

NEC3 Term Service Contract (TSC)

Volume 3 - The Contract

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

and **[Insert at award stage]**
(Reg No. _____)

for **TERM SERVICE CONTRACT: FIRE BOOSTER PUMP SYSTEM
MAINTENANCE FOR A PERIOD OF THREE (3) YEARS (NEC3
TSC).**

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CONTRACT No. [Insert at award stage]

Part C1: Agreements & Contract Data

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C1.1 Form of Offer and Acceptance

Append Form C1.1 from Volume 2 and note any deviations unique to Volume 3

Schedule of Deviations

1 Subject
Details
.....
.....
2 Subject
Details
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3 Subject
Details
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4 Subject
Details
.....
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5 Subject
Details
.....
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By the duly authorised representatives signing this agreement, the employer and the Contractor agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Bidder 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 Bidder of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

for the Employer

Signature Date

Name Capacity

Name of
witness signature

C1.2 Contract Data

Precedence in interpretation of the contract:

In the event of any ambiguity, inconsistency or conflict between the General Conditions of Contract, Special Conditions, Pricing Data, Service information, or other, the order of precedence shall be as follows:

Firstly, the Service information (C3) and Annexes thereto shall prevail;

Secondly the Contract Data (C1.2) and Conditions of Contract;

Thirdly the General Conditions of Contract;

Fourthly the Pricing data;

Lastly any schedules, drawings and other documents included with this agreement.

General Conditions of Contract

The General Conditions of Contract comprise the NEC3 Term Service Contract, April 2013, published by the NEC, and the following "Particular Conditions", which include amendments and additions to such General Conditions.

The following Particular Conditions amplify the General Conditions of Contract and highlight areas in that document that require specific attention.

Wherein in the contract it is stated no contract data is required accordingly the *conditions of contract* remain unaltered as per NEC3 Term Service Contract, April 2013.

C1.2a - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
	dispute resolution Option:	A: Priced contract with price list
	and secondary Options:	W1: Dispute resolution procedure
		X1: Price adjustment for inflation
		X2: Changes in the law
		X17: Low service damages
		X18: Limitation of Liability (as amended in Option Z)
		X19: Task Order
		X20: Key performance indicators
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract, April 2013 (TSC3)	
10.1	The <i>Employer</i> is:	Airports Company South Africa SOC Limited (ACSA), Registration No 1993/004149/30, VAT no 4930138393, a juristic person incorporated in terms of the company laws of the Republic of South Africa
	Address	Airports Company SoC Ltd Private Bag X9002 Cape Town International Airport 7525
10.1	The <i>Service Manager</i> is:	Marclen Stallenberg
	Address	George Airport Old Mossel Bay Road George 6530
	Tel No.	+27 44 876 9310
	e-mail	Marclen.stallenberg@airports.co.za
11.2(2)	The <i>Affected Property</i> is	George Airport
11.2(13)	The <i>service</i> is	Maintenance of the Fire Booster Pump System more fully set out in section C3 <i>Service Information</i>.

11.2(14)	The following matters will be included in the Risk Register	1	Risk of financial loss and/or injury of 3 rd parties due to the proximity of the service (or of persons providing the service) to all airport users
		2	Risk of injury to contract personnel and all airport users due to lifting/moving of heavy objects
		3	Work with flammable and toxic gases
		4	Access to site
		5	In the event that the bidder is awarded the contract at more than one airport – there is a risk that a breakdown can occur at multiple airports at the same time. The bidder need to clearly identify in his risk mitigation plan of how this will be dealt with – whilst in full compliance to the scope of work
11.2(15)	The <i>Service Information</i> is in		Part C3: Employer's Service Information and all documents and drawings and other specifications to which it makes reference
12.2	The <i>law of the contract</i> is the law of		the Republic of South Africa
13.1	The <i>language of this contract</i> is		English
13.3	The <i>period for reply</i> is		3 working days
2	The Contractor's main responsibilities		Detailed in Part C3 (Service Information)
21.1	The <i>Contractor</i> submits a first plan for acceptance within		1 week of the Starting Date
3	Time		
30.1	The <i>starting date</i> is		This contract starts at the conclusion of the defect liability period of the Volume 2 installation contract (i.e. the <i>defects date</i>).
30.2	The <i>Service Period</i> is		Thirty-six (36) Months after signing of the contract by ACSA or when the amount in the Form of Offer has been expended, whichever occurs first
4	Testing and Defects		No data is required for this section of the <i>conditions of contract</i>
5	Payment		
50.1	The <i>assessment interval</i> is on the		between the 1 st and 15 th day of each successive month.
51.1	The <i>currency of this contract</i> is the		South African Rand (ZAR)
51.2	The period within which payments are made is		30 days

51.4	The <i>interest rate</i> is	<p>(i) 0.00 percent above the publicly quoted prime rate of interest charged by Nedbank Bank for amounts due in Rands and</p> <p>(ii) the LIBOR (London Inter-Bank Offered Rate) rate applicable at the time for amounts due in other currencies</p>
6	Compensation events	No data is required for this section of the <i>conditions of contract</i> .
7	Use of Equipment Plant and Materials	No data is required for this section of the <i>conditions of contract</i> .
8	Risks and insurance	
83.1	The <i>Employer</i> provides these insurances from the Insurance Table	<p>The terms and other matters applicable to these insurances provided by the Employer (and to insurances generally) are detailed in the insurance schedule attached as section C1.5 to the <i>contract</i> ("the Insurance Schedule"). The following are covered by the employer in part or in full as defined in the schedule:</p> <p>(i) Insurance against loss of or damage to the <i>services</i>, Plant and Materials comprising Contract Works Insurance, SASRIA Special Risks Insurance and Marine & Air Cargo insurance; and</p> <p>(ii) Insurance (Public Liability Insurance) against liability for loss or damage to property (except the <i>services</i>, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) caused by activity in connection with the contract;</p>
83.1	The <i>Contractor</i> provides these additional insurances	<p>Professional Indemnity Insurance</p> <p>Note: The terms and other matters applicable to this insurance provided by the Employer are likewise detailed in section C1.5 to the <i>contract</i>.</p>
83.2	The minimum amounts of cover or minimum limits of indemnity required for the insurance table	Refer to section C1.5 Insurance Schedule
83.1	The <i>Employer</i> provides these insurances from the Insurance Table	Refer to section C1.5 Insurance Schedule
83.1	The <i>Employer</i> provides these additional insurances	Refer to section C1.5 Insurance Schedule
83.1	The minimum amount of cover for insurance against loss and damage caused by the <i>Contractor</i> to the <i>Employer's</i> property is	Refer to section C1.5 Insurance Schedule
83.1	The minimum amount of cover for loss of or damage to Plant and Materials provided by the <i>Employer</i> is:	Refer to section C1.5 Insurance Schedule
83.1	The minimum amount of cover for insurance in respect of loss of or damage to property (except the <i>Employer's</i>	Refer to section C1.5 Insurance Schedule

