NEC3 Engineering & Construction Contract

Between **Airports Company South Africa**
(Registration no: 1993/004149/06)

and **[Insert at**
(Reg No. _____)

for **Design, supply, installations, and commissioning of new Automated Weather Observations Systems (AWOS), as well as Decommissioning of the Existing Automated Weather Observations Systems (AWOS) at George Airport (GA) for a period of 24 months**

Contents:		**No of pages**
Part C1	**Agreements & Contract Data**	**[26]**
Part C2	**Pricing Data**	**[8]**
Part C3	**Scope of Work**	**[42]**
Part C4	**Site Information**	**[3]**

CONTRACT No.:

Part C1: Agreements & Contract Data

Contents:		No of pages
C1.1	**Form of Offer and Acceptance**	**[3]**
C1.2a	**Contract Data provided by the *Employer***	**[14]**
C1.2b	**Contract Data provided by the *Contractor***	**[2]**
C1.3	**Proforma Guarantees**	**[3]**
C1.4	**Occupational Health and Safety Agreement**	**[4]**

C1.1 Form of Offer & Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of services for the **Design, supply, installations, and commissioning of new Automated Weather Observations Systems (AWOS), as well as Decommissioning of the Existing Automated Weather Observations Systems (AWOS) at George Airport (GA) for a period of 24 months.**

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

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

The offered total of the Prices exclusive of VAT is	**R**
Value Added Tax @ 15% is	**R**
The offered total of the amount due inclusive of VAT is	**R**
(in words)	

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

Signature(s) .....

Name(s) .....

Capacity .....

For the tenderer: .....

(Insert name and address of organisation)

Name & signature of witness ..... Date .....

Acceptance

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

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Works Information
Part C4	Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable 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 Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of 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 securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Unless the tenderer (now *Contractor*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s) .....

Name(s) .....

Capacity .....

for the Employer
Airports Company South Africa SOC Limited
George Airport
Cape Twon
Western Cape
South Africa
(Insert name and address of organisation)

Name & signature of witness .....

Date .....

Note: If a tenderer wishes to submit alternative tenders, use another copy of this Form of Offer and Acceptance.

Schedule of Deviations to be completed by the *Employer* prior to contract award

Note:

1. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any 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 Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

	For the tenderer:	**For the Employer**
Signature	.....	.....
Name	.....	.....
Capacity	.....	.....
On behalf of	..... *(Insert name and address of organisation)*	..... *(Insert name and address of organisation)*
Name & signature of witness	.....	.....
Date	.....	.....
	.....	.....

C1.2 ECC3 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option	
		B: Priced contract with bill of quantities
	dispute resolution Option	**W1: Dispute resolution procedure**
	and secondary Options	
		X2 Changes in the law
		X7: Delay damages
		X15: Limitation of *Contractor's* liability for design to reasonable skill and care
		X16: Retention
		X18: Limitation of liability
		Z: *Additional conditions of contract*
	of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)	
10.1	The *Employer* is (Name):	**Airports Company South Africa SOC Limited (reg. no: 1993/004149/06), a juristic person incorporated in terms of the company laws of the Republic of South Africa**
	Address	**Registered office at 24 Johnson Road, The Maples Office Park, Bedfordview, Johannesburg,**
10.1	The *Project Manager* is: (Name)	**TBC**
	e-mail	**TBC**
10.1	The *Supervisor* is: (Name)	**TBC**
	e-mail	**TBC**
11.2(13)	The *works* are	**Design, Supply, Installations and Commissioning of New Automated Weather Observation Systems (AWOS), as well as Decommissioning of the**

		Existing Weather Observation Systems (AWOS) at George Airport (GA) for a period of 24 months
11.2(14)	The following matters will be included in the Risk Register	• Availability of As-Built information • Access to Site • Site Constraints and Constructability • Long lead items • Weather conditions • Existing services • Project Program delay • Payment delay
11.2(15)	The *boundaries of the site* are	**George Airport**
11.2(16)	The Site Information is in	**Part 4: Site Information section of this contract**
11.2(19)	The Works Information is in	**Part 3: Scope of Work of this contract and all documents to which it makes reference.**
12.2	The *law of the contract* is the law of	**the Republic of South Africa**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**Seven (7) working days**
2	**The *Contractor's* main responsibilities**	**Data required by this section of the core clauses is provided by the *Contractor* in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.**
3	**Time**	
11.2(3)	The *completion date* for the whole of the *works* is	**Twenty-Four (24) months upon signing of the contract by ACSA**
30.1	The *access dates* are:	**One (1) week after signing the contract by ACSA or after issuing the BPA**
31.1	The *Contractor* is to submit a first programme for acceptance within	**Two (2) weeks after signing the contract by ACSA or after issuing the BPA**
31.2	The *starting date* is	**Starting Date to be decided upon award**
32.2	The *Contractor* submits revised programmes at intervals no longer than	**Four (4) weeks.**
35.1	The *Employer* is not willing to take over the *works* before the Completion Date.	**The Employer and Others will have access to the works during construction or prior to completion. Such access by the Employer and Others shall not relieve the Contractor from liability for the completion of the works in accordance with the Works Information and in terms of this contract.**
4	**Testing and Defects**	
42.2	The *defects date* is	**12 months after Completion of the whole of the *works*.**
43.2	The *defect correction period* is	**Two (2) weeks**
47	The Contractor submits a quality plan for	**Two (2) weeks after signing the contract by ACSA**

	acceptance within:	**or after issuing the BPA**

5 Payment

50.1	The *assessment interval* is	**Four (4) weeks.**
51.1	The *currency of this contract* is the	**South African Rand.**
51.2	The period within which payments are made is	**Upon four (4) weeks after receipt of valid tax invoice.**

6 Compensation events

60.1(13)	The place where weather is to be recorded is:	**Weather recording stations closest to George Airport.**
	The *weather measurements* to be recorded for each calendar month are,	**the cumulative rainfall (mm)** **the number of days with rainfall more than 10 mm** **the number of days with minimum air temperature less than 0 degrees Celsius** **the number of days with snow lying at 09:00 hours South African Time** **and these measurements:**
	The *weather measurements* are supplied by	**South African Weather Services**
	The *weather data* are the records of past *weather measurements* for each calendar month which were recorded at:	**Weather recording stations closest to George Airport**
	and which are available from:	**the South African Weather Bureau**

7 Title

There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.

8 Risks and insurance

80.1	These are additional *Employer*'s risks	**None**
81.1	The Contractor's Risk	**Add:** *Definition of Force Majeure -* *The following additional conditions must satisfied:* *(1) The Contractor has engaged with the persons responsible for the riot, commotion, disorder, strike or lockout; has met with the persons or leaders; and has recorded the persons or leaders details, their grievances, the organisations involved, all threats made; and has requested the persons or leaders to cease all unlawful conduct; and*

		(2) The Contractor has obtained proof of the riot, commotion, disorder, strike or lockout, and of any unlawful conduct; and *(3) The Contractor has reported all threats and unlawful conduct to the South African Police Service; and* *(4) The Contractor has brought an urgent application to the court on an ex parte basis that correctly identify the respondents and define the unlawful conduct to be interdicted; and* *(5) The Contractor has ensured that the court order is enforced.*
84.1	The *Employer* provides these insurances from the Insurance Table	**See Annexure C to this Contract Data provided by the Employer.**
84.1	The *Employer* provides these additional insurances	**None**
84.1	The *Contractor* provides these additional insurances	The Insurance Clauses which is attached at the end of the Contract Data. The insurances are in the joint names of the Parties and provide cover for events which are at the Contractor's risk from the starting date until the Defects Certificate or a termination certificate has been issued.
84.2	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is	**As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the *Contractor's* common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R [●].**
9	**Termination**	**There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.**
10	**Data for main Option clause**	
B	**Priced contract with bill of quantities**	**Refer to Contract Data Part C2: Pricing Data, Bill of Quantities as per tender submission**
11	**Data for Option W1**	
W1.1	The *Adjudicator* is	**The person selected from the panel of adjudicators listed in Annexure B of this Contract Data, by the party intending to refer a dispute to him.**
W1.2(3)	The *Adjudicator nominating body* is:	**The Chairman of the Johannesburg Society of Advocates, or his successor or his nominee.**
W1.4(2)	The *tribunal* is:	**Arbitration.**
W1.4(5)	The *arbitration procedure* is	**The latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor**

		body.
	The place where arbitration is to be held is	**In the city where the Site is located, within South Africa.**
	The person or organisation who will choose an arbitrator - if the Parties cannot agree a choice or - if the arbitration procedure does not state who selects an arbitrator, is	**the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.**

12 Data for secondary Option clauses

X2	**Changes in the law**	**There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.**
X7	**Delay damages**	
X7.1	Delay damages for Completion of the whole of the *works* are	Amount per day is 0.05%, to the maximum of 10% of the Contract value
X13	**Performance bond**	
X13.1	The amount of the performance bond is	**10% of the contract value. Pro-forma draft of a performance bond to be used is attached to this contract.**
X15	**Limitation of the *Contractor*'s liability for his design to reasonable skill & care**	**There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.**
X16	**Retention**	
	The *retention percentage* is	**5% of the Contract value.**
X18	**Limitation of liability**	
X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to:	**Nil - Neither Party is liable to the other for any consequential or indirect loss, including but not limited to loss of profit, loss of income or loss of revenue**
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to:	**Total of the losses incurred and/or repairs to the damages caused**
X18.3	The *Contractor*'s liability for Defects due to his design which are not listed on the Defects Certificate is limited to	**Total of the losses incurred and/or repairs to the damages caused**
X18.4	The *Contractor*'s total liability to the *Employer* for all matters arising under or in connection with this contract, other than excluded matters, is limited to:	**The total of the losses incurred and/or repairs to the damages caused other than for the additional excluded matters.** **The *Contractor's* total liability for the additional excluded matters is not limited.** **The additional excluded matters are amounts for which the *Contractor* is liable under this contract**

		for • **Defects due to his design which arise before the Defects Certificate is issued,** • **Defects due to manufacture and fabrication outside the Site,** • **loss of or damage to property (other than the *works*, Plant and Materials),** • **death of or injury to a person;** • **damage to third party property; and** • **infringement of an intellectual property right.**
X18.5	The *end of liability date* is	**The date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.**
Z	**The *Additional conditions of contract* are**	**Z1 to Z24 below.**

AMENDMENTS TO THE CORE CLAUSES

Z1 Interpretation and the law

Z1.1 **Add to core clause 12.3:** Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the *Project Manager*, the *Supervisor*, or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.

Z1.2 **Add the following as a new core clause 12.5:**

Z1.2.1 In this contract:

Z1.2.1.1 references to any Party to the Contract include its successors or permitted assigns;

Z1.2.1.2 references to the Contractor include the obligations of its personnel;

Z1.2.1.3 the references to the provisions of any law include such provisions as amended, re-enacted or consolidated from time to time in so far as such amendment, re-enactment or consolidation applies or is capable of applying to any works under this Contract;

Z1.2.1.4 references to this Contract and any deed, Contract or instrument are deemed to include references to this Contract or such other deed, agreement or instrument as amended, novated, supplemented, varied or replaced from time to time;

Z1.2.1.5 references to a "person" include a natural person, company or any other artificial person or other corporate entity, a charity, trust, partnership, joint venture, syndicate, or any other association of persons;

Z1.2.1.6 references to “month” means a calendar month;

Z1.2.1.7 headings are for convenience only and are not taken into consideration in the interpretation of the Contract;

Z1.2.1.8 where any number of days is prescribed, those days are reckoned exclusively of the first and inclusively of the last day unless the last day falls on a day that is not a working day, in which event the last day is the next succeeding working day;

Z1.2.1.9 any provision in Contract that is or may become illegal, invalid or unenforceable in any jurisdiction is

ineffective to the extent of such prohibition or unenforceability in such jurisdiction and is treated as severed from the balance of Contract in such jurisdiction, without invalidating the remaining provisions of Contract in such jurisdiction or affecting it in any other jurisdiction;

Z1.2.1.10 references to any amount means that amount exclusive of VAT, unless the amount expressly includes VAT;

Z1.2.1.11 the rule of construction that if general words or terms are used in association with specific words or terms that are a species of a particular genus or class, the meaning of the general words or terms shall be restricted to that same class shall not apply, and whenever the word "including" is used followed by specific examples, such examples shall not be interpreted so as to limit the meaning of any word or term to the same genus or class as the examples given;

Z1.2.1.12 the rule of construction that the Contract is interpreted against or to the disadvantage of the party responsible for the drafting or preparation of Contract does not apply;

Z1.2.1.13 words and abbreviations that have well known technical or trade meanings are used in the Contract in accordance with such recognized meanings;

Z1.2.1.14 references to a "*subsidiary*" or a "*holding company*" is references to a direct or indirect subsidiary or holding company as defined in the law of the jurisdiction of the place of incorporation of the company that has a subsidiary or holding company and "affiliate" is any company that is under common control with such subsidiary or holding company;

Z1.2.1.15 time is of the essence in the performance of the parties' respective obligations.

Z2 The Project Manager and Supervisor: add the following at the end of core clause 14.2:

Z2.1 The Project Manager and the Supervisor may take an action which they have delegated.

Z3 Early Warning: add the following at the end of core clause 16.2:

Z3.1 The Contractor ensures that a subcontractor attends risk reduction meeting if its attendance would assist in deciding the actions to be taken.

Z4 Providing the Works: Delete core clause 20.1 and replace with the following:

Z4.1 The *Contractor* provides the works in accordance with the Works Information and warrants that the results of the Works, when complete, shall be fit for their intended purpose as stated in the Works Information, and if no such purposes is stated, the ordinary purpose of the Works.

Z5 Subcontracting:

Z5.1 **The following clause is added as a new core clause 26.4:** "Within 5 days of request by the *Project Manager*, the Contractor provides proof to the *Project Manager* that the Contractor's payment obligations towards its Subcontractors have been discharged. Failure by the Contractor to provide such proof to the satisfaction of the *Project Manager* entitles the *Employer* to instruct the *Project Manager* to certify payment directly to any such Subcontractor and the *Contractor* shall have no recourse to recover such amounts from the *Employer*. Such direct payment do not create privity of contract between the Employer and such Subcontractor. The *Employer* may recover such direct payment from the *Contractor*."

