

DPW-10.4 (EC): FIXED CONSTRUCTION GUARANTEE - (GCC (2010) 2nd EDITION: 2010)

Director-General
 Department of Public Works
 Government of the Republic of South Africa

To: **Department of Public Works and Infrastructure**
 Private Bag X5002
KIMBERLEY
8300

Sir,

FIXED CONSTRUCTION GUARANTEE FOR THE EXECUTION OF A CONTRACT IN TERMS OF GCC (2010) 2ND EDITION 2010

1. With reference to the contract between _____
 _____ (hereinafter referred to as the "**contractor**") and the Government of the Republic of South Africa in its Department of Public Works (hereinafter referred to as the "**employer**"), Contract/Tender No: **KIM 12/2020**, for the **Kimberley DPWI Regional Offices: Replacement of Air Conditioning Systems** (hereinafter referred to as the "**contract**"), for the sum of R _____, (_____), (hereinafter referred to as the "**contract sum**").

I / We, _____
 in my/our capacity as _____ and hereby
 representing _____ (hereinafter referred to as the "**guarantor**") advise that the **guarantor** holds at the **employer's** disposal the sum of R _____, (_____)
 being 5% of the **contract sum** (excluding VAT), for the due fulfillment of the **contract**.

2. The **guarantor** hereby renounces the benefits of the exceptions *non numeratae pecunia; non causa debiti; excussionis et divisionis; and de duobus vel pluribus reis debendi* which could be pleaded against the enforcement of this guarantee, with the meaning and effect whereof I/we declare myself/ourselves to be conversant, and undertake to pay the **employer** the amount guaranteed on receipt of a written demand from the **employer** to do so, stating that (in the **employer's** opinion and sole discretion):
 - (a) the **contractor** has failed or neglected to comply with the terms and/or conditions of the **contract**; or
 - (b) the **contractor's** estate is sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa.
3. Subject to the above, but without in any way detracting from the **employer's** rights to adopt any of the procedures provided for in the **contract**, the said demand can be made by the **employer** at any stage prior to the expiry of this guarantee.
4. The amount paid by the **guarantor** in terms of this guarantee may be retained by the **employer** on condition that upon the issue of the last **final approval certificate**, the **employer** shall account to the **guarantor** showing how this amount has been expended and refund any balance due to the **guarantor**.
5. The **employer** shall have the absolute right to arrange his affairs with the **contractor** in any manner which the **employer** deems fit and the **guarantor** shall not have the right to claim his release on account of any conduct alleged to be prejudicial to the **guarantor**. Without derogating from the

aforegoing, any compromise, extension of the construction period, indulgence, release or variation of the **contractor's** obligation shall not affect the validity of this guarantee.

- 6. The **guarantor** reserves the right to withdraw from this guarantee at any time by depositing the guaranteed amount with the **employer**, whereupon the **guarantor's** liability ceases.
- 7. This guarantee is neither negotiable nor transferable, and
 - (a) must be surrendered to the **guarantor** at the time when the **employer** accounts to the **guarantor** in terms of clause 4 above, or
 - (b) shall lapse on the date of the last **certificate of completion** of works.
- 8. This guarantee shall not be interpreted as extending the **guarantor's** liability to anything more than the payment of the amount guaranteed.

SIGNED AT _____ ON THIS _____ DAY OF _____ 20____.

AS WITNESS

- 1. _____
- 2. _____

By and on behalf of

(insert the name and physical address of the guarantor)

NAME: _____

CAPACITY: _____
(duly authorised thereto by resolution attached marked Annexure A)

DATE: _____

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

PG-01.1 (EC) SCOPE OF WORKS – (GCC (2010) 2nd EDITION: 2010)

Project title:	<i>Kimberley: DPW N/C Kimberley Regional Office Replacement of air conditioning system</i>		
Tender no:	<i>KIM 16/2021</i>	Reference no:	<i>19/2/4/2/2327/485</i>

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NOTE: This is an example only. Compiler / Designer to provide the applicable contents.

B: AMENDMENTS TO THE STANDARD SPECIFICATIONS None

C3.3 PARTICULAR SPECIFICATIONS Mechanical Specification Electrical Installation Specifications

Tender no: KIM 16/2021

C3.1 STANDARD SPECIFICATIONS:

The standard specifications on which this contract is based are the **South African Bureau of Standards Standardized Specifications for Civil Engineering Construction SABS 1200**. *(Note to compiler. "SABS" has been changed to "SANS"; the SABS 1200 specifications are due to be replaced in the foreseeable future by SANS 2100)*

Although not bound in nor issued with this Document, the following Sections of the Standardized Specifications of SABS 1200 shall form part of this Contract:

MECHANICAL STANDARD

- (a) Standard Specification for Electrical Installations and Electrical Equipment pertaining to Mechanical Services, Issue IXa, December 1999
- (b) The South African National Standards.
- (c) The Air Conditioning and Refrigeration Institute of America (ARI)
- (d) American Society of Heating, Refrigerating & Air Conditioning Engineers (ASHRAE)

ELECTRICAL STANDARDS:

- (a) SANS 10142-1, 2017: The Wiring of Premises.
- (b) SANS 204: Energy Efficiency in Buildings
- (c) SANS 10114-1: Interior lighting Part 1: Artificial lighting of interiors.
- (d) SANS 10114-2: Emergency Lighting
- (e) SANS 10389-1: Exterior Lighting Part 1 – Artificial Lighting of exterior areas for work and safety
- (f) SANS 10098-1: Public Lighting Part 1 - The Lighting of Public Thoroughfares
- (g) SANS 10098-2: Public Lighting Part 1 - The Lighting of Certain Specific Areas of Streets and Highways.
- (h) SANS 10292: Earthing of Low Voltage Distribution Systems.
- (i) SANS 10313: Protection of structures against lightning
- (j) SANS 10400: The Application of the National Building Regulations
- (k) Act 85 of 1993: Occupational Health and Safety Act

CEILLING STANDARD SPECIFICATIONS

- (a) The South African Building Interior Systems Association (SABISA), currently under the aegis of AAAMSA



Tender no: KIM 16/2021

C3.2 PROJECT SPECIFICATIONS:

Status

The Project Specification, consisting of two parts, forms an integral part of the contract and supplements the Standard Specifications.

Part A contains a general description of the works, the site and the requirements to be met.

Part B contains variations, amendments and additions to the Standardized Specifications.

In the event of any discrepancy between a part or parts of the Standardised of Particular Specifications and the Project Specification, the Project Specification shall take precedence. In the event of a discrepancy between the specifications, (including the Project Specifications) and the drawings and / or the Bill of Quantities, the discrepancy shall be resolved by the Engineer before the execution of the work under the relevant item.

A GENERAL

PS-1 PROJECT DESCRIPTION:

This project is for installation of new VRV Air Conditioning and replacement of the old existing heat recovery air conditioning system at the Department of Public Works & Infrastructure - Regional Offices in Kimberley

The installation work will be done in three phases within the first 12 months of the project.