	property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the <i>Contractor</i>) arising from or in connection with the <i>Contractor's</i> Providing the Service for any one event is:	
83.1	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> 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 <i>Contractor's</i> common law liability for people falling outside the scope of the Act with a limit of Indemnity of not less than R 500,000 (five hundred thousand Rands)
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	
A	Priced contract with price list	
20.5	The <i>Contractor</i> prepares forecasts of the final total of the Prices for the whole of the service at intervals no longer than	4 weeks.
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	The person selected from the panel of adjudicators listed in Annexure C of this Contract Data (part C1.2a), by the party intending to refer a dispute to him.
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	e-mail	[•]
W1.2(3)	The <i>Adjudicator nominating body</i> is:	The Chairman of the Johannesburg Society of Advocates, or his successor or his nominee.
W1.4(2)	The <i>tribunal</i> is:	arbitration
W1.4(5)	The <i>arbitration procedure</i> 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	Johannesburg, South Africa
	The person or organization who will choose an arbitrator	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	
X1	Price Adjustment for inflation	CPI yearly price adjustments (as per Statistics SA) applied to years 2 and 3 successively as per the pricing schedule

X1.1(a)	The <i>base date</i> for indices is	The starting date of the maintenance contract
X1.1(c)	The proportions used to calculate the Price Adjustment Factor are:	The full value of year 1 pricing in the service contract
X2	Changes in the law	No data is required for this secondary Option
X17	Low service damages	As per the Service Information (C3) – Annex I section 6
X17.1	The <i>service level table</i> is in	The Service Information, Annex I
X18	Limitation of liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> 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 <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	Refer to insurance clauses in VOL 3 Annexure C1.B
X18.3	The <i>Contractor's</i> liability for Defects due to his design of an item of Equipment is limited to	Refer to insurance clauses in VOL 3 Annexure C1.B
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> , for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	The Contractor's total direct liability to the Employer for all matters arising under or in connection with this contract, other than the excluded matters, is limited to the total of the Prices and applies in contract, tort or delict and otherwise to the extent allowed under the law of the contract. The excluded matters are amounts payable by the Contractor as stated in this contract for: <ul style="list-style-type: none"> - Loss of or damage to the Employer's property, - Defects liability, - Insurance liability to the extent of the Contractor's risks - death of or injury to a person; infringement of an intellectual property right
X18.5	The <i>end of liability date</i> is	90 days for corrective or breakdown maintenance. 52 weeks for project work.
X19	Task Order	
X19.5	The <i>Contractor</i> submits a Task Order programme to the <i>Service Manager</i> within	5 days of receiving the Task Order

Z(A): The Additional conditions of contract are: Z1-Z19

Amendments to the Core Clauses	
Z1	Interpretation of the law
Z1.1	Add to core clause 12.3: Any extension, concession, waiver, non-enforcement of any terms of the contract or relaxation of any action stated in this contract by the Parties, the <i>Service Manager</i> , the, or the <i>Adjudicator</i> 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.
Z2	Providing the Service: Delete core clause 20.1 and replace with the following:
Z2.1	The <i>Contractor</i> provides the <i>service</i> in accordance with the <i>Service Information</i> and warrants that the results of the <i>service</i> , when complete, shall be fit for their intended purpose.
Z3.	Other responsibilities: add the following at the end of core clause 27:
Z3.1	The <i>Contractor</i> shall have satisfied himself, prior to the <i>starting date</i> , as to the completeness, sufficiency and accuracy of all information and drawings provided to him as at the <i>starting date</i> .
Z3.2	The <i>Contractor</i> shall be responsible for the correct setting out or carrying out of the <i>service</i> in accordance with the original points, lines and levels stated in the <i>Service Information</i> or notified by the <i>Service Manager</i> . Any errors in the setting or carrying out of the <i>service</i> shall be rectified by the <i>Contractor</i> at the <i>Contractor's</i> own costs.
Z4.	Termination
Z4.1	Add the following to core clause 91.1, at the second main bullet, fourth sub-bullet point, after the words “assets or”: “business rescue proceedings are initiated or steps are taken to initiate business rescue proceedings”.
Z5.	Ambiguities and inconsistencies: Delete core clause 17 and replace with the following:
Z5.1	If there is any ambiguity or inconsistency in or between the documents which are part of this contract, the priority of the documents is in accordance with the following sequence: <ul style="list-style-type: none"> • The additional conditions of contract under these Z clauses • The conditions of contract and • The other documents.
Z5.2	The <i>Service Manager</i> or the <i>Contractor</i> notifies the other as soon as either becomes aware of any such ambiguity or inconsistency in or between the documents which are part of this contract. The <i>Service Manager</i> gives an instruction resolving the ambiguity or inconsistency. Notwithstanding any other provision of this contract, any such ambiguity, inconsistency and/or instruction does not automatically result in any increase to the Price List or any delay to the end of the service period.
Z6.	Payment: Add the following at the end of core clause 51:
51.5	The Employer does not pay interest to the Contractor on a late payment resulting from the Contractor's failure to provide the Employer with a correctly rendered VAT invoice within the period stated in clause 51.1 above.
51.5	The Employer is entitled to deduct from or set off against any money due to the Contractor <ul style="list-style-type: none"> • any sum due to the Employer from the Contractor or • any amount for which the Contractor is liable to pay to the Employer (whether

liquidated or otherwise) arising under this contract.

Amendment to the Secondary Option Clauses

Z7. Changes in Law: Add the following clause to secondary option X2 as X2.2:

Z7.1 A change in law is defined as:

Z7.1.1 the adoption, enactment, promulgation, coming into effect, repeal, amendment, reinterpretation, change in application or other modification after the starting date of any law, excluding (i) the promulgation of any bill, unless such bill is enacted into the *law of the country*, 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;

Z7.1.2 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*.