Z6 Other responsibilities: add the following at the end of core clause 27:

Z6.1 The *Contractor* has satisfied himself, prior to the Contract Date, as to the completeness, sufficiency and accuracy of all information and drawings provided to him as at the Contract Date.

Z6.2 The *Contractor* is responsible for the correct setting out of the *Works* in accordance with the original points, lines and levels stated in the *Works* Information or notified by the *Project Manager*, *Supervisor* or the *Employer*. Any errors in the positioning of the *Works* are rectified by the *Contractor* at the *Contractor's* own costs.

Z7 **Acceleration: add the following new provisions at the end of core clause 36:**

Z7.1 The Project Manager's reply is either:

Z7.1.1 A notification that the quotation is accepted, in which case, the *Project Manager* changes the Prices, Completion Date and Key Dates and accepts the revised programme; or

Z7.1.2 A notification that the quotation is not accepted and that the Prices, Completion Date and Key Dates are not changed.

Z8 **Extending the defects date: add the following as a new core clause 46:**

Z8.1 If the *Employer* cannot use the *works* due to a Defect, which arises after Completion and before the *defects date*, the *defects date* is delayed by a period equal to that during which the *Employer*, due to a Defect, is unable to use the *works.*

Z8.2 If part of the *works* is replaced due to a Defect arising after Completion and before the *defects date*, the *defects date* for the part of the *works* which is replaced is delayed by a period equal to that between Completion and the date by when the part has been replaced.

Z8.3 The *Project Manager* notifies the *Contractor* of the change to a *defect date* when the delay occurs. The period between Completion and an extended *defects date* does not exceed twice the period between Completion and the *defects date* stated in the Contract Data.

Z9 **Quality Management System: add the following as a new core clause 47:**

Z9.1 The *Contractor* implements and maintains a quality management system with the requirements stated in the Works Information.

Z9.2 Within the period stated in the Contract Data, the *Contractor* provides the *Project Manager* with a quality plan for acceptance. A reason for not accepting the quality plan is that it does not allow for the *Contractor* to Provide the Works.

Z9.3 If any changes are made to the quality plan, the *Contractor* provides the *Project Manager* with the changes quality plan for acceptance.

Z9.4 The *Project Manager* may instruct the *Contractor* to correct a failure to comply with the quality plan. This instruction is not a compensation event.

Z10 **Assessing the amount due:**

Z10.1 **Delete the second bullet point of core clause 50.1 and replace with the following:** "within thirteen weeks of termination of this Contract"

Z11 **Final assessment: add the following as a new core clause 53:**

Z11.1 The *Project Manager* makes a final assessment and certifies final payment in accordance with the Contract. The final payment is made within four weeks of the assessment.

Z11.2 An assessment of the final amount due is conclusive evidence of the final amount due under or in connection with the Contract, unless a Party raises a dispute in relation to the assessment of the final amount due.

Z11.3 The assessment of the final amount due is changed to include any agreement the Parties reached and/or a decision of the Adjudicator which has not been referred to the tribunal within four weeks of that decision. The changed assessment becomes conclusive evidence of the final amount due under or in connection with the Contract.

Z12 **Notifying compensation events:**

Z12.1 **Delete the last sentence in core clause 61.3 and replace with the following:** "If the *Contractor*

does not notify a compensation event within four weeks of becoming aware of the event, he is not entitled to a change in the Prices, the Completion date or a Key Date and the *Employer* is absolved from all liability in relation to such event."

Z13 **Assessing compensation events:**

Z13.1 **The following is added at the end of core clause 63.4:** "the *Contractor* shall only be entitled to changes to the Prices, the Completion Date and/or the Key Date if the compensation event affects the critical path."

Z14 **Termination**

Z14.1 **Add the following to core clause 91.1, at the second main bullet, fifth sub-bullet point, after the words "assets or":** "business rescue proceedings are initiated or steps are taken to initiate business recue proceedings".

AMENDMENTS TO THE SECONDARY OPTION CLAUSES

Z15 **Changes in Law: Add the following clause to secondary option X2 as X2.2:**

Z15.1 A change in law is defined as:

Z15.1.1 the adoption, enactment, promulgation, coming into effect, repeal, amendment, reinterpretation, change in application or other modification after the Contract Date of any law, excluding (i) the enactment of any bill inside the country, but only if such bill is enacted without any material changes being made to the contents of such bill from the form published in the Gazette (as defined in the Interpretation Act, 1957) as at the Contract Date, and (ii) any such modification in law relating to any taxes, charges, imposts, duties, levies or deductions that are assessed in relation to a person's income

Z15.1.2 any permit being terminated, withdrawn, amended, modified or replaced, other than (i) in accordance with the terms upon which it was originally granted, (ii) as a result of the failure by the *Contractor* to comply with any condition set out therein, or (iii) as a result of any act or omission of the *Contractor*, any Subcontractor or any affiliate to the *Contractor*.

Z16. **Delay damages: add the following to secondary Option X7 (if applicable in this contract)**

Z16.1 If the amount due for the *Contractor*'s payment of delay damages reaches the limits stated in this Contract Data for Option X7, the *Employer* may, at its sole discretion, terminate the *Contractor*'s obligation to Provide the Works.

Z16.2 If the *Employer* terminates in terms of this clause, the procedures and payment on termination as those applied for reasons R1 to R15 or R18 stated in the Termination Table

Z17 **Performance Bond**

Z17.1 **Amend the first sentence of clause X13.1 to read as follows:** The *Contractor* gives the *Employer* an unconditional, on-demand performance bond, provided by a bank or insurer which the *Project Manager* and the *Employer* have accepted, for the amount stated in the Contract Data and in the form set out in Annexure B of this Contract Data.

Z17.2 **Add the following new clause as Option X13.2:** The *Contractor ensures* that the performance bond is valid and enforceable until the end of the *contract period.* If the terms of the performance bond specify its expiry date and the end of the *contract period* does not coincide with such expiry date, four weeks prior to the said expiry date, the *Contractor* extends the validity of the performance bond until the end of the *contract period.* If the *Contractor* fails to so extend the validity of the performance bond, the *Employer* may claim the full amount of the performance bond and retain the proceeds as cash security

Z18 **Limitation of liability: Insert the following new clause as Option X18.6:**

Z18.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00.

Z18.2 Notwithstanding any other clause in this contract, any proceeds received from the security bonds and

guarantees provided by the *Contractor* in terms of this Contract and any insurances or any proceeds which would have been received from any insurances but for the conduct of the *Contractor* shall be excluded from the calculation of the limitations of liability listed in the contract.

ADDITIONAL Z CLAUSES

Z19 Cession, delegation and assignment

Z19.1 The *Contractor* shall not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*, which consent shall not be unreasonably withheld. This clause shall be binding on the liquidator/business rescue practitioner /trustee (whether provisional or not) of the *Contractor*.

Z19.2 The *Employer* may, on written notice to the *Contractor*, cede and delegate its rights and obligations under this contract to any person or entity.

Z20 Joint and several liability

Z20.1 If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons, these persons are deemed to be jointly and severally liable to the *Employer* for the performance of the Contract.

Z20.2 The *Contractor* shall, within 1 week of the Contract Date, notify the *Project Manager* and the *Employer* of the key person who has the authority to bind the *Contractor* on their behalf.

Z20.3 The *Contractor* does not materially alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without prior written consent of the *Employer*.

Z21 Ethics

Z21.1 The *Contractor* undertakes:

Z21.1.1 not to give any offer, payment, consideration, or benefit of any kind, which constitutes or could be construed as an illegal or corrupt practice, either directly or indirectly, as an inducement or reward for the award or in execution of this contract;

Z21.1.2 to comply with all laws, regulations or policies relating to the prevention and combating of bribery, corruption and money laundering to which it or the *Employer* is subject, including but not limited to the Prevention and Combating of Corrupt Activities Act, 12 of 2004.

Z21.2 The *Contractor*'s breach of this clause constitutes grounds for terminating the *Contractor*'s obligation to Provide the Works or taking any other action as appropriate against the *Contractor* (including civil or criminal action). However, lawful inducements and rewards shall not constitute grounds for termination.

Z21.3 If the *Contractor* is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices, including but not limited to the making of offers (directly or indirectly), payments, gifts, gratuity, commission or benefits of any kind, which are in any way whatsoever in connection with the contract with the *Employer*, the *Employer* shall be entitled to terminate the contract in accordance with the procedures stated in core clause 92.2. The amount due on termination is A1.

Z22 Confidentiality

Z22.1 All information obtained in terms of this contract or arising from the implementation of this contract shall be treated as confidential by the *Contractor* and shall not be used or divulged or published to any person not being a party to this contract, without the prior written consent of the *Project Manager* or the *Employer*, which consent shall not be unreasonably withheld.

Z22.2 If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until otherwise notified by the *Project Manager*.

Z22.3 This undertaking shall not apply to –

Z22.3.1 Information disclosed to the employees of the *Contractor* for the purposes of the implementation of this agreement. The *Contractor* undertakes to procure that its employees are aware of the confidential nature of the information so disclosed and that they comply with the provisions of this clause;

Z22.3.2 Information which the *Contractor* is required by law to disclose, provided that the *Contractor* notifies the *Employer* prior to disclosure so as to enable the *Employer* to take the appropriate action to protect such information. The *Contractor* may disclose such information only to the extent required by law and shall use reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed;

Z22.3.3 Information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time);

Z22.4 The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*.

Z22.5 The *Contractor* ensures that all his Subcontractors abide by the undertakings in this clause.

Z23 Liens and Encumbrances

Z23.1 The *Contractor* keeps the Equipment used to Provide the Services free of all liens and other encumbrances at all times. The *Contractor,* vis-a-vis the *Employer,* waives all and any liens which he may from time to time have, or become entitled to over such Equipment and any part thereof and procures that his Subcontractors similarly, vis-a-vis the *Employer,* waive all liens they may have or become entitled to over such Equipment from time to time

Z24 Intellectual Property

Z24.1 Intellectual Property ("IP") rights means all rights in and to any patent, design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works.

Z24.2 IP rights remain vested in the originator and shall not be used for any reason whatsoever other than carrying out the *works.*

Z24.3 The *Contractor* gives the *Employer* an irrevocable, transferrable, non-exclusive, royalty free licence to use and copy all IP related to the *works* for the purposes of constructing, repairing, demolishing operating and maintaining the works.

Z24.4 The written approval of the *Contractor* is to be obtained before the *Contractor*'s IP made available to any third party which approval will not be unreasonably withheld or delayed. Prior to making any *Contractor*'s IP available to any third party the *Employer* shall obtain a written confidentiality undertaking from any such third party on terms no less onerous than the terms the *Employer* would use to protect its IP.

Z24.5 The *Contractor* shall indemnify and hold the *Employer* harmless against and from any claim alleging an infringement of IP rights (**"the claim"**), which arises out of or in relation to:

Z24.5.1 the *Contractor's* design, manufacture, construction or execution of the Works;

Z24.5.2 the use of the *Contractor's* Equipment, or

Z24.5.3 the proper use of the Works.

Z24.6 The *Employer* shall, at the request and cost of the *Contractor*, assist in contesting the claim and the *Contractor* may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it.

Annexure A: Pro forma Security Bonds and Guarantee

[Insert applicable security bonds and guarantees]

Annexure B: ACSA Panel of Adjudicators

One of the following adjudicators shall be selected by the referring party as and when a dispute arises. This panel is valid for a period of three years, commencing on 1 May 2020.

Potential Adjudicator	**Email Address**	**Chamber**
Adv. Mkhululi Duncan Stubbs	duncan.stubbs@gmail.com	Thulamela Chambers
Adv. Arzhar Bham SC	bhamae@law.co.za	Victoria Mxenge
Adv. Mohhamed Chohan SC	chohann@counsel.co.za	Group One
Adv. Benny Makola	benny.makola@gmail.com	Group 621
Adv. Vincent Maleka SC	ivmaleka@mweb.co.za	Thulamela Chambers
Adv. Chris Loxton SC	loxton@counsel.co.za	Group One

Annexure C: ACSA Insurance Clauses

The successful bidder must provide proof of insurance for the insurances listed under paragraph 1.6 a), b), c) and d) in the attached annexure G.

Proof of insurance must be submitted before the work starts.

C1.2 Contract Data

Part two - Data provided by the *Contractor*

Notes to a tendering contractor:

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)[1] in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 152 to 154 of the ECC3 Guidance Notes.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
3. Where a form field like this [ ] appears, data is required to be inserted relevant to the option selected. Click on the form field ***once*** and type in the data. Otherwise complete by hand and in ink.

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The *Contractor* is (Name): Address Tel No. Fax No.	
11.2(18)	The *working areas* are the Site and	**Only Site Area. See C4: Site Information**
24.1	The *Contractor's* key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job Responsibilities: Qualifications: Experience:	**CV's (and further key persons data including CVs) are appended to Tender Schedule entitled .**

[1] Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see www.ecs.co.za

11.2(3)	The *completion date* for the whole of the *works* is	**Twenty-Four (24) months upon signing of the contract by ACSA or Upon issuing of the Blanket Purchase Agreement (BPA)**
11.2(14)	The following matters will be included in the Risk Register	• Existing Services • Access to Site • Delay in supply of material and/or equipment • Progress of the works against the program • Travelling public and ACSA stakeholders • Long lead items • Weather conditions • Existing services • Project Program delay • Payment delay
11.2(19)	The Works Information for the *Contractor*'s design is in:	Part C3 'Scope of Works' section of this contract
31.1	The programme identified in the Contract Data is	Program schedule as per tender submission
B	**Priced contract with bill of quantities**	
11.2(21)	The *bill of quantities* is in	
11.2(31)	The tendered total of the Prices is	**(in figures)** **(in words), excluding VAT**

Annexure B: Forms of Securities

Pro formas for Bonds & Guarantees

Pro forma Performance Bond – Demand Guarantee (for use with Option X13)

[To be reproduced exactly as shown below on the letterhead of the Bank providing the Bond / Guarantee]

For use with the NEC3 Engineering and Construction Contract (April 2013)

Guarantor's reference No.

