Determination] must form part of all tenders<sup>1</sup> invited.
2. Section 4 (1) (b) (iii) of the Competition Act, 1998 (Act 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 tendering (or tender rigging)<sup>2</sup>. Collusive bidding is a *per 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 tender of any tenderer if that tenderer, 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 tendering process or the execution of that contract.
4. This form (PA-29) serves as a certificate of declaration that would be used by institutions to ensure that, when tenders are considered, reasonable steps are taken to prevent any form of tender rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (PA-29) must be completed and submitted with the tender.

---

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

<sup>2</sup> Bid rigging (or collusive tendering) 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 tendering process. Tender rigging is, therefore, an agreement between competitors not to compete.

**PA-29: CERTIFICATE OF INDEPENDENT BID DETERMINATION**

I, the undersigned, in submitting the accompanying tender:

<b>Project title:</b>	<b>Mechanical engineering services for: William Humphreys Art Gallery: Upgrading of Central HVAC System</b>
<b>Tender no:</b>	WB01-2023

in response to the invitation for the tender made by:

The William Humphreys Art Gallery,

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 tenderer)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the tenderer to sign this Certificate, and to submit the accompanying tender, on behalf of the tenderer;
4. Each person whose signature appears on the accompanying tender has been authorized by the tenderer to determine the terms of and to sign the tender on behalf of the tenderer;
5. For the purposes of this Certificate and the accompanying tender, I understand that the word "competitor" shall include any individual or organization, other than the tenderer, whether or not affiliated with the tenderer, who:
  - (a) has been requested to submit a tender in response to this tender invitation;
  - (b) could potentially submit a tender in response to this tender invitation, based on their qualifications, abilities or experience; and
  - (c) provides the same goods and services as the tenderer and/or is in the same line of business as the tenderer;
6. The tenderer has arrived at the accompanying tender independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium<sup>3</sup> will not be construed as collusive tendering.
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 tender;
  - (e) the submission of a tender which does not meet the specifications and conditions of the tender; or
  - (f) tendering with the intention not to win the tender.
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 tender invitation relates.



9. The terms of the accompanying tender have not been, and will not be, disclosed by the tenderer, directly or indirectly, to any competitor prior to the date and time of the official tender opening or of the awarding of the contract.

I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to tenders and contracts, tenders that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act, 1998 (Act 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, 2004 (Act 12 of 2004) or any other applicable legislation.

Name of Tenderer	Signature	Date	Position

---

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

## PA-16 : PREFERENCE POINTS CLAIM FORM IN TERMS OF THE PREFERENTIAL PROCUREMENT REGULATIONS 2022

This preference form must form part of all bids invited. It contains general information and serves as a claim form for preference points for Specific Goals specified for the tender.

**NB: BEFORE COMPLETING THIS FORM, BIDDERS MUST STUDY THE GENERAL CONDITIONS, DEFINITIONS AND DIRECTIVES APPLICABLE IN RESPECT OF B-BBEE, AS PRESCRIBED IN THE PREFERENTIAL PROCUREMENT REGULATIONS, 2022 AND THE AMENDED B-BBEE CODES.**

### 1. GENERAL CONDITIONS

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

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

The value of this bid is estimated to **R8,146,880.89 (Eight Million, One Hundred and Forty-Four Six Thousand Eight Hundred and eighty Rand and Eighty-Nine Cents)** (all applicable taxes included) and therefore the...**80/20**.....system shall be applicable.

1.2 Preference points for this bid shall be awarded for:

- (a) Price; and
- (b) Specified Goals

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

	POINTS
<b>1.3.1.1 PRICE</b>	<b>80</b>
<b>1.3.1.2 SPECIFIC GOALS</b>	<b>20</b>
<b>Total points for Price and Specific Goals must not exceed</b>	<b>100</b>

1.3 Failure on the part of a bidder to fill in and/or to sign this form and submit a B-BBEE Verification Certificate from a Verification Agency accredited by the South African Accreditation System (SANAS) or an Accounting Officer as contemplated in the Close Corporation Act (CCA) together with the bid, will be interpreted to mean that preference points for B-BBEE status level of contribution are not claimed.

1.4 An Exempted Micro Enterprise (EME) is only required to obtain a sworn affidavit or a certificate issued by Companies and intellectual property Commission (CIPC) confirming their annual turnover of R10 Million or less and level of black ownership to claim points.

1.5 Qualifying Small Enterprise (QSE) is only required to obtain a sworn affidavit or a certificate issued by Companies and intellectual property Commission (CIPC) confirming their annual turnover of R10 Million or less and level of black ownership to claim points.

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

## 2. DEFINITIONS

- (a) **“all applicable taxes”** includes value-added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies;
- (b) **“B-BBEE”** means broad-based black economic empowerment as defined in section 1 of the Broad-Based Black Economic Empowerment Act;
- (c) **“B-BBEE status level of contributor”** means the B-BBEE status received by a measured entity based on its overall performance using the relevant scorecard contained in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act;
- (d) **“bid”** means a written offer in a prescribed or stipulated form in response to an invitation by an organ of state for the provision of services, works or goods, through price quotations, advertised competitive bidding processes or proposals;
- (e) **“Broad-Based Black Economic Empowerment Act”** means the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (f) **“comparative price”** means the price after the factors of a non-firm price and all unconditional discounts that can be utilized have been taken into consideration;
- (g) **“consortium or joint venture”** means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract;
- (h) **“contract”** means the agreement that results from the acceptance of a bid by an organ of state;
- (i) **“EME”** means an Exempted Micro Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 (Act No. 53 of 2003);
- (j) **“Firm price”** means the price that is only subject to adjustments in accordance with the actual increase or decrease resulting from the change, imposition, or abolition of customs or excise duty and any other duty, levy, or tax, which, in terms of the law or regulation, is binding on the contractor and demonstrably has an influence on the price of any supplies, or the rendering costs of any service, for the execution of the contract;
- (k) **“functionality”** means the measurement according to predetermined norms, as set out in the bid documents, of a service or commodity that is designed to be practical and useful, working or operating, taking into account, among other factors, the quality, reliability, viability and durability of a service and the technical capacity and ability of a bidder;
- (l) **“non-firm prices”** means all prices other than “firm” prices;
- (m) **“person”** includes a juristic person;
- (n) **“QSE”** means a Qualifying Small Enterprise as defines by Codes of Good Practice under section 9 (1) of the Broad-Based Black Economic Empowerment Act, 2003 ( Act No. 53 of 2003);
- (o) **“rand value”** means the total estimated value of a contract in South African currency, calculated at the time of bid invitations, and includes all applicable taxes and excise duties;
- (p) **“sub-contract”** means the primary contractor’s assigning, leasing, making out work to, or employing, another person to support such primary contractor in the execution of part of a project in terms of the contract;
- (q) **“total revenue”** bears the same meaning assigned to this expression in the Codes of Good Practice on Black Economic Empowerment, issued in terms of section 9(1) of the Broad-Based Black Economic Empowerment Act and promulgated in the *Government*

*Gazette* on 9 February 2007;

- (r) **“trust”** means the arrangement through which the property of one person is made over or bequeathed to a trustee to administer such property for the benefit of another person; and
- (s) **“trustee”** means any person, including the founder of a trust, to whom property is bequeathed in order for such property to be administered for the benefit of another person.

### 3. ADJUDICATION USING A POINT SYSTEM

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

### 4. POINTS AWARDED FOR PRICE

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

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

**80/20**

**or**

**90/10**

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

Where

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

$P_t$  = Comparative price of bid under consideration

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

## 5. Points awarded for Specific Goals

Preferential Points will be awarded as per below scoring:

CRITERION	POINTS	PROOF OF CLAIM
B-BBEE Status	4	Valid B-BBEE verification certificate or an affidavit confirming micro enterprise status.
Business Based in the Northern Cape	4	Proof of Business Address not older than three months.
Ownership by Youth	4	<b>PA-40</b> , Company Registration Documents, and Identity Documents of Shareholders.
Ownership by Women	4	<b>PA-40</b> , Company Registration Documents, and Identity Documents of Shareholders.
Ownership by People with Disabilities	4	<b>PA-40</b> , Company Registration Documents, and Identity Documents of Shareholders.

B-BBEE Status Points will be awarded as indicated below:

B-BBEE STATUS	POINTS
Level 1	4
Level 2	3
Level 3	2
Level 4 and below	1
Non-compliant	0

Ownership Points for Youth, Women, and People with Disabilities will be awarded as indicated below:

OWNERSHIP	POINTS
Above 50%	4
Above 40%	3
Above 25%	2
Above 10%	1

- a. A trust, consortium or joint venture, will qualify for points for their B-BBEE status level as a legal entity, provided that the entity submits their B-BBEE status level certificate.
- b. A trust, consortium or joint venture will qualify for points for their B-BBEE status level as an unincorporated entity, provided that the entity submits their consolidated B-BBEE scorecard as if they were a group structure and that such a consolidated B-BBEE scorecard is prepared for every separate bid.
- c. Tertiary institutions and public entities will be required to submit their B-BBEE status level certificates in terms of the specialized scorecard contained in the B-BBEE Codes of Good Practice.
- d. A person awarded a contract may not sub-contract more than 25% of the value of the contract to any other enterprise that does not have an equal or higher B-BBEE status level than the person concerned, unless the contract is sub-contracted to an EME that has the capability and ability to execute the sub-contract.

## 6. BID DECLARATION

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

CRITERION	POINTS CLAIMED
B-BBEE Status	
Business Based in the Northern Cape	
Ownership by Youth	
Ownership by Women	
Ownership by People with Disabilities	
TOTAL	

## 7. B-BBEE STATUS LEVEL OF CONTRIBUTION CLAIMED IN TERMS OF PARAGRAPHS 1.3.1.2 AND 5

7.1 B-BBEE Status Level of Contribution: .....

(Points claimed in respect of paragraph 7.1 must be in accordance with the table reflected in paragraph 5 and must be substantiated by means of a B-BBEE certificate issued by a Verification Agency accredited by SANAS or Sworn Affidavit for EME's and QSE's.

## 8 SUB-CONTRACTING (relates to 5.d)

8.1 Will any portion of the contract be sub-contracted? YES / NO (delete which is not applicable)

8.1.1 If yes, indicate:

- (i) what percentage of the contract will be subcontracted? .....%
- (ii) the name of the sub-contractor? .....
- (iii) the B-BBEE status level of the sub-contractor?.....
- (iv) whether the sub-contractor is an EME/ a QSE? YES / NO (delete which is not applicable)

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

## 9 DECLARATION WITH REGARD TO COMPANY/FIRM

9.1 Name of company/firm: .....

9.2 VAT registration number: .....

9.3 Company registration number: .....

## 9.4 TYPE OF COMPANY/ FIRM

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

[TICK APPLICABLE BOX]

## 9.5 DESCRIBE PRINCIPAL BUSINESS ACTIVITIES

.....

.....

.....

## 9.6 COMPANY CLASSIFICATION

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

[TICK APPLICABLE BOX]

9.7 Total number of years the company/firm has been in business? .....

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

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

**WITNESSES:**

- 1. ....
- 2. ....

.....

SIGNATURE(S) OF BIDDER(S)

**DATE:**.....

**ADDRESS:**.....

.....

**THIS FORM IS ALIGNED TO SBD 6.1**



**C1: AGREEMENT AND CONTRACT DATA****C1.1 Form of Offer and Acceptance****Offer**

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

**MECHANICAL ENGINEERING SERVICES****on the Project****William Humphreys Art Gallery: Upgrading of Central HVAC System**

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. By the representative of the tenderer, deemed to be duly authorized, signing this part of this form of offer and acceptance, the tenderer offers to perform all of the obligations and liabilities of the Service Provider under the Contract including compliance with all its terms and conditions according to their true intent and meaning for remuneration to be determined in accordance with the conditions of Contract identified in the Contract Data.

**The offered price for Mechanical Engineering Services, inclusive of all applicable taxes (All applicable taxes" includes value- added tax, pay as you earn, income tax, unemployment insurance fund contributions and skills development levies) is :**

**R .....** (in figures)

.....

..... **Rand (in words).**

**The percentage of normal fees tendered is ..... % (in figures)**

..... percent (in words) as indicated in C2.2.2 Activity Schedule for Value Based Fees, column (b). (In the event of the basis for remuneration being "time based" as determined in C2.1.1.1, mark the percentage above "N/A").(Remuneration, however, will be calculated as determined in C2.1.2.)

The award of the tender may be subjected to price negotiation with the preferred tender(s). The negotiated and agreed price will be considered for acceptance as **a firm and final offer.**

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 to the tenderer before the end of the period of validity stated in the Tender Data, whereupon the tenderer becomes the party named as the Service Provider in the conditions of Contract identified in the Contract Data.

**THIS OFFER IS MADE BY THE FOLLOWING LEGAL ENTITY: (cross out block which is not applicable)**

Company or close corporation:

.....  
 .....

whose registration number is:

.....

whose income tax reference number is:

.....

**OR**

Natural person or partnership:

.....  
 .....

whose identity number(s) is/are:

.....

whose income tax reference number is/are:

.....

and whose National Treasury Central Supplier Database (CSD) numbers are:

CSD supplier number: .....

Tax Compliance Status Pin (TCSP).....

and whose National Treasury Central Supplier Database (CSD) numbers are:

CSD supplier number: .....

Tax Compliance Status Pin (TCSP).....

#### AND WHO IS:

Represented herein, and who is duly authorised to do so, by:

Mr/Mrs/Ms: .....

In his/her capacity as:

#### Note:

**A resolution / power of attorney, signed by all the directors / members / partners of the legal entity must accompany this offer, authorising the representative to make this offer.**

#### SIGNED FOR THE TENDERER:

Name of representative	Signature	Date

#### WITNESSED BY:

Name of witness	Signature	Date

The tenderer elects as its *domicilium citandi et executandi* in the Republic of South Africa, where any and all legal notices may be served, as (physical address):

.....  
 .....

#### Other contact details of the Tenderer are:

Telephone no: ..... Cellular phone no: .....

Fax no: .....

Postal address: .....

E-mail address: .....

Banker: ..... Branch: .....

#### AND WHO IS (if applicable):

Trading under the name and style of: .....

## 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 Service Provider 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 Services

and drawings and documents or parts thereof, which may be incorporated by reference into Parts C1 to C3 above.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto as 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 set documents are valid unless contained in this schedule.

The tenderer shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of Contract identified in the Contract Data. 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, if sent by registered post, 4 days from the date on which it was posted, if delivered by hand, on the day of delivery, provided that it has been delivered during ordinary business hours, or if sent by fax, the first business day following the day on which it was faxed. Unless the tenderer (now Service Provider) within seven working days of the date of such submission 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.

### For the Employer:

Name of signatory	Signature	Date

<b>Name of Organisation:</b>	William Humphreys Art Gallery
<b>Address of organisation:</b>	

### Witnessed by:

Name of witness	Signature	Date

## Schedule of Deviations

### Notes:

1. The extent of deviations from the tender documents issued by the Employer before the tender closing date is limited to those permitted in terms of the conditions of tender.
2. A tenderer's covering letter shall not be included in the final Contract document. Should any matter in such letter, which constitutes a deviation as aforesaid, become the subject of agreements reached during the process of offer and acceptance, the outcome of such agreement shall be recorded here.
3. Any other matter arising from the process of offer and acceptance either as a confirmation, clarification or change to the tender documents and which it is agreed by the Parties becomes an obligation of the Contract shall also be recorded here.
4. Any change or addition to the tender documents arising from the above agreements and recorded here, shall also be incorporated into the final draft of the Contract.

<b>1.2.1. Subject:</b>
<b>Detail:</b>

<b>1.2.2. Subject:</b>
<b>Detail:</b>

<b>1.2.3. Subject:</b>
<b>Detail:</b>

<b>1.2.4. Subject:</b>
<b>Detail:</b>

<b>1.2.5. Subject:</b>
<b>Detail:</b>

<b>1.2.6. Subject:</b>
<b>Detail:</b>

By the duly authorised representatives signing this agreement, 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 changes to the terms of the offer agreed by the tenderer and the Employer during this process of offer and acceptance.

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

**C1.2 Contract Data****C1.2.1 Standard Professional Services Contract**

The conditions applicable to this Contract are the **Standard Professional Services Contract (July 2009 edition)** published by the **Construction Industry Development Board (CIDB)**.