Z8. Performance Bond: The following amendments are made to clause X13:

Z8.1. 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 *Service Manager* has accepted in his or her discretion, for the amount stated in the Contract Data and in the form set out in Section C1.4 of this Contract Data.

Z8.2. 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 *service period*. If the terms of the performance bond specify its expiry date and the end of the *service 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 *service 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

Z9. Limitation of liability: Insert the following new clause as Option X18.6:

Z8.1 The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss or damage of any kind is limited to R0.00.

Z8.2 Notwithstanding any other clause in this contract, any proceeds received from 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

Z10. Cession, delegation and assignment

Z10.1. 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 final) of the *Contractor*.

Z10.2. The *Employer* may, on written notice to the *Contractor*, cede and delegate its rights and obligations under this contract to any person or entity.

Z11. Joint and several liability

- Z11.1.** 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 this Contract.
- Z11.2.** The *Contractor* shall, within 1 week of the starting date, notify the *Service Manager* and the *Employer* of the key person who has the authority to bind the *Contractor* on its behalf.
- Z11.3.** 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*.
- Z12. Ethics**
- Z12.1.** The *Contractor* undertakes:
- Z12.1.1.** 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;
- Z12.1.2.** 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.
- Z12.2.** The *Contractor's* breach of this clause constitutes grounds for terminating the *Contractor's* obligation to provide the service in accordance with the procedures stated P2, P3 or P4 in core clause 92.2 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.
- Z12.3.** 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, gratuities, 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.
- Z13. Confidentiality**
- Z13.1.** 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 *Service Manager*, whose consent shall not be unreasonably withheld.
- Z13.2.** If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until otherwise notified by the *Service Manager*.
- Z13.3.** This undertaking shall not apply to –
- Z13.3.1.** information disclosed to the employees of the *Contractor* for the purposes of the implementation of this contract. The *Contractor* undertakes to ensure that its employees are aware of the confidential nature of the information so disclosed and that they comply with the provisions of this clause;
- Z13.3.2.** 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;
- Z13.3.3.** 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);
- Z13.4.** The taking of images (whether photographs, video footage or otherwise) of the *services* or *Affected Property* or any portion thereof, in the course of providing the *services* or at the end of the service period requires the prior written consent of the *Service Manager*. All rights in and to all such images vests exclusively in the *Employer*.
- Z13.5.** The *Contractor* ensures that all his Subcontractors abide by the undertakings in this clause.

Z14. Employer's Step-in rights

Z14.1. If the *Contractor* defaults by failing to comply with its obligations in terms of this contract and fails to remedy such default within 4 weeks of the notification of the default by the *Service Manager*, the *Employer*, without prejudice to its other rights, powers and remedies under the contract, or at law may remedy the default either, itself or procure a third party (including any subcontractor or supplier of the *Contractor*) to do so on its behalf. The reasonable costs of the Employer exercising its step-in rights in respect of any subcontractor or supplier of the *Contractor* shall be borne by the *Contractor*.

Z14.2. The *Contractor* co-operates with the *Employer* and facilitates and permits the use of all required information, materials and other matter (including but not limited to documents and all other drawings, CAD materials, data, software, models, plans, designs, programs, diagrams, evaluations, materials, specifications, schedules, reports, calculations, manuals or other documents or recorded information (electronic or otherwise) which have been or are at any time prepared by or on behalf of the *Contractor* under the contract or otherwise for and/or in connection with the *works*) and generally does all things required by the *Service Manager* to achieve this end.

Z15. Liens and Encumbrances

Z15.1. The *Contractor* keeps the Equipment used to provide the *service* 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 ensures 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

Z16. Intellectual Property

Z15.1 Intellectual Property ("IP") rights means all rights in and to any patent, design, copyright, trade mark, trade name, trade secret, other intellectual or industrial property rights, technical information and concepts, know-how, specifications, data, formulae, computer programs, memoranda, scripts, reports, manuals, diagrams, drawings, prototypes, drafts and any rights to them created during the performance of the *service* and include applications for and rights to obtain or use any such intellectual property whether under South African or foreign law.

Z15.2 IP rights remain vested in the originator and shall not be used for any reason whatsoever other than carrying out the *service*.

Z15.3 The *Contractor* gives the *Employer* an irrevocable, transferrable, non-exclusive, royalty free licence to use and copy all IP related to the *service* for the purposes of constructing, repairing, demolishing, operating and maintaining the *service* or *the Affected Property*.

Z15.4 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.

Z15.5 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:

Z15.5.1 the *Contractor's service*;

Z15.5.2 the use of the *Contractor's* Equipment, or

Z15.5.3 the proper use of the *Affected Property* on which the *service* is provided.

Z15.6 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.

- Z17. Dispute resolution: The following amendments are made to Option W1:**
- Z16.1 Under clause W1.3, in the fourth row of the first column of the adjudication table, the following words are added after the words “any other matter”: “excluding disputes relating to termination of the contract”.**
- Z16.2 The following clauses are added at the end of clause W1.3 as sub-clauses (12) and (13) respectively:**
- Z16.2.1** “The Adjudicator shall decide the dispute solely on the written submissions of the parties. No oral submissions shall be heard during adjudication.”
- Z16.2.2** “Disputes relating to or arising from termination of the Contract shall not be determined by an adjudicator. Any such dispute shall be referred directly to the tribunal in accordance with the procedures set out in clause W1.4.”
- Z17 Day:**
- Z17.1** Any reference to a day in terms of this contract shall be construed as a calendar day.
- Z18 Safety**
- Z18.1** The *Employer*, *Service Manager* or any of his nominated representatives may stop any unsafe *service*. The *Contractor* does not proceed with the relevant service until the safety violation is corrected. This instruction to stop or not to start the *service* is not a compensation event.
- Z18.2** As stipulated by section 37(2) of the Occupational Health and Safety Act No. 85 of 1993 (**OHS Act**) as amended the Contractor agrees to the following:
- Z18.2.1** As part of the contract the *Contractor* acknowledges that it is an Employer in its own right with duties as prescribed in the OHS Act, as amended and agrees to ensure that all work performed, or equipment and materials used, are in accordance with the provisions of the OHS Act.
- Z18.2.2** The *Contractor* furthermore agrees to comply with the requirements set forth by the *Service Manager* and agree to liaise with the *Employer* should the *Contractor*, for whatever reason, be unable to perform in terms of the clause Z18.
- Z18.3** The *Contractor* acknowledges that it is an *Employer* in its own right and is registered with duties as prescribed in the Compensation for Occupational Injuries & Diseases Act No. 130 of 1993.
- Z18.4** Any availability less than 80% for six consecutive months (which is the entirely the contractor’s fault) will lead to contract termination.