The Airports Company South Africa SOC Limited
George Airport
George
Western Cape
South Africa

Date:

Dear Sirs,

Performance Bond – Demand Guarantee for [insert name of *Contractor*] required in terms of contract [insert *Contractor's* contract reference number or title]

1. In this Guarantee the following words and expressions shall have the following meanings:-

1.1	"**Guarantor**"	means **[insert]**
1.2	"**Guarantor's Address**"	means**[insert]**
1.3	"**Contract**" means	means the construction contract entered into between the Employer and the Contractor (Contract Reference No._____ and such amendments or additions to the Contract as may be agreed in writing between the parties.
1.4	"**Contractor**"	means **[insert]**
1.5	"**Employer**"	means the Airports Company South Africa SOC Limited, a company registered in accordance with the laws of the South Africa
1.6	"**Expiry Date**"	means the earlier of • the date that the Bank receives a notice from the Employer stating that all amounts due from the Contractor as certified in terms of the contract have been received by the Employer and that the Contractor has fulfilled all his obligations under the Contract, or • the date that the Bank issues a replacement Bond for such lesser or higher amount as may be required by the Employer.
1.7	"**Guaranteed Sum**"	means **[insert]**

1.8	"**Works**"	means **[insert]**

2. The Guarantor's liability shall be limited to the Guaranteed Amount.

3. The Guarantor's period of liability shall be from and including the date of issue of this Guarantee and up to and including the Expiry Date or the date of payment in full of the Guaranteed Amount, whichever occurs first. The Project Manager and/or the Employer shall advise the Guarantor in writing of the date on which the Certificate of Completion of the Works has been issued.

4. The Guarantor hereby acknowledges that:

   a. any reference in this Guarantee to the Contract is made for the purpose of convenience and shall not be construed as any intention whatsoever to create an accessory obligation or any intention whatsoever to create a suretyship; and

   b. its obligation under this Guarantee is restricted to the payment of money.

5. The Guarantor hereby undertakes to pay the Employer any sum or sums not exceeding the Guarantee Amount in total, upon receipt of a written demand delivered to the Guarantor's Address, stating that the Contractor is in breach of its obligations under the Contract (without being required to prove the nature of the breach and the amount claimed. The written demand shall be signed by the Employer and be accompanied by the original Guarantee.

6. Payment by the Guarantor, in terms of this Guarantee, shall be made within seven (7) calendar days upon receipt of the Employer's written demand to the Guarantor.

7. The obligations under this Guarantee constitute direct primary, irrevocable and unconditional obligations, do not require any previous notice to or claim against the Contractor, and shall not in any way be released or discharged or otherwise absolved of liability hereunder by reason of any arrangement or change in relationship made between the Contractor and the Employer and/or between the Guarantor and Contractor; nor any alteration in the obligations undertaken by the Contractor or in the terms of the Contract; nor any indulgence, failure, delay by the Employer as to any matter; nor any dissolution or liquidation or such other analogous event of the Contractor (whether or not the Guarantor has notice thereof).

8. The Employer shall have the absolute right to arrange his affairs with the Contractor in any manner which the Employer may deem fit and the Guarantor shall not have the right to claim his release from this Guarantee on account of any conduct alleged to be prejudicial to the Guarantor.

9. All payments made by Guarantor shall be due and payable in the amount specified in any payment demand made in respect hereof by the Employer and shall be made free and clear of and without any deduction for or on account of any tax or future taxes, levies, imposts, duties, charges, fees, set off, counterclaims, deductions or withholdings of any nature whatsoever and by whomever imposed. All charges of the Guarantor related to the issuance or performance of this Guarantee (including, but not limited to, the negotiation, payment, extension or transfer hereof) shall be borne by the Contractor and under no circumstances shall be charged to the Employer by the Guarantor.

10. This Guarantee shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the High Court of the Republic of South Africa.

11. This Guarantee, with the required demand notice, shall be regarded as a liquid document for the purposes of obtaining a court order.

12. The Guarantor chooses as its *domicilium citandi et executandi* for all purposes in connection with this Guarantee at the Guarantor's Address.

13. If at any time any one or more of the provisions of this Guarantee is or becomes illegal, invalid or otherwise unenforceable in any respect neither the legality, validity or enforceability of the remaining provisions of this Guarantee, nor the legality, validity or enforceability of such provision, under the law shall in any way be affected or impaired as a result.

SIGNED at _____on _____Day of_____ 202__

For and on behalf of the **GUARANTOR**, duly authorised and warranting such authority

Full Name: _____

Capacity: _____

Witness: _____

[Insert Guarantor's stamp]

C1.4 Occupational Health and Safety Agreement

OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH & SAFETY ACT (ACT 85 Of 1993) & CONSTRUCTION REGULATION 5.1(k)

OBJECTIVES

To assist Airport Company South Africa (the Employer) in order to comply with the requirements of:

1. The Occupational Health & Safety (Act 85 of 1993) and its regulations and
2. The Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993) also known as the (COID Act).

To this end an Agreement must be concluded before any contractor/ subcontracted work may commence

The parties to this Agreement are:

Name of Organization: **AIRPORTS COMPANY SOUTH AFRICA** **GEORGE AIRPORT**
Physical Address: **Airport Company South Africa** **George Airport** **George** **Western Cape**

Hereinafter referred to as "Client"

Name of organisation:
Physical Address:

Hereinafter referred to as "the Mandatary/ Principal Contractor"

MANDATORY'S MAIN SCOPE OF WORK

_____
_____
_____
_____

GENERAL INFORMATION FORMING PART OF THIS AGREEMENT

1. The Occupational Health & Safety Act comprises of SECTION 1-50 and all unrepealed REGULATIONS promulgated in terms of the former Machinery and Occupational Safety Act No.6 of 1983 as amended as well as other REGULATIONS which may be promulgated in terms of the Act and other relevant Acts pertaining to the job in hand.
2. "Mandatary" is defined as including as agent, a principal contractor or a contractor for work, but WITHOUT DEROGATING FROM HIS/HER STATUS IN HIS/HER RIGHT AS AN EMPLOYER or user of the plant
3. Section 37 of the Occupational Health & Safety Act potentially punishes Employers (PRINCIPAL CONTRACTOR) for unlawful acts or omissions of Mandataries (CONTRACTORS) save where a Written Agreement between the parties has been concluded containing arrangements and procedures to ensure compliance with the said Act BY THE MANDATARY.
4. All documents attached or refer to in the above Agreement form an integral part of the Agreement.
5. To perform in terms of this agreement Mandataries must be familiar and conversant with the relevant provisions of the Occupational Health & Safety Act 85 of 1993 (Occupational Health and Safety Act) and applicable Regulations.
6. Mandatories who utilise the services of their own Mandatories (contractors) must conclude a similar Written Agreement with them.
7. Be advised that this Agreement places the onus on the Mandatary to contact the CLIENT in the event of inability to perform as per this Agreement.
8. This Agreement shall be binding for all work the Mandatary undertakes for the client.
9. All documentation according to the Safety checklist including a copy of the written Construction Manager appointment in terms of construction regulation 8, must be submitted 7 days before work commences.

THE UNDERTAKING

The Mandatary undertakes to comply with:

INSURANCE

1. The Mandatary warrants that all their employees and/or their contractor's employees if any are covered in terms of the COID Act, which shall remain in force whilst any such employees are present on the Client's premises. A letter is required prior commencing any work on site confirming that the Principal contractor or contractor is in good standing with the Compensation Fund or Licensed Insurer.
2. The Mandatary warrants that they are in possession of the following insurance cover, which cover shall remain in force whilst they and /or their employees are present on the Client's premises, or which shall remain in force for that duration of their contractual relationship with the Client, whichever period is the longest.
    a. Public Liability Insurance Cover as required by the Subcontract Agreement.
    b. Any other Insurance cover that will adequately makes provision for any possible losses and/or claims arising from their and /or their Subcontractors and/or their respective employee's acts and/or omissions on the Client's premises.

COMPLIANCE WITH THE OCCUPATIONAL HEALTH & SAFETY ACT 85 OF 1993

The Mandatary undertakes to ensure that they and/or their subcontractors if any and/or their respective employees will at all times comply with the following conditions:

1. All work performed by the Mandatary on the Client's premises must be performed under the close supervision of the Mandatary's employees who are to be trained to understand the hazards associated with any work that the Mandatary performs on the Client's premises.
2. The Mandatary shall be assigned the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act 85 of 1993, if the Mandatary assigns any duty in terms of Section 16(2), a copy of such written assignment shall immediately be forwarded to the Client.
3. The Mandatary shall ensure that he/she familiarise himself/herself with the requirements of the Occupational Health and Safety Act 85 of 1993 and that s/he and his/her employees and any of his subcontractors comply with the requirements.
4. The Mandatary shall ensure that a baseline risk assessment is performed by a competent person before commencement of any work in the Client's premises. A baseline risk assessment document will include identification of hazards and risk, analysis and evaluation of the risks and hazards identified, a documented plan and safe work procedures to mitigate, reduce or control the risks identified, and a monitoring and review plan of the risks and hazards.
5. The Mandatary shall appoint competent persons who shall be trained on any Occupational Health & Safety aspect pertaining to them or to the work that is to be performed.
6. The Mandatary shall ensure that discipline regarding Occupational Health & Safety shall be strictly enforced.
7. Any personal protective equipment required shall be issued by the Mandatary to his/her employees and shall be worn at all times.
8. Written safe working practices/procedures and precautionary measures shall be made available and enforced and all employees shall be made conversant with the contents of these practises.
9. No unsafe equipment/machinery and/or articles shall be used by the Mandatary or contractor on the Client's premises.
10. All incidents/accidents referred to in Occupational Health and Safety Act shall be reported by the Mandatary to the Provincial Director: Department of Labour as well as to the Client.
11. No use shall be made by the Mandatary and/or their employees and or their subcontractors of any of the Client's machinery/article/substance/plant/personal protective equipment without prior written approval.
12. The Mandatary shall ensure that work for which the issuing of permit is required shall not be performed prior to the obtaining of a duly completed approved permit.
13. The Mandatary shall ensure that no alcohol or any other intoxicating substance shall be allowed on the Client's premises. Anyone suspected to be under the influence of alcohol or any other intoxicating substance shall not be allowed on the premises. Anyone found on the premises suspected to be under the influence of alcohol or any other intoxicating substance shall be escorted off the said premises immediately.
14. Full participation by the Mandatary shall be given to the employees of the Client if and when they inquire into Occupational Health & Safety.

FURTHER UNDERTAKING

1. Only a duly authorised representative appointed in terms of Section 16.2 of the Occupational Health and Safety Act is eligible to sign this agreement on behalf of the Mandatary. The signing power of this representative must be designated in writing by the Chief Executive Officer of the Mandatary. A copy of this letter must be made available to the Client.
2. The Mandatary confirms that he has been informed that he must report to the Client's management, in writing anything he/she deems to be unhealthy and /or unsafe. He has versed his employees in this regard.
3. The Mandatary warrants that he/she shall not endanger the health & safety of the Client's employees and other persons in any way whilst performing work on the Client's premises.
4. The Mandatary understands that no work may commence on the Client's premises until this procedure is duly completed, signed and received by the Client.
5. Non-compliance with any of the above clauses may lead to an immediate cancellation of the contract.

ACCEPTANCE BY MANDATARY

In terms of section 37(2) of the Occupational Health & Safety Act 85 of 1993 and section 5.1(k) of the Construction Regulations 2014,

I ……a duly authorised 16.2 Appointee acting for and on behalf of ……(company name) undertake to ensure that the requirements and the provision of the Occupational Health and Safety Act 85 of 1993 and its regulations are complied with.
Mandatary – WCA/ Federated Employers Mutual No…….

Expiry date …….

_____ _____
SIGNATURE ON BEHALF OF MANDATARY **DATE**
(Warrant his authority to sign)

_____ _____
SIGNATURE ON BEHALF OF THE CLIENT **DATE**
AIRPORT COMPANY SOUTH AFRICA

PART 2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option B	
C2.2	The *bill of quantities*	

C2.1 Pricing assumptions: Option B

1.1 General assumptions

1.1.1 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.

1.1.2 The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.

1.1.3 An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*.

1.1.4 The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due.

1.1.5 The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. Detail regarding the extent of the work entailed under each item is provided in the Works Information.

1.2 Pricing Instructions

1.2.1 All Prices are to be shown excluding VAT unless instructed otherwise stated by the Employer in Tender Data or in an instruction the Employer has given before the bidder enters his Prices.

1.2.2 If there is insufficient space in the Price List which follows, state in which document the Price List is contained.

1.2.3 All Prices are to be shown excluding VAT unless instructed otherwise stated by the Employer in Tender

1.2.4 All prices are fixed and firm.

1.2.5 Prices must include customs and duties for items procured overseas.

C2.2 the *bill of quantities*

Airport Training Courses

1. AIT (Airside Induction Training)
   Initial – R 667.00 Excl. VAT
   Refresher – R 506.00 Excl. VAT
2. General Security Awareness Training – R862 (Excl. Vat)

3. Permit Prices

To be requested from the Permit Office.

Use this page as a summary page or as a cover page to the *bill of quantities*.