The Standard Professional Service Contract is not included in this tender document. Tenderers must obtain it on the CIDB's Website at:

[http://www.cidb.org.za/procurement/procurement\\_toolbox/cidb\\_pub/default.aspx](http://www.cidb.org.za/procurement/procurement_toolbox/cidb_pub/default.aspx)

**C1.2.2 Data provided by the Employer**

Clause	
	<p>The General Conditions of Contract in the Standard Professional Services Contract (July 2009) make several references to the Contract Data for details that apply specifically to this tender. The Contract Data shall have precedence in the interpretation of any ambiguity or inconsistency between it and the General Conditions of Contract.</p> <p>Each item of data given below is cross-referenced to the clause in the General Conditions of Contract to which it mainly applies.</p>
1	The Employer is the <b>William Humphreys Art Gallery</b> .
1	The Period of Performance is from inception of this Contract until the Service Provider has completed all Deliverables in accordance with the Scope of Services.
1	<p>The Project is:</p> <p><b><u>Mechanical Engineering Services for the Project: William Humphreys Art Gallery: Upgrading of Central HVAC System</u></b></p>
3.4 and 4.3.2	The authorised and designated representative of the Employer is the departmental project manager, details of whom are as indicated in T1.1 Notice and Invitation to Tender under item T1.1.6.
3.4.1	Communication by e-mail is not permitted.
3.5	The Services shall be executed in the Service Provider's own office and on the Project site as described in C3.2.2 Project description. No portion of the work may be performed by a person employed by the State. No portion of the work may be sublet to any other person or persons without the prior written approval of the Employer.
3.6	Omit the following: "... within two (2) years of completion of the Service ...".
3.12.1	<p>Period of Performance shall be sub dividable in separate target dates according to the programme to be submitted in terms of clause 3.15 hereof.</p> <p>A Penalty amount of R1 000 per day will be applicable per target date for the full period of the delay. In the event that the delay exceeds 30 days, the Employer will have the option to either: (i) terminate the contract and recover any loss as a result of the termination from the Service Provider, or (ii) allow the Service Provider to continue with the Services after the agreement of a new target date and recover the penalty of R1 000 per day for the full period of the delay.</p>
3.15	<p>For fees stipulated as "value based" in C2.1 Pricing Instructions, C2.1.1.1:</p> <p>Programme:</p> <p>A programme for the performance of the Service shall be submitted by the Service Provider, identified as the principal agent in terms of C3.5.1 Service Providers, to William Humphreys Art Gallery representative Project Manager, within a period of two (2) weeks following the briefing meeting.</p> <p>The programme will be the result of the co-ordination of all appointed Service Providers' inputs and shall be in sufficient detail describing key milestones, events and activities linked to the fastest</p>

	<p>realistic timeframes in which the Service can be delivered. Milestones and events are to be listed based on the Scope of Services described in part C3 of the various appointed Service Providers' tender documents and presented in bar chart format. No milestones may, at the co-ordination stage, be extended beyond the timeframes outlined in C3.2.2.3 Project Programme without acceptable reasons. The programme thus compiled and presented by the principal agent must be counter-signed by all appointed Service Providers as proof that the programme was agreed upon by all during the said co-ordination action.</p> <p>The Employer retains the right to negotiate such submitted programme with the principal agent in consultation with the appointed Service Providers if required to promote the interest of the project.</p> <p><u>For fees stipulated as "time based" in C2.1 Pricing Instructions, C2.1.1.1:</u>  <u>Project Execution Plan (PEP):</u>  A PEP for the performance of the Service shall be submitted by the Service Provider, to the departmental project manager, within a period of two (2) weeks following the briefing meeting.</p> <p>In the event of the Employer not being satisfied with the submitted PEP, the Parties will negotiate in good faith towards a PEP that will be agreeable to both. Such an agreed-upon PEP will form the basis for the management of the appointment and remuneration purposes. Should circumstance change from the initial briefing, the Service Provider and the Employer will negotiate a revised PEP to satisfy such change(s). Should the Parties fail to reach agreement on the PEP or revised PEP, the matter will be dealt with in terms of clause 12.1.2 of the General Conditions of Contract. Should the mediation process fail, the Contract will be deemed to have been mutually terminated and any reasonable fees accrued at that stage settled by the Employer.</p>
3.16.2	<p>Where <math>CPI_s</math> = the index of StatsSA P0141 (Table B) for the month during which the tender closed.  <math>CPI_n</math> = the index of StatsSA P0141 (Table B) for the month in which the anniversary of the tender date falls.</p> <p>The indices of StatsSA P0141 are available on the Website:  <a href="http://www.statssa.gov.za/Publications/statsdownload.asp?PPN=P0141">http://www.statssa.gov.za/Publications/statsdownload.asp?PPN=P0141</a></p>
4.1.1	<p>Briefing meeting:  The Department representative Project Manager shall arrange a briefing meeting, compulsory for all appointed Service Providers, as soon as practicable after the appointment of the professional team as referred to in C3.5.1 Service Providers, or after the appointment of the core members of the professional team required to commence with the Services if not appointed at the same time, during which meeting the Department representative Project Manager, together with any supporting advisors, will verbally brief the professional team comprehensively regarding the requirements of the project and the Scope of Services and hand over, to the Service Providers, all documentation relevant to the execution of the Service.</p>
4.4	Others providing Services on this Project are as listed in C3.5.1 Service Providers.
5.4.1	Minimum professional insurance cover of R1,5 million, with the first amount payable not exceeding 5% of the value of indemnity, and/or personal liability – all as more comprehensively described in C1.2.3 Data provided by the Service Provider and in respect of which the Service Provider must provide data as required.
5.5	<p>The Service Provider is required to obtain the Employer's prior approval in writing before taking any of the following actions:</p> <ol style="list-style-type: none"> <li>1 Travelling for which payment will be claimed, as defined in C2.1.7 Travelling and subsistence arrangements and tariffs of charges;</li> <li>2 Deviate from the final programme as in clause 3.15 above;</li> <li>3 Deviate from the programme (delayed or earlier);</li> <li>4 Deviate from or change the Scope of Services;</li> <li>5 Change Key Personnel on the Service.</li> </ol>

5.5 (c)	<p>1 Exclusion of authority/powers The Service Provider's authority to act and/or to execute functions or duties is <b>excluded</b> in respect of the matters listed below. The Employer shall retain its powers and authority as stipulated in the applicable clauses of the contract data which are relevant and applicable to the JBCC or GCC conditions of contract.</p> <ul style="list-style-type: none"> <li>1.1 Nomination of nominated or selected subcontractors;</li> <li>1.2 Granting of extension of time and/or ruling on claims associated with claims for extension of time;</li> <li>1.3 Acceleration of the rate of progress and determination of the cost for payment of such acceleration;</li> <li>1.4 Rulings on claims and disputes;</li> <li>1.5 Suspension of the works;</li> <li>1.6 Final payment certificate;</li> <li>1.7 Issuing of <i>mora</i> notices to the contractor;</li> <li>1.8 Cancellation of the contract between the Employer and contractor.</li> </ul> <p>Any claims, demands, notices, notifications, updated particulars and reports in writing, together with additional supporting documentation pertaining thereto, must be submitted by the contractor to the Service Provider, acting as principal agent, in respect of any of the matters listed in 1.1 to 1.8 above. This must be done within the time periods and in the format(s) as determined in the said/relevant conditions of contract. On receipt thereof, said Service Provider must study the documentation, obtain comments/advice/recommendations from the professional team members and submit a motivated recommendation to the Employer. This must be done timeously as to allow the Employer sufficient time to respond within the time periods and in the format(s) determined in said conditions of contract. The Employer's ruling will be copied to the Service Provider for information.</p> <p>2 Limitation of authority/powers The Service Provider's authority is <b>limited</b> in respect of the submission to the Employer of comments/recommendations/reports for prior endorsement/approval and further instructions. These pertain to any decision in respect of approval for/of:</p> <ul style="list-style-type: none"> <li>2.1 Institution of or opposing litigation;</li> <li>2.2 Issuing of variation orders/contract instructions/orders in writing which increase the value of the works/contract value and/or change the design of intended use of the project;</li> <li>2.3 Instructions to embark on dayworks;</li> <li>2.4 Dayworks rates;</li> <li>2.5 Material quotes relating to dayworks;</li> <li>2.6 Adjustment of general items relating to dayworks;</li> <li>2.7 Expenditure on prime cost items;</li> <li>2.8 Issuing of practical completion, completion, works completion, final completion and/or final approval certificates.</li> </ul> <p>In respect of the matters listed in 2.1 to 2.8 above, the Service Provider must submit all necessary documentation in order to enable the Employer to formulate decisions and to obtain the Employer's formal endorsement/approval prior to acting and/or executing functions or duties in respect of the contract between the Employer and the contractor. This must be done timeously so as to allow the Employer sufficient time for decision-making in terms of the said conditions of contract.</p> <p>Failure to adhere to the above stipulation will cause the Service Provider to be liable in terms of the Contract between Service Provider and Employer for all such unintended costs and damages.</p>
8.1	The Service Provider is to commence the performance of the Services immediately after the Contract becomes effective and execution to be as per the programme in clause 3.14 above (see C3 Scope of Services, C3.6 Brief).
8.4.3 (c)	The period of suspension under clause 8.5 is not to exceed two (2) years.
9.1	Copyright of documents prepared for the Project shall be vested with the Employer.
12.1.2	Interim settlement of disputes is to be by mediation.

12.2.1	In the event that the Parties fail to agree on a mediator, the mediator is to be nominated by the president of the Association of Arbitrators (Southern Africa).
12.2.4 / 12.3.4	Final settlement is by litigation.
13.1.3	All partners in a joint venture or consortium shall carry the same professional indemnity insurance as per clause 5.4.1 of the General Conditions of Contract.
13.4	Neither the Employer nor the Service Provider is liable for any loss or damage resulting from any occurrence unless a claim is formally made within 5 years from the date of termination or completion of the Contract.
13.5	The amount of compensation is unlimited.
13.6	The provisions of 13.6 do not apply to the Contract.
14.4	In the first sentence, change "... period of twenty four months after ..." to "... period of thirty six months after ...".
15	In respect of any amount owed by the Service Provider to the Employer, the Service Provider shall pay the Employer 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 no1 of 1999).

## C1.2.3 Data provided by the Service Provider

Clause	
	Each item of data given below is cross-referenced to the clause in the General Conditions of Contract to which it mainly applies.
1	The Service Provider is the company, close corporation, natural person or partnership named in C1.1 Form of Offer and Acceptance by the tendering Service Provider.
5.3	The authorised and designated representative of the Service Provider is the person named in the resolution PA-15.1, PA-15.2 or PA-15.3 by the tendering Service Provider.
5.4.1	<p><u>Indemnification of the Employer</u></p> <p>I, the undersigned, being duly authorized by the Service Provider, in terms of the completed resolution (PA-15.1, PA-15.2 or PA-15.3)</p> <p>.....(Name of authorized person)</p> <p>hereby confirm that the Service Provider known as:</p> <p>.....(Legal name of entity tendering herein)</p> <p>tendering on the project:</p> <p>.....</p> <p>.....(Name of project as per C1.1 Form of offer and acceptance)</p> <p>holds professional indemnity insurance cover, from an approved insurer, duly registered with the Finance Services Board, of not less than <b>R1,5 Million</b>, with the first amount payable not exceeding 5% of the value of indemnity. I further confirm that the Service Provider will keep such professional indemnity fully subscribed. I further confirm that should the professional indemnity insurance, with no knowledge of the Employer, be allowed to lapse at any time or in the event of the Service Provider cancelling such professional indemnity insurance, with no knowledge of the Employer, at any time or if such professional indemnity cover is not sufficient, then the Service Provider, (i) accepts herewith full liability for the due fulfilment of all obligations in respect of this Service; and (ii) hereby indemnifies, and undertakes to keep indemnified, the Employer in respect of all actions,</p>



	<p>proceedings, liability, claims, damages, costs and expenses in relation to and arising out of the agreement and/or from the aforesaid Service Provider's intentional and/or negligent wrongful acts, errors and/or omissions in its performance on this Contract.</p> <p>I confirm that the Service Provider undertakes to keep the Employer indemnified, as indicated above, beyond the Final Completion Certificate/Final Certificate by the Employer (whichever is applicable) for a period of five 5 years after the issue of such applicable certificate.</p> <p>I confirm that the Service Provider renounces the benefit of the <i>exceptionis non causa debiti, non numeratae pecuniae</i> and <i>excussionis</i> or any other exceptions which may be legally raised against the enforceability of this indemnification.</p> <p>Notwithstanding the indemnification required above, the Employer reserves the right to claim damages from the Service Provider for this Project where the Service Provider neglects to discharge its obligations in terms of this agreement.</p> <p><b>NAME:</b> .....</p> <p><b>CAPACITY:</b> .....</p> <p><b>SIGNATURE:</b> .....</p>																																															
7.1.2	<p>As an extension of the definitions contained in clause 1 hereof, Key Persons must, for the purposes of this Contract, include one or more of the professionally registered principal(s) of the Service Provider, <b>and/or</b>, one or more professional(s) employed to render professional services, for whom copies of certificates or other documentation clearly proving current professional registration with the relevant council, including registration numbers, must be included with the tender as part of the returnable documentation.</p> <p>The Key Persons and their jobs / functions in relation to the Services are:</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Principal and/or employed professional(s)</th> <th>Category of registration</th> <th>Specific duties</th> </tr> </thead> <tbody> <tr><td>1.</td><td></td><td></td><td></td></tr> <tr><td>2.</td><td></td><td></td><td></td></tr> <tr><td>3.</td><td></td><td></td><td></td></tr> <tr><td>4.</td><td></td><td></td><td></td></tr> <tr><td>5.</td><td></td><td></td><td></td></tr> <tr><td>6.</td><td></td><td></td><td></td></tr> <tr><td>7.</td><td></td><td></td><td></td></tr> <tr><td>8.</td><td></td><td></td><td></td></tr> <tr><td>9.</td><td></td><td></td><td></td></tr> <tr><td>10.</td><td></td><td></td><td></td></tr> </tbody> </table>				Name	Principal and/or employed professional(s)	Category of registration	Specific duties	1.				2.				3.				4.				5.				6.				7.				8.				9.				10.			
Name	Principal and/or employed professional(s)	Category of registration	Specific duties																																													
1.																																																
2.																																																
3.																																																
4.																																																
5.																																																
6.																																																
7.																																																
8.																																																
9.																																																
10.																																																
7.2	A Personnel Schedule is not required.																																															

If the space provided in the table above is not sufficient to describe the **specific duties**, this space may be utilized for such purpose:

**C2: PRICING DATA****C2.1 Pricing Assumptions**

C2.1.1 Basis of remuneration, method of tendering and estimated fees

C2.1.1.1 Professional fees for Mechanical Engineering Services will be paid on a **value basis as specified in C2.1.3.**

The words “value based” and “percentage based” used in connection with fee types in this document or any documents referred to in this document are interchangeable and are deemed to have the same meaning.

C2.1.1.2 **Tenderers are to tender:**  
**A percentage of the estimated fees** (in the event of the basis for remuneration being indicated above as a “value based” fee)

or

**The different rates for the different categories** in C2.2.3 Activity Schedule for Time Based Fees, column (c) (in the event of the basis for remuneration being indicated above as a “time based” fee)

all as set out below.

C2.1.2 Remuneration for **mechanical engineering Services**

C2.1.2.1 **Professional fees shall be calculated as follows for Services rendered by the Service Provider:**

- In the event of the basis for remuneration being a “**value based**” fee, the **percentage of the normal fees tendered in “C2.2.2 Activity Schedule for Value Based Fees”, column (b)**, plus Value Added Tax, all according to the provisions under C2.1.3;

or

- In the event of the basis for remuneration being a “**time based**” fee, the **different rates tendered for the different categories in “C2.2.3 Activity Schedule for Time Based Fees”, column (c), multiplied by the actual number of hours spent** plus Value Added Tax, all according to the provisions under C2.1.4.

C2.1.2.2 The amount tendered herein (C1.1) is for tender purposes only and will be amended according to the application of the value fee scale *vis-à-vis* the actual cost of construction (if basis of remuneration has been set at “value based” according to C2.1.1.1) or the actual number of hours for each level (if basis of remuneration has been set at “time based” according to C2.1.1.1).

C2.1.2.3 Reimbursable rates for typing, printing and duplicating work and forwarding charges as set out under C2.1.6 herein will be paid in full, irrespective of the percentage or rates tendered as referred to in C2.1.1.2 and C2.1.2.1 above.

C2.1.2.4 **Disbursements in respect of all travelling and related expenses** including all travelling costs, time charges and subsistence allowances related thereto **will not be paid for separately.** **Tenderers must make provision for and include all such costs in their tender when calculating the percentage or rates as described in C2.1.1.2 above.**

The site must be visited as often as the works require for the execution of all duties on the Project. The Service Provider must be available at 24 hours’ notice to visit the site if so required. All costs in this regard will be deemed to be included in the applicable fees as stated in C2.1.1.1.

C2.1.2.5 All fee accounts must be accompanied by an updated original written certification by the quantity surveyor, if appointed, of the amount(s) on which fees are based. The onus, however, rests on the Service Provider to calculate fees on the appropriate value and according to the correct fee scale, read in conjunction with this Contract.

- C2.1.2.6 All fee accounts need to be signed by a principal of the Service Provider and submitted in original format, failing which the accounts will be returned. Copies, facsimiles, electronic and other versions of fee accounts will not be considered for payment.
- C2.1.2.7 For all Services provided on a time basis, time sheets giving full particulars of the work, date of execution and time duration, should be submitted with each fee account.
- C2.1.2.8 Payments to the Service Provider will be made electronically according to the banking details furnished by the Service Provider. Any change in such banking details must be communicated to the departmental project manager timeously. Fee accounts, correct in all respects, will be deemed submitted when received by the Employer and settled when electronically processed by the Employer. The Employer reserves the right to dispute the whole account, any item or part of an item at any time and will deal with such case in terms of clause 14.3 of the General Conditions of Contract.
- C2.1.2.9 Accounts for Services rendered may be submitted on the successful completion of each stage of work. Interim accounts will only be considered during the construction stage of the works and then not more frequently than quarterly except if otherwise agreed between the authorised and designated representative of the Service Provider and the Employer. Payment of accounts rendered will be subject to the checking thereof by the departmental project manager. The Employer reserves the right to amend the amounts claimed in order to conform to the rates stipulated in this Contract and make payment on the basis of the balance of the account in accordance with clause 14.3 of the General Conditions of Contract.
- C2.1.2.10 Fee accounts shall be submitted on the Employer's prescribed format.

### **C2.1.3 Value based fees**

- C2.1.3.1 Fees for work done under a value based fee  
Where value based fees are payable (if basis of remuneration has been set at "value basis" according to C2.1.1.1), the Service Provider will be remunerated for Services rendered, subject to the provisions in C2.1.2 above and subject to the specific terms and conditions stated below and elsewhere in this document, in accordance with the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000** dated 1 March 2016. This document is referred to as the "**Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**" hereinafter and is appended as appendix A. This tariff of fees will be payable for the full Period of Performance.
- C2.1.3.2 Normal services  
The fee for normal services shall be the tendered percentage based on the fee provided in the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**.  
  