Annexure C1.A: 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 C1.B: Insurance Schedule

Summary of Terms and other Matters Applicable to Employer Provided Insurance

SECTION A: DEFINITIONS

Landside refers to:

- Areas of the airport before the security points; and
- The restricted area beyond the security points but, within the perimeter of gatehouses, passenger terminals and cargo buildings.

Airside refers to:

- The Apron / manoeuvring areas; and
- Area within the airside boundary/perimeter fence, excluding the internal areas of the passenger terminals, perimeter gatehouses and cargo buildings.

SECTION B: INSURANCE CLAUSES

1. Insurance requirements for **PROJECTS with a value **below R50 million** on the **LANDSIDE****

1.1 Contract Works

- With regards to contract works claims, the contractor/consultant is responsible for a deductible (excess) of R250 000;
- Contractors / consultants should re-insure the deductible.

1.2 Public Liability

- In the event of a claim against the contractor / consultant for 3rd party property damage, the contractor / consultant will be responsible for a deductible (excess) of R275 000;
- In the event of a claim against the contractor / consultant for removal of lateral support, the contractor / consultant will be responsible for a deductible (excess) of R500 000;
- Contractors / consultants should re-insure the deductibles.

1.3 Professional Indemnity

- All consultants are responsible for Professional Indemnity cover of R5 million
- Contractors who have a material design element, excluding typical P & G related work, as part of their scope, are responsible for Professional Indemnity cover of R5 million;
- In the event of a claim above R5 million, the ACSA PI cover will kick in for the amount in excess of R5 million;
- Proof of cover in the form of a certificate of insurance should be provided to ACSA before a contract is signed between ACSA and the contractor and/or consultant.

2. Insurance requirements for **PROJECTS with a value **below R50 million** on the **AIRSIDE****

2.1 Contract Works

- With regards to contract works claims, the contractor / consultant is responsible for a deductible (excess) of R250 000;
- Contractors / consultants should re-insure the deductible.

2.2 Public Liability

- In the event of a claim brought against the contractor / consultant for 3rd party property damage, the contractor / consultant will be responsible for a deductible (excess) of R525 000;
- In the event of a claim brought against the contractor / consultant for removal of lateral support, the contractor / consultant will be responsible for a deductible (excess) of R750 000;

- In the event of a claim brought against the contractor / consultant for damage to aircraft, the contractor / consultant will be responsible for a deductible (excess) of R750 000;
- Contractors / consultants should re-insure the deductibles.

2.3 Professional Indemnity

- All consultants are responsible for Professional Indemnity cover of R5 million;
- Contractors who have a material design element, excluding typical P & G related work, as part of their scope, are responsible for a Professional Indemnity cover of R5 million;
- In the event of a claim above R5 million, the ACSA PI cover will kick in for the amount in excess of R5 million;
- Proof of cover in the form of a certificate of insurance should be provided to ACSA before a contract is signed between ACSA and the contractor and/or consultant.

3. Insurance requirements for PROJECTS with a value above R50 million on the LANDSIDE

- Projects with a value of more R50 million are not automatically covered under the construction policies. A separate quote is provided by insurers per project.

3.1 Contract Works

With regards to contract works claims, the contractor / consultant is responsible for the following deductibles:

- All Civil Work and Earthworks – R300 000 deductible (excess);
- All other claims – R300 000 deductible (excess);
- Other property insured – R700 000 deductible (excess);
- Contractors / consultants should re-insure the deductibles.

3.2 Public Liability

- In the event of a claim brought against the contractor / consultant for 3rd party property damage, the contractor / consultant will be responsible for a deductible (excess) of R275 000;
- In the event of a claim brought against the contractor / consultant for removal of lateral support, the contractor / consultant will be responsible for a deductible (excess) of R500 000;
- Contractors / consultants should re-insure the deductibles.

3.3 Professional Indemnity

- All consultants are responsible for Professional Indemnity cover of R10 million;
- Contractors who have a material design element, excluding typical P & G related work, as part of their scope, are responsible for a Professional Indemnity cover of R10 million;
- In the event of a claim above R10 million, the ACSA PI cover will kick in for the amount in excess of R10 million;
- Proof of cover in the form of a certificate of insurance should be provided to ACSA before a contract is signed between ACSA and the contractor and/or consultant.

4. Insurance requirements for PROJECTS with a value above R50 million on the AIRSIDE

- Projects with a value of more R50 million are not automatically covered under the construction policies. A separate quote is provided by insurers per project.

4.1 Contract Works

With regards to contract works claims, the contractor / consultant is responsible for the following deductibles:

- All Civil Work and Earthworks excluding Runways – R300 000 deductible (excess);
- Runway Rehabilitation – R300 000 deductible (excess);
- New Runway Construction – R700 000 deductible (excess);
- All other claims – R300 000 deductible (excess);
- Other property insured – R700 000 deductible (excess);
- Contractors / consultants should re-insure the deductibles.

4.2 Public Liability

- In the event of a claim brought against the contractor / consultant for 3rd party property damage, the contractor / consultant will be responsible for a deductible (excess) of R1 025 000;
- In the event of a claim brought against the contractor / consultant for removal of lateral support, the contractor / consultant will be responsible for a deductible (excess) of R1 250 000;
- In the event of a claim for damage to aircraft, the contractor / consultant will be responsible for a deductible (excess) of R1 250 000;
- Contractors / consultants should re-insure the deductibles.

4.3 Professional Indemnity

- All consultants are responsible for Professional Indemnity cover of R10 million;
- Contractors who have a material design element, excluding typical P & G related work, as part of their scope, are responsible for a Professional Indemnity cover of R10 million;
- In the event of a claim above R10 million, the ACSA PI cover will kick in for the amount in excess of R10 million;
- Proof of cover in the form of a certificate of insurance should be provided to ACSA before a contract is signed between ACSA and the contractor and/or consultant.

Annexure C1.C: Forms of Securities

No performance bond or parent company guarantee is required in the term service contract.