Part A: Preliminary and General					
Item	**Description**	**UOM**	**QTY**	**Rate**	**Total Amount Excluding VAT**
1	Site Establishment, removal, and cleaning after the completion works	Sum	1		
2	Provisional Sum for Annual Personnel Permit Costs and Airside Induction Training (AIT), AVOP, and Security Awareness Training	Sum	1		
3	Safety File Requirements	Sum	1		
4	Provisional Sum for Vehicle Permits	Sum	1		
5	Forward Cover	Sum	1		
Part A: Preliminary and General: Sub-Total Excluding VAT					

Part B: Design Development					
Item	**Description**	**UOM**	**QTY**	**Rate**	**Total Amount Excluding VAT**
1	Stage 1 Report: Inception report	Sum	1		
2	Stage 2: Concept Viability report (Preliminary Design)	Sum	1		
3	Stage 3: Design Development report (Detailed Design)	Sum	1		
Part B: Design Development					

Part C: Equipment Supply					
Item	**Description**	**UOM**	**QTY**	**Rate**	**Total Amount Excluding VAT**
1	Cloud Sensor	Each	2		
2	Runway Visual Range	Each	3		
3	Atmospheric Pressure Sensor	Each	2		
4	Ultrasonic Wind Sensor	Each	2		
5	Present Weather Sensor	Each	1		
6	Raing Gauge	Each	1		
7	Thunderstorm Lighting Sensor	Each	1		
8	Workstation Desktop PC with AWOS Software	Each	5		
9	AWOS Software plus hardware	Each	1		
10	19" Perforated Stainless-Steel Cabinet (42U) complete with Condensation with 10 years warranty	Each	5		
11	Ceilometer Spares	Each	1		
12	Thunderstorm Lighting Sensor Spares	Each	1		
13	Rain Gauge Spares	Each	1		
14	Wind Sensor Spare	Each	1		
15	Temperature and Humidity Sensor	Each	2		
16	Solar Radiation Sensor	Each	1		
17	Background Luminance	Each	2		
18	Ethernet Ports	Each	2		
19	3KVA Double Conversion UPS with a minimum of 3 hours backup supply	Each	5		
20	Field Calibration Equipment	Sum	1		
21	Provisional Sums for the supply of Electrical Supply Cables (re-measurable at cost plus markup)	Sum	1		
22	Provisional Sum for Supply of Fibre Cable and Communication Accessories (re-measurable at cost plus markup), including integrity test on the fibre	sum	1		
Part C: Equipment Supply: Sub-Total Excluding VAT					

Part D: Installation and Testing					
Item	**Description**	**UOM**	**QTY**	**Rate**	**Total Amount Excluding VAT**
1	Civil works including site preparation, concrete foundations for Masts, Crane Hire	Sum	1		
2	Cloud Sensor	Each	2		
3	Runway Visual Range	Each	2		
4	Atmospheric Pressure Sensor	Each	2		
5	Ultrasonic Wind Sensor	Each	2		
6	Present Weather Sensor	Each	1		
7	Thunderstorm Lighting Sensor		1		
8	Rain Gauge	Each	1		
9	Workstation Desktop PC with AWOS Software	Each	5		
10	AWOS Software	Each	1		
11	19" Perforated Stainless-Steel Cabinet (42U) complete with Condensation with 10 years warranty	Each	5		
12	Provisional Sum for Installation of Fibre Cable and Communication Accessories (re-measurable at cost plus markup), including integrity test on the fibre	sum	1		
13	Provisional Sums for the installation of Electrical Supply Cables	Sum	1		
14	3KVA Double Conversion UPS with a minimum of 3 hours backup supply	sum	1		
15	Temperature Sensor	Each	1		
16	Solar Radiation	Each	1		
17	Background Luminance	Each	2		
18	Ethernet Switch with 12 Ports	Each	2		
19	Test and Commissioning of the AWOS	Sum	1		
Part D: Installation and Testing: Sub-Total Excluding VAT					

Part E: Project Management and Handover					
Item	**Description**	**UOM**	**QTY**	**Rate**	**Total Amount Excluding VAT**
1	Project Management	Sum	1		
2	Handover and completion - submit handover file, manuals, drawings, layouts, testing certificates	Sum	1		
3	Intermediate Maintenance Training for AWOS	Each	7		
4	Tools and Accessories required for the maintenance training (laptop, software)	Sum	1		
5	Produce Fibre Connection and wiring single line diagram and schematics in detail as per the existing installation	Sum	1		
Part E: Project Management and Handover: Sub-Total Excluding VAT					

Summary		
Item	**Description**	**Total Amount Excluding VAT**
1	Part A: Preliminary and General: Sub-Total Excluding VAT	
	Part B: Design Development	
2	Part C: Equipment Supply and Delivery: Sub-Total Excluding VAT	
3	Part D: Installation, Testing and Commissioning: Sub-Total Excluding VAT	
4	Part E: Project Management and Handover: Sub-Total Excluding VAT	
5	**Sub-Total Excluding VAT**	
6	Contingency @ 10%	
7	**Grand Total Excluding VAT** ***(Carry over to Form of Offer and Acceptance)***	

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	*Employer*'s Works Information	
C3.2	*Contractor*'s Works Information	
	Total number of pages	

C3.1: EMPLOYER'S WORKS INFORMATION

Contents

Part 3: Scope of Work **40**
C3.1: Employer's works Information **41**
1 Description of the *works* **44**
1.1 Executive overview 44
1.2 *Employer*'s objectives and purpose of the *works* 46
1.3 Interpretation and terminology 54
2 Management and start up. **55**
2.1 Management meetings 55
2.2 Documentation control 56
2.3 Health and safety risk management 58
2.4 Environmental constraints and management 59
2.5 Quality assurance requirements 59
2.6 Programming constraints 60
2.7 *Contractor*'s management, supervision and key people 60
2.8 Invoicing and payment 61
2.9 Insurance provided by the *Employer* ..... **Error! Bookmark not defined.**
2.10 Contract change management 62
2.11 Provision of bonds and guarantees 62
2.12 Records of Defined Cost, payments & assessments of compensation events to be kept by the *Contractor* ..... **Error! Bookmark not defined.**
2.13 Training workshops and technology transfer 62
3 Engineering and the *Contractor*'s design **64**
3.1 *Employer*'s design 65
3.2 Parts of the *works* which the *Contractor* is to design 65
3.3 Procedure for submission and acceptance of *Contractor*'s design 66
3.4 Other requirements of the *Contractor*'s design 68
3.5 Use of *Contractor*'s design 68
3.6 Design of Equipment 68
3.7 Equipment required to be included in the *works* 68
3.8 As-built drawings, operating manuals and maintenance schedules 68
4 Procurement **70**
4.1 People 70
4.1.1 Minimum requirements of people employed on the Site 70
4.1.2 BBBEE and preferencing scheme 70

4.1.3 Accelerated Shared Growth Initiative – South Africa (ASGI-SA) ... 70
4.2 Subcontracting ... 70
4.2.1 Preferred subcontractors ... 70
4.2.2 Subcontract documentation, and assessment of subcontract tenders ... 70
4.2.3 Limitations on subcontracting ... 70
4.2.4 Attendance on subcontractors ... 70
4.3 Plant and Materials ... 70
4.3.1 Quality ... 70
4.3.2 Plant & Materials provided "free issue" by the *Employer* ... 70
4.3.3 *Contractor*'s procurement of Plant and Materials ... 71
4.3.4 Spares and consumables ... 71
4.4 Tests and inspections before delivery ... 71
4.5 Marking Plant and Materials outside the Working Areas ... 71
4.6 *Contractor*'s Equipment (including temporary works). ... 72
5 Construction ... 73
5.1 Temporary works, Site services & construction constraints ... 73
5.1.1 *Employer*'s Site entry and security control, permits, and Site regulations ... 73
5.1.2 Restrictions to access on Site, roads, walkways and barricades ... 73
5.1.3 People restrictions on Site; hours of work, conduct and records ... 73
5.1.4 Health and safety facilities on Site ... 73
5.1.5 Environmental controls, fauna & flora, dealing with objects of historical interest ... 73
5.1.6 Title to materials from demolition and excavation ... 73
5.1.7 Cooperating with and obtaining acceptance of Others ... 74
5.1.8 Publicity and progress photographs ... 74
5.1.9 *Contractor*'s Equipment ... 74
5.1.10 Equipment provided by the *Employer* ... 74
5.1.11 Site services and facilities ... 74
5.1.12 Facilities provided by the *Contractor* ... 74
5.1.13 Existing premises, inspection of adjoining properties and checking work of Others ... 74
5.1.14 Survey control and setting out of the *works* ... 75
5.1.15 Excavations and associated water control ... 75
5.1.16 Underground services, other existing services, cable and pipe trenches and covers ... 75
5.1.17 Control of noise, dust, water and waste ... 75
5.1.18 Sequences of construction or installation ... 75
5.1.19 Giving notice of work to be covered up ... 75
5.1.20 Hook ups to existing works ... 76
5.2 Completion, testing, commissioning and correction of Defects ... 76
5.2.1 Work to be done by the Completion Date ... 76
5.2.2 Use of the *works* before Completion has been certified ... 76
5.2.3 Materials facilities and samples for tests and inspections ... 76

5.2.4 Commissioning 76
5.2.5 Start-up procedures required to put the *works* into operation 77
5.2.6 Take over procedures 77
5.2.7 Access given by the *Employer* for correction of Defects 77
5.2.8 Performance tests after Completion 77
5.2.9 Training and technology transfer 77
5.2.10 Operational maintenance after Completion 77
6 Plant and Materials standards and workmanship 78
6.1 Investigation, survey and Site clearance 78
6.2 Building works 78
6.3 Civil engineering and structural works 78
6.4 Electrical & mechanical engineering works 78
6.5 Process control and IT works 78
6.6 Other [as required] 78
7 List of drawings 79
7.1 Drawings issued by the *Employer* 79
C3.2 *Contractor*'s Works Information 80

1 Description of the *works*

1.1 Executive overview

The purpose of the Automated Weather Observation System (AWOS) is the provision of meteorological service by providing accurate and real-time weather data for air navigation to contribute towards aviation safety, regularity, flight operations, air traffic operations, and efficiency of international air navigation. AWOS collects, processes, monitors, distributes and archives meteorological data measured by a dedicated set of meteorological sensors located along the runways and provide the South African Weather Services (SAWS), Air Traffic Controllers, and Pilots with necessary meteorological data as defined by the International Civil Aviation Organisation.

The current AWOS system at George Airport requires an upgrade to align with modern technology standards and to ensure continuous, reliable availability of weather data essential for airport safety. Many of the system's sensors have been in operation since 2006, and critical components such as transmitters, receivers, and lenses have degraded over time due to age and environmental exposure. This deterioration compromises the accuracy and reliability of weather measurements, which are vital for safe airport operations.

As a result, it is essential that George Airport's AWOS is upgraded to ensure compliance with the latest ICAO Annex 3 Standards and Recommended Practices (SARPs) and SACAA CATS 139 to ensure that critical users including observers, forecasters, air traffic controllers, and airlines receive accurate and compliant data. An upgrade to the latest AWOS software is recommended to enhance system functionality.

The Automated Weather Observing System (AWOS) at George Airport was first installed in 2005/6, and partial upgrade was done in 2013/14. Below is the summary of the current system at George Airport.

.

1.1.1 Indoor Equipment

The AWOS indoor equipment includes the following:

- Server Room
    - 2 x Redundant Dell servers with windows server license W2008R2S OS and windows 7 operation software
    - AWOS Software
    - Software supporting integration to the Data Acquisition and Integration Devices (DAID) and the Automatic Terminal Information Service (ATIS)
- 4 Times Workstations with at SAWS
    - 1 X ATC
    - 2 X ANTNS
    - 1 X ACSA Electrical Maintenance

1.1.2 Field Equipment

The AWOS field equipment at George Airport are as follows:

- **Runway 29 Threshold**
  - Cloud Sensor
  - Electrical control panel
- **Runway 11 Threshold**
  - Cloud Sensor
  - Electrical control panel
- **Runway 29 Glide Path**
  - Meteorological Station with:
    - Ultrasonic Wind Sensor
    - Pressure Sensor
    - Temperature and Humidity Sensor
    - Rain Gauge
    - Solar Radiation
    - Frangible Mast
  - Visibility Sensor: Present Weather/Runway Visual Range
  - Electrical Control Panel
- **Runway 11 Glide Path**
  - Meteorological Station with:
    - Ultrasonic Wind Sensor
    - Frangible Mast
  - Visibility Sensor: Present Weather/Runway Visual Range
  - Electrical Control Panel
- **Runway 29/11 Mid-point**
  - Thunderstorm Sensor
  - Visibility Sensor: Present Weather/Runway Visual Range
  - Electrical Control Panel

Figure 1 and Table 1 provide more information on the distribution of the Sensors across the length of the runway. The sensors are connected to the AWOS server and indoor equipment via a fibre network.

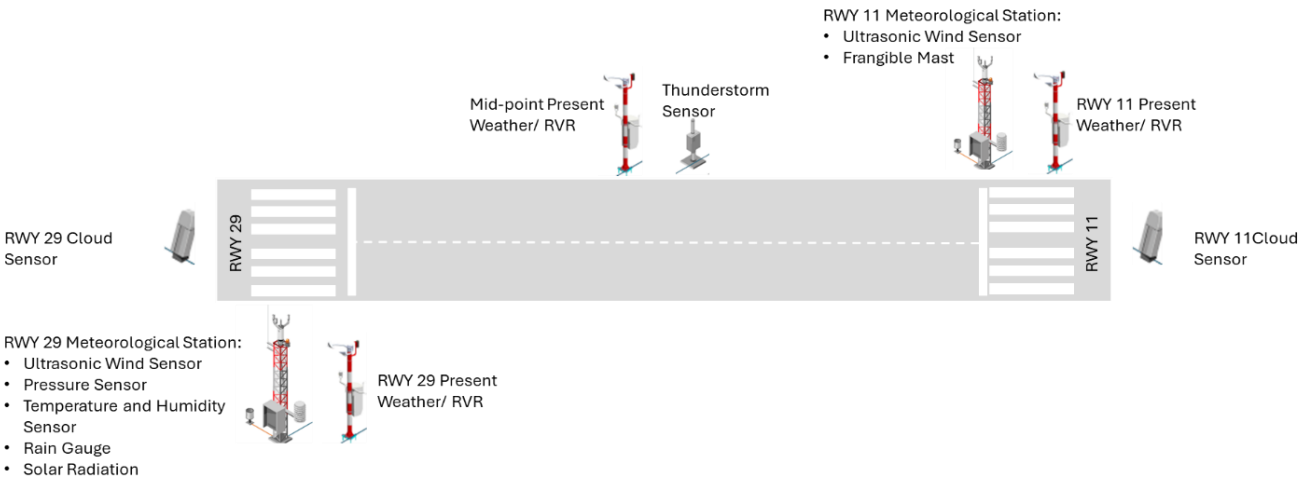

Figure 1: George Airport AWOS Field Devices

Table 1: George Airport AWOS Field Devices

Instrument Systems	RWY 29	Mid-Point	RWY 11
Runway Visual Range	X	X	X
Wind Speed	X		X
Wind Direction	X		X
Atmospheric Pressure	X		
Air Temperature	X		
Air Humidity	X		
Lightning detection		X	
Cloud Sensor	X		X
Rain Gauge (Rain Amount and Rain Detection)	X		
Solar Radiation	X		

1.2 *Employer*'s objectives and purpose of the *works*

1.2.1 General Scope of Work

The scope of work includes the design, supply, installation, testing and commissioning of the new Automated Weather Observing System (AWOS) at George Airport to support Category III operations for Runway 11 and Runway 29. The scope of works shall include the installation of meteorological sensors, control panels and communication interfaces, communication network, the central data processing systems, servers, AWOS

software as well as Uninterruptible Power Supplies (UPS) to ensure full functionality of the AWOS to support airport operations. This shall also include the design of the civil works (foundations) associated with the installation of the field meteorological equipment.