1. Air Conditioning Installation System

SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, TESTING, HANDING OVER AND MAINTANANCE AS SPECIFIED OF THE FOLLOWING SYSTEMS AND EQUIPMENT (SLIM INDOOR UNITS)

The contract shall include but limited to:

- (a) Samsung or equal approved cooling slim VRV Heat Recovery 97 x 4way Cassette unit wind-free (600 x 600) including condenser water pump, interface module (MIM-B14) complete with heat recovery, hard wired controller.**
- (b) Samsung or equal approved cooling slim VRV Heat Recovery 20 x 4way normal Cassette unit wind-free including condenser water pump, interface module (MIM-B14) complete with heat recovery, hard wired controller**
- (c) Samsung or equal approved cooling slim VRV Heat Recovery 4 x 3600 Cassette unit wind-free including condenser water pump, interface module (MIM-B14) complete with heat recovery, hard wired controller**
- (d) Samsung or equal approved cooling slim VRV Heat Recovery 6 x Underceiling units including condenser water pump, interface module (MIM-B14) complete with heat recovery, hard wired controller**
- (e) TSamsung or equal approved outdoor (3Ø) VRV condensing heat recovery unit with inverter scroll compressors, inverter fan motors, expansion kit, piping between condenser and controls with BMS BACnet compatible function cooling capacity linked to the indoor units as described.**
- (f) The refrigerant copper piping complete with 25mm Armaflex insulation with a Samsung or equal approved indoor Refnet (MXJ-YA1509M), the Y Joint type. And the indoor units connecting through the heating recovery controller boxers as shown on drawings**
- (g) Installation of a Building Management System (MIM-B17N) BACnet gateway as described and all the all the associated apparatus as listed.**

- (h) Fresh Air Supply Fans with different sizes in diameter for the centrifugal in-line tube Fan litres per second at different static pressure C/W 2 x 600 Sound Attenuators with pods and electrical box and a timer controlled.
- (i) Duct plenum box (600 X 300) c/w with washable filters cartridge of 595 x 295 x 50mm with a filters size with a lockable door site door c/w including all fitting, rods, hangers and brackets.
- (j) Category-1: Rectangular insulated galvanized low pressure ducting including (below steel trusses or concrete soffits including support mechanisms including Stop ends, Radius bends, Square bends, 45° bends, 15° bends, 90° bends, transformations, trouser & shoes pieces. With butterfly damper c/w lockable quadrant at the ducting outlets supply points.
- (k) Outdoor Weather louvre and door grills with different size C/W vermin proof screen, storm resistant and natural anodised aluminium with low regenerated noise.
- (l) Disc Valves with different sizes in diameter with a colour hospital white power coated.
- (m) Galvanised finished light duty cable tray complete including all the accessories

2. CEILING INSTALLATION

1. Ceilings shall be given in square meters, under headings separating nailed up and suspended ceilings, distinction being made between horizontal, sloping and vertical ceilings
2. Brandering shall be included in the descriptions of nailed up ceilings. When Brandering is not to a regular pattern, it shall be given separately in meters
3. Proprietary support systems for suspended ceilings shall be included in the descriptions of the ceilings. When the support system is not to a regular pattern it shall be given separately, in which case brandering or bearers shall be given in meters and hangers in number. A general description of the supporting structure from which ceilings are suspended shall be given. Separate items shall be given for ceilings suspended less than 1m (one meter) below suspension level, and thereafter in successive stages of 1m (one meter).
4. Circular cutting shall be given in meters. Notches and holes shall be deemed to be included in the descriptions. Openings for light fittings, mechanical diffusers etc., shall be given in number, as extra over ceilings and descriptions shall be deemed to include additional trimmers, hangers etc. Cover strips, jointing strips etc., shall be included in the description

3. ELECTRICAL INSTALLATION

- Supply and install LV supply cables to the new LV distribution board to the different building floors with NPO building.
- New Distribution Boards for the air conditioning and ventilation system.
- Supply and install 120Amp triple pole circuit breakers for the condensing/outdoor units.
- Supply and install 30Amp double pole circuit breakers for the cassette indoor units.
- Supply and install 20Amp double pole circuit breakers for the fresh air supply units.
- Supply and install 20mm PVC conduit and electrical wiring for the indoor unit.
- Finishing and cleaning of the electrical installation.
- Provision of as-installed drawings and manuals, both operating and maintenance etc.
- Provision of electronic database of as installed equipment



Tender no: KIM 16/2021

B: AMENDMENTS TO THE STANDARD SPECIFICATIONS:

None



Tender no: KIM 16/2021

C3.3 PARTICULAR SPECIFICATIONS:

**The New VRV Air Conditioning Specifications
The Suspended Ceiling Specifications
The Electrical Specifications.
Rigging**



public works

Department:
Public Works
REPUBLIC OF SOUTH AFRICA

KIMBERLEY DPWI REGIONAL OFFICES: REPLACEMENT OF AIR CONDITIONING SYSTEM

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REPLACEMENT OF AIR CONDITIONERS

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KIMBERLEY: DPWI KIMBERLEY REGIONAL OFFICES REPLACEMENT OF AIRCONDITIONING SYSTEM

MECHANICAL INSTALLATION COMPREHENSIVE CONTRACT

PART 1

GOVERNMENT PROCUREMENT:

GENERAL CONDITIONS OF CONTRACT



**KIMBERLEY: DPWI KIMBERLEY REGIONAL OFFICE REPLACEMENT OF
AIRCONDITIONING SYSTEM**

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**KIMBERLEY: DPWI KIMBERLEY REGIONAL OFFICES REPLACEMENT OF
AIRCONDITIONING SYSTEM**

GENERAL CONDITIONS PART ONE,

SECTION 2 – GLOSSARY

Definitions

Note: The present definitions are given here for convenience, only in the context of the tender procedures. The definitions set out in the contract as concluded and determined for the relation between parties to the contract. Words indicating persons or parties includes corporation and other legal entities, except where the content requires otherwise.

1. The following terms shall be interpreted as indicated:
 - 1.1 **Closing time**” means the date and hour specified in the tender documents for the receipt of Tenders.
 - 1.2 **Contract**” means the written agreement entered into between the purchaser and the supplier, as recorded in the contract form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.
 - 1.3 **“Contract price**” means the price payable to the supplier under the contract for the full and proper performance of his contractual obligations.
 - 1.4 **“Corrupt practice**” means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.
 - 1.5 **“Countervailing duties**” are imposed in cases where an enterprise abroad is subsidized by its government and encouraged to market its products internationally.
 - 1.6 **“Country of origin**” means the place where the goods were mined, grown or produced or from which the services are supplied. Goods are produced when, through manufacturing, processing or substantial and major assembly of components, a commercially recognized new product results that is substantially different in basic characteristics or in purpose or utility from its components.
 - 1.7 **“Day**” means calendar day.
 - 1.8 **“Delivery**” means delivery in compliance of the conditions of the contract or order.
 - 1.9 **“Delivery ex stock**” means immediate delivery directly from stock actually on hand.
 - 1.10 **“Delivery into consignees store or to his site**” means delivered and unloaded in the specified store or depot or on the specified site in compliance with the conditions of the contract or order, the supplier bearing all risks and charges involved until the goods are so delivered and a valid receipt is obtained.
 - 1.11 **“Dumping**” occurs when a private enterprise abroad market its goods on own initiative in the RSA at lower prices than that of the country of origin and which have the potential to harm the local industries in the RSA.
 - 1.12 **”Force majeure**” means an event beyond the control of the supplier and not involving the supplier’s fault or negligence and not foreseeable. Such events may include, but is not restricted to, acts of the purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.
 - 1.13 **“Fraudulent practice**” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any bidder, and includes collusive practice among Bidders (prior to or after Tender submission) designed to establish Tender prices at artificial non-competitive levels and to deprive the bidder of the benefits of free and open competition.