C1.2 b - DATA PROVIDED BY THE *CONTRACTOR*

Clause	Statement	Data
10.1	The Contractor is (Name):	
	Company Registration Number	
	Company VAT Number	
	Address	
	Telephone no.	
	Fax No.	
11.2	The <i>working areas</i> are	See C3 'Service Information'
24.1	The <i>Contractor's Key people</i> are:	CV's to be appended to Volume 1
1	FIRE DETECTION & GAS SUPPRESSION PRACTITIONER:	
	Name:	
	Qualifications relevant to this contract	
	Experience	
11.2	The following matters will be included in the Risk Register	1. Refer to Annexure

Part C2: Pricing data

C2.1 Pricing assumptions: Option A

(Priced contract with price list)

The *conditions of contract*

How work is priced and assessed for payment

Clause 11 in NEC3 Term Service Contract, April 2013 (TSC3) core clauses and Option A states:

- | | | |
|-------------------------------------|------------|--|
| Identified and defined terms | 11
11.2 | (12) The Price List is the <i>price list</i> unless later changed in accordance with this contract.

(17) The Price for Services Provided to Date is the total of

the Price for each lump sum item in the Price List which the <i>Contractor</i> has completed and
where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the <i>Contractor</i> has completed by the rate.

(19) The Prices are the amounts stated in the Price column of the Price List. Where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate. |
|-------------------------------------|------------|--|

This confirms that Option A is a priced contract where the Prices are derived from a list of items of service which can be priced as lump sums or as expected quantities of service multiplied by a rate or a mix of both. Where it is contemplated that the Price List represents the type of work, quantity and cost thereof which may or not be selected by the Employer, it is important to ensure that service items listed do not create liability on a daily basis if that is not the intention. For example, if the service is maintenance of an installation on an ad hoc or call-off basis which may require the Contractor to be on standby but not permanently on the Affected Property, avoid listing service items which may be treated as preliminary and general (P&Gs) items, whether fixed or time-related such as contractual requirements, establishing on site, offices, storage, ablutions, water supplies, power supply, telecommunications. The Price List should align with the intention of the contract and selection of Option X 19 should be considered. If the Contractor is required to price P&G items ensure that the tender, contract and Price List provides clearly that daily charges are applicable only as necessitated by the specific activity and authorised by the Service Manager. Particular care should be taken when utilising SANS 1200 as a guide for tenderers or for preparing templates for Price Lists in tenders. Avoid referring to the Price List as the Activity Schedule.

Function of the Price List

Clause 54.1 in Option A states: "Information in the Price List is not Service Information". This confirms that instructions to do work or how it is to be done are not included in the Price List but in the Service Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Service in accordance with the Service Information". Hence the *Contractor* does **not** Provide the Service in accordance with the Price List. The Price List is only a pricing document.

Link to the *Contractor's* plan

Clause 21.4 states "The *Contractor* provides information which shows how each item description on the Price List relates to the operations on each plan which he submits for acceptance". Hence when compiling the *price list*, the tendering contractor needs to develop his first clause 21.2 plan in such a

way that operations shown on it can be priced in the *price list* and result in a satisfactory cash flow in terms of clause 11.2(17).

Preparing the *price list*

It will be assumed that the tendering contractor has read Pages 14, 15 and 76 of the TSC3 Guidance Notes before preparing the *price list*. Items in the *price list* may have been inserted by the *Employer* and the tendering contractor should insert any additional items which he considers necessary. Whichever party provides the items in the *price list* the total of the Prices is assumed to be fully inclusive of everything necessary to Provide the Service as described at the time of entering into this contract.

1 As the *Contractor* has an obligation to correct Defects (core clause 42.1) and there is no compensation event for this unless the Defect was due to an *Employer's* risk, the lump sum Prices and rates must also include for the correction of Defects.

2 If the *Contractor* has decided not to identify a particular item in the *price list* at the time of tender the cost to the *Contractor* of doing the work must be included in, or spread across, the other Prices and rates in the *price list* in order to fulfil the obligation to complete the *service* for the tendered total of the Prices.

3 There is no adjustment to lump sum prices in the *price list* if the amount, or quantity, of work within that lump sum item of service later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event. See Clause 60.1.

4 Hence the Prices and rates tendered by the *Contractor* in the *price list* are inclusive of everything necessary and incidental to Providing the Service in accordance with the Service Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk.

5 The *Contractor* does not have to allow in his Prices and rates for matters that may arise as a result of a compensation event. It should be noted that the list of compensation events includes those arising as a result of an *Employer's* risk event listed in core clause 80.1.

Format of the *price list*

(From page 76 of the TSC3 Guidance Notes)

Entries in the first four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering contractor.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tendering contractor enters the amount in the Price column only, the Unit, Expected Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for an item of work which is the rate for the work multiplied by the quantity completed, the tendering contractor enters the rate which is then multiplied by the Expected Quantity to produce the Price, which is also entered.

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a service is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected Quantity column.



C2.2 Price List

The following Activity Schedule is provided “as-is” for the benefit of the Bidder. ACSA (the Employer) cannot guarantee that it is complete in all respects. The Bidder is responsible for providing an Activity Schedule which is accurate, complete and in accordance with their proposal. Also, refer to C3 (Service information) for activities that need to be priced. Only items listed in this Activity Schedule may be billed to the Employer.

Part 1 – Preventative Maintenance – maintenance frequency as per manufacturer’s recommendations*

Item no.	Asset Description	Quantity	Average Amount per visit	Number of visits per annum *	Annual Cost
1	Booster Pumpstation - Electric Motor (Electrical Maintenance)	1	R		R
2	Booster Pumpstation – Pump (Mechanical Maintenance)	2	R		R
3	Booster Pumpstation – Diesel motor and pump (Mechanical Maintenance)	1			
4	Booster Pumpstation – Jockey Pump (Electrical and Mechanical maintenance)	1	R		R
5	Booster Pump Station Motor Control- & Other Electrical Panels, including communication (Electrical Maintenance)	1	R		R
6	Booster Pumpstation - Valves	10	R		R
7	External valve pits – Valves, including pressure reducing valve	5	R		R
8	Booster Pumpstation – Fire Alarm system including communication and mandatory inspection and testing	1	R		R
9	Diesel fuel tank	1	R		R
10	Domestic water pump	1	R		R
11	Domestic water filtration equipment	1	R		R
12	Inlet valves and level control system	1	R		R
13	Maintenance and pressure testing at hydrants around the entire complex	30	R		R
14	Reservoirs and tanks	2	R		R
15	Fresh air fans	2	R		R
Preventative Maintenance Sub-Total A (per year)				R	

Note: Inclusive is all required tools, equipment and consumables, cleaning materials, fasteners, lubricants, chemicals, electronic devices, etc. that are required to do any corrective or preventive maintenance, and measurements (multi-meters, etc.).