The AWOS shall be designed to deliver high availability, regulatory compliance, operational safety, and system redundancy.

The new AWOS installation shall support both Category II and Category III operations on both approaches. The current Category of operation for runway 29 is Category II, however there are project underway to equip runway 29 with a Category III ready Instrument Landing System. The current Category of operation for runway 11 is Category I, however there are project underway to equip runway 11 with a Category III ready Instrument Landing System and Category II Airfield Ground Lighting.

1.2.2 Field Devices

The installation of the meteorological sensors installed on the runway edges and the glide paths for Runway 11 and Runway 29 shall be exactly the same and shall support Category III operations.

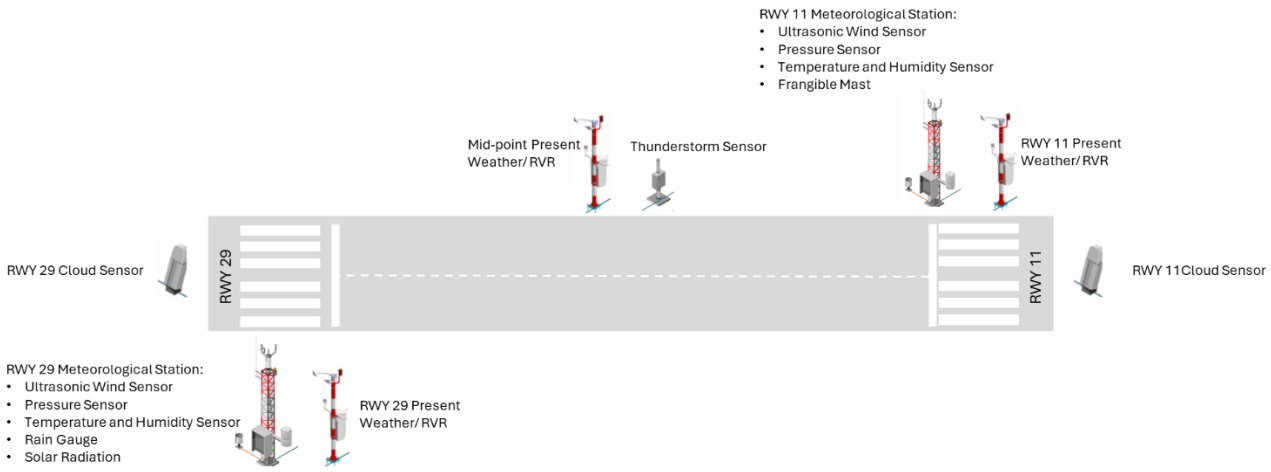

Figure 2: New AWOS field devices location

Table 2: New AWOS Field Devices Location

Instrument Systems	RWY 29	Mid-Point	RWY 11	**Fibre Network**	**Radio Link**
Runway Visual Range	X	X	X	X	X
Wind Speed	X		X	X	X

Wind Direction	X		X	X	X
Atmospheric Pressure	X		X	X	X
Air Temperature	X		X	X	X
Air Humidity	X		X	X	X
Lightning detection		X		X	X
Cloud Sensor	X		X	X	X
Rain Gauge (Rain Amount and Rain Detection)	X			X	X
Solar Radiation	X			X	X

The table below summarises the scope work for the field devices.

LOCATION	SCOPE
Runway 11 Edge	• Cast two concrete foundations for the Cloud Height Sensor and Electrical Control Cabinet • Installation of the 10m radius brick pavement covering the two each concrete foundations alternatively 5m radius bricks pavement covering each concrete foundation • Supply and installation of Cloud Height Sensor • Supply and Installation of Electrical control cabinet • Supply and Installation of rack mounted 3KVA Uninterruptible Power Supply (UPS) with 3 hours backup time
Runway 29 Edge	• Cast two concrete foundations for the Cloud Height Sensor and Electrical Control Cabinet • Installation of the 10m radius brick pavement covering the two or each concreate foundations alternatively 5m radius bricks pavement covering each concrete foundation. • Supply and installation of Cloud Height Sensor • Supply and Installation of Electrical control cabinet • Supply and Installation of rack mounted 3KVA Uninterruptible Power Supply (UPS) with 3 hours backup time
Runway 11 Glide Path	• Cast two concrete foundations: One for the visibility Sensor and One for the Control Cabinet, the Rain Gauge Sensor, and the Mast for mounting all the other sensors. • Installation of the 10m radius brick pavement covering the two or each concreate foundations alternatively 5m radius bricks pavement covering

	each concrete foundation. • Install a 10m galvanised steel mast with frangibility, an obstruction light and steel bird spikes. • Install a 3m galvanised steel mast on its own foundation and mount the visibility sensor. • The following sensors shall be installed on the 10m mast: Luminance, Wind Speed, Wind Direction, Air Temperature, Air Humidity, Pressure, Solar Radiation with each sensor on the fibre and radio communication network. • The Rain Gauge shall be installed on its own mast. • Supply and Installation of Electrical control cabinet • Supply and Installation of rack mounted 3KVA Uninterruptible Power Supply (UPS) with 3 hours backup time
Runway 29 Glide Path	• Cast two concrete foundations: One for the visibility Sensor and One for the Control Cabinet and the Mast for mounting all the other sensors. • Installation of the 10m radius brick pavement covering the two or each concreate foundations alternatively 5m radius bricks pavement covering each concrete foundation. • Install a 10m galvanised steel mast with frangibility, an obstruction light and steel bird spikes. • Install a 3m galvanised steel mast on its own foundation and mount the visibility sensor. • The following sensors shall be installed on the 10m mast: Luminance, Wind Speed, Wind Direction, Air Temperature, Air Humidity, Pressure, Solar Radiation with each sensor on the fibre and radio communication network. • Supply and Installation of Electrical control cabinet • Supply and Installation of rack mounted 3KVA Uninterruptible Power Supply (UPS) with 3 hours backup time
Runway Midpoint	• Cast three concrete foundations: One for the visibility Sensor, One for the Rain Gauge Sensor, and One for the Lightning Detection. • Installation of the 10m radius brick pavement covering the three concrete foundations alternatively 5m radius bricks pavement covering each concrete foundation. • Install a 3m galvanised steel mast on its own foundation and mount/install the visibility sensor. • Installation of the following sensors: Rain Gauge, Lightning Detection, and Visibility with each sensor on the fibre and radio communication network.

	• Supply and Installation of Electrical control cabinet • Supply and Installation of rack mounted 3KVA Uninterruptible Power Supply (UPS) with 3 hours backup time

1.2.3 Data Processing Unit, Server and Computer Hardware Configuration and Software

Installation and supply of:

- Dual redundant data processing units + servers with Dual power supply for the processing units + servers. One unit shall act as master (active unit) while the other one functions as a slave (passive). Upon failure of the master unit, the slave shall automatically assume full functionality without data loss or interruption.
- The Dual redundant data processing units + servers are classified as mission critical load and shall be supplied through an online UPS and backed by a Backup Generator.
- Four Workstation Desktops PC with 17’ monitors, mouse, and keyboard in the following locations:
    - Air Traffic Navigation Services (ATNS) Control Tower
    - South African Weather Services (SAWS) – Observer Station
    - South African Weather Services (SAWS) – Forecaster Station
    - ACSA Control Room
    - Electrical Maintenance Room.

Provision of an AWOS Software:

- Web based display governed by an account login for remote access for use during Disastrous situations or when the office cannot be reached.
- Minimum Sensor Requirements:
    - Single Runway (08 – Threshold) with Inst/2 Min/10Min view:
        - Temperature/Humidity/DewPoint
        - Pressure (QNH)
        - Wind Speed
        - Wind Direction
        - Wind Direction Variation (Backed/Veered)
        - RVR (Horizontal Visibility) TDZ/MID/END
        - Ceilometer (Vertical Visibility)
        - Visibility
        - Pressure QFE
        - Present weather sensor
    - (Centre/Mid):
        - Present Weather Sensor or a duplicate of the above
        - RVR (Horizontal Visibility) TDZ/MID/END
        - Thunderstorm sensor
    - (26 – Threshold) with Inst/2 Min/10Min view
        - Temperature/Humidity/DewPoint

        - Rain 1hr & 24hr
        - Pressure (QNH)
        - Wind Speed
        - Wind Direction
        - Wind Direction Variation (Backed/Veered)
        - RVR (Horizontal Visibility) TDZ/MID/END
        - Ceilometer (Vertical Visibility)
        - Visibility (19)
        - Pressure QFE (19)
- Weather Observed (coded or description)
- Cloud (coded or description)
- Report (METAR/SPECI – coded)
- Runway-in-Use (highlighted)
- Switches (in Software):
    - General Met
    - Live Met View
    - METAR
    - MET Report
    - System Status
    - Cloud/Vis (Cloud Visibility in graphical representation)
    - SYNOP
    - About
- Graphical view of System status and individual variables, thus each sensor, should be included, with 24hr and zoom options to the last 5min.

1.2.4 Data Communication Network

a. Fibre Optic Backbone

All communication between field sensors/devices and the CDUs shall be via a dedicated fibre optic network to ensure high-speed, interference-free, and fault-tolerant data transmission.

The system must accommodate fibre links from remote sensor stations across the full length of both RWY 11 and RWY 29

A real-time fibre network status monitoring system shall be integrated with the AWOS infrastructure. This shall include automatic detection of link failure, device disconnects, and power loss.

A graphical mimic diagram display showing the status of the entire fibre optic network and all AWOS field devices shall be installed at the Maintenance Workshop and the Control room. The system shall support remote diagnostics and event logging

b. Local Area Network (LAN) or Serial Communications

A LAN or Serial communication shall be implemented between co-located sensors, where applicable, to allow synchronized data sharing and reduce fibre optic routing redundancy. This LAN or serial communication will aggregate sensor data before forwarding it to the processing units via fibre optic link.

c. Network Segregation

The AWOS fibre optic network shall be isolated from other airport systems, particularly the Instrument Landing System (ILS) and other navigational aids, to prevent single-point failures from impacting multiple systems.

d. Radio Link

Provision of radio link as backup communications channel in the case the fibre backbone network fails.

1.2.5 Lightning Protection and Earthing

The Automatic Weather Observation System (AWOS) shall be protected against lightning induced surges to prevent equipment damage and operational disruptions. Protection measures shall cover all sensor input lines, sensor power supply circuits, mains power supplies, and data communication lines. Power surge and upstream protection devices shall be installed in accordance with the equipment's power ratings, and an adequate earthing system shall be provided to ensure effective earth fault protection.

Lightning protection devices shall be installed for all field sensors and equipment room devices in compliance with SANS 1063 (Protection against lightning), SANS 10142-1 (Wiring of premises - Low-voltage installations), SANS 62305 (Protection against lightning - Parts 1 to 4), SANS 10292 (Earthing of low-voltage distribution systems), and SANS 10199 (Design and installation of earth electrodes). All protective measures shall fully meet the requirements of these standards to ensure safety, reliability, and long-term compliance throughout the system's operational life.

1.2.6 Installation and Commissioning of the New AWOS and Decommissioning of the OLD AWOS

The AWOS replacement will take place on the live operating runway; therefore, all safety protocol needs to be adhered to. ACSA Safety requirement will be the guiding principle. The existing AWOS shall be kept operational until the new AWOS system is operational without any challenges. Once the new AWOS system is fully operational then decommission all the old equipment including the field sensors, electrical panels, and workstations.

The new AWOS installation shall fully comply with the requirements of South African Weather Services (SAWS), Air Traffic Navigation Services (ATNS), South African Civil Aviation Authority (SACAA). All Desktop PCs and applications software for the AWOS systems and the fibre networking monitoring systems shall comply with the requirement of ACSA's ICT department

1.2.7 Calibration Equipment

The supply of calibration equipment for the following equipment: Cloud Sensor, Visibility Sensor, Temperature and Humidity Sensor, Background Luminance Sensor, Wind Sensor.

1.2.8 Installation Methodology

The existing AWOS system shall be kept operational until the new AWOS is fully functional and operating without any technical challenges. When the new system is fully functional, the old AWOS including all the field equipment (sensors and electrical panels) the computer architecture hardware, and all the associated cables shall be decommissioned and removed. The condition of the decommissioned equipment shall be assessed and kept as spares where necessary.

1.2.9 Stakeholder requirements

The new AWOS installation shall fully comply with the South African Weather Services (SAWS), ATNS and the South African Civil Aviation Authority (SACAA).

All Desktop computers and application software shall adhere to ACSA's IT department policies, procedures, and requirements.

1.2.10 Training Requirements

Adequate training shall be provided to ACSA maintenance staff, ATNS staff, and SAWS staff.
ACSA maintenance staff shall be provided maintenance training while ATNS and SAWS shall be provided operators training.
Two levels of operators training:

- High-level: ATNS
- Low-Level: SAWS

1.2.11 Commissioning and Acceptance Testing

The commissioning and acceptance testing procedure documentation shall be developed and provided prior to commissioning and acceptance testing phase for review and approval by SAWS, ATNS and ACSA representative engineer.