- 1.14 "GCC" means the General Conditions of Contract.
- 1.15 "Goods" means all of the equipment, machinery, and/or other materials that the supplier is required to supply to the purchaser under the contract.
- 1.16 "Imported content" means that portion of the tender price represented by the cost of components, parts or materials which have been or are still to be imported (whether by the supplier or his subcontractors) and which costs are inclusive of the costs abroad, plus freight and other direct importation costs such as landing costs, dock dues, import duty, sales duty or other similar tax or duty at the South African place of entry as well as transportation and handling charges to the factory in the Republic where the goods covered by the Tender will be manufactured.
- 1.17 "Local content" means that portion of the tender price, which is not included in the imported content provided that local manufacture does take place.
- 1.18 "Manufacture" means the production of products in a factory using labour, materials, components and machinery and includes other related value-adding activities.
- 1.19 "Order" means an official written order issued for the supply of goods or works or the rendering of a service.
- 1.20 "Project site," where applicable, means the place indicated in tender documents.
- 1.21 "Purchaser" means the organization purchasing the goods.
- 1.22 "Republic" means the Republic of South Africa.
- 1.23 "SCC" means the Special Conditions of Contract.
- 1.24 "Services" means those functional services ancillary to the supply of the goods, such as transportation and any other incidental services, such as installation, commissioning, provision of technical assistance, training, catering, gardening, security, maintenance and other such obligations of the supplier covered under the contract.
- 1.25 "Supplier" means the successful bidder who is awarded the contract to maintain and administer the required and specified service(s) to the State.
- 1.26 "Tort" means in breach of contract.
- 1.27 "Turnkey" means a procurement process where one service provider assumes total responsibility for all aspects of the project and delivers the full end product / service required by the contract.
- 1.28 "Written" or "in writing" means hand-written in ink or any form of electronic or mechanical writing.

2. Application

- 2.1 These general conditions are applicable to all Tenders, contracts and orders including Tenders for functional and professional services (excluding professional services related to the building and construction industry), sales, hiring, letting and the granting or acquiring of rights, but excluding immovable property, unless otherwise indicated in the tender documents.
- 2.2 Where applicable, special conditions of contract are also laid down to cover specific goods, services or works.
- 2.3 Where such special conditions of contract are in conflict with these general conditions, the special conditions shall apply.



3. General

- 3.1 Unless otherwise indicated in the tender documents, the purchaser shall not be liable for any expense incurred in the preparation and submission of a Tender. Where applicable a non-refundable fee for documents may be charged.
- 3.2 Invitations to Tender are usually published in locally distributed news media and on the municipality/municipal entity website.

4. Standards

- 4.1 The goods supplied shall conform to the standards mentioned in the tender documents and specifications.

5. Use of contract documents and information inspection

- 5.1 The supplier shall not, without the purchaser's prior written consent, disclose the contract, or any provision thereof, or any specification, plan, drawing, pattern, sample, or information furnished by or on behalf of the purchaser in connection therewith, to any person other than a person employed by the supplier in the performance of the contract. Disclosure to any such employed person shall be made in confidence and shall extend only so far as may be necessary for purposes of such performance.
- 5.2 The supplier shall not, without the purchaser's prior written consent, make use of any document or information mentioned in GCC clause 5.1 except for purposes of performing the contract.
- 5.3 Any document, other than the contract itself mentioned in GCC clause 5.1 shall remain the property of the purchaser and shall be returned (all copies) to the purchaser on completion of the supplier's performance under the contract if so required by the purchaser.
- 5.4 The supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.

6. Patent Rights

- 6.1 The supplier shall indemnify the purchaser against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the goods or any part thereof by the purchaser.
- 6.2 When a supplier developed documentation / projects for the municipality / municipal entity, the intellectual, copy and patent rights or ownership of such documents or projects will vest in the municipality / municipal entity.

7. Performance security

- 7.1 Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.



- 7.2 The proceeds of the performance security shall be payable to the purchaser as compensation for any loss resulting from the supplier's failure to complete his obligations under the contract.
- 7.3 The performance security shall be denominated in the currency of the contract or in a freely convertible currency acceptable to the purchaser and shall be in one of the following forms:
- (a) A bank guarantee or an irrevocable letter of credit issued by a reputable bank located in the purchaser's country or abroad, acceptable to the purchaser, in the form provided in the tender documents or another form acceptable to the purchaser
 - (b) A cashier's or certified cheque
- 7.4 The performance security will be discharged by the purchaser and returned to the supplier not later than thirty (30) days following the date of completion of the supplier's performance obligations under the contract, including any warranty obligations, unless otherwise specified.

8. Inspections, tests and analyses

- 8.1 All pre-tender testing will be for the account of the bidder.
- 8.2 If it is a Tender condition that goods to be produced or services to be rendered should at any stage be subject to inspections, tests and analyses, the bidder or contractor's premises shall be open, at all reasonable hours, for inspection by a representative of the purchaser or organization acting on behalf of the purchaser.
- 8.3 If there are no inspection requirements indicated in the tender documents and no mention is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned.
- 8.4 If the inspections, tests and analyses referred to in clauses 8.2 and 8.3 show the goods to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser.
- 8.5 Where the goods or services referred to in clauses 8.2 and 8.3 do not comply with the contract requirements, irrespective of whether such goods or services are accepted or not, the cost in connection with these inspections, tests or analyses shall be defrayed by the supplier.
- 8.6 Goods and services which are referred to in clauses 8.2 and 8.3 and which do not comply with the contract requirements may be rejected.
- 8.7 Any contract goods may on or after delivery be inspected, tested or analysed and may be rejected if found not to comply with the requirements of the contract. Such rejected goods shall be held at the cost and risk of the supplier who shall, when called upon, remove them immediately at his own cost and forthwith substitute them with goods, which do comply with the requirements of the contract. Failing such removal the rejected goods shall be returned at the suppliers cost and risk. Should the supplier fail



to provide the substitute goods forthwith, the purchaser may, without giving the supplier further opportunity to substitute the rejected goods, purchase such goods as may be necessary at the expense of the supplier.

- 8.8 The provisions of clauses 8.4 to 8.7 shall not prejudice the right of the purchaser to cancel the contract on account of a breach of the conditions thereof, or to act in terms of Clause 22 of GCC.

9. Packing

- 9.1 The supplier shall provide such packing of the goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the contract. The packing shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packing, case size and weights shall take into consideration, where appropriate, the remoteness of the goods' final destination and the absence of heavy handling facilities at all points in transit.
- 9.2 The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the contract, including additional requirements, if any, and in any subsequent instructions ordered by the purchaser.

10. Delivery and documents

- 10.1 Delivery of the goods and arrangements for shipping and clearance obligations shall be made by the supplier in accordance with the terms specified in the contract.

11. Insurance

- 11.1 The goods supplied under the contract shall be fully insured in a freely convertible currency against loss or damage incidental to manufacture or acquisition, transportation, storage and delivery in the manner specified.

12. Transportation

- 12.1 Should a price other than an all-inclusive delivered price be required, this shall be specified.