Part 2 Fixed Cost:

(Operational costs associated with providing the services at the airport)

Item no.	Asset Description	Quantity		Monthly cost	Annual Cost
1	Management and fixed site costs including monthly reporting	12		R	R
2	Insurance cost (yearly)	1	R	-	R
Preventative Maintenance Sub-Total B (per year)				R	

Part 3 Provisional Amounts:

(Provisional amount will be paid on proven cost and must be on pre-approval basis. Supporting documents will be requested at claiming)

Item no.	Description	Quantity	Amount (per single item)	Annual Cost
1	Permits	1	R 6 000	R 6 000
2	Safety file	1	R 3 000	R 3 000
3	Spares and unique repairs (on approval by <i>Service Manager</i>)	1	R 75 000	R 75 000
4	Mark up on Spares and unique repairs (.....%)	1	R 75 000 x%	R
Preventative Maintenance Sub-Total C (per year)				R

Part 5 ADHOC Corrective Maintenance

Note these are for evaluation purposes 80/20 maintenance principle applied.

No cost will be charged for minor repairs performed by maintenance staff during airport operating hours.

Rates are inclusive (include travelling, averaged for public holidays and after hour, admin and fees on overheads,

Item	Description	Call out Rates (includes 1 st hr on site) & Qty	Additional Hrs-Rates & Qty	Rate & Qty	Cost per annum
1	Site Manager	R x 3	R x 10	N/A	R
2	OEM Specialist / Specialized Engineer (Mechanical / Electrical) (on approval of the Service Manager. Includes a travelling and detailed engineer's report). Rate is per Qty	N/A	N/A	R x 2	R
3	Technician / Artisan	R x 10	R x 32	N/A	R
4	Technical assistants	R x 10	R x 32	N/A	R
5	Field Engineer (including technical report)	R x 5	R x 10	N/A	R
Preventative Maintenance Sub-Total D (per year)					R

PPE and tools allowance)

Labour rates

^aAll rates to exclude vat. Subject to agreement between the *Service Manager* and the *Contractor*, the number of staff allocated to the contract may be increased/decreased to cater for special needs that may arise from time to time. Labour rates shall include all personnel insurance, holidays with pay, incentive bonuses. No labour shall be charged for travel or travelling. Labour time shall be calculated for the time spent on site. Time spend on site must be proved by a job card signed by both the Employer's representative and the Contractor on the day(s) which the activities are performed. The job card must have the following information as a minimum:

- Date
- Time of work started
- Time work stopped
- What activities was performed
- Approval signatures from both the Employer and the Contractor

After-hours Call-outs

Callouts rate must include all required travelling and the **first hour on site**.

Call out fee shall not be applicable when contractors are onsite.

After hours rate shall be applicable for callouts outside normal working hours (07H00-17H00)

Mark-up (third party procured items/services)

Cost shall be net cost (excluding VAT) of parts delivered to site with all discounts deducted. The third party's quote shall be presented when submitting quotes for approval.

Contract value

Below is the guide that must be used in estimating the contract value. This amount must be reported as the Contract Value in the corresponding schedules. Tenderers are reminded that this amount is for illustrative purposes only and that ACSA will not be under any obligation to expend the full or any portion of this amount. Monthly contract expenditure will be strictly calculated according to the Activity Schedule as provided above.

Price Summary - twelve-months maintenance expenditure

Description	Total (excluding VAT)
Preventative maintenance Sub-Total A	R
Fixed Cost Sub-Total B	R
Provisional Amounts Sub-total C	R
ADHOC Corrective Maintenance Sub-total D	R
12-months estimated contract value (Sub –Total E)	R

Expenditure over 3-year contract including CPI yearly price adjustments (As per Statistics SA)

Description	Total (excluding VAT)
Sub-total E: year 1	R
Sub-total F: year 2 (year 1 plus CPI escalation*)	R
Sub-total G: year 3 (year 2 plus CPI escalation*)	R
*3-years estimated contract value Sub-Total H	R

***this amount to be carried over to Form of Offer and Acceptance.**

Contract values will be increased/decreased according to the current indices stipulated in Statistic SA – Consumer Price Indices- all income groups. **7% escalation should be used for illustrative purposes.**

Part C3: Service information

DESCRIPTION OF THE WORKS

Employer's objectives

The objective is to maintain the serviceability of the Fire Booster Pump System at George Airport in a sustainable manner at the lowest operating and maintenance costs while ensuring compliance to general safety and aviation related legislation.

The scope entails maintenance of fire system infrastructure at **George Airport**. In brief, maintenance involves servicing, repairs, replacement and system performance test. The fire system infrastructure comprises of:

- Fire Detection System;
- Booster pump station; and
- Reservoir and tank.

Servicing - performing routine preventive maintenance as prescribed by the original equipment manufacturer (OEM) specifications and ACSA's planned maintenance activities. All work shall comply to the requirements of: SANS 10400-part T, SANS 1475, SANS 10139, SANS 10287 and SANS 246 as a minimum, OHS Act 85 of 1993 regulations and all other legislation that might be relevant to this Contract and the execution thereof

Repairs – responding to breakdowns, call-outs and restoring the equipment to a safe working condition.

Replacement – changing of faulty components or obsolete components with an upgraded part or modification.

Spare - A basic inventory of spares is to be kept on site.

System Performance Test – Testing the system's performance as per the original equipment manufacture's (OEM) specifications.

Statutory Tests – performing annual statutory tests in line with OHS Act 85 of 1993 and related regulations and SANS 10400-part T, SANS 1475, SANS 10139, SANS 10287 and SANS 246 as a minimum and all other legislation that might be relevant to this Contract and the execution thereof.

Fire detection systems

The contractor will be responsible for servicing, repairing, replacement of components (where required), system performance test and statutory tests/inspections (where required) of the fire detection system, smoke detectors, sounders, system and control panels in accordance with SANS 10139.

Booster pump station

The contractor will be responsible for servicing, repairing, replacement of components (where required), system performance test and statutory tests/inspections (where required) of the booster pump station, diesel engine, pumps, fuel system, electrical motors and control panels in accordance with SANS 10287.