1.2.12 Maintenance and Handover Requirements

A comprehensive project handover file with all design documentation and ads-built drawings, specifications, operating manuals, maintenance manual, and any other relevant project related documents signed-off by the Professional Electrical/Electronic Engineer/Technologist shall be provided to ACSA.

Item No	Description of Handover requirement	Requirement Met	
		Yes	No
1	As-built drawings. This includes the design layout with showing interface between all the field devices (sensors and electrical control panels), indoor equipment and all the workstations.		
2	Soft copies of drawings in DWG format		
3	Installation Documentation and Certificates.		

4	Commissioning Procedure, Report, and Certificate		
5	Acceptance Testing Report and Certificate		
6	FMEA Report		
7	Maintenance and Operating Manuals		
8	List of Critical Spares (with OEM names and OEM part numbers)		
9	Warranty Documentation		
10	Certificates of Compliance		
11	CMMS Data & Proof of asset loading in CMMS		
12	Training records of Operator & Maintenance Personnel		
13	PDF Datasheets of all equipment installed		
14	PDF schedule of all equipment installed		

1.3 Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	**Meaning given to the abbreviation**
ACSA	Airports Company South Africa
AIP	Aeronautical Information Publication
AIRAC	Aeronautical Information Regulation and Control
AIT	Aeronautical Information Transfer
AFC	Approved for construction
ATC	Air Traffic Control
ATNS	Air Traffic Navigation Services
AVOP	Airside Vehicle Operating Procedure
CAA	Civil Aviation Authority
CAT	Category
CATS	Civil Aviation Technical Standards
CTU	Control Tower Unit

ICAO	International Civil Aviation Organisation
ILS	Instrument Landing System
LV	Low Voltage
SACAA	South African Civil Aviation Authority
SARP	Standards and Recommended Practice

2 Management and start up.

2.1 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	**Approximate time & interval**	**Location**	**Attendance by:**
Risk register and compensation events	Monthly	MS Teams/ Site/ ACSA Offices	*Employer*, *Contractor*, *Supervisor, Joint Monitoring Team*
Overall contract progress and feedback	Monthly	MS Teams/ Site/ ACSA Offices	*Employer*, *Contractor*, *Supervisor, Joint Monitoring Team, SAWS representatives*
Technical Coordination Meetings	Bi-weekly or as required	MS Teams / Site / ACSA Offices	*Employer, Contractor, Supervisor, Design Team, Specialist Consultants (JMT), SAWS representatives*
Design Review Meeting	At key design stages and as required	MS Teams / Site / ACSA Offices	*Employer, Contractor, Supervisor, Design Team, Specialist Consultants, SAWS representatives*

Representatives of the Contractor and Airports Company South Africa shall attend the meetings as stipulated in the table above. Meetings shall be held at the Employer's site or at a venue communicated in advance by the Project Manager.

Technical Coordination Meetings shall be held to review technical interfaces, design development, project coordination, procurement status, construction methodology, and integration requirements.

Design Review Meetings shall be held at key design milestones to review and obtain approval of design deliverables, ensure compliance with Employer requirements, and address comments from stakeholders and technical reviewers.

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or, if not so specified, by persons and at times and locations appropriate to the Parties, the nature of the meeting, and the progress of the works.

Records and minutes of all meetings shall be submitted to the Project Manager by the person convening the meeting within five (5) working days of the meeting.

2.2 Documentation control

2.2.1 Correspondence

All correspondence between the Contractor and the Employer shall be managed in a structured and controlled manner. For the purposes of this Contract, correspondence includes:

a) Letters
b) E-mail

All correspondence originating from subcontractors shall be reviewed, coordinated, and submitted by the Contractor as the Contractor's correspondence.

To facilitate effective distribution, review, and archiving, each correspondence shall address a single subject matter. Technical and commercial matters shall, where practicable, be addressed in separate correspondence.

All correspondence shall clearly indicate the Project Title, Contract Number, and date of issue in the format DD.MM.YYYY.

I. Letters

Letters shall be used for all formal communications with contractual, commercial, financial, or legal implications.

The Contractor shall address all formal correspondence to the Project Manager.

All letters shall:

- Be prepared on the Contractor's official letterhead;
- Be signed by an authorised representative;
- Be submitted electronically as an attachment to an e-mail and not embedded within the body of the e-mail;
- Contain a unique alphanumeric reference number for document control and traceability.

Formal correspondence issued to the Contractor shall be submitted through the Project Manager

II. E-mail (Unofficial correspondence)

E-mail shall be the preferred medium for routine day-to-day communication and coordination between the Parties.

Where a communication is intended to constitute an official record or has contractual, commercial, or financial implications, it shall be issued in the form of a formal letter in accordance with the requirements above.

In the event of a dispute, e-mail correspondence shall not automatically be accepted as evidence of successful communication unless receipt has been acknowledged or a response has been received.

The sender shall be responsible for ensuring the integrity and security of transmitted information. Confidential or controlled documents shall be transmitted in scanned format or Portable Document Format (PDF).

Documents such as Payment Certificates, Invoices, Compensation Event submissions, and other contractual records shall be submitted in PDF format.

2.2.2 Documentation Identification and Submission

The Contractor shall establish and maintain a document control system covering all project phases, including design, procurement, fabrication, installation, testing, commissioning, training, operation, and maintenance.

The Contractor shall be responsible for the preparation, review, submission, distribution, revision control, and maintenance of all project documentation. A document submission programme aligned with the project milestones and programme schedule shall be provided and maintained throughout the Contract.

The Contractor shall submit a Master Document List (MDL) to the Employer on a monthly basis, irrespective of whether any revisions or updates have occurred during the reporting period.

The MDL shall include all drawings, specifications, calculations, reports, procedures, manuals, and other project documentation and shall, as a minimum, contain the following information:

- Date of submission;
- Document title and description;
- Document number;
- Document type;
- Revision number;
- Current review status;
- Approval status;
- Authorisation status (e.g. Accepted, Accepted with Comments, Resubmit, or Rejected);
- Originator;
- Planned and actual submission dates.

All project documentation shall be uniquely identified, revision-controlled, and maintained throughout the duration of the Contract to ensure full traceability and auditability.

2.3 Health and safety risk management

The Contractor shall submit with this Tender, a complete Health and Safety Plan for this project, for the Employer's review and approval.

The Employer and the Contractor hereby agree, in terms of the provisions of any relevant legislation governing safety or health, that the Contractor as an employer in its own right and in its capacity as contractor for the execution of the works, shall have certain obligations and that the following arrangement shall apply between them to ensure compliance by the contractor with the provisions of the legislation, namely:-

a) The Contractor undertakes to acquaint the appropriate officials and the employees of the contractor with all relevant provisions of relevant legislation and the regulations promulgated in terms thereof, and
b) The Contractor undertakes that all relevant duties, obligations and prohibitions imposed in terms of the relevant legislation and regulations will be fully complied with, and
c) The Contractor hereby accepts sole liability for such due compliance with the relevant duties, obligations and prohibitions imposed by the relevant legislation and regulations and expressly absolve the Employer from being obliged to comply with any of the aforesaid duties, obligations and prohibitions in respect of the work included in the contract.
d) The contractor shall be obliged to report forthwith to the Employer any investigation, complaint, or criminal charge which may arise as a consequence of the provisions of the relevant legislation and regulations pursuant to work performed on behalf of the employer and shall, on written demand, provide full details in writing of such investigation, complaint or criminal charge.

The Contractor shall furthermore comply with all the Employer's requirements for security and safety. An active accident prevention programme shall be maintained. A responsible person shall be appointed and shall co-operate fully with the Engineers Representative in all matters pertaining to accident prevention. The Contractor shall comply with:

- The Occupational Health and Safety Act, 1993, and all regulations.
- The Construction Regulations, 2003.

The Contractor undertakes not to do, or not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.

When AWOS is in commission or is to be commissioned:

- The Contractor shall ensure that a team member on site of the Contractor is authorised as a Responsible Person.

- The Contractor shall ensure that the Responsible Person shall supervise the works at all times and be available to take permits where necessary.

The Employer may, at any stage during the duration of this contract, be entitled to:

- do safety audits at the Contractor's premises, its workplaces and on its employees.
- refuse any employee, sub-contractor or agent of the Contractor access to its premises if such person has been found to commit any unlawful act or any unsafe working practice or is found to be not authorized or qualified in terms of the Act
- issue the Contractor with a work stop order should the Employer become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures referred to above by the Contractor or any of its employees, sub-contractors or agents.
- No extension of time will be allowed as a result of any action taken by the Employer in terms of the above and the Contractor shall have no claim against the Employer as a result thereof.
- An authorized Employer's representative will be on site for regular site visits to monitor the Contractor's implementation of health, safety and quality Standards.
- The works to be enclosed with chevron barricade tape supplied and installed by the Contractor and set out by the Employer.
- The Contractor shall be responsible for all expenses incurred to ensure adherence to Health and Safety Regulations as stipulated above.
- The Contractor shall comply with all the requirements of the CONSTRUCTION REGULATIONS.
- The Contractor shall adhere to the applicable standards and procedures attached to this contract.

2.4 Environmental constraints and management

The contractor to ensure that the design and his associated activities (installation, disposal of waste, noise, pollution etc.) complies with ACSA environmental policy. The contractor is required to report monthly on any environmental issues that affect the project or affected by project.

2.5 Quality assurance requirements

Within the period stated in the Contract Data, the Contractor shall submit a comprehensive Quality Plan and supporting Work Procedures for the Employer's review and acceptance. These documents must detail the Contractor's quality control and assurance systems, including all procedures, manuals, and pro-forma checklists necessary to demonstrate compliance with the quality requirements specified in the Scope. The Quality Plan must clearly identify all relevant hold points, witness points, and inspection requirements, including those applicable outside the defined working areas. The Contractor shall also ensure that similar documentation is prepared and submitted for any Subcontractors, where applicable.

The Contractor must maintain this standard throughout the duration of the project. The Employer's acceptance of the Contractor's Quality Plan, inspection and test plans, or those of any Subcontractors, shall

not relieve the Contractor of his obligation to execute the works in full compliance with the Contract requirements. All quality assurance documentation must be submitted in the format prescribed by the Employer and is subject to acceptance under the conditions outlined in the Works Information.

2.6 Programming constraints

Within the period stated in the Contract Data, the Contractor shall submit the first revised programme to the Employer for review and acceptance.

The programme shall be fully logic-linked and include, as a minimum:

- All activities required to complete the Works;
- Activity sequencing and dependencies;
- Critical path and critical activities;
- Float allocation;
- Key milestones and contractual completion dates;
- Design, procurement, manufacturing, delivery, installation, testing, commissioning, and handover activities;
- Interfaces and dependencies with the Employer, stakeholders, authorities, utility providers, and other contractors;
- Resource loading and planned work fronts, where applicable; and
- Constraints, assumptions, and access requirements affecting the execution of the Works.

The programme shall clearly identify all activities undertaken by the Employer and other stakeholders that may influence or constrain the Contractor's activities. The Contractor shall actively engage with relevant stakeholders during programme development to ensure that operational, safety, security, access, permit, and airport operational constraints are fully incorporated into the programme.

The Contractor shall plan and execute the Works in a manner that minimises disruption to airport operations and ensures compliance with all operational, safety, and security requirements.

The programme shall be updated monthly, or as otherwise instructed by the Project Manager, to reflect actual progress, approved changes, mitigation measures, and forecast completion dates.

Acceptance of the programme by the Employer or Project Manager shall not relieve the Contractor of any obligation under the Contract, nor shall it transfer responsibility for the planning, coordination, sequencing, or timely completion of the Works from the Contractor.

2.7 *Contractor*'s management, supervision and key people

The Contractor shall provide suitably qualified, experienced, and competent personnel for the execution of the Works. The personnel identified below are considered key resources and shall be assigned to the project for its duration unless otherwise approved by the Employer. No replacement of key personnel shall be made

without the prior written approval of the Project Manager. Any proposed replacement shall possess qualifications and experience equal to or better than those of the individual being replaced.

The Contractor shall ensure that all key personnel are actively involved in the planning, design, installation, testing, commissioning, and handover phases of the project, as applicable.

Key Resource	Experience	Minimum Relevant Education & Qualification
Project Manager	Demonstrable experience in the successful management and delivery of brownfield engineering, infrastructure, or construction projects of similar scope and complexity. Experience in stakeholder management, programme management, risk management, and project controls is essential.	National Diploma in Engineering
Lead Engineer	Demonstrable experience in the design, installation, construction, testing, commissioning, and handover of aviation navigational aid systems (Automated Weather Observation Systems or Airfield Ground Lighting or Instrument Landing Systems or VHR Omnidirectional Ranger-VOR, Distance Measuring Equipment-DME or Radar Systems) or similar type of projects	• BTech or Equivalent: Electrical/Electronics/Computer/Mechatronics) • ECSA Professional Registration • Registration as a Professional Engineer, or Professional Engineering Technologist with Engineering Council of South Africa
Installation Technician/s or Electrician/s	The technician/s or Electrician/s shall have experience in the installation on completing the Electrical	Trade Tested Installation Electrician OR Millwright OR Electrical/Instrumentation Technician.

The Employer reserves the right to interview and assess any proposed key personnel and to reject personnel who do not meet the minimum requirements specified above. The Contractor shall ensure that sufficient supporting technical and supervisory resources are available throughout the Contract period to achieve the required quality, safety, and programme objectives.

2.8 Invoicing and payment

Within seven days of receiving a payment certificate from the *Project Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Project Manager's* payment certificate.

The *Contractor* shall address the tax invoice to Airports Company South Africa SOC Ltd. and include on each invoice the following information:

- Name and address of the *Contractor* and the *Project Manager;*
- The contract number and project title;
- *Contractor*'s VAT registration number;

- The *Employer*'s VAT registration number 493 013 8393;
- Description of work done by cross reference to *Project Manager*'s certificate;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- (add other as required)

2.9 Contract change management

This section is intended to deal with any additional requirements to the compensation event clauses in section 6 of the core clauses; such as the use of standard forms. Not the same thing as documentation control.

2.10 Provision of bonds and guarantees

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Project Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer*'s right to termination stated in this contract.