13. Incidental Services

- 13.1 The supplier may be required to provide any or all of the following services, including additional services, if any:
- (a) Performance or supervision of on-site assembly and/or commissioning of the supplied goods;
 - (b) Furnishing of tools required for assembly and/or maintenance of the supplied goods;
 - (c) Furnishing of a detailed operations and maintenance manual for each appropriate unit of the supplied goods;



- (d) Performance or supervision or maintenance and/or repair of the supplied goods, for a period of time agreed by the parties, provided that this service shall not relieve the supplier of any warranty obligations under this contract; and
- (e) Training of the purchaser's personnel, at the supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied goods.

13.2 Prices charged by the supplier for incidental services, if not included in the contract price for the goods, shall be agreed upon in advance by the parties and shall not exceed the prevailing rates charged to other parties by the supplier for similar services.

14. Spare parts

14.1 As specified, the supplier may be required to provide any or all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the supplier:

- (a) such spare parts as the purchaser may elect to purchase from the supplier, provided that this election shall not relieve the supplier of any warranty obligations under the contract; and
- (b) in the event of termination of production of the spare parts:
 - (i) Advance notification to the purchaser of the pending termination, in sufficient time to permit the purchaser to procure needed requirements; and
 - (ii) Following such termination, furnishing at no cost to the purchaser, the blueprints, drawings, and specifications of the spare parts, if requested.

15. Warranty

15.1 The supplier warrants that the goods supplied under the contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the contract. The supplier further warrants that all goods supplied under this contract shall have no defect, arising from design, materials, or workmanship (except when the design and/or material is required by the purchaser's specifications) or from any act or omission of the supplier, that may develop under normal use of the supplied goods in the conditions prevailing in the country of final destination.

15.2 This warranty shall remain valid for twelve (12) months after the goods, or any portion thereof as the case may be, have been delivered to and accepted at the final destination indicated in the contract, or for eighteen (18) months after the date of shipment from the port or place of loading in the source country, whichever period concludes earlier, unless specified otherwise.

15.3 The purchaser shall promptly notify the supplier in writing of any claims arising under this warranty.

15.4 Upon receipt of such notice, the supplier shall, within the period specified and with all reasonable speed, repair or replace the defective goods or parts thereof, without costs to the purchaser.



- 15.5 If the supplier, having been notified, fails to remedy the defect(s) within the period specified, the purchaser may proceed to take such remedial action as may be necessary, at the supplier's risk and expense and without prejudice to any other rights which the purchaser may have against the supplier under the contract.

16. Payment

- 16.1 The method and conditions of payment to be made to the supplier under this contract shall be specified.
- 16.2 The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of other obligations stipulated in the contract.
- 16.3 Payments shall be made promptly by the purchaser, but in no case later than thirty (30) days after submission of an invoice or claim by the supplier.
- 16.4 Payment will be made in Rand unless otherwise stipulated.

17. Prices

- 17.1 Prices charged by the supplier for goods delivered and services performed under the contract shall not vary from the prices quoted by the supplier in his Tender, with the exception of any price adjustments authorized or in the purchaser's request for Tender validity extension, as the case may be.

18. Variation orders

- 18.1 In cases where the estimated value of the envisaged changes in purchase does not vary more than 15% of the total value of the original contract, the contractor may be instructed to deliver the goods or render the services as such. In cases of measurable quantities, the contractor may be approached to reduce the unit price, and such offers may be accepted provided that there is no escalation in price.

19. Assignment

- 19.1 The supplier shall not assign, in whole or in part, its obligations to perform under the contract, except with the purchaser's prior written consent.

20. Subcontracts

- 20.1 The supplier shall notify the purchaser in writing of all subcontracts awarded under these contracts if not already specified in the Tender. Such notification, in the original Tender or later, shall not relieve the supplier from any liability or obligation under the contract.

21. Delays in the supplier's performance

- 21.1 Delivery of the goods and performance of services shall be made by the supplier in accordance with the time schedule prescribed by the purchaser in the contract.
- 21.2 If at any time during performance of the contract, the supplier or its subcontractor(s) should encounter conditions impeding timely delivery of the goods and performance



of services, the supplier shall promptly notify the purchaser in writing of the fact of the delay, its likely duration and its cause(s). As soon as practicable after receipt of the supplier's notice, the purchaser shall evaluate the situation and may at his discretion extend the supplier's time for performance, with or without the imposition of penalties, in which case the extension shall be ratified by the parties by amendment of contract.

- 21.3 The right is reserved to procure outside of the contract small quantities or to have minor essential services executed if an emergency arises, the supplier's point of supply is not situated at or near the place where the goods are required, or the supplier's services are not readily available.
- 21.4 Except as provided under GCC Clause 25, a delay by the supplier in the performance of its delivery obligations shall render the supplier liable to the imposition of penalties, pursuant to GCC Clause 22, unless an extension of time is agreed upon pursuant to GCC Clause 22.2 without the application of penalties.
- 21.5 Upon any delay beyond the delivery period in the case of a goods contract, the purchaser shall, without cancelling the contract, be entitled to purchase goods of a similar quality and up to the same quantity in substitution of the goods not supplied in conformity with the contract and to return any goods delivered later at the supplier's expense and risk, or to cancel the contract and buy such goods as may be required to complete the contract and without prejudice to his other rights, be entitled to claim damages from the supplier.

22. Penalties

- 22.1 Subject to GCC Clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23.

23. Termination for default

- 23.1 The purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part: (a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC Clause 21.2; (b) if the supplier fails to perform any other obligation(s) under the contract; or (c) if the supplier, in the judgement of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract.
- 23.2 In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner, as it deems appropriate, goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. However, the supplier shall continue performance of the contract to the extent not terminated.



24. Antidumping and countervailing duties and rights

24.1 When, after the date of Tender, provisional payments are required, or anti-dumping or countervailing duties are imposed, or the amount of a provisional payment or antidumping or countervailing right is increased in respect of any dumped or subsidized import, the State is not liable for any amount so required or imposed, or for the amount of any such increase. When, after the said date, such a provisional payment is no longer required or any such anti-dumping or countervailing right is abolished, or where the amount of such provisional payment or any such right is reduced, any such favourable difference shall on demand be paid forthwith by the supplier to the purchaser or the purchaser may deduct such amounts from moneys (if any) which may otherwise be due to the supplier in regard to goods or services which he delivered or rendered, or is to deliver or render in terms of the contract or any other contract or any other amount which may be due to him.

25. Force Majeure

25.1 Notwithstanding the provisions of GCC Clauses 22 and 23, the supplier shall not be liable for forfeiture of its performance security, damages, or termination for default if and to the extent that his delay in performance or other failure to perform his obligations under the contract is the result of an event of force majeure.

25.2 If a force majeure situation arises, the supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the purchaser in writing, the supplier shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

26. Termination for insolvency

26.1 The purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to the purchaser.

27. Settlement of Disputes

27.1 If any dispute or difference of any kind whatsoever arises between the purchaser and the supplier in connection with or arising out of the contract, the parties shall make every effort to resolve amicably such dispute or difference by mutual consultation.

27.2 If, after thirty (30) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the purchaser or the supplier may give notice to the other party of his intention to commence with mediation. No mediation in respect of this matter may be commenced unless such notice is given to the other party.

28. Limitation of Liability

28.1 Should it not be possible to settle a dispute by means of mediation, it may be settled in a South African court of law.



- 28.2 Notwithstanding any reference to mediation and/or court proceedings herein,
- (a) the parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and
 - (b) the purchaser shall pay the supplier any monies due the supplier for goods delivered and / or services rendered according to the prescripts of the contract.