Fresh Air Fans

The contractor will be responsible for servicing, repairing, replacement of components (where required), system performance test and statutory tests/inspections (where required) of the fresh air fans

EXTENT OF THE WORKS

The Contractor will be fully responsible for meeting all requirements in this document regarding the Works.

For each piece of equipment, all work will be carried out to standards as required by the Original Equipment Manufacturer (OEM) as well as any applicable governing law and/or regulations. Where OEM standards differ from those required by this document the more stringent requirement shall apply. The Contractor will be fully responsible for obtaining (and keeping up to date with) said requirements.

The Contractor will be responsible for providing staff which are sufficiently skilled and qualified for successful execution of the works. The Contractor shall comply with the Minimum Staffing Schedule always – as stipulated in the Annexes. This may be amended by mutual arrangement between ACSA and the Contractor from time to time.

The Contractor shall always remain responsible to ensure that the compliment and maintenance regime is sufficient to maintain the service levels and system performance indicators as stipulated in the Annexes. Should the Contractor not be able to maintain adequate system performance indicators due to constraints caused by the

Employer, it shall be timeously reported, in writing, to the Contract Manager. Refer to the Annexes for the required system performance indicators.

The Contractor will ensure that his/her staff compliment is of a sufficient quantity to allow for uninterrupted supply of labour in the event of his/her staff taking sick leave, paid leave and will allow for all staff related eventualities.

The Contractor shall continuously ensure that all staff is suitable, able and competent for the duties required of them. The Contractor shall continuously ensure that all staff is knowledgeable and trustworthy to perform maintenance activities/procedures for the Works. The Contractor shall further ensure that any staff member reasonably suspected of partaking in criminal activities is immediately removed from site and his permit returned to and/or cancelled at the ACSA Permit Office.

All work shall be performed within the required Response Times – as stipulated in the Annexes. Any breakdown impacting on operations shall be attended-to until restored to good reliable condition. No breakdown may be left unattended or incomplete for the next day or shift. All repair work shall carry a defect free guaranteed for a period of 3 months after completion of work.

All work shall be charged according to the Activity Schedule. However, no labour shall be charged for any non-scheduled work, repair work or other work when carried out by a scheduled maintenance shift.

All spares will be charged according to the Activity Schedule. The Contractor shall ensure that replacement parts are effectively managed and disposed-off in a safe manner.

The Contractor will be responsible for holding all tools and/or special equipment that might be required for the execution of the works, either on site or on their premises in order to comply with the Response Time requirements of this contract. Any exclusion to the above should be clearly communicated in the returnable schedules when submitting the tender.

The Contractor shall ensure that, unless a special arrangement is made with the Service Manager, all senior staff members and maintenance support staff is always immediately reachable via cell phone.

The Contractor shall ensure that all maintenance staff are issued with uniforms that will comply with a minimum requirement as agreed with the Service Manager from time to time. Current airport requirements are: safety shoes, work suit and a uniquely numbered reflective jacket (for easy identification via CCTV).

PROCUREMENT

Requirements

The Contractor will respect OEM warranties to ACSA always when procuring spare parts, products or 3rd party services. It will be the Contractor's sole responsibility to ensure that OEM warranty requirements are adhered to always.

Where Contractors use or quote on spare parts of a lower quality than recommended by the OEM, or parts not recommended by the OEM, this shall be clearly indicated to the Service Manager on the quotation. This also implies that the Contractor must build relationships with the various key OEM's.

The Contractor must adhere to all airport requirements regarding fire, health and safety when procuring replacement parts.

No casual labour (i.e. "off the street" labour) may be employed by the Contractor unless pre-arranged with ACSA. Whenever this is required, the Contractor shall come to a suitable arrangement with ACSA regarding sourcing and screening of such individuals.

Subcontracting

No part of this Contract may be subcontracted unless with written approval from ACSA. ACSA shall be under no obligation to grant such approval. Should any part of this Contract be subcontracted, the Contractor will be responsible for all Works (or failure to affect the Works) as if it was done so by the Contractor.

MANAGEMENT

Management of the works

All work shall conform to SANS 10400-part T, SANS 1475, SANS 10139, SANS 10287 and SANS 246 as a minimum, OHS ACT regulations and all other legislation that might be relevant to this Contract and the execution thereof.

All work shall be carried out in accordance with prevailing industry norms and best practice and will always comply with OEM requirements.

Planning and programming

All maintenance work shall be scheduled, and a roster presented to the Service Manager at the end of the preceding month. Work shall be scheduled in a manner as not to interfere with any normal airport operations.

Normal airport operational hours shall be:

Mon Thu	06H30 – 19H00;
Fri	06H30 – 20H00;
Sat	08H30 – 15H00;
Sun	none

Normal working Hours shall be 07H00-17H00.

As a **minimum** requirement, the Contractor shall roster **scheduled** preventative maintenance activities.

Maintenance teams will attend to scheduled preventative maintenance, non-scheduled maintenance and breakdown maintenance. The Contractor must ensure that no scheduled maintenance work is carried over to the following week.

All Preventative Maintenance shall be scheduled, at least, to the requirements of the annexures (The Contractor must ensure that sufficient allowances for all these items are made with his/her pricing in the Activity Schedule.)

Methods and procedures

The Contractor must accept and respect the fact that the Airport is continuously undergoing construction and improvement and that a variety of stakeholders are involved in ACSA's business. Therefore, within reason and with prior arrangement with the Contractor, ACSA might require the following from time to time:

- Assisting with emergency repairs
- Assisting with airport operations by re-scheduling of work to accommodate operations and or other contractors
- Allowing access and aiding OEM suppliers to correct defects on equipment and/or systems
- Pointing out services to consultants or other contractors
- Providing access to other contractors
- Attending co-ordination and planning meetings
- Removing rubble and/or equipment from site relating to this contract
- Training of ACSA operators and/or electricians / technicians
- Providing of system data and/or statistics to ACSA
- Recommending improvements on maintenance procedures
- Recommending improvements on operational procedures
- Co-operating with ACSA Security relating to security issues

The *Service Manager* may instruct operational- and works procedures to the *Contractor* as might be required from time to time. The *Contractor* will instruct his/her staff accordingly and implement measures to ensure that these procedures are strictly adhered to.