Where the Service Provider is required to perform a portion of the normal services, only the relevant portion of the fee shall be paid.
- C2.1.3.3 Interim payments to the Service Provider  
For the purposes of ascertaining the interim payments due, the cost of the works, which shall exclude any provisional allowances made to cover contingencies and escalation, shall be:
- the net amount of the accepted tender, or
  - if no tender is accepted, the net amount of the lowest suitable tender, unless acceptable motivation can be provided to prove that such amount is unreasonable, or
  - if the contract is awarded by negotiation the negotiated price, or
  - if no tenders are invited or if no suitable tenders are received or if no negotiation is concluded, the estimate. The estimate shall be the one accepted by the Employer as representing the value of the works, which for purposes of interim payments will be deemed to be 80% of the engineers estimate or if appointed, 80% of the quantity surveyors estimate.

- C2.1.3.4 Fees for documentation for work covered by a provisional sum  
Where a provisional sum is included in the bills of quantities for work to be documented at a later stage, the documentation fee in respect of such work shall be remunerated at the time when the documentation has been completed. The fee shall relate to the type of documentation drawn up by the mechanical engineer in respect of each section of such work.
- C2.1.3.5 Time charges for work done under a value based fee  
Where time charges are payable according to clause 3.2 of the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000** as amended in C3.3.2 (if basis of remuneration has been set at "value based" according to C2.1.1.1), the principles as described in the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**, clause 4.4, and the rates set out below, will be applicable.
- C2.1.3.5.1 Time charges are reimbursable at rates applicable at the time of the actual execution of the specific service. The "Rates for Reimbursable Expenses" as amended from time to time and referred to below, is obtainable on the Employer's Website: <http://www.publicworks.gov.za/> under "Documents"; "Consultants Guidelines"; item 1.
- C2.1.3.5.2 The scale of fees on time charges, on which Value Added Tax is excluded, shall be at the following rates per hour, rounded off to the nearest rand: (see Table 8 of "Rates for Reimbursable Expenses" for the actual amounts calculated in accordance with to the principles laid down below):
- (i) for a person in category A and B: 18,75 cents for each R100,00 of the total annual remuneration package attached to the lowest notch of a level 13 salary range (Director) in the Public Service;
  - (ii) for a person in category C: 17,5 cents for each R100,00 of the total annual remuneration package attached to the lowest notch of a level 12 salary range (Deputy Director second leg) in the Public Service;
  - (iii) for a person in category D: 16,5 cents for each R100,00 of his/her gross annual remuneration; provided that this hourly rate shall not exceed 16,5 cents for each R100,00 of the total annual remuneration package attached to the lowest notch of a level 11 salary range (Deputy Director first leg) in the Public Service.
- Hourly rates calculated in terms of (i), (ii) and (iii) above shall be deemed to include overheads and charges in respect of time expended by clerical Personnel which shall, therefore, not be chargeable separately.
- C2.1.3.5.3 Unless otherwise specifically agreed in writing, remuneration for the time expended by principals in terms of C2.1.3.5.2 (i) above on a project shall be limited to 5 per cent of the total time expended for time charges in respect of the Project. Any time expended by principals in excess of the 5 per cent limit shall be remunerated at the rates determined in (ii) or (iii) above.
- C2.1.3.5.4 Notwithstanding the above, where work is of such a nature that Personnel as described in C2.1.3.5.2 (iii) above are capable of performing such work, it shall be remunerated at that level and not at the rates described in (i) and (ii) above, irrespective of who in fact executed the work.
- C2.1.3.5.5 Gross annual remuneration in C2.1.3.5.2 (iii) above shall mean basic salary and guaranteed annual bonus; fringe benefits not included in basic salary; income benefit, as determined from time to time by the South African Revenue Services for income tax purposes, for the private use of a motor vehicle by the employer; employer's contribution to pension/provident fund, medical aid and group life assurance premiums; Compensation Fund and Unemployment Fund contributions, Metropolitan Council levies and any other statutory contributions or levies; all other costs and benefits as per conditions of appointment but excluding any share of profit and payment for overtime.
- C2.1.3.5.6 The salaries referred to in C2.1.3.5.2 (i) to (iii) above can change from time to time, which will, therefore, change the rates applicable. These rates will, however, only be adjusted on the first day of each calendar year irrespective of any changes in salary ranges during the relevant year. The rates applicable at the time of the execution of the work as set out in Table 8 of the "Rates for Reimbursable Expenses", as adjusted from time to time, may be claimed.

## C2.1.3.6 Additional Services

## C2.1.3.6.1 Additional Services pertaining to all Stages of the Project

Unless separately provided for hereunder and scheduled in the Activity Schedule, no separate payment shall be made for the additional services specified in C3.3.2.1. The cost of providing these services shall be deemed to be included in the value based fee tendered for normal services.

## C2.1.3.6.2 Construction monitoring

The construction monitoring requirements are as specified in C3.3.2.2.

(a) If Level One, part time, monitoring has been specified then no separate payment shall be made for construction monitoring staff as specified in C3.3.2.2 (i)-(iii) or for the transport of the monitoring staff as specified in C3.3.2.2 (iv). The cost of providing construction monitoring staff and transport shall be deemed to be included in the value based fee tendered for normal services.

(b) If Level Two, full time, monitoring has been specified then provision shall be made in the Activity Schedule for the envisaged site staffing requirements as specified in C3.3.2.2 (i)-(iii). The unit of measure shall be the rate per calendar month (pro rata for part of a month). Payment shall only be applicable for the period actually established on site and shall in no instance be prior to the date of official handover of the Works to the Contractor or after the date of issue of the Certificate of Completion for the Works contract. The rates tendered for the relevant site staff shall include full compensation for all costs including, inter alia, the following:

- Salary
- Additional allowances
- Bonuses
- Leave and sick leave
- All company contributions such as provident fund, group life benefits, medical aid etc.
- Levies
- Office equipment as set out in C3.3.2.1 (iii)
- Relocation cost and accommodation
- Travelling
- Handling cost and profit.

Payment for personnel shall exclude any periods of leave or sick leave. Time sheets for staff shall be included in the monthly fee account submitted to the Employer for payment. Replacement of staff as a result of any extended period of leave or sick leave outside of the normal contractor's year end break shall be to the approval of the Employer.

No separate payment shall be made for the transport of the construction monitoring staff as specified in C3.3.2.2 (iv) and the cost of the transport shall be deemed to be included in the monthly rate tendered for the provision of the staff.

## C2.1.3.6.3 Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

No separate payment shall be made for the service specified in C3.3.2.3. The cost of providing this service shall be deemed to be included in the value based fee tendered for normal services.

## C2.1.3.6.4 Quality Assurance System

No separate payment shall be made for the implementation of a quality management system as specified in C3.3.2.4. The cost of providing this service shall be deemed to be included in the value based fee tendered for normal services.

## C2.1.3.6.5 Lead Consulting Engineer

No separate payment shall be made for assuming the leadership of an Employer specified joint venture, consortium or team of consulting engineers as specified in C3.3.2.5. The cost of providing this service shall be deemed to be included in the value based fee tendered for normal services.

**C2.1.3.6.6 Principal Agent of the Client**

No separate payment shall be made for assuming the role of principle agent of the Employer if specified in C3.3.2.6. The cost of providing this service shall be deemed to be included in the value based fee tendered for normal services.

**C2.1.3.6.7 Environmental Impact Assessment**

No separate payment shall be made for the service specified in C3.3.3.1. The cost of providing this service shall be deemed to be included in the value based fee tendered for normal services.

**C2.1.3.6.8 Other unspecified services**

The Employer may order duties that fall outside the scope of the project as tendered. Such additional duties may involve, but not limited to:

- Additional design requirements
- Evaluation of alternative tenders
- Additional investigations during the Defects and Liability Period
- Diverse other services

Any such additional services that may be required will be remunerated on a Time Basis as set out in C2.1.3.5. The level of expertise necessary for any such additional work shall be concomitant with the issues to be addressed. The category of personnel necessary to undertake the work shall be approved by the Employer. Any additional identified service shall be fully scheduled and submitted to the Employer for approval prior to the commencement thereof.

**C2.1.4 Time based fees****C2.1.4.1 Fees for work done under a time based fee**

Where time based fees are payable (if basis of remuneration is set at "time based" according to C2.1.1.1), the principles as described in clauses 4.4 (2) and (3) of the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**, excepting that the rates referred to in clause 4.4 (3) shall be replaced by the various rates per hour tendered for the various categories in the C2.2.3 Activity Schedule for Time Based Fees, column (e). These various rates will be adjusted for inflation as determined by clause 3.16.2 of the Contract, as amended, and Contract Data in C1.2.2. The time based rates applicable at the time of the execution of the work, as adjusted from time to time, may be claimed.

**C2.1.4.2** The various categories referred to in C2.2.3 Activity Schedule for Time Based Fees, are the categories described in clauses 4.4 (2) of the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**.

**C2.1.4.3** Work will be remunerated for at the category in which it falls as defined in C2.1.4.2 above, irrespective of whether the person who had executed the work functions at a higher category of responsibility and competence.

**C2.1.5** Set off  
The Employer reserves the right to set off against any amount payable to the Service Provider, any sum which is owing by the Service Provider to the Employer in respect of this or any other project.

**C2.1.6** Typing, printing and duplicating work and forwarding charges

**C2.1.6.1** Reimbursable rates  
The costs of typing, printing and duplicating work in connection with the documentation which must of necessity be provided, except those which must in terms of other instructions be provided free of charge, shall be reimbursable at rates applicable at the time of the execution of such work. The document "Rates for Reimbursable Expenses" as amended from time to time and referred to below, is as set out within C4.2.1 (3).

**C2.1.6.2 Typing and duplicating**

If the Service Provider cannot undertake the work himself, he may have it done by another service provider firm which specialises in this type of work and he shall be paid the actual costs incurred upon submission of statements and receipts which have been endorsed by him confirming that the tariff is the most economical for the locality concerned.

If the Service Provider undertakes the work himself, he shall be paid in respect of actual expenses incurred subject to the maximum tariffs per A4 sheet as set out in Table 1 in the "Rates for Reimbursable Expenses".

Typing and duplicating expenses shall only be refunded in respect of the final copies of the following documents namely formal reports, formal soil investigation reports, specifications, feasibility reports, bills of quantities, material lists, minutes of site meetings and final accounts. The cost of printed hard covers shall only be paid in respect of documents which will be made available to the public such as bills of quantities and specifications or where provision of hard covers is specifically approved.

The typing of correspondence, appendices and covering letters are deemed to be included in the value fees and hourly rates paid.

**C2.1.6.3 Drawing duplication**

(a) For drawing duplication the standard rate as set out in Table 2 in the "Rates for Reimbursable Expenses" may be claimed **or** may be claimed according to the provisions as in (b) or (c) below.

(b) If the Service Provider undertakes the duplication of drawings, using his own duplication equipment, he shall be paid the actual cost incurred on condition that it is not higher than the lowest of three quotations of local firms doing drawing duplication in his locality. Such quotations must accompany his account.

(c) If the Service Provider does not undertake his own drawing duplication, he shall be paid the lowest of three quotations of local firms doing plan printing in his locality. Such quotations must accompany his account.

(d) Should there not be three firms doing drawing duplication in his locality, it must be mentioned on his account and the available quotation(s) must then accompany the account.

(The cost of providing all polyester negative prints required to form part of the original set of drawings, as-built drawings including computer assisted drawing records for all facets/disciplines involved in the project are included in the tendered fees and will not be reimbursed separately.)

**C2.1.6.4 Forwarding charges**

(a) Only the charges in respect of the forwarding of parcels by courier or air freight on special request by the Employer will be refunded, provided that such charges will not be refunded if the request had been made as a result of a delay caused by the Service Provider.

(b) The cost of postage, facsimile transmissions, telephone calls, e-mails, etc, is deemed to be included in the value based fees and hourly rates paid.

**C2.1.7 Travelling and subsistence arrangements and tariffs of charges**

Notwithstanding the ruling in C2.1.2.4 above (regarding disbursements and travelling expenses which will not be paid separately), when the Service Provider is requested in writing by or obtained prior approval in writing from the Employer to attend specific meetings at any of the Employer's offices or any extraordinary meetings on site or elsewhere, he will be remunerated according to the provisions under C2.1.7.1 to C2.1.7.5 herein.

**C2.1.7.1 General**

The most economical mode of transport is to be used taking into account the cost of transport, subsistence and time. Accounts not rendered in accordance herewith may be reduced to an amount determined by the Employer.

As the tariffs referred to hereunder are adjusted from time to time, accounts must be calculated at the tariff applicable at the time of the expenditure.



Where journeys and resultant costs are in the Employer's opinion related to a Service Provider's malperformance or failure, in terms of this Contract, to properly document or co-ordinate the work or to manage the Contract, no claims for such costs will be considered.

C2.1.7.2 Travelling time

Fees for travelling time are as set out in Table 8 in the "Rates for Reimbursable Expenses".

Fees are payable for travelling time at the tariff, as set out in C2.1.3.5 Time charges for work done under a value based fee. Travelling time will be fully reimbursed.

C2.1.7.3 Travelling costs

Fees for travelling costs are as set out in Table 3 in the "Rates for Reimbursable Expenses".

Travelling costs will be refunded for the full distance covered per return trip measured from the office of the Service Provider appointed.

Compensation for the use of private motor transport will be in accordance with the Government tariff for the relevant engine swept volume, up to a maximum of 3000 cubic centimetres, prescribed from time to time and as set out in Table 3 in the "Rates for Reimbursable Expenses".

C2.1.7.4 Hired vehicles

In cases where use is made of hired vehicles, the most economical sized vehicle available is to be used but compensation shall nevertheless be restricted to the cost of a hired car not exceeding a capacity of 1300 cc. Where use of a special vehicle is essential (e.g. four track or minibus to accommodate more people), prior approval in writing must be obtained from the departmental project manager.

C2.1.7.5 Subsistence allowance

The subsistence allowances are as set out in Tables 4 and 5 in the "Rates for Reimbursable Expenses".

Only actual costs are payable in respect of absence from office of less than 24 hours.

Should the daily tariff as set out in Table 4 be inadequate, substantiated actual costs plus a special daily allowance as shown in Table 5 for incidental expenses, may be claimed. It must be noted that claims may only be according to Table 4 or Table 5. Accommodation should be limited to the equivalent of a three star hotel and no alcoholic beverages or entertainment costs may be claimed for.

**C2.2 Activity Schedule****C2.2.1 Activities**

C2.2.1.1 The services as defined in the C3 Scope of Services are required. The activity schedule below lists the normal services as defined in the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**, (appendix A), clause 3 and as further defined in C3 Scope of Services, as well as additional services as defined in C3 Scope of Services, of this document. (The clause references refer to the corresponding clauses in the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**.)

C2.2.1.2 The estimated normal fees have been calculated using the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**, (appendix A), by applying the applicable fee scale given in clause 4.2.4 (1) for an engineering project or clause 4.2.5 (1) for a multi-disciplinary project, to determine the basic fee and by multiplying the basic fee by the applicable multiplication factor given in clause 4.2.4 (2) or clause 4.2.5 (2) respectively. The cost of the works and the values used to determine the multiplication factors are defined in C 3.2.2.3.

No allowance has been made in the estimated normal fees below for the additional services in C2.1.3.6 that have been specified to be included in the normal fees. The tenderer shall make provision for the cost of the additional services that are to be included under normal services by adjusting the percentage tendered in column (b).

C2.2.1.3 The services are to be provided in stages and the proportioning of the fee for normal services over the various stages shall be as set out in the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**, (appendix A), clause 4.2.8.

C2.2.1.4 The tenderer must make provision for all activities necessary for the execution of the services as set out in C3 Scope of Services.

## C2.2.2 Activity Schedule for Value Based Fees

**ACTIVITY SCHEDULE FOR VALUE BASED FEES**

(Only to be completed if remuneration is stipulated as on a “value basis” in C2.1.1.1 herein.)

**Tenderer's Tender for Value Based Fees****Fee for Normal Services inclusive of certain additional services as specified in C2.1.3.6**

Latest estimate of the construction cost for the mechanical works.	(a) Estimated normal fees	Unit	(b) Percentage of normal fees tendered	(a)x(b) Financial Offer by Tenderer for Value Based Fees
<b>R 7,084,244.25</b>	R859,629.31	%		= R (1)

**Additional Services – C2.1.3.6**

Description	Quantity	Unit	Rate	N/A
<b>Sub-total Additional Services</b>				R (2)
<b>Sub-total Normal + Additional Services (1+2)</b>				R (3)
<b>Add VAT @ 15%</b>				R (4)
<b><u>TOTAL FINANCIAL OFFER FOR VALUE BASED FEES</u> (3+4)</b>				<b>R</b> (5)

- NOTE:** 1. Total Financial Offer for Value Based Fees **must be carried over to C1.1 Form of Offer and Acceptance**, if this tender is for value based fees. Failure to carry this over to the Form of Offer and Acceptance **may render the tender non-responsive**.
2. Remuneration for value based appointments will be calculated as determined in C2.1.2 (i.e. the percentage of the normal fee tendered multiplied by the value fee scale *vis-à-vis* the actual cost of construction). The percentage of the normal fee shall apply to each stage for services provided in stages. In terms of C2.1.2.4, time spent on travelling, as well as any other travel related expenses (such as travelling costs and subsistence allowances) will not be remunerated – except as provided for in C2.1.7.