2.11 Training workshops and technology transfer

The Contractor shall provide a structured training and technology transfer programme to ensure that the Employer's operations and maintenance personnel acquire the knowledge and skills necessary to safely operate, maintain, troubleshoot, and support the systems and equipment supplied under this Contract.

Training shall be conducted throughout the execution of the Works and shall include both classroom-based and practical on-the-job training. The Contractor shall submit a Training and Technology Transfer Plan for acceptance by the Employer, detailing the training objectives, content, schedule, target audience, training materials, and competency assessment methodology.

Training workshops shall be conducted at intervals agreed with the Employer and aligned with the accepted programme. As a minimum, the training shall cover:

- System architecture and functionality;
- Operating procedures and operational limitations;
- Routine inspection and maintenance requirements;
- Fault finding and troubleshooting procedures;

- System configuration and parameter settings;
- Safety requirements and emergency procedures;
- Preventative and corrective maintenance practices; and
- Spare parts management and lifecycle considerations.

The Contractor shall provide practical hands-on training during installation, testing, commissioning, and operational readiness activities to facilitate effective knowledge transfer and build local technical capability.

Upon Completion, the Contractor shall undertake a comprehensive handover process, including practical demonstrations, operational testing, and competency-based training for the Employer's designated personnel. The Contractor shall demonstrate that the Employer's personnel are capable of operating and maintaining the installed systems independently.

All training shall be supported by comprehensive documentation, including user manuals, operation and maintenance manuals, troubleshooting guides, as-built documentation, and standard operating procedures. Training materials shall be provided in both electronic and hard-copy formats where required by the Employer.

The Contractor shall maintain attendance registers for all training sessions and shall submit training records, presentation materials, competency assessments, and training completion certificates to the Employer as part of the project close-out documentation.

The objective of the training and technology transfer programme is to ensure sustainable knowledge transfer, operational readiness, and long-term self-sufficiency of the Employer's personnel in the operation and maintenance of the installed systems.

3 Engineering and the *Contractor*'s design

Under this Design-and-Build Contract, the Contractor shall be fully responsible for the engineering, design, integration, coordination, procurement, installation, testing, commissioning, and successful operation of all elements of the Works as described in the Works Information and ACSA D116MAN Standards and Guidelines Manual for Automated Weather Observation System (AWOS).

The Contractor shall undertake and complete all engineering activities necessary to deliver a fully functional, safe, reliable, maintainable, and compliant solution that satisfies the Employer's requirements and performance objectives. This responsibility includes, but is not limited to, the preparation of detailed designs, calculations, drawings, specifications, studies, reports, schedules, and any other engineering deliverables required for the execution of the Works.

The Contractor shall ensure that all designs comply with applicable legislation, regulations, aviation requirements, industry standards, manufacturers' recommendations, and best engineering practices. The Contractor shall be responsible for the coordination and integration of all design disciplines and interfaces associated with the Works.

Standard	Description
ICAO Annex 3	ICAO Annexure 3, Part I, Meteorological Service for International Air Navigation amendment 77
ICAO Annexure 14	ICAO Annexure 14 - Aerodromes, Volume I - Aerodrome Design and Operations
ICAO Doc 9157	• ICAO Doc 9157: Aerodrome Design Manual, Part 5 - Electrical Systems • ICAO Doc 9157: Aerodrome Design Manual, Part 6 – Frangibility
World Meteorological Organization (WMO) Technical Regulations	World Meteorological Organization (WMO) Technical Regulations • Volume I – General meteorological standards and recommended practices • Volume II – Meteorological service for international air navigation • Volume III – Hydrology • Volume IV – Quality Management
WMO–No. 8	WMO–No. 8: Guide to Meteorological Instruments and Methods of Observation
WMO-No. 49	WMO-No. 49: Technical Regulations, Basic Documents No. 2, Volume 1 - General Meteorological Standards and Recommended Practices
ICAO Doc 8896:	ICAO Doc 8896: Manual of Aeronautical Meteorological Practice
ICAO Doc 9873	Manual on the Quality Management System for the Provision of Meteorological Service for International Air Navigation
ICAO Doc 9837	Manual on Automatic Meteorological Observing Systems at Aerodromes
ICAO Doc 9328	The Manual of Runway Visual Range Observing and Reporting Practices (Doc 9328)
ICAO Doc 9377	Manual on Coordination between Air Traffic Services, Aeronautical Information Services and Aeronautical Meteorological Services
ISO 9001	Quality Management Systems.

OHS Act No. 85 of 1993	Occupation Health and Safety Act (OHS Act) No 85 of 1993 – Construction and Electrical Machinery Regulations.
SANS 10142-1	The wiring of premises Part 1: Low-voltage installations
SANS 1063	Earth rods, couplers and connections
SANS 10292	Earthing of low-voltage (LV) distribution systems
SANS 10313	Protection against lightning — Physical damage to structures and life hazard
SACAA CATS 139.02.23	General Duties of a Holder of Licence – 7. Meteorological Equipment

The Employer's review, acceptance, or comment on any design submission shall not relieve the Contractor of any responsibility for the adequacy, accuracy, completeness, functionality, safety, operability, maintainability, or compliance of the design. All design risks and responsibilities shall remain with the Contractor.

3.1 *Employer*'s design

The Employer has provided a Description of the Works and Employer's Requirements within this Works Information and ACSA D116MAN Standards and Guidelines Manual for Automated Weather Observation System (AWOS). These documents define the Employer's operational philosophy, functional requirements, performance criteria, technical requirements, and minimum standards for the Works.

The information provided by the Employer is intended to establish the required outcomes and performance objectives and shall not be construed as a complete design solution. The Contractor shall verify the suitability and adequacy of all information provided and shall be responsible for developing a complete and coordinated design that fully satisfies the Employer's requirements.

The Contractor shall ensure that the final design and completed Works comply with:

- The Employer's requirements and performance specifications;
- Applicable legislation and statutory requirements;
- South African Civil Aviation Regulations and Technical Standards
- Airport operational requirements;
- Applicable South African National Standards (SANS);
- Relevant international standards and recommended practices;
- Manufacturers' requirements and recommendations; and
- Best engineering practice.

3.2 Parts of the *works* which the *Contractor* is to design

The Contractor shall be responsible for the complete design of all components of the Works described in this Works Information, including all temporary and permanent works necessary for the successful execution, testing, commissioning, operation, and maintenance of the installed systems.

The Contractor's design responsibilities shall include, but not be limited to:

- Concept validation and detailed engineering design;

- System architecture and integration design;
- Electrical, electronic, communications, control, and software design, where applicable;
- Civil, structural, mechanical, and building services design required to support the Works;
- Equipment layouts and installation drawings;
- Interface and coordination design with existing infrastructure and operational systems;
- Design calculations, simulations, and engineering studies;
- Construction and installation methodologies;
- Testing and commissioning procedures;
- As-built documentation; and
- Operation and maintenance documentation.

The Contractor shall verify all site conditions, dimensions, interfaces, and existing infrastructure before commencing detailed design and shall be responsible for identifying and resolving any design conflicts, omissions, discrepancies, or coordination issues necessary to deliver a complete and operational system.

3.3 Procedure for submission and acceptance of *Contractor*'s design

The Contractor shall prepare and submit all design deliverables to the Project Manager for review and acceptance prior to the commencement of any associated procurement, manufacturing, construction, installation, or commissioning activities.

Design submissions shall include, as applicable:

- Design reports;
- Engineering calculations and studies;
- Design drawings and layouts;
- Technical specifications;
- Equipment datasheets;
- System architecture and interface drawings;
- Risk assessments;
- Testing and commissioning methodologies; and
- Any other supporting documentation required to demonstrate compliance with the Employer's requirements.

The Contractor shall develop and submit the design in accordance with the principles contained in 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), or its latest revision.

A stage-gate design review process shall be adopted. As a minimum, the Contractor shall submit the following design stages for review and acceptance:

Stage 1 – Inception

The Contractor shall undertake site inspections and investigations and establish all site characteristics, operational constraints, interfaces, access requirements, stakeholder requirements, and statutory obligations affecting the Works. The submission shall include:

- Site inspection and assessment report;
- Confirmation of the Employer's requirements;
- Identification of constraints, risks, assumptions, and interfaces;
- Preliminary project execution methodology;
- Project programme and procurement strategy;
- Schedule of approvals, permits, and stakeholder engagements required; and
- Inception Report.

Stage 2 – Concept and Viability (Preliminary Design)

The Contractor shall develop and evaluate the proposed technical solution and demonstrate its viability. The submission shall include:

- Design criteria and basis of design;
- Concept layouts and system architecture;
- Preliminary equipment selection;
- Preliminary calculations and engineering studies;
- Identification and evaluation of alternatives considered;
- Constructability and maintainability considerations;
- Preliminary cost and programme implications; and
- Concept and Viability Report.

Stage 3 – Detailed Design

The Contractor shall submit a fully coordinated and integrated design package suitable for procurement, construction, installation, testing, and commissioning, including:

- Detailed design reports;
- Detailed calculations;
- Construction and installation drawings;
- Technical specifications and datasheets;
- Testing and commissioning procedures;
- Interface drawings;
- Bill of quantities and equipment schedules; and
- All supporting documentation necessary for execution of the Works.

The Contractor shall not proceed to the next design stage without addressing all comments raised during the preceding stage review and obtaining acceptance from the Project Manager.

The Contractor shall maintain a design review register documenting all comments, responses, actions, and close-out status arising from design reviews.

Acceptance of any design submission by the Project Manager or Employer shall not relieve the Contractor of responsibility for the adequacy, accuracy, completeness, functionality, safety, maintainability, operability, or compliance of the design. The Contractor shall remain fully responsible for the design and for ensuring that the completed Works meet the Employer's requirements and all applicable statutory, regulatory, and technical standards.

Any design submission found to be incomplete, non-compliant, inaccurate, or not fit for purpose may be rejected by the Project Manager and shall be corrected and resubmitted by the Contractor at no additional cost to the Employer. Non-compliant design submissions may be treated as defects under the Contract

3.4 Other requirements of the *Contractor*'s design

None.

3.5 Use of *Contractor*'s design

The Contractor to allow the Employer to use detailed designs, drawings and all relevant documents for operational, maintenance purposes and for future developments whenever required.

3.6 Design of Equipment

The Contractor submits particulars of the design including temporary works designs to the Employer for review and acceptance.

3.7 Equipment required to be included in the *works*

The Contractor shall submit a comprehensive list of all equipment, tools, and machinery required for the execution of the Works, including any special tools necessary for the operation, maintenance, and calibration of the completed systems or works.

The Contractor shall also be responsible for supplying all calibration tools required to verify the performance of installed systems and components and must ensure that these tools are properly certified and traceable to national or international standards. Documentation for each item, including manufacturer data sheets, calibration certificates, and maintenance requirements, shall be submitted for review and acceptance by the Employer prior to installation.

3.8 As-built drawings, operating manuals and maintenance schedules

A comprehensive project handover file with all design documentation and as-built drawings, specifications, operating manuals, maintenance manual, and any other relevant project related documents signed off by the Professional Electrical/Electronic Engineer/Technologist shall be provided to ACSA. These shall be in accordance with ACSA D116MAN Standards and Guidelines Manual for Automated Weather Observation System (AWOS).

Item No	Description of Handover requirement	Requirement Met	
		Yes	No
1	As-built drawings. This includes the design layout with showing interface between all the field devices (sensors and electrical control panels), indoor equipment and all the workstations.		
2	Soft copies of drawings in DWG format		
3	Installation Documentation and Certificates.		
4	Commissioning Procedure, Report, and Certificate		
5	Acceptance Testing Report and Certificate		
6	FMEA Report		
7	Maintenance and Operating Manuals		
8	List of Critical Spares (with OEM names and OEM part numbers)		
9	Warranty Documentation		
10	Certificates of Compliance		
11	CMMS Data & Proof of asset loading in CMMS		
12	Training records of Operator & Maintenance Personnel		
13	PDF Datasheets of all equipment installed		
14	PDF schedule of all equipment installed		

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed on the Site

All the contractor employees and sub-contractor employees shall obtain the permits from ACSA in line with ACSA requirements and shall undergo necessary training required to get the permits.

4.1.2 BBBEE and preferencing scheme

In line with the Employer's requirements or policies, if applicable.

4.1.3 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

Not applicable.

4.2 Subcontracting

4.2.1 Preferred subcontractors

No preferred subcontractor or supplier by Employer.

4.2.2 Subcontract documentation, and assessment of subcontract tenders

None.

4.2.3 Limitations on subcontracting

The main contractor will be responsible for the subcontractor and must ensure that he complies to ACSA regulations and always have the correct PPE and comply to ACSA health and safety requirements.

4.2.4 Attendance on subcontractors

Not applicable.

4.3 Plant and Materials

4.3.1 Quality

All Plant and Materials used in the execution of the Works shall comply with the quality requirements defined in the works information and the SACAA regulations and technical standards. Where quality standards are not explicitly stated, the Contractor shall ensure that materials and equipment conform to recognised international standards and are fit for their intended purpose. Quality shall be managed in accordance with the accepted Quality Plan, and all conformances must be supported by appropriate documentation such as certificates of compliance, test results, and manufacturer data sheets

4.3.2 Plant & Materials provided "free issue" by the *Employer*

The Employer shall not provide any free issue Plant or Materials for this contract. The Contractor is solely responsible for the procurement, storage, handling, and safeguarding of all required Plant and Materials. The

Contractor shall clearly indicate the lead times for the procurement of such items within the programme and procurement schedule, ensuring alignment with the overall project timeline and avoiding delays to the Works.

4.3.3 *Contractor*'s procurement of Plant and Materials

The Contractor shall be fully responsible for the procurement of all Plant and Materials required for the Works, including ordering, coding, expediting, freighting, importing, transporting to Site, and storing prior to installation. All procurement activities must be carried out in accordance with the accepted programme and procurement schedule, ensuring timely delivery and compliance with the Employer's works Information, technical, and documentation requirements. Plant and Materials must be clearly codified and traceable throughout their handling and storage process.