28.3 Except in cases of criminal negligence or wilful misconduct, and in the case of infringement pursuant to Clause 6;

- (a) the supplier shall not be liable to the purchaser, whether in contract, tort, or otherwise, for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion shall not apply to any obligation of the supplier to pay penalties and/or damages to the purchaser; and
- (b) the aggregate liability of the supplier to the purchaser, whether under the contract, in tort or otherwise, shall not exceed the total contract price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment.

29. Governing language

29.1 The contract shall be written in English. All correspondence and other documents pertaining to the contract that is exchanged by the parties shall also be written in English.

30. Applicable law

30.1 The contract shall be interpreted in accordance with South African laws, unless otherwise specified.

31. Notices

31.1 Every written acceptance of a Tender shall be posted to the supplier concerned by registered or certified mail and any other notice to him shall be posted by ordinary mail to the address furnished in his Tender or to the address notified later by him in writing and such posting shall be deemed to be proper service of such notice

31.2 The time mentioned in the contract documents for performing any act after such aforesaid notice has been given, shall be reckoned from the date of posting of such notice.

32. Taxes and duties

32.1 A foreign supplier shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the purchaser's country.

32.2 A local supplier shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted goods to the purchaser.

32.3 No contract shall be concluded with any bidder whose tax matters are not in order. Prior to the award of a Tender SARS must have certified that the tax matters of the preferred bidder are in order.



32.4 No contract shall be concluded with any bidder whose municipal rates and taxes and municipal services charges are in arrears.

33. National Industrial Participation (NIP) Programme

33.1 The NIP Programme administered by the Department of Trade and Industry shall be applicable to all contracts that are subject to the NIP obligation

34. Transfer of contracts

34.1 The contractor shall not abandon, transfer, cede assign or sublet a contract or part thereof without the written permission of the purchaser

35. Amendment of contracts

35.1 No agreement to amend or vary a contract or order or the conditions, stipulations or provisions thereof shall be valid and of any force unless such agreement to amend or vary is entered into in writing and signed by the contracting parties. Any waiver of the requirement that the agreement to amend or vary shall be in writing, shall also be in writing.

36. Prohibition of restricted practices

- 36.1 In terms of section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, an agreement between, or concerted practice by, firms, or a decision by an association of firms, is prohibited if it is between parties in a horizontal relationship and if a bidder (s) is / are or a contractor(s) was / were involved in collusive bidding.
- 36.2 If a bidder(s) or contractor(s), based on reasonable grounds or evidence obtained by the purchaser, has / have engaged in the restrictive practice referred to above, the purchaser may refer the matter to the Competition Commission for investigation and possible imposition of administrative penalties as contemplated in section 59 of the Competition Act No. 89 of 1998.
- 36.3 If a bidder(s) or contractor(s) has / have been found guilty by the Competition Commission of the restrictive practice referred to above, the purchaser may, in addition and without prejudice to any other remedy provided for, invalidate the bid(s) for such item(s) offered, and / or terminate the contract in whole or part, and / or restrict the bidder(s) or contractor(s) from conducting business with the public sector for a period not exceeding ten (10) years and / or claim damages from the bidder(s) or contractor(s) concerned.

37. Power to recommend contract works

In the event of the Contractor failing to comply with this Clause in the stipulated time for production etc. the Consulting Engineer shall have the power to recommend that the Contract Works as being unacceptable to hand over to the End user client due to insufficient information available to enable the end-user client to operate and maintain the plant, in accordance with the Health and Safety at Work Act, and furthermore shall have the power to instruct such Work to be carried out by others and deduct the resultant costs from the Contractor's Final Account.



**KIMBERLEY: DPWI KIMBERLEY REGIONAL OFFICE REPLACEMENT OF
AIRCONDITIONING SYSTEM**

GENERAL CONDITIONS

PART ONE, SECTION 3

General condition of the contract

The full set of general condition for works contract Construction Industry Development Board (**CIDB**) and General Conditions (**GCC**) can be viewed/downloaded www.cidb.org.za for the executing for the project.

It is hereby construed that the tenderer had availed themselves of these general condition, and have read and in accepted in full without reservations the conditions outlined therein, and are therefore waiving any standard terms and conditions which they may have.

These general conditions will form an integral part as part of the contractual obligations with the successful tenderer.



KIMBERLEY: DPWI KIMBERLEY REGIONAL OFFICES REPLACEMENT OF AIRCONDITIONING SYSTEM

MECHANICAL INSTALLATION COMPREHENSIVE CONTRACT

PART 2

INSTRUCTIONS TO BIDDERS AND TERMS AND CONDITIONS



KIMBERLEY: DPWI KIMBERLEY REGIONAL OFFICE REPLACEMENT OF AIRCONDITIONING SYSTEM

INSTRUCTIONS TO BIDDERS AND TERMS AND CONDITIONS

1. Intent of these specifications is to define the requirements for design, supply, installation, testing and commissioning of HVAC System. The entire work shall be carried out in accordance with these terms and conditions and generally as per the scope drawings set forth in the documents. The liability of the contractor shall not be limited to the scope of work mentioned, but shall also extend to achievement of the inside conditions as per the BASES OF DESIGN, as well as complete, safe and satisfactory operation of the system as approved by the Consulting Engineers/client. Any alternations/additions, equipment, apparatus, instruments, material and labour required in order to achieve the completeness of the HVAC system as above shall be deemed to be included in the scope of the contractor without any extra cost to the client, whether the same have been covered or not in the specifications and drawings. However, any changes required in design and installation shall be brought to the notice of the Consulting Engineers; and due approval shall be obtained therefor.

2. Scope of Work:

The scope of work covered under this tender includes design, supply, installation, testing & commissioning of the HVAC system for the application mentioned, and shall be generally as per the schedule of quantities and scope/tender drawings.

3. Tender Drawings:

The tender drawings, which are enclosed herewith, shall serve as scope drawings. They indicate the general scheme of the HVAC system requirement. However, actual location, distance, levels, etc. will be governed by actual field conditions. The contractor shall check architectural, structural, water supply, drainage, false ceiling, lighting and other services plans to avoid possible installation conflicts.

Should drastic changes from original plan be necessary to resolve such conflicts, the contractor shall notify the Consulting Engineers and secure written approval before the installation is started. Discrepancies in different plans or between plans and actual field conditions or between plans and specifications shall be promptly brought to attention of the Consulting Engineers for a decision.

4. Codes & Regulations:

The installation shall be in conformity with bye-laws and regulations of local authorities concerned in so far as these become applicable to the installation. The installation shall also be in conformity with the relevant codes of the Bureau of Indian Standards and ASHRAE standards. Wherever a reference of Standard specification is made in this document, it should imply the latest revision of that standard, including such revisions/amendments as may be issued by the issuing authority, during the course of the work contract. Compliance with all the applicable laws/rules pertaining to materials and workers/personnel shall be the liability of contractor.

In case the drawings and/or specifications require something which violates the bye-laws and regulations then the bye-laws and the regulations shall govern the requirement of this installation and the fact shall be brought to the notice of the Consulting Engineers.



5. Completion Period:

The total completion period is 12 Months from the date of drawing approval. The work in totality must be completed within the completion time period as per approved Bar chart / Project schedule. The entire project is to be completed at the earliest; hence the Bidder's labour may have to work on 24 hours basis/ round the clock if required, with necessary prior permission.