## C2.2.3 Activity Schedule for Time Based Fees

**ACTIVITY SCHEDULE FOR TIME BASED FEES**

(Only to be completed if remuneration is stipulated as on a "time basis" in C2.1.1.1)

**Tenderer's Rates for Time Based Fees**

Category as defined in C2.1.4.2	(c) Tenderer's rates for Time Based Fees	X	(d) Estimated hours for each category (type in here carefully, determine estimated hours you will spend on this category) h	(c)x(d) Financial Offer by Tenderer Time Based Fees
Category A	R	X		= R (6)
Category B	R	X	(ditto) h	= R (7)
Category C	R	X	(ditto) h	= R (8)
Category D	R	X	(ditto) h	= R (9)
<b>Total Time based Fees (9)</b>				R (10)
<b>Add VAT @ 15%</b>				R (11)
<b>TOTAL FINANCIAL OFFER FOR TIME BASED FEES (10+11)</b>				<b>R (12)</b>

- NOTE:** 1. Total Financial Offer for Time Based Fees, (12) above, **must be carried over to C1.1 Form of Offer and Acceptance** of this tender is for time based fees. Failure to carry this over to the Form of Offer and Acceptance **may render the tender non-responsive.**
2. Remuneration for time based appointments will be calculated as determined in C2.1.2 (i.e. for each level: total number of hours multiplied by the tendered rates in (c) above). In terms of C2.1.2.4, time spent on travelling, as well as any other travel related expenses (such as travelling costs and subsistence allowances) will not be remunerated – except as provided for in C2.1.7.

**C3: SCOPE OF SERVICES****C3.1 Employer's objectives**

This tender is for:

A Service Provider performing mechanical engineering work on a **Engineering Project**.

**C3.2 Description of the Services****C3.2.1 Services**

The general descriptions of the services required are as defined in the 2016 NWHAGI - Scope of Engineering Services and Tariff of Fees.

Specific services required are set out in Section C3.3 Extent of Services as well as in the most recent publication of the Departmental: Manual for Electrical/Electronic and Mechanical Consulting Engineers. Should there be any discrepancies between this Tender Document and the Manual for Electrical/Electronic and Mechanical Consulting Engineers, the former shall take precedence.

Where a quantity surveyor is included in the project team on a multi-disciplinary project, the quantity surveyor will compile bills of quantities for all work ("all work" shall include *inter alia* electrical, mechanical and any other engineering work).

**C3.2.2 Project description****William Humphreys Art Gallery: Upgrading of Central HVAC System****C3.2.2.1 Scope**

Replacing existing central system chillers and AHU's with latest heat recovery AHU type, VRF systems that each has a individual plant system that service each individual AHU. **Refer to C4 for further information**

**C3.2.2.2 Location of the Project**

1 Cullinan Crescent, Civic Centre , Kimberley CBD

**C3.2.2.3 Project Cost Estimate**

**R8,334,405.00 (Eight Million, Three Hundred and Thirty-Four Thousand Four Hundred and Five Rand Zero Cents)**

**C3.2.2.4 Project Programme (Planned Milestones)**

Client	WHAG	Project Reference Number	
William Humphreys Art Gallery: Upgrading of HVAC System			
Project manager:	To be appointed by Client		Service type:
Tender Date		2023/11/08	
Milestone description		Milestone Date	Time Frames between each process (Days)
APPOINTMENT OF SERVICE PROVIDER		2023/09/01	30
BRIEFING OF SERVICE PROVIDER		2023/09/12	7
INVESTIGATION AND REPORT		2023/09/19	5
PRELIMINARY DESIGN COMPLETION		2023/10/10	15
PRELIMINARY DESIGN APPROVAL		2023/10/17	5
FINAL WORK DRAWINGS/ESTIMATE		2023/10/31	10
DRAFT BILLS. FINAL ESTIMATE		2023/10/31	10
ADVERTISE TENDERS		2023/11/08	5
TENDERS CLOSE		2023/12/06	21
AWARD TENDER		2024/01/17	30
HANDING OVER OF SITE		2024/01/18	1
PRACTICAL COMPLETION		2025/07/02	379
MAINTENANCE PERIOD		2026/11/25	365
FINAL DELIVERY CERTIFICATE		2026/11/26	1
FINAL COMPLETION REPORT		2026/11/27	1
FINAL PAYMENT CERTIFICATE		2026/12/04	5

## C3.2.2.5 Information available from Employer

The existing central system was installed around 2003-2006 and has been problematic for several years. The existing system consists of the following:

- ✚ Two air cooled chillers.
- ✚ Chilled water circulation pumps.
- ✚ Four two stage evaporative cooler/air handling units.
- ✚ Electrical elements for heating/dehumidification.
- ✚ All four AHU systems consist of intricate supply and return air ducting system with booster/re-circulating fans.
- ✚ Filter banks for return air and fresh air inlets.

The existing central systems has proved to be insufficient, and several breakdowns have been recorded in the last couple of years. Especially the chillers have been unreliable and currently only operates on one cooling cycle/compressors. The existing ducting is internally insulated, and the insulation could not be verified at this stage if it is damaged. But according to several previous sites and considering the age of the system there would possibly be damages to the insulation, it is having a life span of approximately between 15 and 20 years. Refer to C4 for further information.

## C3.2.2.6 Other Contracts on Site

No other contracts are currently being executed on site.

## C3.2.2.7 Reporting Requirements and Approval Procedure

The following Reporting and Approval Procedures will comply:

- **Preliminary Design Report: Service Provider will present Preliminary Design to Employer for approval.**
- **Final Design Report: Service Provider will present Final Design to Employer for approval.**
- **Variation Orders must be approved by Employer prior to any additional work being executed.**
- **Service Provider to provide Work Progress Report at Bi-weekly intervals to Representative Project Manager.**

## C3.2.2.8 Labour-Intensive Works

(a) The Service Provider shall not perform any significant portion of a project involving labour-intensive works under the direction of a staff member who has not completed the NQF level 7 unit standard "Develop and Promote Labour-Intensive Construction Strategies" or equivalent QCTO qualifications (See Appendix C of the Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works & Infrastructure Programme (EPWP)).

(b) The staff member of the Service Provider is responsible for the administration of any works contract involving labour-intensive works must have completed the NQF level 5 unit standard "Manage Labour-Intensive Construction Projects" or equivalent QCTO qualifications (See Appendix C of the Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works & Infrastructure Programme (EPWP)).

The Service Provider must provide the Employer with satisfactory evidence (e.g. letter of competency) that staff members satisfy the requirements of (a) and (b) above.

(c) The Service Provider must design and implement the construction/maintenance works in accordance with the latest version (download at [www.epwp.gov.za](http://www.epwp.gov.za)) of the Guidelines for the Implementation of the Labour-Intensive Projects under the Expanded Public Works & Infrastructure Programme (EPWP) published by the William Humphreys Art Gallery. The Service Provider must sign the undertaking (Appendix E of the Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works & Infrastructure Programme (EPWP)) confirming they have complied with EPWP requirements at design and implementation stages.

(d) The Service Provider shall, for monitoring purposes, submit monthly records and transmit to the Employer data on the following indicators with regard to the project:

- Project budget and planned output according to EPWP requirements
- Actual Project Expenditure and actual output according to EPWP requirements
- Planned and achieved labour intensity
- Number of work opportunities created
- Demographics of workers employed (disaggregated by women, youth and persons with disabilities)
- Wage rate earned on project
- Number of person-days of employment created
- Copies of Identity documents of workers
- Number of persons who have attended training including the nature and duration of training provided
- Assets created, rehabilitated or maintained in accordance with indicators in the EPWP M & E Framework
- Services provided or delivered in accordance with indicators in the EPWP M & E Framework

(e) The values for the indicators shall be submitted to the Employer according to agreed time frames on the prescribed reporting template in the EPWP Unit in the William Humphreys Art Gallery and obtainable from [www.epwp.gov.za](http://www.epwp.gov.za)

(f) The Service Provider shall, before certifying a contractor's payment certificate, ensure that the contractor has submitted labour information in a format and timeframe specified by the Employer. If the information submitted by the contractor is inadequate the Service Provider shall not submit the payment certificate to the Employer for payment of the relevant outputs.

(g) The Service Provider shall certify that the works have been completed in accordance with the requirements of the Guidelines for the Implementation of Labour-Intensive Infrastructure Projects under the Expanded Public Works Programme (EPWP) and the Contract:

- whenever a payment certificate is submitted to the Employer for payment; and
- immediately after the issuing of a practical completion certificate that signifies that the whole of the works have reached a state of readiness for occupation or use for the purposes intended although some minor work may be outstanding.

### C3.3 Extent of the Services

The following services as defined in the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**, clause 3, are required: (The clause references refer to the corresponding clauses in the **Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**).

#### C3.3.1 Normal Services (clause 3.2) including:

Stage 1: Inception  
 Stage 2: Concept & Viability  
 Stage 3: Detail Design  
 Stage 4: Documentation & Procurement  
 Stage 5: Contract Administration  
 Stage 6: Close-Out

Clause 3.2.2 Stage 2 - Preliminary Design: Concept and Viability, including Stage 1 - Inception

Clause 3.2.3 Stage 3 - Detail Design

Clause 3.2.4 Stage 4 - Documentation and Procurement

Clause 3.2.5 Stage 5 - Contract Administration and Inspection

Clause 3.2.6 Stage 6 - Close-Out

Completion of all consulting engineering services.

## C3.3.2 Additional Services (clause 3.3) including:

C3.3.2.1 Clause 3.3.1 Additional Services pertaining to all Stages of the Project  
None

## C3.3.2.2 Clause 3.3.2 Construction Monitoring

(i) General

The consultant must make available construction monitoring staff for Level One, (part time), monitoring..

The competence and experience of the tenderer's proposed site personnel shall be an integral part of the Employer's tender evaluation process. On acceptance of their tender by the Employer, the Service Provider shall not be permitted to offer alternative core personnel unless such alternative offer is as a result of a *bona fide* unforeseen circumstance. In such an event, the Employer shall only accept alternative personnel possessing at least similar qualifications and experience to those persons proposed in the tender.

The Employer shall be entitled to instruct the Service Provider to remove from the Works any person employed by the Service Provider on or about the execution of the Works who, in the opinion of the Employer, misconducts himself or is incompetent or negligent in the proper performance of his duties, or whose presence on site is otherwise considered by the Employer, on reasonable grounds, to be undesirable.

(ii) Accommodation

Appropriate housing for the site staff shall be provided by the Service Provider. Site staff shall be housed as near to the location of the Works as may be practically possible. No separate payment will be made for the accommodation of site staff and rates tendered for the relevant site staff shall include full compensation for all accommodation costs.

(iii) Establishment of site office

Provision and maintenance of a site office building, all related services and supply of office furniture will be made under the Works Contract. The Service Provider shall however provide all office equipment and incidentals required for carrying out administration, supervision and inspection of the Works and shall include:

Cell phones, including rental and call charges.

- a) All safety equipment for supervisory staff in accordance with the OHS requirements (e.g. safety jackets, boots, etc).
- b) All equipment including copier rental, fax machine, consumables, stationary, digital camera, etc.
- c) All necessary computer hardware, software, printers and modems and associated consumables.
- d) Any other items necessary for the capture of all relevant data required for administering the contract and reporting to the Employer.

One landline, including rental and call costs for work related office and fax usage shall be provided through the Works Contract.

(iv) Transport for site staff

The Service Provider shall provide sufficient appropriate vehicles on site for site staff.

## C3.3.2.3 Clause 3.3.3 Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)

The Employer shall appoint a Service Provider under a separate contract as its "agent" as contemplated in the Construction Regulations to the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

The Service Provider under this contract shall however make provision for the incorporation of the Occupational Health and Safety specifications, compiled by others, in the tender documentation, if applicable.

It is a firm requirement that in the designs, planning and supervision of the execution of the work done under the contract resulting from this tender, all applicable regulations and stipulations under



OH&SA, (Act 85 of 1993) including regulations and codes of practice etc are complied with and that the final product shall be in full compliance with said legislation, standards, etc.

Furthermore, the Service Provider shall be fully responsible for the compliance of his operation, equipment as well as staff and persons under his supervision on site whether by invitation instruction or otherwise and regardless of the capacity, purpose and relationship of any such persons to the appointment, to all aspects of all applicable regulations and stipulations under OH&SA, (Act 85 of 1993).

C3.3.2.4 Clause 3.3.4 Quality Assurance System  
As per Construction and Monitoring requirements.

C3.3.2.5 Clause 3.3.5 Lead Consulting Engineer  
N/A

C3.3.2.6 Clause 3.3.6 Principal Agent of the Client  
Appointed Construction Project Manager will take the role of Principal Agent

C3.3.3 Additional Services (Other)

C3.3.3.1 Environmental Impact Assessment  
EIA will not be required for this service

The Service Provider is required to lodge application on behalf of the Employer in compliance with the Environmental Impact Assessment Regulations: Regulations 1182 and 1183 of the Environmental Conservation Act, 1989 (Act 85 of 1989) for the proposed construction of the project. The Service Provider is further required to compile a specification setting out the minimum requirements regarding the Environmental Management Plan (EMP) for the construction process, evaluate and approve the contractor's EMP, and monitor his adherence thereto.

C3.3.3.2 The Employer may order duties that fall outside the scope of the project as tendered. Any such additional services that may be required shall be remunerated as set out in the Pricing Data.

### **C3.4 Use of reasonable skill and care**

It will be expected of the Service Provider to apply reasonable skills and due diligence in the execution of the duties stipulated in this document which shall include *inter alia* the following:

Although the Service Provider's documents may be scrutinised by the Employer, this shall in no way relieve him of his professional responsibility for the proper and prompt execution of his duties. The Employer shall also be entitled to have any documentation or calculations verified by Others. In the event of malperformance, default or negligence, the Employer shall have the right to claim compensation or damages and set off such against any amount payable.

During assessment of any existing facilities, which may have a direct bearing on the Project, the Service Provider shall determine deficiencies with such facilities in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), the SANS 10400, etc. and recommend measures to rectify those during the project execution phase.

The departmental project manager shall be notified by the Service Provider and his personnel of any transgression of *inter alia* the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and environmental legislation during the Service Provider's operation pertaining to the Contract regardless of who may be involved.

### **C3.5 Co-operation with other services providers**

It will be required of the Service Provider to co-operate with the following:

- C3.5.1 Service Providers  
Service Providers from the following professions are/will be appointed on the Project to form the professional team:

**Construction Project Manager  
Mechanical Engineer**

and other service providers as may from time to time be deemed necessary.

The above-mentioned **Construction Project Manager** will act as principal agent.

The required professional services will be executed by the professional team under the control and management of the designated departmental project manager who, at the time of invitation to perform professional services, will be the person mentioned in T1.1.6. The Employer reserves the right to replace the mentioned departmental project manager with another member of its staff or any individual/firm from the private sector should it be deemed necessary at any stage during the execution of the Project.

- C3.5.2 Other role players:  
Local, provincial and national authorities, statutory bodies, governmental departments, Others, as may be required from time to time, including the client department/end user(s).

**C3.6 Brief**

- C3.6.1 Target dates and times  
The Service Provider will be expected throughout to give preference to the execution of the work involved in this commission.

The work of all Service Providers will be co-ordinated by the principal agent. All work is to be performed by the persons listed as Key Persons and persons under their supervision and further be executed as described in the Programme according to clause 3.15 of the Contract Data (and/or PEP according to the same clause, if applicable).

During the construction phase of the Project it will be expected of the Service Provider to obtain a construction programme from the main contractor to continuously monitor his progress against that programme for compliance and to take whichever steps deemed necessary, should the progress not be according to the said programme.

- C3.6.2 Reporting requirements  
Notwithstanding any other requirements as listed elsewhere, the Service Provider shall submit a monthly report indicating progress of the Services.

- C3.6.3 Local content  
It is the policy of the Employer to give preference to materials and equipment of South African manufacture. The Service Provider is to ensure that, wherever feasible, designs are based on locally manufactured equipment and materials which can meet requirements at competitive prices.

- C3.6.4 Design innovation  
Given the need for energy efficiency and environmental sustainability in the built environment, each member of the professional team is required, wherever possible and applicable, to demonstrate design innovation in all aspects of the Service towards "green" design solutions. Aspects to be considered and incorporated in all new building and/or maintenance designs are, *inter alia* but not limited to:
- (a) sustainable development  
e.g. in building form, material choice, construction detailing and methods, recycling ability;
  - (b) energy efficiency e.g.
    - (i) passive design methods towards energy conservation and consumption: building orientation, exploitation of nature's inherent energy sources),
    - (ii) energy efficient solutions and installations for lighting, ventilation, cooling, heating, etc (e.g. energy efficient light fittings),
    - (iii) alternative or renewable energy sources where practical/feasible/economical;
  - (c) water conservation/saving/re-use methods; and

- (d) environmental friendliness (e.g. respect for natural habitat, blending of building with site/environment/surrounding fabric, positioning of buildings, consideration of neighbouring sites' access to sun, wind, view, etc).

#### C3.6.5 Final disposal of documents

Upon approval and finalisation of the final account of projects requiring a security clearance, it is a requirement that the Service Provider forward to the Employer all documents relating to this service. The same may also be requested on projects not requiring a security clearance.

### C3.7 Applicable legislation and standards

This section applies to legislation emanating from national and provincial governments as well as that of any local authorities in whose area of jurisdiction the subject of the appointment falls and which has a bearing on the activities and facilities under this appointment.

All the applicable legislation, which do not specifically allow discretion in respect of compliance by the State, shall be followed exactly as intended by such legislation regardless of any instructions, verbal or in writing, to the contrary. (Refer *inter alia* to Section 41 of the Occupational Health and Safety Act, 1993 (Act 85 of 1993)).

Should any applicable legislation allow discretion in respect of compliance by the State, it shall be followed exactly as intended by the relevant legislation as if no discretion is allowed until such time as specific instructions in writing are issued to the appointed professional team by the departmental project manager.