The Contractor shall ensure that all warranties and guarantees from suppliers and manufacturers are issued in favour of the Employer, with validity periods and terms consistent with the operational life and performance requirements of the installed systems. The Contractor shall also provide comprehensive vendor data packages, including but not limited to operation and maintenance manuals, certificates of compliance, test reports, calibration data, and spare parts lists. These documents shall be submitted in the format specified in the Works Information and made available to the Employer in accordance to handover requirements.

4.3.4 Spares and consumables

The Contractor shall supply an initial set of essential spares and consumables such as OEM-recommended spare parts and other critical items required for commissioning, take-over, and the immediate post-completion period. These items must be clearly identified, delivered to Site with full documentation, and accepted by the Employer.

The minimum spare holding must be sufficient to ensure that the specified availability and performance requirements of the system are met without interruption. All spares and consumables shall be new, compliant with the installed systems, and their cost deemed included in the Prices

4.4 Tests and inspections before delivery

All tests and inspections to be carried out prior to delivery to the Working Areas shall be conducted in accordance with the Employer's Works Information and SACAA regulations and technical standards. These pre-delivery tests may be witnessed by the Supervisor or other representatives authorised by the Employer, including overseas inspections where applicable. The Contractor shall provide timely notice of such tests, ensure access for the Employer's representative, and submit all relevant test procedures, certificates, and results for review and acceptance prior to shipment. Compliance with these requirements is a precondition for delivery and installation on Site.

4.5 Marking Plant and Materials outside the Working Areas

Where payment is to be made for Plant and Materials before delivery to the Working Areas, the Contractor shall clearly mark such items as the property of the Employer in a durable and visible manner, referencing the contract number and item description.

The contractor to indicate how the guarantee of the material delivery will be ensured once the deposit is paid upfront.

4.6 *Contractor*'s Equipment (including temporary works).

Contractor equipment and material to be safely secured at all times especially when not used on the airside.

5 Construction

5.1 Temporary works, Site services & construction constraints

5.1.1 *Employer*'s Site entry and security control, permits, and Site regulations

Prior to commencing work, the Contractor and all personnel must attend a mandatory site induction facilitated by ACSA. The Contractor is responsible for arranging full medical examinations for all staff and coordinating induction scheduling with ACSA's Project Manager. Security protocols, including access control procedures, will be outlined during the induction and must be strictly followed. As ACSA premises fall under National Key Point Regulations, all personnel will be subject to SAPS security vetting. The Employer shall not be held liable for any consequences arising from a Contractor's personnel failing the vetting process

5.1.2 Restrictions to access on Site, roads, walkways and barricades

Access within the Site shall be subject to operational restrictions, including designated working hours, controlled zones, and approved access routes. The Contractor shall ensure all work areas are clearly demarcated, secure, and safe, with appropriate barricades, signage, and traffic management measures in place. Unauthorised access to restricted or operationally sensitive areas is strictly prohibited

5.1.3 People restrictions on Site; hours of work, conduct and records

Working hours on Site shall be subject to approval by the Employer and aligned with airport operational requirements. The Contractor shall ensure that all personnel, including those of Subcontractors, adhere to approved working hours, maintain professional conduct, and comply with all Site rules and safety protocols. A detailed daily record of all personnel on Site, including names, roles, and subcontracting entities, must be maintained and made available to the Project Manager or Supervisor upon request. These records may be used in the evaluation of compensation events or for audit and compliance purposes.

5.1.4 Health and safety facilities on Site

None

5.1.5 Environmental controls, fauna & flora, dealing with objects of historical interest

None

5.1.6 Title to materials from demolition and excavation

The Contractor has no title to materials from demolition and excavations.

The contractor must submit a method statement to the environmental department regarding explosion and excavations.

5.1.7 Cooperating with and obtaining acceptance of Others

This sub-paragraph could be used to deal with two issues.
1) The cross reference from core clause 25.1 about cooperation generally as well as details about Others with whom the *Contractor* may be required to share the working areas. See clause 11.2(10) for the definition of Others.
2) Requirements for liaison with and acceptance from statutory authorities or land owners.

5.1.8 Publicity and progress photographs

None

5.1.9 *Contractor*'s Equipment

Contractor to keep record of equipment on site, service history etc. and keep a copy on site.

The Contractor shall as part of his reporting includes a list of Contractors Equipment and material on site. The list shall include Registration numbers, serial numbers, whether it is rented with the provider's details.

5.1.10 Equipment provided by the *Employer*

None.

5.1.11 Site services and facilities

The Contractor shall be entitled to use such supplies of electricity and water as may be available on the Site for the purpose of the Works and at his own expense, shall provide any apparatus necessary for such use. The Contractor shall notify ACSA of any equipment or facility, which will be a consumer of electricity and water. The Contractor shall provide everything else necessary for Providing the Works

5.1.12 Facilities provided by the *Contractor*

Facilities e.g., storage, site offices, vehicle, equipment provided by the contractor should be safeguarded by the contractor during the construction, and be removed off site upon the completion of the contract

5.1.13 Existing premises, inspection of adjoining properties and checking work of Others

All operations required in connection with the Agreement shall, as far as the provisions of the Agreement permit, not unnecessarily or in an improper manner encroach upon the use of airport facilities.
The contractor is to take cognizance that the airport is used by others and other contractors may be on site for unrelated projects or services.

5.1.14 Survey control and setting out of the *works*

Safety measures to be adhered to according OHS Act. Adhere to ACSA airside safety requirements regarding equipment, vehicles, and personnel operating on the airside.
Full risk analysis on working on height, next to aircraft and airside and mitigation thereof to considered as part of safety file requirements.

5.1.15 Excavations and associated water control

State any particular requirements for handling deep foundations and controlling water from excavations.

5.1.16 Underground services, other existing services, cable and pipe trenches and covers

Contractor to ensure that other Underground services, other existing services, cable and pipe trenches and covers are identified to prevent any disruption to these services due to contractor's activities.

The Contractor shall be liable for all damage and breakage to other services. Repair will be done by adequately qualified personnel or contractors. If the damages or breakage is not repair / replaced to the satisfaction of the Engineer within a reasonable time, the Engineer shall be entitled to appoint another Contractor to repair such damage or breakage and debit the account of the Contractor. All damages and breakages are to be reported to the Engineer.

5.1.17 Control of noise, dust, water and waste

Contractor to take necessary steps to control noise, dust, water and waste during his/her activities onsite.

The site is to be maintained in a reasonable state of tidiness at all times.

Rubble may not be accumulated on site. Suitable skips are to be provided for the works.

All dust and debris resulting from construction work is to be contained within the hoarded site. Any materials and rubble outside the hoarded site will be removed by ACSA from the Airport without notice to the contractor and will be for the contractor's account.

The Contractor will ensure the proper handling and carting away of spoil material, and the cleaning of ablution areas set aside for the use of the contractor's staff.

5.1.18 Sequences of construction or installation

To be finalised by awarded bidder and submitted for approval.

5.1.19 Giving notice of work to be covered up

Notice of work to be covered up is to be given by the Contractor to the Project Manager. The Project Manager shall the communicate the notice of work to the supervisor.

5.1.20 Hook ups to existing works

All attachment points for the overhead busbar systems are to be marked and approved by the Engineer.

5.2 Completion, testing, commissioning and correction of Defects

5.2.1 Work to be done by the Completion Date

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works except for the work listed below which may be done after the Completion Date but in any case before the dates stated. The *Project Manager* cannot certify Completion until all the work except that listed below has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and Others from doing their work.

	Item of work	**To be completed by**
	None	None

5.2.2 Use of the *works* before Completion has been certified

The Employer shall only take over the new Automated Weather Observation System (AWOS) once it has been fully tested, commissioned, and confirmed to be operational in accordance with the Scope and applicable standards. Any use of the AWOS prior to Completion certification shall be strictly for testing, calibration, or verification purposes as specified in the Works Information, and such use shall not constitute partial takeover. All testing and commissioning activities must be planned and executed in alignment with the airport's operational hours and safety protocols to avoid disruption to air traffic operations

5.2.3 Materials facilities and samples for tests and inspections

The contractor to present the product sample to the Project Manager prior the installation for review and acceptance.

The product sample shall be accompanied relevant factory test certificates and quality assurance documentation to demonstrate compliance with specified standards and performance requirements.

5.2.4 Commissioning

The contractor to submit the commission procedures and plan to the Project Manager for review and acceptance. The commissioning procedure and plans will be adhered to during commissioning.

The commissioning of the AWOS shall also be in accordance with the Employer's Works Information.

5.2.5 Start-up procedures required to put the *works* into operation

The contractor to ensure that he complies with all ACSA security, safety, environmental and operational requirements prior to the commencement of works complete accordingly.

5.2.6 Take over procedures

The works will be handed over partially or fully once commissioned and certified by Project Manager. The commissioning should be witnessed by both ACSA representative and the contractor representative.

All documentation as required by the Employer and Engineer is to be submitted.

5.2.7 Access given by the *Employer* for correction of Defects

The Project Manager shall arrange for the Employer to allow the Contractor access to and use of a part of the works which has been taken over if needed to correct a Defect. After the works have been put into operation, the Employer may require the Contractor to undertake certain procedures before such access can be granted. Performance tests after Completion

5.2.8 Performance tests after Completion

Contractor to ensure all necessary tests and calibrations are conducted and submit all reports to the *Employer.*

5.2.9 Training and technology transfer

The Contractor shall provide comprehensive training to the Employer's nominated operations and maintenance personnel on the use, calibration, and upkeep of the installed Instrument Landing System (ILS) and associated components. This includes on-site operational training, preventive and corrective maintenance procedures, and the provision of all relevant technical manuals. The Contractor shall also facilitate effective technology transfer to ensure the Employer can independently operate and maintain the system post-completion, in line with international best practices and OEM recommendations.

5.2.10 Operational maintenance after Completion

The Contractor shall provide the operational maintenance information in accordance with with the maintenance and handover requirements captured in the works information.

6 Plant and Materials standards and workmanship

6.1 Investigation, survey and Site clearance

The Contractor shall ensure that a thorough inspection and clearance is conducted prior commencement of work of any other services that might be impacted by contractor's activities

Other investigations and surveys shall be conducted in accordance with the Employer's Works Information.

6.2 Building works

As per the Employer's Works Information and in accordance with all the applicable SANS standards, industry best practices, and regulatory requirements.

6.3 Civil engineering and structural works

As per the Employer's Works Information and in accordance with all the applicable SANS standards, industry best practices, and regulatory requirements.

6.4 Electrical & mechanical engineering works

As per the Employer's Works Information and in accordance with all the applicable SANS standards, industry best practices, and regulatory requirements.

6.5 Process control and IT works

As per the Employer's Works Information and in accordance with all the applicable SANS standards, industry best practices, and regulatory requirements.

6.6 Other [as required]

None

7 List of drawings

7.1 Drawings issued by the *Employer*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

Drawing number	Revision	Title

C3.2 *CONTRACTOR*'S WORKS INFORMATION

This section of the Works Information will always be contract specific depending on the nature of the *works*. It is most likely to be required for design and construct contracts where the tendering contractor will have proposed specifications and schedules for items of Plant and Materials and workmanship, which once accepted by the *Employer* prior to award of contract now become obligations of the *Contractor* per core clause 20.1.

Typical sub headings could be

a) *Contractor*'s design
b) Plant and Materials specifications and schedules
c) Other

This section could also be compiled as a separate file.

PART 4: SITE INFORMATION

Document reference	Title	No of pages
	This cover page	1
C4	Site Information	2
	Total number of pages	3

PART 4: SITE INFORMATION

8 Description of the Site and its surroundings

8.1 General description

The Site is located within the airside operational area of George Airport, Western Cape, South Africa. The works will take place primarily along designated zones within the runway approach and departure paths, and will involve the design, supply, installation, and commissioning of AWOS, associated cabling, and equipment. The area is characterized by high aircraft traffic and is surrounded by operational infrastructure such as runways, taxiways, aprons, and navigational aids.

Due to the airport's classification as a National Key Point, access to the Site is subject to stringent security and safety protocols. While a detailed layout of surrounding infrastructure is not provided, the Contractor is expected to take particular care regarding crane operations, excavation, and all work near aircraft movement areas, terminal buildings, and air traffic control equipment. All work must be planned and executed in compliance with airport operational requirements and obstacle limitation surface (OLS) restrictions.

8.2 Existing buildings, structures, and plant & machinery on the Site

The Site includes existing operational infrastructure such as runway lighting, airfield ground lighting (AGL) systems, navigational aids, communication cables, and power supply lines, all of which must remain fully operational during the execution of the works. As-built drawings of existing services and structures are not available. It is the Contractor's responsibility to identify, locate, and protect all existing underground and above-ground services to avoid disruption or damage. Appropriate surveys, trial pits, and coordination with ACSA's technical personnel shall be undertaken by the Contractor prior to any excavation or installation work. Any damage to existing services caused by the Contractor shall be repaired at the Contractor's cost, and work shall be coordinated to avoid interference with airport operations

8.3 Subsoil information

No geotechnical reports, borehole logs, or subsoil condition data are available for the Site. It is the Contractor's full responsibility to carry out all necessary investigations to determine subsoil conditions relevant to the execution of the Works, including foundation design, earthworks, and installation of underground services. The Employer accepts no liability for any assumptions made by the Contractor regarding ground conditions.

8.4 Hidden services

Accurate details and drawings of hidden or underground services within the Site are not available. The Contractor is responsible for identifying the location and nature of all hidden services and underground structures prior to commencing any excavation or intrusive work. The Contractor shall take all necessary precautions, including conducting surveys and engaging with relevant authorities, to avoid damage or disruption to existing services. Any assumptions made by the Contractor shall be at their own risk, and any damage to existing infrastructure shall be repaired at the Contractor's cost.

8.5 Other reports and publicly available information

No additional technical reports, mapping, hydrological, or geological data are provided by the Employer. It is the Contractor's responsibility to obtain and review any publicly available information required to assess site conditions, develop construction methods, and prepare relevant designs. The Contractor is further reminded that George Airport is designated as a National Key Point under South African law. As such, the Contractor and all personnel must be familiar with and adhere to the provisions of the National Key Points Act and all related security protocols throughout the duration of the project**.**