6. Supervision by the contractor:

1. The contractor shall have sufficient supervisory work force so that one supervisor may be available on each job for day-to-day site work. The contractor shall have to arrange day-to-day planning and execution of each job. All measuring tapes (of steel), scaffolding and ladders which may be required for installation and taking measurements shall be supplied by the contractor.
2. Whole work must be carried out to IPR satisfaction and as per instruction of IPR engineer in charge.
3. Quality is essential part of the whole project and no compromise will be entertained as far as the quality of the work is concern strictly in all respect of the work.

7. Materials & Workmanship:

The materials used by the contractor shall be new, free from defects and of the best quality and workmanship and shall be in conformity with the latest and best engineering practice. The entire installation work shall comply with the applicable standard specifications of:

- (a) The South African National Standards.
 - (b) The Air Conditioning and Refrigeration Institute of America (ARI)
 - (c) American Society of Heating, Refrigerating & Air Conditioning Engineers (ASHRAE)
8. The contractor shall employ a qualified Erection Technologist/Engineer at site who shall be assisted by adequate number of skilled and experienced staff.
9. Any material supplied by the contractor, if damaged in any way during cartage or execution of work or otherwise, shall be made good by the contractor at his own cost.

10. Accompaniment to Tender:

The tenderer will attach to the tender, at the time of submission, a statement containing information on the following points on a separate preform:

- (a) The appointed contractor should check all the drawings attached with the tender document, for the areas made available for installing his equipment and machines for proper and efficient functioning of his equipment. Any changes required to be made in the building and/or structure should be clearly brought out in a separate letter to be submitted along with the tender document.
- (b) Absence of specific comments on this issue by the Bidder along with quotation will be deemed as acceptance of the spaces available for HVAC equipment, supply & return air paths, etc.



11. Working Drawings:

On award of the work, the contractor shall submit to the consulting engineers detailed Working Drawings (as per reference list given at the end of this section) covering all items of equipment and installation. Shop/working drawings shall show detailed dimensions of all equipment, exact position of air/water intakes, outlets & exhaust, space requirements for access, repair and maintenance for equipment, frame details, support details, foundation drawings etc.

The shop/working drawings shall also contain details of other services that are required for installation/completeness of HVAC system, cut-outs, openings, framework, foundations etc. - whether covered under HVAC scope or not. Soft copy and minimum 3 sets of hard copies (paper copies) of all drawings shall be submitted to consulting engineers for approval/comments.

After technical approval, soft copy and necessary sets of hard copies shall be submitted for consulting engineers, Client for their record, approval & coordination.

LIST OF WORKING DRAWINGS TO BE SUBMITTED BY CONTRACTOR

The following is an indicative List of Working Drawings to be submitted by the Contractor. List of Drawings applicable for the present project shall be prepared by the HVAC Contractor on award of work and approved by the Consulting Engineers:

1. AIR DUCTING LAYOUT INCLUDING DIFFUSERS/GRILLES COORDINATED WITH EQUIPMENT LAYOUT, OTHER SERVICES, ETC.
2. OUTDOOR UNIT LAYOUT WITH PLATFORM/STRUCTURE/STANDS AND HVAC SECTIONS.
3. INDOOR & OUTDOOR EQUIPMENT DIMENSIONS & CONNECTION DETAILS.
4. SINGLE LINE DIAGRAM DRAWING OF ELECTRICAL PANEL BOARDS
5. INSTALLATION DETAILS OF THE REFREGIRANT PIPE TRAYS, ETC
6. BUILDING MANAGEMENT SYSTEM SOFTWARE AND DESIGN ILLASTRATION LAYOUT COMPUTER DESK.

12. Schedule of Quantities:

- (a) The quantities of ducting, insulation, piping, cabling, etc. mentioned in the tender Documents are tentative and are given for tenderer's guidance and to have uniform basis for tendering. The contractors should quote unit rates for variation in quantities.
- (b) The accompanied tender drawings show the route of ducts, pipes, cut-outs provided in slabs, beams, etc. and the equipment layout. Should there be any ambiguity in plans and specifications or obstructions, the same should be brought to the notice of the Consulting Engineers while submitting the tender documents.
- (c) The contractor should carry out detailed calculations for estimating the quantities of variable quantity items on approval of drawings. Any increase or reduction in the quantities of variable items shall be payable or deducted at the unit rate for that particular item. Any extra item not covered under the schedule of quantities but needed for the completion of the work shall be first approved by the Consulting Engineers or the client.
- (e) The contractor shall submit a quotation for such items before he commences work or purchases material in connection with such item(s). The quotation



shall show the rate analysis, namely the break-up of material, labour, profit, overheads, etc. In case the estimated quantity exceeds the quantity mentioned in Schedule of Quantities by over 5%, written approval from the client and the consulting engineers should be obtained before delivering the item/s, failing which, no claim for increase in final Contract Value may be entertained on this account.

- (f). During progress of the work, completed portions of the building may be occupied and put to use by the owner but the contractor will remain fully responsible for maintenance of HVAC installations till the entire work covered under his contract is satisfactorily completed by him and taken over by the owner.

13 Testing:

- (a) All equipment and space conditions shall be tested to establish equipment ratings and indoor space conditions. The test results shall be furnished to the consulting engineers as per the tender. Instruments required for testing shall be furnished by the contractor.
- (b) After testing and commissioning, all equipment shall be painted in an approved manner.
- (c) All equipment shall be guaranteed for the specified ratings with +/- 3% tolerance.
- (d) After all the tests and adjustments have been made, the plant shall be put to run- test as per frequency & duration specified by the consulting engineers.

14. Training:

The contractor shall provide free training at site in operation and maintenance of the System supplied by them to the client. The duration of training shall be till the time client is completely conversant with the operation and maintenance of the System.

15. Submission by the Contractor on completion:

The contractor shall submit three complete sets of As Built drawings & documents to the Consulting Engineers after completion of the work.
These drawings & documents must give following information:

15.1. As Built drawings and O&M Manuals

The Contractor shall not later than **6 weeks** prior to practical completion provide the completed operating manuals and as fitted drawings. At the commencement of the testing and commissioning the draft copies of the manuals and drawings shall be available for the Department of Public Works and Infrastructure representatives and Consulting Engineers comments.

The completed manuals and drawings shall be handed to the Client via a hand over certificate suitably signed.

The Contractor shall note that a separate copy will be required for the Health and Safety file.



15.2 As built Documents

The Contractor shall provide set of A0 durester drawing, A0 paper copies, 3No CAD current version (2017 as a minimum) copy of all 'as built' drawings.

When produced 'as built' drawings shall present to Public Works representative staff sufficient diagrammatic information to enable them to maintain and operate the plant as effectively as possible to the original design standard.

15.3 O&M Manuals

The service manual documents shall be contained in suitable binders. The binders shall be Nyrox Sliplock NLA/A4 welded PVC with pull open two rings fittings at 80mm centres of 50mm width, lever arch type shall be used where large quantities of information are to be held in the binder.

Wherever possible papers (except where shown below) should not be larger than International A4.