The Service Provider undertakes to ensure that his actions and outcome thereof including, but not limited to, the facilities to be affected by the Service shall be in accordance with all relevant legislation and upon delivery, will function as required by said relevant legislation. The Service Provider's actions and the outcome thereof will in no way be detrimental to the health and safety of the occupants or persons present therein or in the vicinity thereof. Similarly it must not be detrimental to any aspects of the environment in its structure or operation if operated as specified in operation manual(s). The relevant legislation meant herein, as amended, consist of *inter alia* the following, but not limited to:

- Atmospheric Pollution Prevention Act, 1965 (Act 45 of 1965);
- Construction Industry Development Board Act, 2000 (Act 38 of 2000);
- Council for the Built Environment Act, 2000 (Act 43 of 2000);
- Electricity Act, 1987 (Act 41 of 1987);
- Engineering Profession Act, 2000 (Act 46 of 2000);
- Environmental Conservation Act, 1989 (Act 73 of 1989);
- Fire Brigade Services Act, 1987 (Act 99 of 1987);
- Local Government Municipal Systems Act, 2000 (Act 32 of 2000), municipal by-laws and any special requirements of the local service supply authority;
- National Building Regulations and Building Standards Act, 1977 (Act 103 of 1977);
- National Environmental Management Act, 1998 (Act 107 of 1998);
- National Heritage Resources Act, 1999 (Act 25 of 1999);
- National Water Act, 1998 (Act 36 of 1998);
- Occupational Health and Safety Act, 1993 (Act 85 of 1993);
- Telecommunications Act, 1996 (Act 103 of 1996);
- Water Services Act, 1997 (Act 108 of 1997) and general authorizations;
- the latest issue of SANS 10142: "Code of Practice for the Wiring of Premises";
- the Regulations of the local Gas Board, where applicable and
- all regulations promulgated under the above Acts.

Although the more salient legislation has been referred to above, the *onus* remains on the Service Provider to adhere to, and apply, any and all Acts and/or Regulations not specifically mentioned in the list above but which will have an effect on the Project.

This will be a continuous process throughout the appointment, which will manifest itself during the following phases:

- development of plans and documentation;
- supervision of any Service Providers under the appointment;
- ensuring compliance of the end product;
- compiling and issuing of Instruction/Operational Manuals indicating *inter alia* what the legal and safety requirements entail for the user(s)/operator(s) of the facilities;
- providing instruction to the intended users/operators.

The Service Provider accepts full and complete responsibility (both contractually and/or in delict) regarding compliance with the Occupational Health and Safety Act, 1993 (Act 85 of 1993) for his acts and omissions as well as those of his employees and indemnifies the Employer against any legal action in this regard.

The Service provider undertakes to ensure that the requirements of the Occupational Health and Safety Act, 1993 will similarly apply to the agreement with any sub service providers inclusive of indemnifying the Employer against any legal action regarding the actions and/or omissions by them.

### **C3.9 Access to land/buildings/sites**

Access to the land/buildings/sites shall be negotiated in consultation with the departmental project manager.

### **C3.10 Software application for programming**

The Service Provider must avail himself of software to be used in the Project documentation for compatibility with other Service Providers as well as the Employer. Specific requirements for compatibility are specified in the relevant manuals.

### **C3.11 Security clearance**

It is an explicit condition of this agreement that partners, directors and/or the members of staff who will have insight into the planning of projects requiring security clearance, be kept to a minimum and that such persons will not object to being submitted to a security clearance, if the Employer so requires.

If the latter is applicable, the necessary forms will accompany this tender or be provided to the Service Provider at any stage thereafter. These forms must be completed, if attached, and returned with the tender. It is important to furnish information which is complete in every respect.

Should the authority responsible for the clearance, for security reasons not be satisfied with the classification obtained of any of the staff members of the Service Provider, it will be a further condition of this appointment that none of such staff members be involved with any aspect of the Project.

All documents pertaining to these projects must be stored in a safe place when not in use so as to ensure that the level of security of the projects is maintained.

The Employer will not accept liability for any costs in this regard.

FINGERPRINTS (except Defence projects)

Persons of whom security clearance is required can obtain a fingerprint form SAP 91(a) from any police station. Kindly ensure that the police official responsible for taking the finger prints certifies the form since non-certification will result in the form being unacceptable.

### **C3.12 Forms for contract administration**

All forms required during contract administration, will be made available by the Representative Project Manager **as approved by William Humphreys Art Gallery.**

**C3.13 Condition to accept unregistered persons with suitable built environment qualifications on secondment**

It is an express term of the contract that the Service Provider, after award of tender, accept unregistered, suitably qualified (built environment) persons in his office for the purpose of exposing the latter to the full extent of professional work, or as may be required according to specific circumstances, in order to gain experience which can be presented to the relevant Council for consideration towards professional registration. The secondment of such unregistered persons will be negotiated with the Service Provider in terms of numbers, periods of training and extent of professional work opportunity to be afforded. The conditions of secondment will be the subject of a separate Memorandum of Understanding with the Service Provider which will serve as an annexure hereto. Any secondment arrangements will cease upon the professional registration of the seconded person or as agreed on and so included in the aforesaid Memorandum of Understanding. The responsibility for salaries of seconded persons will remain with the Employer, but responsibility for operational expenses, necessary for the execution of the work, will vest with the Service Provider, all of which will be dealt with in the Memorandum of Understanding.

**C3.14 Submission of Accrual Reports**

The Service Provider shall submit accrual reports to the client representative at the end of March and September each year for the duration of the Service Contract period from the date of appointment up to and including project closeout. This is to ensure that PMTE complies with the accounting framework GRAP, which requires that PMTE disclose all its accruals as at the end of each reporting date.

**C4: SITE INFORMATION**



REFER TO APPENDIX 'B' FOR FURTHER ASSESSMENT INFORMATION OF EXISTING  
INSTALLATION AND REQUIREMENTS FOR DESIGN OF NEW SYSTEM

# Appendix A

**PROFESSIONAL FEES IN RESPECT OF AN ENGINEER'S APPOINTMENT (ALL DISCIPLINES)**

**Scope of Engineering Services and Tariff of Fees  
for Persons Registered in terms of the  
Engineering Profession Act, 2000 (Act No. 46 of 2000)**

**1 March 2021**

**Board Notice 22 of 2021 - Scope of Services and Tariff of Fees for Persons in terms of Engineering Profession Act 46 of 2000**

---

**Scope of Engineering Services and Tariff of Fees  
for Persons Registered in terms of the  
Engineering Profession Act, 2000,  
(Act No.46 of 2000)**

**The commencement date of this document**

**shall be**

**1 March 2021**



## INDEX

<b>1.</b>	<b>PREAMBLE.....</b>	<b>3</b>
<b>2.</b>	<b>GENERAL PROVISIONS.....</b>	<b>3</b>
2.1	Generality of terms.....	3
2.2	Definitions.....	3
2.3	Short Title.....	4
<b>3.</b>	<b>SCOPE OF SERVICES.....</b>	<b>4</b>
3.1	Planning, Studies, Investigations and Assessments Reports.....	4
3.2	Normal Services.....	5
3.2.1	Stage 1 - Inception.....	5
3.2.2	Stage 2 - Preliminary Design: Concept Viability.....	6
3.2.3	Stage 3 - Detail Design.....	6
3.2.4	Stage 4 - Documentation and Procurement.....	7
3.2.5	Stage 5 - Contract Administration and Inspection.....	8
3.2.6	Stage 6 - Close-Out.....	9
3.2.7	Targeted (Preferential) Procurement.....	9
3.3	Additional Services.....	9
3.3.1	Additional Services pertaining to all Stages of the Project.....	9
3.3.2	Construction Monitoring.....	10
3.3.3	Occupational Health and Safety Act 1993 (Act No. 85 of 1993).....	11
3.3.4	Quality Assurance System.....	11
3.3.5	Lead Consulting Engineer.....	11
3.3.6	Principal agent of the Client.....	12
3.3.7	Mediation, Arbitration and Litigation proceedings and similar Services.....	12
<b>4.</b>	<b>TARIFF OF FEES.....</b>	<b>12</b>
4.1	Application of Tariff of Fees.....	12
4.2	Fees for Normal Services.....	14
4.2.1	Civil and Structural Engineering Services pertaining to Engineering Projects.....	14
4.2.2	Civil Engineering Services pertaining to Multi-disciplinary Projects.....	16
4.2.3	Structural Engineering Services pertaining to Multi-disciplinary Projects.....	17
4.2.4	Mechanical Engineering Services pertaining to Engineering Projects.....	18
4.2.5	Mechanical Engineering Services pertaining to Multi-disciplinary Projects.....	19
4.2.6	Electrical and Electronic Engineering Services pertaining to Engineering Projects.....	20
4.2.7	Electrical and Electronic Engineering Services pertaining to Multi-disciplinary Projects.....	21
4.2.8	Services provided partially or in stages.....	22
4.2.9	Cancellation or Abandonment.....	23
4.3	Fees for Additional Services.....	23
4.4	Time Based Fees.....	23
4.5	Expenses and Costs.....	25

## PREAMBLE

This document is based on the “Guideline Scope of Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 2000, (Act No.46 of 2000)” determined by the Engineering Council of South Africa under Section 34(2) of the Engineering Profession Act, 2000 (Act No. 46 of 2000) and published under Government Gazette No 44333 Board Notice 22 of 26 March 2021 (ECSA Guideline Fee Scales).

Changes have been made to the ECSA Guideline Fee Scales to reflect the specific requirements of the William Humphreys Art Gallery for professional engineering appointments/contracts. The **services** to be provided by the **consulting engineer** and the corresponding remuneration have been set out herein for projects implemented by or on behalf of the William Humphreys Art Gallery and were determined with consideration of the factors put forward in the ECSA Guideline Fee Scales.

The Scope of Services and Tariff of Fees described herein are generally applicable and are referred to in the **agreement**. Specific requirements with regards to the Scope of Services and the Tariff of Fees shall be set out in the **agreement** and should any requirement of the **agreement** be in conflict with the requirement of this document, the requirement of the Agreement shall prevail.

Any amount mentioned in or fee calculated in terms of this document is exclusive of Value Added Tax.

This document allows for four different methods of remuneration namely:

- (1) Fees for Normal Services (percentage fee based on the cost of works),
- (2) Fees for Additional Services (fees for services additional to those provided for in the Normal Services),
- (3) Time based fees and
- (4) Expenses and costs.

Words or expressions in bold font are defined in clause 2.2.

## 1. GENERAL PROVISIONS

### 2.1 Generality of Terms

In this document, except where the context otherwise requires or indicates:

- (1) the masculine includes the feminine,
- (2) the singular includes the plural, and
- (3) any reference to a natural person includes a juristic person.

### 2.2 Definitions

In this Schedule, any word or expression defined in **the Act** has that meaning, unless the context otherwise indicates:

- (1) **Agreement** means the Letter of Appointment/Acceptance or the Professional Services Contract.
- (2) **Client** means any juristic person or organ of the State engaging a **consulting engineer** for services on a **project**.
- (3) **Construction monitoring** means the process of administering the construction contract and over-seeing and/or inspecting the works, to the extent of the **consulting engineer's** engagement, for the purpose of verification that the works are being completed in accordance with the requirements of the contract that the designs are being correctly interpreted and that appropriate construction techniques are being utilized. **Construction monitoring**, to whatever extent, shall not diminish the **contractor's** responsibility for executing and completing the works in accordance with his contract.
- (4) **Consulting engineer** for purposes of these rules only, means any professional registered in terms of **the Act**, or a juristic person who employs such professional, engaged by a **client** on a **project**.

- (5) **Contractor** means any person or a juristic person under contract to a **client** to perform the **works** or part of it on a **project**, including a subcontractor under contract to such **contractor**.
- (6) **Cost of the works** means the total amount, exclusive of value added tax, certified or which would normally be certifiable for payment to **contractor(s)** (irrespective of who actually carries out the works) in respect of the **works** designed, specified or administered by the **consulting engineer**, before deduction of liquidated damages or penalties, including –
  - a *pro rata* portion of all preliminary and general items applicable to the **works** and
  - the costs of new materials, goods or equipment, or a fair evaluation, of such material, goods or equipment as if new whether supplied new or otherwise by, or to, the **client** and including the cost or a fair evaluation of the cost of installation. The sourcing, inspection and testing of such will comprise additional **services** by the **consulting engineer**.
- (7) **Electronic Engineering Services** means **services** related to the provision of electronic systems and detailing the terminations, signals and interconnections of electronic components as distinct from conventional electrical HV, MV and LV systems and related reticulation.
- (8) **Engineering Project** means a project of which the scope comprises mainly engineering work of one discipline only and all financial and administrative matters are dealt with by the **consulting engineer** or where the **consulting engineer** will act as **principal agent** where other disciplines are also involved.
- (9) **Multi-disciplinary Project** means a project comprising building work, together with its associated engineering work, where the engineer is subject to the authority of another professional acting as the Principal Agent while financial and administrative matters are dealt with by another professional.
- (10) **Normal services** means the **services** set out in clause 3.2.
- (11) **Principal Agent** means the Professional Service Provider appointed as such.
- (12) **Project** means any total scheme envisaged by a **client**, including all the **works** and **services** concerned.
- (13) **Services** means the services contemplated in clause 3 on a **project** for which a **consulting engineer** is engaged.
- (14) **Stage** means a stage of **normal services** set out in clause 3.2.
- (15) **The Act** means the Engineering Profession Act, 2000 (Act No. 46 of 2000).
- (16) **Total annual cost of employment** means the total annual cost of employment as defined in clause 4.4(4).
- (17) **Works** means the activities on a **project** for which **contractor(s)** are under contract to the **client** to perform or are intended to be performed, including the supply of goods and equipment.

## 2.3 Short Title

This document is called the “2016 NWHAGI – Scope of Engineering Services and Tariff of Fees”.

## 2. SCOPE OF SERVICES

### 3.1 Planning, Studies, Investigations and Assessments Reports

These services, as indicated below, relate to carrying out studies and investigations as well as the preparation and submission of reports embodying preliminary proposals or initial feasibility studies and will normally be remunerated on a time and cost basis.

- (1) Consultation with the **client** or **client's** authorized representative.
- (2) Inspection of the site of the **project**.
- (3) Preliminary investigation, route location, planning and a level of design appropriate to allow decisions on feasibility.
- (4) Consultation with authorities having rights or powers of sanction as well as consultation with the public and stakeholder groups.
- (5) Advice to the **client** as to regulatory and statutory requirements, including environmental management and the need for surveys, analyses, tests and site or other investigations, as well as approvals, where such are required for the completion of the report, and arranging for these to be carried out at the **client's** expense.
- (6) Searching for, obtaining, investigating and collating available data, drawings and plans relating to the **works**.
- (7) Investigating financial and economic implications relating to the proposals, feasibility studies and/or option analysis and recommendations.

- (8) Clause 3.1(7) does not normally apply to civil and structural **services** on **multi-disciplinary projects**, except as far as the interpretation of cost figures for civil and structural **services** are concerned.

**Deliverables:**

- Submission of a report for consideration by the **client**, including all or any of the above, with emphasis on the following:
  - Collation of information.
  - Reports on technical and financial feasibility and related implications.
  - List of consents and approvals.
  - Schedule of required surveys, tests, analyses, site and other investigations.
  - Comparison of project options, including life cycle costing and recommendations where required.

### 3.2 Normal Services

These services are applicable to projects where the nature, form and function of the facility has been defined through previous investigations and reports and the engineering services are required to take the **project** through to successful completion of construction.

#### 3.2.1 Stage 1 – Inception

(Defined as: Establish **client** requirements and preferences, assess user needs and options, appointment of necessary consultants, and establish the **project** brief including **project** objectives, priorities, constraints, assumptions aspirations and strategies.)

- (1) Assist in developing a clear **project** brief.
- (2) Attend **project** initiation meetings.
- (3) Advise on procurement policy for the **project**.
- (4) Advise on the rights, constraints, consents and approvals.
- (5) Define the scope of **services** and scope of work required.
- (6) Conclude the terms of the **agreement** with the **client**.
- (7) Inspect the site and advise on the necessary surveys, analyses, tests and site or other investigations where such information will be required for **Stage 2** including the availability and location of infrastructure and services.
- (8) Determine the availability of data, drawings and plans relating to the **project**.
- (9) Advise on criteria that could influence the **project** life cycle cost significantly.
- (10) Provide necessary information within the agreed scope of the **project** to other consultants involved.

**Deliverables:**

- Submission of a report for consideration by the **client**, including all or any of the above, with emphasis on the following:
  - Agreed scope of **services** and scope of work.
  - Signed **agreement**.
  - Report on **project**, site and functional requirements.
  - Schedule of required surveys, tests, analyses, site and other investigations.
  - Schedule of consents and approvals.

#### 3.2.2 Stage 2 – Preliminary Design: Concept and Viability

(Defined as: Prepare and finalise the **project** concept in accordance with the brief, including project scope, scale, character, form and function, plus preliminary programme and viability study/assessment of the **project**.)

Following the **client's** instructions to proceed with the development of preliminary proposals or the basic planning of the **project**, comprising all or any of the following:

- (1) Agree documentation programme with principal consultant and other consultants involved.
- (2) Attend design and consultants' meetings.
- (3) Establish the concept design criteria.
- (4) Prepare initial concept design and related documentation.
- (5) Advice to the **client** as to the regulatory and statutory requirements, including environmental management and the need for any further surveys, analyses, tests and site or other investigations, as well as approvals, which may be required and arranging for these to be carried out at the **client's** expense. This advice is to be presented by the **consulting engineer** based on the interpretation of the results of these tests and investigations including geotechnical and/or foundation investigations, in a report containing recommendations to be applied to and incorporated in designs. The **consulting engineer** will also take the environmental management plan into account for the full life cycle of the **project**.
- (6) Preparation and submission to the **client** of any preliminary plans, drawings and estimates required for seeking the approval of statutory authorities and the **client**.
- (7) Refine and assess the concept design to ensure conformance with all regulatory requirements and consents.
- (8) Establish access, utilities, services and connections required for the design of the **project**.
- (9) Coordinate design interfaces with other consultants involved.
- (10) Prepare process designs (where required), preliminary designs including preliminary drawings and plans, and related documentation for approval by authorities and **client**, including costing of the aforementioned.
- (11) Provide cost estimates and life cycle costs including financial implications and preliminary programmes.
- (12) Liaise, co-operate and provide necessary information to the **client**, principal consultant and other consultants involved.

#### **Deliverables:**

- Submission of a report for consideration by the **client**, including all or any of the above, with emphasis on the following:
  - Concept design report.
  - Schedule of required surveys, tests and other investigations and related reports.
  - Process design report.
  - Preliminary design report.
  - Cost estimates, concept and viability reports which include all or any of the above.

### **3.2.3 Stage 3 – Detail Design**

(Defined as: Finalise the design, outline specifications, cost plan, financial viability and programme for the **project**.)

- (1) Review documentation programme with principal consultant and other consultants involved.
- (2) Attend design and consultants' meetings.
- (3) Incorporate **client's** and authorities' detailed requirements into the design.
- (4) Incorporate other consultant's designs and requirements into the design.
- (5) Prepare design development drawings including draft technical details and specifications.
- (6) Prepare detail designs, and design drawings including draft technical details and specifications:
  - In the case of reinforced concrete **works**, drawings must include bending schedules.
  - In the case of structural steel **works**, drawings and details provided by the **consulting engineer** must include full information, dimensions and specifications on all sections, connections, plates, fasteners, bolts and welding, to such an extent that no further designs by **contractor(s)** or other parties are required. The **consulting engineer** need not provide shop drawings for the manufacture of the structural steel **works**.
- (7) Review and evaluate design, specifications and estimates of the **cost of works** in order to finalise the detail design **stage**.
- (8) Advice to the **client** on any alternative designs and tenders, but excluding detailed inspection, reviewing and checking of alternative designs and drawings not prepared by the **consulting engineer** and submitted by any **contractor** or potential **contractor**.

- (9) Liaise, co-operate and provide necessary information to the principal consultant and other consultants involved.
- (10) Submit the necessary design documentation to local and other authorities for approval and obtain said approval or alternatively for record purposes where approval is not required by Building Regulations.
- (11) Accommodate services design.

**Deliverables:**

- Submission of a report for consideration by the **client**, including all or any of the above, with emphasis on the following:
  - Detail design drawings.
  - Outline specifications.
  - Local and other authority submission drawings, reports and approvals.
  - Detailed estimates of construction costs.

### 3.2.4 Stage 4 – Documentation and Procurement

(Defined as: Prepare procurement and construction documentation, confirm and implement the procurement strategies and procedures for effective and timeous procurement of necessary resources for execution of the **project**.)

- (1) Attend design and consultants' meetings.
- (2) Prepare and finalise specifications, schedule of quantities and preambles for the **works**.
- (3) Submission of detailed estimates, capital and life cycle costs, financial implications and programmes for implementation of the **works**.
- (4) Reaffirm detailed cost estimates and adjust designs and documents if necessary to remain within approved budget.
- (5) Prepare and finalise the procurement strategy for **contractor(s)** or assist the principal consultant where relevant.
- (6) Prepare documentation for **contractor** procurement.
- (7) Assist in calling for tenders/bids and/or negotiation of prices and/or assist the principal consultant where relevant.
- (8) Liaise, co-operate and provide necessary information to the principal consultant and the other consultants as required.
- (9) Assist in the evaluation of tenders/bids.
- (10) Assist with the preparation of contract documentation for signature.
- (11) Assess samples and products for compliance and design intent.
- (12) Advice to the **client** on any alternative designs and tenders, but excluding detailed inspection, reviewing and checking of alternative designs and drawings not prepared by the **consulting engineer** and submitted by any **contractor** or potential **contractor**.
- (13) Placing orders for the **works** on behalf of the **client**.

**Deliverables:**

- Submission of a report for consideration by the **client**, including all or any of the above, with emphasis on the following:
  - Finalised Specifications.
  - Service co-ordination.
  - Detail design drawings.
  - Tender/bid documentation.
  - Tender/bid evaluation and report.
  - Tender/bid recommendation.
  - Priced contract documentation.



### 3.2.5 Stage 5 – Contract Administration and Inspection

(Defined as: Manage, administer and monitor the construction contracts and processes including preparation and coordination of procedures and documentation to facilitate practical completion of the **works**.)

- (1) Attend site handover.
- (2) Issue construction documentation in accordance with the documentation schedule including, in the case of structural engineering, reinforcing bending schedules and detailing and specifications of structural steel sections and connections.
- (3) Execute the contract administration in terms of the contract between the **client** and the **contractor**.
- (4) Prepare schedules of predicted cash flow.
- (5) Prepare pro-active estimates of proposed variations for **client** decision making.
- (6) Preparation of and issuing variation orders on behalf of and after consultation with the **client**.
- (7) Attend regular site, technical and progress meetings.
- (8) Inspect **works** for conformity to contract documentation.
- (9) Adjudicate and resolve financial claims by **contractor(s)**.
- (10) Assist in the resolution of contractual claims by the **contractor**.
- (11) Assist the **client** in the resolution of disputes or differences that may arise between the **client** and the **contractor**, except mediation, arbitration and/or litigation.
- (12) Establish and maintain a financial control system.
- (13) Clarify details and descriptions during construction as required.
- (14) Assist and/or prepare valuations for payment certificates to be issued by the **principal agent**.
- (15) Witness and review of all tests and mock ups carried out both on and off site.
- (16) Check and approve **contractor** drawings for design intent.
- (17) Update and issue drawings and drawings register.
- (18) Issue contract instructions as and when required.
- (19) Agreeing and verifying final quantities during construction with the **contractor**.
- (20) Review and comment on operation and maintenance manuals, guarantee certificates and warranties.
- (21) Inspect the **works** and issue practical completion certificates and defects lists.
- (22) Arranging for the delivery of all test certificates, including the Electrical Certificate of Compliance, statutory and other approvals, as built drawings and operating manuals.
- (23) Advice to the **client** on any further alternative designs, but excluding detailed inspection, reviewing and checking of alternative designs and drawings not prepared by the **consulting engineer** and submitted by any **contractor**.

#### **Deliverables:**

- Submission of a report for consideration by the **client**, including all or any of the above, with emphasis on the following:
  - Schedules of predicted cash flow.
  - Construction documentation.
  - Register of drawings issued.
  - Estimates for proposed variations.
  - Contract instructions.
  - Financial control reports.
  - Valuations for payment certificates.
  - Progressive and draft final account(s).
  - Practical completion and defects list.
  - Electrical Certificate of Compliance.

Where a quantity surveyor is included in the project team in Multi-Disciplinary works, items 4, 5, 9 and 12 will not be required from the engineer.

### 3.2.6 Stage 6 – Close-Out

(Defined as: Fulfil and complete the **project** close-out including necessary documentation to facilitate effective completion, handover and operation of the **project**).

- (1) Inspect and verify the rectification of defects.
- (2) Prepare comments for relevant payment valuations and completion certificates.
- (3) Prepare and/or procure operations and maintenance manuals, guarantees and warranties.
- (4) Prepare and/or procure as-built drawings and documentation.
- (5) Agreeing final quantities with **contractor(s)**, compiling final accounts and issuing final payment certificates.

#### **Deliverables:**

- Valuations for payment certificates.
- Works and final completion lists.
- Operations and maintenance manuals, guarantees and warranties.
- As-built drawings and documentation.
- Final accounts.

### 3.2.7 Targeted (Preferential) Procurement

Should the **client** during any **stage** of the **project**, require the **consulting engineer** to perform work or **services** pertaining to targeted procurement, such work and or **services** could entail, but are not limited to, any or all of the following:

- (1) incorporation of any targeted (preferential) participation goals;
- (2) the measuring of key participation indicators;
- (3) the selection, appointment and administration of participation and;
- (4) auditing compliance to the above by any **contractor s** and/or professional consultant.

### 3.3 Additional Services

The following **services** are additional to the **normal services** provided by the **consulting engineer**, unless specifically agreed otherwise between the **consulting engineer** and the **client**. The **agreement** on the scope of **services** and remuneration shall be in writing and should, if at all possible, be concluded before such **services** are rendered.

#### 3.3.1 Additional Services pertaining to all Stages of the Project

- (1) Enquiries not directly concerned with the **works** and its subsequent utilisation.
- (2) Valuation for purchase, sale or leasing of plant, equipment, material, systems, land or buildings or arranging for such valuation.
- (3) Making arrangements for way leaves, servitudes or expropriations.
- (4) Negotiating and arranging for the provision or diversion of services not forming part of the **works**.
- (5) Additional work in obtaining the formal approval of the appropriate Government Departments or Public Authorities, including the making of such revisions as may be required as a result of decisions of such Departments or Authorities arising out of changes in policy, undue delay, or other causes beyond the **consulting engineer's** control.
- (6) Topographical and environmental surveys, analyses, tests and site or foundation or other investigations, model tests, laboratory tests and analyses carried out or procured on behalf of the **client**.
- (7) Setting out or staking out the **works** and indicating any boundary beacons and other reference marks.
- (8) Preparation of drawings for manufacture and installation or detailed checking of such for erection or installation fit.
- (9) Detailed inspection, reviewing and checking of designs and drawings not prepared by the **consulting engineer** and submitted by any **contractor** or potential **contractor** as alternative to those embodied in tender or similar documents prepared by the **consulting engineer**.
- (10) Preparing and setting out particulars and calculations in a special form required by any relevant authority.
- (11) Abnormal additional **services** by or costs to the **consulting engineer** due to the failure of a **contractor** or others to perform their required duties adequately and on time.



- (12) Executing or arranging for the periodic monitoring and adjustment of the works, after final handover and completion of construction and commissioning, in order to optimise or maintain proper functioning of any process or system.
- (13) Investigating or reporting on tariffs or charges leviable by or to the **client**.
- (14) Advance ordering or reservation of materials and obtaining licenses and permit.
- (15) Additional **services**, duties and/or work resulting from project scope changes, alterations and/or instructions by the **client**, or his duly authorized agents, requiring the **consulting engineer** to advise upon, review, adapt and/or alter his completed designs and/or any other documentation and/or change the scope of his **services** and/or duties. Such additional **services** are subject to **agreement** in writing between the **consulting engineer** and the **client** prior to the execution thereof.
- (16) Exceptional arrangements, communication, facilitation and agreements with any stakeholders other than the **client** and **contractor(s)** appointed for the **works** on which the **consulting engineer** provides **services**.
- (17) Any other additional **services**, of whatever nature, specifically agreed to in writing between the **consulting engineer** and the **client** prior to the execution thereof.

### 3.3.2 Construction Monitoring

- (1) If the **construction monitoring**, as set out in clause 3.2.5(3), is deemed to be insufficient by the **consulting engineer**, the **consulting engineer** may, with prior written approval having been obtained from the **client**, appoint or make available additional staff for such **construction monitoring** as are necessary to undertake additional **construction monitoring** on site to the extent specifically defined and agreed with the **client**. The functions in respect of additional **construction monitoring** are to be limited to detailed inspections and exclude those mentioned under clause 3.2.5.

Applications for additional staff must be made on the department's prescribed format, together with which the **consulting engineer** must submit a proper motivation, containing *inter alia*, a schedule indicating the envisaged time to be spent on additional **construction monitoring** as applied for, as well as the envisaged time to be spent on normal **construction monitoring** as set out in clause 3.2.5(3).

- (2) Alternatively, the **client** may appoint or make available staff, as intended in clause 3.3.2(1), subject to approval by the **consulting engineer**.
- (3) Staff, as intended in clauses 3.3.2(1) and 3.3.2(2), shall report to and take instructions from the **consulting engineer** or an authorized representative of the **consulting engineer** only and shall be deemed to be in the employ of the **consulting engineer**.
- (4) Should any change regarding the persons utilized for additional on-site monitoring or their remuneration or duration of services be necessary, the utilization of such persons and/or their remuneration must be agreed to in writing with the **client** prior to the implementation thereof.
- (5) If, for any reason, no additional staff or inadequate staff for **construction monitoring** is appointed, the **consulting engineer** shall provide additional **services**, including additional site visits, as required and agreed to in writing with the **client** prior to commencement thereof.
- (6) Where provided for in the **agreement**, the duties of the **consulting engineer** for the following defined levels of **construction monitoring**, respectively, are as follows:

(a) **Level 1:**

The **construction monitoring** staff shall:-

- (i) Maintain a part-time presence on site as agreed with the **client** to review random samples and review important completed work prior to enclosure or on completion as appropriate.
- (ii) Where the **consulting engineer** is the sole consultant or **principal agent**, carry out such administration of the **project** as is necessary on behalf of the **client**.
- (iii) Where the **principal agent**, other than the **consulting engineer**, has been appointed for the **project**, provide such information as to enable the **principal agent** to fulfil his responsibilities.
- (iv) Be available to provide the **contractor** with technical interpretation of the plans and specifications.

(b) **Level 2:**

The **construction monitoring** staff shall:-

- (i) Maintain a full time presence on site to constantly review –
  - (a) Work procedures
  - (b) Construction materialsfor compliance with the requirements of the plans and specifications and review completed work prior to enclosure or on completion as appropriate.
- (ii) Where the **consulting engineer** is the sole consultant or **principal agent**, carry out such administration of the **project** as is necessary on behalf of the **client**.
- (iii) Where the **principal agent**, other than the **consulting engineer** has been appointed for the **project**, provide such information as to enable the **principal agent** to fulfil his responsibilities.
- (iv) Be available to provide the **contractor** with technical interpretation of the plans and specifications.

### 3.3.3 Occupational Health and Safety Act, 1993 (Act No.85 of 1993)

Should the **client** require the **consulting engineer** to undertake duties falling under the Occupational Health and Safety Act, 1993 (Act No.85 of 1993) and the Construction Regulations in terms thereof, on behalf of the **client**, the additional **services** may include the following:

- (1) The **consulting engineer** must arrange, formally and in writing, for the **contractor** to provide documentary evidence of compliance with all the requirements of the Occupational Health and Safety Act, 1993 (Act No.85 of 1993).
- (2) The **consulting engineer** must execute the duties of the **client**, as his appointed agent, as contemplated in the Construction Regulations to the Occupational Health and Safety Act, 1993 (Act No.85 of 1993).

### 3.3.4 Quality Assurance System

Where the **client** requires that a quality management system or quality assurance services, over and above **construction monitoring** services, be applied to the **project**, these are in addition to **normal services** provided by the **consulting engineer** and to be specifically defined and separately agreed in writing prior to commencement thereof.

### 3.3.5 Lead Consulting Engineer

Should the **client** require the **consulting engineer** to assume the leadership of a joint venture, consortium or team of consulting engineers, of the same discipline, prescribed or requested by the **client**, the additional **services** may include the following:

- (1) Responsibility for the overall administration of all sections of the **services**, including those portions of the **services**, which fall within the ambit of the other consulting engineers.
- (2) Responsibility for the overall co-ordination, programming of design and financial control of all the **works** included in the **services**.
- (3) Processing certificates or recommendations for payment of **contractor(s)**.

### 3.3.6 Principal Agent of the Client

When a **consulting engineer** is, in addition to his normal functions as **consulting engineer**, appointed as the **principal agent** of the **client** on a project, the **consulting engineer** will also be responsible for the following:

- (1) Leadership of the professional team.
- (2) Submission of preliminary and developed proposals in the form of consolidated reports, drawings and specifications together with estimates of time required and **cost of the works**.
- (3) The overall administration of all sections of the **project** including those, which fall within the ambit of the other professional members in the team.
- (4) The overall coordination, programming of design and financial control of the **project**.

- (5) Resolving differences that may arise between the **client** and the **contractor(s)**, excluding mediation, arbitration or litigation.
- (6) Approval of certificates for payment to **contractor(s)** issued by the other professional members in the team before their presentation to the **client** for settlement.
- (7) Making arrangements to provide the **client**, on completion of the **works**, with such record drawings as may be required for a proper record of the **works** as constructed and such manuals as may be required for the operation and maintenance of the relevant parts of the **works**.
- (8) Approval of the final contract account and provision of a close out report for the **project**.
- (9) Manage targeted procurement **services** as indicated in clause 3.2.7.

### 3.3.7 Mediation, Arbitration and Litigation proceedings and similar Services

Where the **client** requires the **consulting engineer** to, on his behalf, perform the **services** listed hereunder or similar work, the extent thereof and remuneration therefore is subject to agreement between the **client** and the **consulting engineer**:

- (1) Dealing with matters of law, obtaining parliamentary or other statutory approval, licenses or permits.
- (2) Assisting with or participating in contemplated or actual mediation, arbitration or litigation proceedings.
- (3) Officiating at or attending courts and commissions of enquiry, select committees and similar bodies convened by statute, regulation or decree.

## 3. TARIFF OF FEES

### 4.1 Application of Tariff of Fees

- (1) The tariff of fees contained in this Schedule applies in respect of the **services** set out in clause 3 "Scope of Services".
- (2) The **client** shall remunerate the **consulting engineer**, for the **services** rendered, on the basis of clauses 4.2 and 4.5. In cases where the **client** and **consulting engineer** have agreed that clauses 4.2 and 4.3 are not applicable, payment should be on the basis of clause 4.4 or as agreed according to clause 4.1(4).
- (3) The **client** shall reimburse the **consulting engineer** for all expenses and costs incurred in terms of clause 4.5 in performing his **services**, irrespective of whether fees are charged in terms of clauses 4.2 and 4.3 or clause 4.4 as well as for all costs incurred on behalf, and with the approval of the **client**.
- (4) While the tariff of fees contained in this document can be applied to many projects the factors that influence the fees to be paid for **services** are complex and depend on a number of contributing factors. These contributing factors that should be taken into account may include, inter alia, all or any of the following:
  - (a) **Project complexity:** Projects may range from relatively simple projects where it is based on well established, common practices to more complex projects where it calls for the application of new, unusual or untried practices.
  - (b) **Cost of the works:** This may range from a situation where the **cost of the works** is abnormally high relative to the **services** being rendered to a project where the **cost of the works** is abnormally low relative to the **services** required from the **consulting engineer**.
  - (c) **Time duration:** This may involve projects where the **works** are executed over appreciably shorter or longer periods than would normally be expected for any of the **stages** defined in 3 "Scope of Services".
  - (d) **Level of responsibility, liability and risk:** These may range from relatively low levels of responsibility and/or risks to projects with unusually high responsibilities and/or risks that are expected to be carried by the **consulting engineer**.
  - (e) **Level of expertise, qualifications, skills and experience:** Some works do not require a high degree of expertise while other works may require more specialized expertise or substantial skills and experience that cost more to develop and retain.
  - (f) **Level of technology** required and changes in technology that may influence the costs of the **services** provided.
  - (g) Whether aspects related to labour intensive works need to be considered in the design.