The following descriptive elements should be provided:-

Title Page showing the following:-

- Client/Company Name
 - Title of Installation
 - Date of Completion
 - Consultant
 - Main Contractor
 - Scheme and Specification Numbers of Section
 - List of spare-parts required to maintain the System for two years of operation
 - Detailed maintenance schedule (24 months) for smooth running of the
- i. Description of Design Intent and the Engineering Installations including specific components which may affect its operation. Sufficient information should be provided to enable engineering systems to be initially started-up prior to commissioning taking place in addition to the continuing operation and maintenance.
 - ii. Hazardous substances used shall be clearly identified and safe methods of handling and operation clearly documented to ensure compliance with statutory requirements.
 - iii. Lubrication Details and Procedures Summary Manufacturer's Service Manuals and Spares, details of ordering.
 - iv. Operational instructions describing all features and fully explain setting to work instructions and line diagrams. Safety features including emergency shutdown buttons.
 - v. Schedules of Mechanical Equipment and Fittings.
 - vi. Typed operating procedures for the use of Client's technical or non-technical staff.
 - vii. Inventory of equipment supplies, showing details of make, model type, serial number, rating, date of manufacture (where known), installation date, location, etc. This item shall include a schedule of all luminaire types installed.
 - viii. Repair and maintenance instructions for equipment installed, including guidance on assembly and dismantling, safety, special tools and maintenance equipment, test
 - ix. Instruments and any spares provided under the contract.



- x. Maintenance Instructions in chart form showing sequencing and timing of essential maintenance.
- xi. Applicable catalogues, sources of supply, colour coding and recommended holdings of spares.
- xii. Warranties and insurance test certificates, where applicable.
- xiii. Details of Emergency Call out Service with telephone numbers of personnel available.
- xiv. Completion Certificate and test certificate.
- xv. All relevant South African National Standard Certificates and specialist certificates.
- xvi. Commissioning and test results.

16. Lifting, Hoists and Temporary Scaffolding

The Contractor shall include for all temporary hoists, temporary scaffolding, etc, necessary to complete his services installations.

The Contractor shall submit, to the Engineer, a method statement describing the proposed procedures and sequences for the delivery to site and hoisting into final position of the mechanical and electrical services equipment for each and every stage of the project.

17. Guarantee/Defects Liability

The contractor shall guarantee the installation for a period of 24 months from the date of Taking Over by the client, and submission of stipulated documents, regardless of the date of supply/erection of any equipment. Guarantee shall cover all components of the HVAC system, irrespective of the nature of item, any consumable items like refrigerant gas, oil, etc. if the loss of the same is due to reasons attributed to contractor. Any damage or defect that may arise or lie discovered or in any way be connected with the equipment or fittings supplied by him or in the workmanship shall be rectified or replaced by the contractor at his own expenses as deemed necessary by the Engineer-in-charge.

The achievement and maintaining of prescribed design conditions as per Bases of Design, throughout the Guarantee period shall also be the responsibility of the contractor. It is to be clearly understood that the specifications, drawings, schedule of quantities and computed design, refrigeration, air conditioning and heating loads given under Bases of Design of this specification is only for the tenderer's guidance.

The tenderer shall carry out comprehensive load calculation and provide alternative/additional equipment as required to achieve the specified inside conditions. Complete set of architectural drawings are available at the office of the architect and reference may be made to these drawings as required for load calculations.

Contractor shall also provide routine preventive maintenance to the system/plant for the trouble free operation of the system, and remove any faults that may arise during the guarantee period without any cost to the client.

17. Time Bar Clause

The Contractor must notify the Principal of a delay within 5 days of when it ought to have been aware of the delay, failing which it will have no claim.



18. Works Program

The Contractor shall provide a comprehensive (PM Project's format) construction works program with the fourteen (14) days of receiving his/her appointment letter.

18.1 Pre-Construction Preparation Activities

Prior to the start of any construction of properties within the Department of Public Work and Infrastructure – Kimberley Reginal Offices Consent Order boundaries, the following pre-construction preparation activities will be implemented and maintained throughout the course of the project:

- **A Construction Work Plan** (this document) that describes the means and methods for executing the Work, including general sequencing of the Work, excavation procedures, the use of the Site for staging, stockpiling, and other activities, security measures and personnel to secure the Site work areas, contractors equipment and materials as well as protecting the private property during non-working hours including weekends and holidays and where residents have been temporarily relocated.
- **A Health and Safety Plan** that defines the requirements and designates protocols to be followed during action at the site, to maintain safe and healthful working conditions, to provide and ensure the use of all necessary personnel protection equipment to assure the safety and health of site employees and the general public, to require that site work be planned to provide a range of protection based on the degree of hazards encountered under actual working conditions and provide workers with the information and training required to make them fully aware of known and suspected hazards that may be encountered, and of the appropriate methods for protecting themselves, their co-workers, and the public at large. Work performed under this contract will comply with applicable with the Occupational Health laws and regulations.
- **A Construction Quality Control Plan** identifying personnel procedures, instructions, records and forms to be used in carrying out the requirements of the Project. It will provide the means to maintain effective Quality Controls for construction, sampling and testing activities.
- **A Quality Assurance Project Plan** which describes the quality assurance, quality control, and other technical activities that will be implemented to ensure that sampling and analyses are performed in order to meet applicable data quality objectives for the project.
- **A Dust Control/Air Monitoring Plan** detailing the requirements to minimize dust generation during work execution and the necessary air monitoring that will be implemented to identify and quantify safety and health hazards and airborne levels of particulates or dust. The air sampling program will be used to assure proper selection of engineering controls, work practices and personal protective equipment for affected site workers and will also evaluate the potential impacts to adjacent offices and Employers employees.



19. Occupation of the Building

- 19.1 The Contractor must make provision for operational methods how to work on an occupied building by the Employer. The Contractor should notified the Employer on a daily bases about the sectional installation operation to avoid disruption and noise population.
- 19.2 The contractor must make two weeks in advance or pre-arrangement to notify the Employer before any construction activities could take place within the offices blocks.



KIMBERLEY: DPWI KIMBERLEY REGIONAL OFFICES REPLACEMENT OF AIRCONDITIONING SYSTEM

MECHANICAL INSTALLATION COMPREHENSIVE CONTRACT

PART 3

SUPPLEMENTARY TECHNICAL SPECIFICATIONS



AIR CONDITIONING AND VENTILATION SYSTEMS INSTALLATION

SUPPLEMENTARY TECHNICAL SPECIFICATION

1. GENERAL

This specification consecutively is for the supply, delivery and installation of Air Conditioning and Ventilation Installations of VRV (Variable Refrigerant Volume) systems. Each System comprises of wall mounted indoor units, cassette type indoor units and Condensing outdoor units. All these indoor units are linked to a centre single outdoor unit through refrigeration piping as shown in Drawings. There is also an independent rooftop unit serving the courtroom. This specification is to read as forming part of the Department of Public Works Standard Specification for Air Conditioning and Ventilation Installations, Issue XI, 1998. The clauses referred to herein be clauses of the Standard Specification, relevant clauses not specifically mentioned shall also apply.

- All equipment and installations detailed in this specification shall comply with the requirements of the Occupational Health and Safety Act 85 of 1993.
- The Department's Standard Specification for Electrical Installations and Electrical Equipment pertaining to Mechanical Services, Issue IXa, December 1999, shall also apply to this contract.
- Where conditions are at variance, this supplementary specification will have preference over both Standard Specifications and drawings.
- Copies of the Standard specifications are obtainable from the Director-General: Public Works, Private Bag X 65, Pretoria, 0001. All Standard Specifications are also available on the Department's Website [www.publicworks.gov.za].