- (5) Combinations of one or more of the above factors may require an adjustment of the tariffs to fairly compensate the **consulting engineer** and this adjustment should be negotiated in good faith by both parties.
- (6) Agreement on any adjustment of or special fees should be reached at the time of the engagement of the **consulting engineer** or as soon after circumstances warrant such as practically possible, but in all cases prior to the **consulting engineer** rendering **services** which may be affected.
- (7) Where the **normal services** relate to more than one of the disciplines of consulting engineering contemplated in clauses 4.2.1 to 4.2.7 namely civil, structural, mechanical, electrical and **electronic engineering services**, a separate fee for **services** in each discipline should be calculated in accordance with the relevant clause. Where a **consulting engineer** is appointed for either or both electronic and electrical services, his payment shall be according to the electrical fee scales based on the combined value of these **services**.
- (8) Where at the instance and with the consent of the **client** the **works** are undertaken on separate non-contiguous sites, continuity is interrupted or are unusually fragmented or are constructed as separately documented phases or sections, the fee for **normal services** is:
- The sum of the fees calculated separately for each site, contract, phase or section as if they were separate works; or
  - A fee agreed to between the **client** and the **consulting engineer** and which fee lies between the fee calculated on the total **cost of the works** and the sum of the fees contemplated in clause 4.1(8)(a) above.
- (9) For the calculation of fees, "duplication of works" is defined as the re-use of designs, drawings and details done by a consultant to duplicate a complete unit (e.g. a building or bridge).
- (10) The following fees may be claimed after each **stage** of **services** or monthly or as agreed between the **consulting engineer** and the **client**:
- Percentage fees determined on the basis of the **cost of the works** prevailing at the time of the fee calculation and *pro rata* to the completed **services**, or a portion of the total fee based on completion of the **stages** along the lines indicated in 4.2.8.
  - Time based fees applicable when the **services** were rendered.
- (11) Disbursements as set out in clause 4.1(3) may be claimed monthly.

## 4.2 Fees for Normal Services

### 4.2.1 Mechanical Engineering Services pertaining to Engineering Projects

- (1) The basic fee for **normal services** in the discipline of mechanical engineering, pertaining to **engineering projects**, is determined from the table below. The fee is the sum of the primary fee and the secondary fee applicable to the specific **cost of the works** in respect of which the **services** were rendered on the **project**.

Cost of the Works		Basis of Fee Calculation	
For projects up to R850 000		Lump Sum or Time Basis	
Where the cost of the works:		Primary Fee	Secondary Fee
Exceeds	But does not exceed		
R850	R1 899	R106 300	15.0%
R1 899	R9 347	R237 400	12.0%
R9 347	R19 066	R982 400	9.5%
R19 066	R47 372	R1 759 800	8.5%
R47 372	R94 960	R3 742 400	7.0%
R94 960	R572 000	R6 590 200	6.5%

R572 000		R32 832 800	6.5%
----------	--	-------------	------

- (2) For **normal services** relating to a description of the **works** mentioned in the first column of the following table, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.4(1) is multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will be the product of the factors involved, except for the fee for targeted procurement.

These factors do not apply when fees are a lump sum or on a time basis.

Description of the Works	Typical factor by which basic fee is
Alterations to existing works. (Only applicable to the fees on the portion or section of works affected.)	1.25
Water supply and drainage systems and fire water systems.	1.25
Duplication of works. (Only applicable to the design portion of the fees on duplicated works.)	0.25

#### 4.2.2. Mechanical Engineering services pertaining to Multi-disciplinary Projects

- (1) The basic fee for **normal services** in the discipline of mechanical engineering or wet services, pertaining to **multi-disciplinary projects**, is determined from the table below. The fee is the sum of the primary fee and the secondary fee applicable to the specific **cost of the works** in respect of which the **services** were rendered on the **project**.

Cost of the Works		Basis of Fee Calculation	
For projects up to R850 000		Lump Sum or Time Basis	
Where the cost of the works:		Primary Fee	Secondary Fee
Exceed	But does not		
R850	R1 899	R127	18.0
R1 899	R9 347	R284	15.0
R9 347	R19 066	R1 224	12.5
R19 066	R47 372	R2 236	11.5
R47 372	R94 960	R4 926	11.0
R94 960	R572 000	R9 201	10.0
R572 000		R49 764	10.0

- (2) For **normal services** relating to a description of the **works** mentioned in the first column of the following table, the proportion of the basic fee relating to the specific item calculated in terms of clause 4.2.5(1) is multiplied by the category factor mentioned against that description in the second column of the table. In case more than one of the descriptions below applies, the effective factor will be the product of the factors involved, except for the fee for targeted procurement.

These factors do not apply when fees are a lump sum or on a time basis.

Description of the Works	Factor by which basic fee is multiplied
Multi-tenant installations: <i>The Multi-tenant factor only becomes applicable if substantial fragmentation of services, which would otherwise not be divided, occurs as a result of the multi-tenant application. Normal multi-zoning, even if applied in multi-tenant accommodation, does not qualify for the application of the Multi-tenant factor.</i>	1,25
Alterations to existing <b>works</b> (Only applicable to the fees on the portion or section of <b>works</b> affected)	1,25
Duplication of <b>works</b> (Only applicable to the design portion of the fees on duplicated <b>works</b> )	0,25
For <b>projects</b> where the <b>cost of the works</b> exceeds R 572,000 and where bills of quantities are not required from the <b>consulting engineer</b> and all financial, tender and contractual matters are dealt with by the Quantity Surveyor or other parties	0,75
Targeted procurement (Additional fee based on the basic fees before the application of any of the other factors. Only applicable where specifically appointed for service)	0,07

(3) RATES FOR REIMBURSABLE EXPENSES/##

**For the full extent of the terms and conditions of the rates below, refer to: SECTION B REIMBURSEMENT TARIFFS FOR TYPING, PRINTING, DUPLICATING AND FORWARDING CHARGES OF THE LETTER OF INVITATION TO CONSULTANTS or SECTION C2.1 'PRICING INSTRUCTIONS' OF THE TENDER OR QUOTATION DOCUMENT FOR CONSULTANTS**

**TYPING AND DUPLICATING (EXCLUDING VAT)**

Table 1: Rates for typing and duplicating undertaken by the consultant himself.

From	Typing of original/master per A4	Duplicating				Printed or copied binder set	
		On white		On coloured			
		Paper		paper			
		A4	A3	A4	A3	A4	A3
2009/08/15	R20,00	R0,55	R1,00	R0,65	R1,15	R14,00	R18,00
2013/01/01	R22,00	R0,65	R1,60	R0,90	R1,70	R18,00	R24,00
2017/09/01	R28,00	R0,85	R2,10	R1,20	R2,40	R26,00	R34,00
2020/04/01	R31,00	R0,95	R2,35	R1,35	R2,70	R28,80	R37,70

From	Typing of original/master per A4	Duplicating				Printed or copied binder set	
		On white		On coloured			
		Paper		paper			
		A4	A3	A4	A3	A4	A3
2009/08/15	R20,00	R0,55	R1,00	R0,65	R1,15	R14,00	R18,00
2013/01/01	R22,00	R0,65	R1,60	R0,90	R1,70	R18,00	R24,00
2017/09/01	R28,00	R0,85	R2,10	R1,20	R2,40	R26,00	R34,00
2020/04/01	R31,00	R0,95	R2,35	R1,35	R2,70	R28,80	R37,70

From	Duplicating in colour	
	A4	A3
2009-08-15	*R7,00	*R11,00
2013-01-01	*R8,00	*R13,50
2017-09-01	*R8,50	*R14,00
2020-04-01	*R9,40	*R15,50

\* Payable only upon prior written approval by Representative Project Manager.

### **DRAWING DUPLICATION (EXCLUDING VAT)**

Table 2: Rates for drawing duplication undertaken by the consultant himself.

From	Duplicating		
	A2	A1	A0
2009-08-15	R10,00	R14,00	R22,00
2013-01-01	R15,00	R20,00	R33,00
2017-09-01	R18,00	R26,00	R40,00
2020-04-01	R19,95	R28,80	R44,30



**For the full extent of the terms and conditions of the rates below, refer to: SECTION C 'TRAVELLING AND SUBSISTENCE ARRANGEMENTS AND TARIFFS OF CHARGES' OF THE LETTER OF INVITATION TO CONSULTANTS or SECTION C2.1 'PRICING INSTRUCTIONS' OF THE TENDER OR QUOTATION DOCUMENT FOR CONSULTANTS**

**TRAVELLING COSTS (EXCLUDING VAT)** (Department of Transport's ruling is that these tariffs exclude VAT)

Table 3: Government tariffs [As from 1 April 2014, the Department will pay the tariffs as published by the Department of Transport without adding any surcharge to the published rates. The rates include fuel, maintenance, capital, insurance and depreciation]

Tariff per km from		Up to 1550cc	1551 to 1750cc	1751 to 1950cc	1951 to 2150cc	2151 to 2500cc	2501cc and
2021/11/01	Petrol	R3.61	R3.89	R4.45	R4.80	R5.43	R6.75
	Diesel	R3.31	R3.60	R3.76	R4.45	R5.07	R6.45
2021/12/01	Petrol	R3.65	R3.95	R4.50	R4.86	R5.50	R6.81
	Diesel	R3.35	R3.65	R3.81	R4.50	R5.13	R6.51
2022/01/01	Petrol	R3.61	R3.90	R4.45	R4.81	R5.44	R6.75
	Diesel	R3.31	R3.60	R3.76	R4.46	R5.08	R6.45
2022/02/01	Petrol	R3.64	R3.94	R4.49	R4.85	R5.49	R6.80
	Diesel	R3.35	R3.65	R3.81	R4.51	R5.13	R6.52
2022/03/01	Petrol	R3.73	R4.03	R4.59	R4.96	R5.61	R6.93
	Diesel	R3.43	R3.74	R3.90	R4.61	R5.24	R6.64
2022/04/01	Petrol	R3.92	R4.25	R4.82	R5.22	R5.91	R7.31
	Diesel	R3.69	R4.03	R4.17	R4.91	R5.62	R7.08
2022/05/01	Petrol	R3.92	R4.24	R4.81	R5.21	R5.90	R7.30
	Diesel	R3.74	R4.09	R4.22	R4.97	R5.68	R7.16
2022/06/01	Petrol	R4.06	R4.39	R4.97	R5.39	R6.10	R7.50
	Diesel	R3.79	R4.15	R4.29	R5.04	R5.76	R7.24
2022/07/01	Petrol	R4.21	R4.57	R5.14	R5.59	R6.32	R7.73
	Diesel	R3.92	R4.29	R4.42	R5.18	R5.92	R7.42
2022/08/01	Petrol	R4.13	R4.48	R5.05	R5.49	R6.21	R7.61
	Diesel	R3.87	R4.23	R4.37	R5.13	R5.86	R7.35
2022/09/01	Petrol	R4.01	R4.34	R4.92	R5.33	R6.03	R7.43
	Diesel	R3.84	R4.21	R4.34	R5.10	R5.82	R7.31
2022/10/01	Petrol	R3.95	R4.27	R4.85	R5.25	R5.94	R7.34
	Diesel	R3.85	R4.21	R4.35	R5.10	R5.83	R7.34
2022/11/01	Petrol	R3.98	R4.31	R4.88	R5.29	R5.99	R7.39
	Diesel	R3.93	R4.30	R4.44	R5.20	R5.94	R7.44
2022/12/01	Petrol	R4.01	R4.35	R4.92	R5.33	R6.04	R7.44
	Diesel	R3.85	R4.21	R4.34	R5.10	R5.83	R7.32
2023/01/01	Petrol	R3.89	R4.21	R4.79	R5.12	R5.86	R7.26
	Diesel	R3.70	R4.04	R4.18	R4.92	R5.63	R7.10
2023/02/01	Petrol	R3.91	R4.23	R4.80	R5.20	R5.88	R7.28
	Diesel	R3.70	R4.04	R4.18	R4.92	R5.63	R7.10
2023/03/01	Petrol	R3.98	R4.31	R4.89	R5.29	R5.99	R7.39
	Diesel	R3.71	R4.06	R4.20	R4.94	R5.65	R7.12
2023/04/01	Petrol	R4.09	R4.43	R5.03	R5.44	R6.16	R7.62
	Diesel	R3.78	R4.13	R4.27	R5.04	R5.77	R7.29

r = revised



## **SUBSISTENCE ALLOWANCE (EXCLUDING VAT)**

Table 4: Fixed daily allowance

Tariff from	Per 24-hour day	Part of day/per hour	Tariff from	Per 24-hour day	Part of day/per hour
2017/04/01	R397,00	R16,54	2017/04/01	R122,00	R5,08
2018/04/01	R416,00	R17,33	2018/04/01	R128,00	R5,33
2019/04/01	R435,00	R18,13	2019/04/01	R134,00	R5,58
2020/04/01	Not payable*	Not payable*	2020/04/01	R139,00	R5,79
2021/04/01	Not payable*	Not payable*	2021/04/01	R144,00	R6,00
2022/04/01	Not payable*	Not payable*	2022/04/01	R150,00	R6,25
2023/04/01	Not payable*	Not payable*	2023/04/01	R161,00	R6,71

\*In terms of DPSA Circular Nr 03 of 2020.

Table 5: Special daily allowance

### **4.2.3 Services provided partially or in Stages**

- (1) The following table shall be used for proportioning the basic fee for **normal services** over the various **stages** of the **services**.

Stage of Services	Percentage points for each stage
<b>Civil: Engineering Projects:</b> <ul style="list-style-type: none"> <li>Inception</li> <li>Preliminary Design: Concept and Viability</li> <li>Detail Design</li> <li>Documentation and Procurement</li> <li>Contract Administration and Inspection</li> <li>Close-Out</li> </ul>	5 25 25 25 15 5
<b>Structural: Engineering Projects:</b> <ul style="list-style-type: none"> <li>Inception</li> <li>Preliminary Design: Concept and Viability</li> <li>Detail Design</li> <li>Documentation and Procurement</li> <li>Contract Administration and Inspection</li> <li>Close-Out</li> </ul>	5 25 30 10 25 5
<b>Civil: Building Projects:</b> <ul style="list-style-type: none"> <li>Inception</li> <li>Preliminary Design: Concept and Viability</li> <li>Detail Design</li> <li>Documentation and Procurement</li> <li>Contract Administration and Inspection</li> <li>Close-Out</li> </ul>	5 25 25 15 25 5
<b>Structural: Building Projects:</b> <ul style="list-style-type: none"> <li>Inception</li> <li>Preliminary Design: Concept and Viability</li> </ul>	5

<ul style="list-style-type: none"> <li>• Detail Design</li> <li>• Documentation and Procurement</li> <li>• Contract Administration and Inspection</li> <li>• Close-Out</li> </ul>	20 30 15 25 5
<b>Mechanical, electrical and electronic projects:</b> <ul style="list-style-type: none"> <li>• Inception</li> <li>• Preliminary Design: Concept and Viability</li> <li>• Detail Design</li> <li>• Documentation and Procurement</li> <li>• Contract Administration and Inspection</li> <li>• Close-Out</li> </ul>	5 15 20 20 35 5

- (2) Where not all the **stages** of the **normal services** are provided by the **consulting engineer**, the fee is, subject to clause 4.1(7), calculated as a percentage of the total fee calculated in terms of this clause, which percentage is the sum of the percentage points appropriate to each **stage** as set out in the above table against those **stages** of the **services** provided by the **consulting engineer**.

#### 4.2.4 Cancellation or Abandonment

Should instructions having been given by the **client** to the **consulting engineer** to proceed with any of the **stages** of **services** set out in clause 4.2.8(1) and the whole or part of the **works** is cancelled or abandoned or postponed for a period of more than six months, the **consulting engineer** shall be remunerated for **services** performed, plus a surcharge equal to such losses (excluding future profits) and expenses as may have been caused by such termination of the **agreement** as can be substantiated by the **consulting engineer**.

#### 4.3 Fees for Additional Services

- (1) Subject to clauses 4.2.8(2), 4.3(2), 4.3(3), 4.3(4), 4.3(5), 4.3(6) and 4.3(7), the fees for additional **services**, contemplated in clause 2.2, are agreed to between the **client** and the **consulting engineer** as set out in clause 4.1.
- (2) For additional **services** as a result of the resumption of such **services** or the alteration or modification of designs on the instructions of the **client**, the **consulting engineer** is entitled to time based fees and actual costs incurred.
- (3) For the provision of a **construction monitoring** service, as contemplated in clause 3.3.2, the **consulting engineer** is entitled to recover from the **client** the fees as agreed between the **consulting engineer** and the **client**:
  - (a) for part time **construction monitoring** staff costs, the amount payable to such staff shall be at the hourly rates contemplated in clause 4.4(3);
  - (b) for full time **construction monitoring** service the fee shall be based on the **total annual cost of employment** plus a surcharge of twelve percentage points (12%);
  - (c) a maximum of 50 hours may be applied for part time **construction monitoring** per month. Time spent on site in excess hereof will be without further remuneration; and
  - (d) distances for travelling applied for may not be exceeded without prior written approval of the departmental project manager. Remuneration of travelling will be calculated according to actual distances per month at the applicable rate of the time of travel.
- (4) For all other costs, as set out in clause 4.5, the actual expenses incurred.
- (5) For duties under the Occupational Health and Safety Act, 1993 (Act No.85 of 1993), as contemplated in clause 3.3.3, the **consulting engineer** shall, if so appointed by the **client**, be remunerated on a time and cost basis as agreed with the **client**.
- (6) For assuming the leadership of a joint venture, a consortium or team of consulting engineers, as contemplated in clause 3.3.5, the fee for the lead **consulting engineer** shall be ten percentage points (10%), which is not an additional fee but is that portion of the fee for **services** rendered by the team, which shall be allocated to the lead **consulting engineer**. The apportionment of the fee to **services** is as stated in clause 4.2.8(1).
- (7) For **services** as **principal agent** of the **client**, as contemplated in clause 3.3.6, the **consulting engineer** is entitled to an additional fee calculated at one percentage point (1%) of the total **cost of the works** comprising the **project**. The **consulting engineer** is not entitled to any fees for **principal agent** if he is not explicitly appointed as such.

#### 4.4 Time Based Fees

- (1) (a) Time based fees are all-inclusive fees, including allowances for overhead charges incurred by the **consulting engineer** as part of normal business operations, including the cost of management, as well as payments to administrative, clerical and secretarial staff used to support professional and technical staff in general and not on a specific project only.
- (b) Time based fees are calculated by multiplying the hourly rate contemplated in clause 4.4(3), which is applicable to the **consulting engineer** for professional and any other technical staff employed by the **consulting engineer**, with the actual time spent by such staff in rendering the **services** required by the **client**.
- (c) Professional and technical staff include all staff performing work directly related to the execution of the **services** the **consulting engineer** is engaged for by the **client** and excludes all administrative, clerical and secretarial staff used to support professional and technical staff in general and not on a specific project only, but includes the typing of letters, minutes, reports and documents for **projects**.

- (2) To determine the time based fee rates the professional and technical staff concerned is divided into:-
- (a) **Category A**, in respect of a private consulting practice in engineering, shall mean a top practitioner whose expertise and relevant experience is nationally or internationally recognized and who provides advice at a level of specialization where such advice is recognized as that of an expert.
  - (b) **Category B**, in respect of a private consulting practice in engineering, shall mean a partner, a sole proprietor, a director, or a member who, jointly or severally with other partners, co-directors or co-members, bears the risks of the business or takes full responsibility for the projects and related liabilities of such practice and where his/her level of expertise and relevant experience is commensurate with the position performs work of a conceptual nature in engineering design and development, provides strategic guidance in planning and executing a project and/or carries responsibility for quality management pertaining to a project.
  - (c) **Category C**, in respect of a private consulting practice in engineering, shall mean all salaried professional staff with adequate expertise and relevant experience performing work of an engineering nature and who carry the direct technical responsibility for one or more specific activities related to a project. A person referred to in Category B may also fall in this category if such person performs work of an engineering nature at this level.
  - (d) **Category D**, in respect of a private consulting practice in engineering, shall mean all other salaried technical staff with adequate expertise and relevant experience performing work of an engineering nature with direction and control provided by any person contemplated in *categories A, B or C*.
- (3) The scale of fees on a time basis, on which Value Added Tax is excluded, shall be at the following rates per hour, rounded off to the nearest rand:
- (a) for a person in *category A* and *B*: 18.75 cents for each R100 of the total annual remuneration package (lowest notch) attached to a Director's grading (level 13) in the Public Service;
  - (b) for a person in *category C*: 17,5 cents for each R100 of the total annual remuneration package (lowest notch) attached to a Deputy Director's grading (level 12) in the Public Service;
  - (c) for a person in *category D*: 16,5 cents for each R100 of his/her **total annual cost of employment**; provided that this hourly rate shall not exceed 16,5 cents for each R100 of the total annual remuneration package (lowest notch) attached to an Assistant Director's grading (level 11) in the Public Service.

Hourly rates calculated in terms of (a), (b) and (c) above shall be deemed to include overheads and charges in respect of time expended by clerical personnel, which shall, therefore, not be chargeable separately.

Unless otherwise specifically agreed in writing, remuneration for the time expended by *Category B persons* in terms of (a) above on a project shall be limited to 5 per cent of the total time expended on the **project**. Any time expended by principals in excess of the 5 per cent limit shall be remunerated at the rates determined in (b) or (c) above.

Notwithstanding the above, where work is of such a nature that personnel as described in paragraph (c) above are capable of performing such work, it shall be remunerated at that level and not at the rates described in paragraphs (a) and (b) above, irrespective of who in fact executed the work.

The salaries referred to in (a) to (c) above can change from time to time, which will, therefore, change the rates applicable. These rates will, however, only be adjusted on the first day of each calendar year irrespective of any changes in salary ranges during the relevant year. The rate as set out in Table 8 of the "Rates for Reimbursable Expenses", as amended from time to time may be used as bases for relevant claims.

- (4) For the purposes of clause 4.4(3)(c), the **total annual cost of employment** (gross annual remuneration) of a person contemplated in clause 4.4(2) means the total amount borne by an employer in respect of the employment of such a person per year, calculated at the amounts applicable to such a person at the time of appointment of the person.

#### **4.5 Expenses and Costs**

All expenses and costs shall be claimed for in accordance with the provisions of the **agreement** subject to the submission of substantiating documentation.

## **Appendix B**

<b>REPORT ON HVAC MECHANICAL INSTALLATION</b>
---





6247

**APPENDIX "B"**

**WILLIAM HUMPHREY ART GALLERY  
KIMBERLEY:**

**REPORT ON HVAC MECHANICAL INSTALLATION**

**MAY 2023**

***MVD Kalahari***



INSPIRING ENGINEERING INNOVATION

## **TABLE OF CONTENTS**

1. Introduction	2
2. Location:	3
3. Scope of works:	3
4. Conditioning assessment Heating, Ventilation and Air Conditioning (HVAC) Installation:	4
4.1. <i>The existing systems</i>	4
4.1.1. Central Systems	4
4.1.2. DX Split Systems	6
4.2. Requirements and limitations	8
4.3. Energy conservation	9
4.4. Regulations	10
5. Permeators for HVAC systems	10
5.1. Central systems	10
5.2. DX Split type systems	10
5.3. Closed control DX Split type system	10
5.4. Building management system/controls (BMS)	11
5.5. Ducting and chilled water piping	11



## **1. INTRODUCTION**

The air conditioning/climate control system of the William Humphrey Art Gallery has been problematic for a number of years and therefore William Humphreys Art Gallery require the appointment of a Professional Mechanical Services Provider for Stages 1 to Stage 6 for replacement of the existing HVAC systems, falling under the main contract appointment for the **Project Management for Implementation Of Infrastructure Programmes**.

The existing building and air conditioning systems consist of the following:

- a) **Basement:** Consisting of a Storage area and HVAC Plantroom.
- b) **Ground Floor:** Consisting of 12 Gallery/Halls, Auditorium, Activity Room, Storage/Archives, Library, ablutions and kitchenettes.
- c) **First Floor:** Consisting of HVAC Plant room, 6 Offices, 1 Board Room, Gallery and Video Area.
- d) A main/central air conditioning/climate control system that serves the main display areas (approx. 1800 m<sup>2</sup>) of the museum as well as the museum storeroom/archive (approx. 350m<sup>2</sup>) on the ground floor.
- e) The library, first floor offices, first floor exhibition/projection room, reception, artist flat, activity room and cafeteria are currently serviced by normal split units.
- f) The new ceramic hall is served by a closed control DX split type Dunham Bush AC system (approx. 160 m<sup>2</sup>).

This report is aimed at addressing the full scope of work required for the replacement and upgrading of the existing system.

## 2. LOCATION:

The William Humphrey Art Gallery is located in the Northern Cape, Kimberley, 1 Cullinan Cres, Civic Centre.

<https://goo.gl/maps/r5MjbNe9Zfr5L8hv7>



## 3. SCOPE OF WORKS:

Using the factors listed in the next section as a guide, the system design proposals was chosen to match as many of the design requirements as possible.

The proposed installations will consist of the following:

- Main HVAC system, to remove all chillers and AHU's and to replace them with latest more efficient heat recovery AHU's in combination with a VRF condenser units for each individual plant room.
- Steam humidifiers to be installed in Leo of the existing problematic evaporative cooling systems. This is applicable with both main plant options.
- Servicing/refurbishing the existing DX split AC units and replacing the AC units that is not adequate for the room sizes and making allowances for fresh air systems where necessary.

- Ceramic new extension hall, DB closed control AC unit to be refurbished and put back into operation.
- Water treatment systems to be put in place for all humidifiers and evaporative cooling systems.
- Existing extraction systems installed in the ablutions and stores needs to be refurbished and the areas not having typical window/wall fans like other areas needs to be installed to comply with regulations.
- Building Management System, hardware and software to be upgraded to latest editions and controls. Interconnections with fire detection and other monitoring systems to be identified to be included to assist the user client with future maintenance and communications of faults/errors etc.
- Fire detection systems to be incorporated into the HVAC design and BMS systems for an early warning system. Specifically unoccupied areas and high-risk areas.

All designs to be done in accordance with the relevant SANS/SABS documentation where applicable. In this case the latest version of SANS 10400 and local authority regulations will be the guiding specifications.

The air conditioning and ventilation system will be described in more detail under section 4. In line with the latest SANS 10400 requirements, all occupied areas that receives air conditioning units must be supplied with minimum ventilation requirements that will be supplying fresh filtered outdoor air to occupied rooms through the AHU's.

## **4. CONDITIONING ASSESSMENT HEATING, VENTILATION AND AIR CONDITIONING (HVAC) INSTALLATION:**

### **4.1. THE EXISTING SYSTEMS**

#### **4.1.1. CENTRAL SYSTEMS**

The existing **central air conditioning/climate control system** installed on ground floor outside the building serves the following areas: (Also see Annexure B, site layout.)

- Ground floor 12 Gallery Halls
- Ground floor Auditorium
- First floor Offices partially for fresh air only. Split DX units has been installed over the years.



**The existing chiller and chilled water pumps.**

The existing **central system** was installed around 2003-2006 and has been problematic for a number of years. The existing system consists of the following:

- Two air cooled chillers.
- Chilled water circulation pumps.
- Four two stage evaporative cooler/air handling units.
- Electrical elements for heating/dehumidification.
- All four AHU systems consist of intricate supply and return air ducting system with booster/re-circulating fans.
- Filter banks for return air and fresh air inlets.





**The existing fresh air inlet fans, filter banks, AHU with evaporative coolers ducting and heater banks.**

The existing central systems has proofed to be insufficient, and several breakdowns have been recorded in the last couple of years. Especially the chillers have been unreliable and currently only operates on one cooling cycle/compressors. The existing ducting is internally insulated, and the insulation could not be verified at this stage if it is damaged. But according to several previous sites and considering the age of the system there would possibly be damages to the insulation, it is having a life span of approximately between 15 and 20 years.

#### **4.1.2. DX SPLIT SYSTEMS**

The **existing DX split AC units** installed at the building serves the following areas:

- Library.
- First floor offices.

- Reception.
- First floor exhibition/projection room.
- Artist flat.
- Activity room.
- Cafeteria.



**The existing high/mid wall DX split unit in the cafeteria and under ceiling unit in the FF projector room.**

The existing DX split AC units in the library, cafeteria and some offices as well as the activity room are totally insufficient for the application and a detail design need to be done for the correct selection of a unit/system that incorporates fresh air requirements as per SANS 10400, Part O. Closed Control DX Split System (New extension Ceramic)

The **existing closed control DX split AC unit** installed at the building serves the following area:

- New extension for the ceramic hall.



**The existing closed control Dunham bush DX split unit.**

The existing unit has not been operational for several years due to fan belts that was broken and water quality in the recent years in KBY that could have damaged the system humidification systems if not serviced/cleaned on a regularly basis. The system will shut down in case of water/humidification problems as a safety feature. It would be recommended that a water treatment system be put in place.

#### **4.2. REQUIREMENTS AND LIMITATIONS**

During the consultant's briefing and subsequent discussions with museum personnel and site inspections the following important factors and challenges were identified:

- Only pdf electronic drawings of the gallery current layout are available. No air condition layouts or manuals are available to assist with ducting/piping routes, no layouts on the BMS controls are available.
- Museum staff requested that construction work inside the gallery should be avoided as far as possible and existing ducting inside the display halls should be used as far as possible. Due to this limitation the central system design is limited by the size of the existing openings and ducting inside the halls. Note:
- The areas where exhibition objects, paintings, documents and books are kept and displayed require a constant temperature, humidification and ventilation. The optimum would be 18°C at 50-55% relative humidity (RH), but since these conditions are uncomfortable for staff and visitors, the exhibition halls and library should be kept at a temperature of 21-22°C and 50-55% RH. The storerooms/archives, which is not occupied

constantly by people, should preferably be kept at the lower temperature of 18°C. Presently the climate control in all areas is insufficient a data logger with temperatures and humidity for each area is recommended for the next stage of the project to determine fluctuations and detail designs.

- The display cases in the exhibition halls needs to be optimised for best airflows and to reduce any restrictions of air supply and return grilles. As this can influence the RH in those areas and larger halls due to insufficient air flow being obstructed by displays etc.
- 2 sets of filters per AHU to be allowed for, as one set is being washed the other set can be installed and vice versa.
- The electrical distribution/control boards must be upgraded, and the existing supply cable made safe.
- BMS system needs to be upgraded and be connected to monitor the building HVAC incorporating the fire detection systems. An early alarm system SMS/email notification to be in place.
- All equipment should be as user friendly, low maintenance and energy efficient as possible.

#### **4.3. ENERGY CONSERVATION**

With proposed and imminent legislation with respect to energy efficiency in buildings, it is no longer an option to design archaic systems that are not tuned to absolute optimal energy efficiency.

As the building design is fixed, the design of the air conditioning system should therefore be optimised.

A simplistic look at energy requirements in this particular application reveals that the energy load can be grouped as presented in the table below. The possible methods of optimizing these energy loads are listed against each energy load group.

<b>ENERGY LOAD GROUP</b>	<b>ENERGY OPTIMIZATION METHOD</b>
Summer cooling load	<ul style="list-style-type: none"><li>• Use of high COP equipment – maximum cooling for minimal energy input.</li><li>• Minimize energy loss through ducting/piping.</li></ul>
Winter heating load	<ul style="list-style-type: none"><li>• Use of heat pumps in lieu of electric heating.</li><li>• Minimize energy loss through ducting/piping.</li></ul>
Fresh air load	<ul style="list-style-type: none"><li>• Maximize the use of the energy carried by fresh air supply.</li><li>• Minimize energy carried in exhaust air.</li><li>• Heat recovery AHU systems.</li></ul>



#### **4.4. REGULATIONS**

All designs are to be done in accordance with the relevant SANS/ASHRAE documentation where applicable. According to the Application of the National Building Regulations, SANS 10400, the classes of occupancy of the areas in the building(s) under discussion are defined as:

- C3 - Museum.
- D4 - Plantroom.
- J3 - Low risk storage. (Where the material stored does not fall into the high or moderate risk category, i.e. the stored material is not liable, in the event of a fire, to cause combustion with high or moderate rapidity nor give rise to poisonous fumes, nor cause explosions).

SANS 10400 recommends that between 3.5 to 6.5 l/s of fresh filtered air should be supplied to per person in a museum type building. The ventilation installations will be provided in accordance with this regulation.

### **5. PERMEATORS FOR HVAC SYSTEMS**

Several factors play a role in the selection of new/refurbishment of air conditioning systems:

- Occupants require individual control to prevent the use of additional heaters and fans.
- The existing building layouts and Architectures.
- Limitations on refrigerant pipe routes and lengths.
- Energy saving vs. initial capital expenditure.
- Aesthetics vs. cost.
- Access and maintenance.

Due to the building layouts and the specific requirements of humidity and temperature controls required between 21-22°C degree Celsius, +-2 degrees Celsius with a 50% Relative humidity. Archives/storage Rooms requires 50% RH and 18-20 degrees Celsius +-2 degrees Celsius.

#### **5.1. CENTRAL SYSTEMS**

Replacing existing central system chillers and AHU's with latest heat recovery AHU type, VRF systems that each has a individual plant system that service each individual AHU. This will assist in future maintenance should a main plant fail, it not affecting the entire building.

#### **5.2. DX SPLIT TYPE SYSTEMS**

All DX Split high/mid wall units and under ceiling units to be serviced and repaired. Areas where the units are inadequate for the room sizes needs to be sized according to the heat load calculations and incorporating the fresh air demands and needs to be replaced with new ones.

#### **5.3. CLOSED CONTROL DX SPLIT TYPE SYSTEM**

The ceramic hall storeroom where the Dunham Bush closed control unit is based, needs to be optimised with more sufficient return air grilles through the ceilings. Also, the display glass portioning needs ventilation openings for more efficient air flow.

The CC AC unit needs to be serviced and repaired to be operational again. Depending on the findings during the services, we can anticipate the unit can still be operational for another 8 – 10 years if maintained as per manufacturers specifications.

A water treatment system needs to be installed on the unit water supply.

#### **5.4. BUILDING MANAGEMENT SYSTEM/CONTROLS (BMS)**

The entire BMS system must be upgraded and all AC units to be connected to the BMS.

Fire detection is to be incorporated into the entire BMS system to shut off during a fire event and unoccupied areas. This is not limited to the main fire detection system but also needs to include the suppression standalone systems.

#### **5.5. DUCTING AND CHILLED WATER PIPING**

All existing ducting to be reused as far as possible and inspected and cleaned by specialist contractors, confirmation of replacement to be determined by physical inspection.

Should the chilled water piping be re used it needs to be inspected and a life expectancy needs to be determined by the engineer if they are required to be replaced or cleaned only.