2. CONTRACT PRICE ADJUSTMENT AND VALUE ADDED TAX

The contract sum will be adjusted in accordance with the **Contract Price Adjustment Provisions** (CPAP) as set out in the CPAP Manual and Reference guide as prepared by the Joint Building Contracts Committee (JBCC) series 2000, Code 2105, dated May 1998 and any amendments thereto. For the purposes of contract price adjustments for this Contract, work group 170 will be used and the index to be used will be that excluding Value Added Tax.

The following items of equipment shall be priced separately and adjusted on the basis of net cost in terms of clause 3.4.3 to 3.4.5 of the aforementioned document.

(a) Scope of work for the Air Conditioning System:

- Cassette /Underceiling unit (VRV type),
- Condensing units / Outdoor units (VRV type)
- Refrigerant piping layout
- Heat Recovery Controller Boxes (VRV type).
- Fresh Air Supply in-line fan systems.
- Low pressure Fresh air supply ducting.
- Diffusion and louvre grills.
- Wall mounted hard wired remote controllers.
- BMS BACnet gateway installation.
- Rigging
- Electrical installation



3. **COMPREHENSIVE CONTRACTS**

Only specialist sub-contractors who have previously successfully completed mechanical installations of the extent and type specified in this document should be considered.

NOTE: *No changes in make, type or capacity of equipment specified in the schedule of particulars shall be allowed after acceptance of the tender without the written approval of the Department.*

4. **FINAL DELIVERY**

Final delivery shall be as prescribed in clause 1.2 of PW 379.

5. **PERIOD OF LIABILITY**

The period of liability shall be as prescribed in clause 2.1 of PW 379.

6. **MATERIAL AND WORKMANSHIP**

All materials and equipment used shall be new, free from rust, defects, undamaged and be suitable for the purpose for which it will be used. Materials shall comply with the latest issue of the relevant SANS or BS specification where applicable.

If any material or workmanship is not to the satisfaction of the Department, it shall be rectified and/or replaced at the contractor's cost and all rejected material shall immediately be removed from site.

The contractor is responsible for the correct and complete erection of the installation and inspections executed by the Department do not exempt the contractor of this obligation.

(See clause 1.3.0)

7. **MANUFACTURER'S RATINGS**

All equipment shall be able to work within the rated capacity, as determined by the manufacturer. Any equipment offered for use out of these limits will not be considered.

Contractors shall hand in the rated capacities of all equipment as well as descriptive literature with the tender documents.

(See clause 1.8.0)

8. **ALTERNATIVE OFFERS**

The tenderer is advised to offer the installation strictly in accordance with this specification, and if he so desires, he can submit an alternative for any possible deviation.

No tender will be disqualified or not be considered for acceptance on an equal basis with all other tenders solely on the basis of the inclusion of proprietary items which are not specifically mentioned in the tender documents, standard specifications etc. pertaining to this tender, as being acceptable, or in any other context.



Tenderers are to note that for tenders to qualify for acceptance, the properties of the equipment offered must comply with the requirements described in the technical specification and/or standard specifications etc. pertaining to this tender. The suitability of any equipment offered in a tender offer will be judged solely on its quality and performance as specified. Tenderers must, therefore furnish sufficient information to be able to determine the effectiveness, efficiency, durability and other qualities in terms of the specified qualities.

This tender is based on a system designed for the purpose stated in the scope of contract, to perform to specific criteria under specific conditions and to conform to parameters which relates to the effectiveness, efficiency, durability etc. This is to be the final basis of consideration of tenders for acceptability.

Tenderers who are confident that a suitable system, which complies to or exceeds the effectiveness, efficiency, durability and other properties in terms of the specified qualities, are invited to offer such alternative designs. It is, however stressed that the full responsibility rests with the tenderer to amply substantiate, to the satisfaction of the State Tender Board, that the alternative offered will in no way be inferior to the system specified and that initial capital lay-out as well as maintenance and operating cost will not be affected to the disadvantage of the State.

Alternative offers must be accompanied by full details, such as drawings and pamphlets and also a separate Schedule of Prices.

9. **SIMILAR OR EQUAL**

Any trade name mentioned merely serves as a guideline and does not indicate preference for that specific make. The contractor should use the given specifications to they almost best to achieve the operational methodology of the equipment/material they intended to install. Tenderers are at liberty to offer any other equipment and/or materials, which complies with the specification requirements.

10. **DRAWINGS**

The drawings that accompany this specification indicate the position, size of the equipment. Tenderers must satisfy themselves that the equipment offered by them will fit into the available space and can be positioned so that access for maintenance, repair or removals is not encumbered.

NOTE: **All final dimensions are to be verified on site prior to any equipment or material being ordered or manufactured.**

(See clause 1.4.0)

11. **BUILDERS WORK**

All building work such as cutting of openings, making good, plinth for equipment, etc. shall be done by builder contractor and the tenderer must allow for it in their tender price.

12. **PAINTING**

All exposed steel surfaces, excluding new galvanized and stainless steel shall be painted. All steel surfaces to be painted shall be prepared according to SABS 064 (Code



for the preparation of steel surfaces for painting). Thereafter the surfaces shall be painted with a zinc chromate primer to SABS 679 type 1, followed by one coat of Universal undercoat and one final coat of high gloss enamel paint to SABS 630 Grade 1, the colour of which shall be determined by the Department's Representative.

(See clause 3.13.0)

13. **MAINTENANCE AND SERVICING**

(See clause 2.0 to 2.5.2 section 8)

14. **COMMISSIONING AND TESTING**

(See clause 1.12.0 to 1.20.0)

15. **SCOPE OF CONTRACT**

The scope of contract covers but not limited to the following:

SUPPLY, DELIVERY, INSTALLATION, COMMISSIONING, TESTING, HANDING OVER AND MAINTANANCE AS SPECIFIED OF THE FOLLOWING SYSTEMS AND EQUIPMENT (*SLIM INDOOR UNITS*)

The contract shall include but limited to:

- (a) Samsung or equal approved cooling slim VRV Heat Recovery 97 x 4way Cassette unit wind-free (600 x 600) including condenser water pump, interface module (MIM-B14) complete with heat recovery, hard wired controller.
- (b) Samsung or equal approved cooling slim VRV Heat Recovery 20 x 4way normal Cassette unit wind-free including condenser water pump, interface module (MIM-B14) complete with heat recovery, hard wired controller
- (c) Samsung or equal approved cooling slim VRV Heat Recovery 4 x 360° Cassette unit wind-free including condenser water pump, interface module (MIM-B14) complete with heat recovery, hard wired controller
- (d) Samsung or equal approved cooling slim VRV Heat Recovery 6 x Underceiling units including condenser water pump, interface module (MIM-B14) complete with heat recovery, hard wired controller
- (e) Ten (10) Samsung or equal approved outdoor (3Ø) VRV condensing heat recovery unit with inverter scroll compressors, inverter fan motors, expansion kit, piping between condenser and controls with BMS BACnet compatible function cooling capacity linked to the indoor units as described.
- (f) The refrigerant copper piping complete with 25mm Armaflex insulation with a Samsung or equal approved indoor Refnet (MXJ-YA1509M), the Y Joint type. And the indoor units connecting through the heating recovery controller boxers as shown on drawings
- (g) Installation of a Building Management System (MIM-B17N) BACnet gateway as described and all its associated apparatus to make the system operational.