Quality plans and control

All work must be executed in accordance with prevailing industry norms and standards relating to quality. In this regard, the Contractor will be expected to draft quality plans for the Service Manager from time to time. Emphasis must be on improving system reliability and on ensuring that rostered maintenance work is indeed performed as and when required.

Environment

The Contractor will keep noise and dust levels to a minimum. At no time, shall his/her work result in nuisance, interference or danger to the public or any other person working at the Airport.

At no time, shall the Contractor:

- allow any pollutive or toxic substance to be released into the air or storm water systems
- interfere with, or put at risk, the functionality of any system or service
- cause a fire or safety hazard

Format of communications

Work instructions, daily check sheets, monthly maintenance reports, breakdown reports, exception reports, etc. will all be in a format as agreed with the Service Manager.

Key personnel

A schedule of key personnel to this Contract (as per the Schedules) will be provided to the *Service Manager* at commencement of this Contract. This will, as a minimum, include all persons from technician level to management level. For the full duration of this Contract, none of these persons will be replaced by a person of lesser ability or qualification. All on-site staff leaves shall be reported and agreed with the Service Manager.

Management meetings

The *Contractor* will be expected to attend meetings relating to maintenance, operations, contract management and other issues that may arise from time to time. As far as is practicable, the *Contractor* will make all required persons available for these meetings. The *Contractor* shall not submit claims for payment for staff attending any of these

The meeting shall be site specific. The medium in which the meetings will be conducted will be discussed with the site-specific *Service Manager* on contract commencement.

Electronic payments

The Contractor should arrange with ACSA's finance department for making all payments electronically.

Daily records

The *Contractor* shall keep accurate daily records of staff attendance, maintenance work, safety inspections and exception reports. Records shall be available for scrutiny by the *Service Manager* at any time. All records shall be in a format as agreed with the *Service Manager*.

Monthly reports

When invoicing, the Contractor shall ensure that all required reports for the corresponding month are attached to the monthly invoice. This will include monthly reports on:

1. system availability (averaged per week)
2. maintenance work (including % of scheduled maintenance work completed)
3. maintenance plan for the next month
4. Asset register up to date including equipment data
5. Outstanding maintenance issues
6. Risk Register up to date

The contractor shall keep copies of all reports and records for at least 3 years. All reports shall be in a format as agreed with the Service Manager from time to time.

Permits

The Contractor shall not be compensated for costs relating to ACSA required permits, or for labour/time spent in obtaining it. An allowance must be made in the Activity Schedule in this regard.

The *Contractor* must ensure that he/she is, always, familiar with ACSA's safety and security requirements relating to permits for no work to be delayed as a result thereof. This will include the permit application process.

Note that (within reason) the Contractor will have no claim against ACSA if a permit request is refused.

The following table is not all inclusive, but is provided for illustration purposes:

Permit	Required by/for	Department
AVOP – Airside Vehicle Operator permit	All drivers of vehicles on airside	ACSA Safety
Airside Vehicle Permit	All vehicles that enter airside	ACSA Safety

Basement Parking permit	All vehicles allowed to enter the delivery basement	ACSA Parking
Personal permit	All persons employed on the airport	ACSA Security
Cell phone permit	All persons taking cell phones to airside	ACSA Security
Lap top permit	All persons taking lap top computers to airside	ACSA Security
Camera permit	All persons taking cameras or camera equipment to airside	ACSA Security
Hot Works Permit	All welding and/metal cutting work	ACSA Safety

Proof of having attended the airside induction training course is required for all personal permit applications. Persons applying for an AVOP must provide proof of having attended an AVOP course. Fees are levied for these courses. Fees are further levied for all permit renewals and refresher courses - where applicable.

Proof of compliance with the law

The Service Manager may at any time request from the Contractor reasonable proof that the Contractor is in compliance with a law or regulation.

Insurance provided by the employer

Refer to ACSA Insurance Clauses Annexure.

Health and safety requirements and procedures.

Refer to Form C11 Occupation Health and Safety Mandatory Agreement that must be appended to Vol. 3.

The Service Manager shall be entitled to fine the Contractor an amount of R2000.00 for each non-conformance to Health and Safety matters. This shall not transfer any of the Contractor's responsibilities in this regard to the Employer by any means.

The Contractor shall be fully responsible for compliance to the Occupational Health and Safety Act for all persons, equipment and installations relating to this Contract. The Contractor is expected to sign the undertaking in this regard as attached in the annexes.

It shall be the Contractor's responsibility to ensure that all relevant labour and safety legislation is adhered to in rostering staff.

All persons on company premises shall obey all health and safety rules, procedures and practices. NO SMOKING signs and the prohibition of the carrying of smoking materials in designated areas shall always be obeyed. A copy of the Safety Rules booklet is available on request from the ACSA Safety Department.

All the applicable requirements of the Occupational Health and Safety Act (1993) and Regulations and any amendments thereto, shall be met. Where the OHS Act prescribes certification of competency of persons performing certain tasks, proof of such certification shall be provided to the Service Manager.

The contractor's Workmen's Compensation fees must be up to date. A copy of the Contractor's WCA registration shall be produced on request.

The following areas in the company are declared as "HOT WORKS PERMIT" areas:

All airside areas

All basement areas

All areas accessible to the public

All enclosed areas

The terminal building

Any process in the above-mentioned areas involving open flames, sparks, or heat shall be authorised by the issue of a permit to work - obtainable from the ACSA Safety department. Any work done under the protection of a permit to work shall be in strict compliance with every prescription regarding the permit.

Safety equipment shall be used where applicable (e.g. safety, goggles, boots, harness, etc.) The Contractor, at his/her own expense shall provide such equipment, for his/her employees. The Contractor shall apply the necessary discipline and control to ensure compliance by his workers.

All Contractors must ensure that his/her employees are familiar with the existing emergency procedures and must co-operate in any drills or exercises, which might be held. Emergency / fire equipment and extinguishers shall not be obstructed at any time.

No person shall perform an unsafe / unhygienic act or operation whilst on Company premises.

No unsafe/dangerous equipment or tools may be brought onto or used on Company premises. The Company reserves the right to inspect all equipment/tools at any time and to prevent/prohibit their use, without any penalty to the Company and without affecting the terms of the Contract in any way.

The Company reserves the right to act in any way to ensure the safety/security of any persons, equipment or goods on its premises and will not be liable for any costs or loss evoked by the action. This includes the right to search all vehicles and persons entering, leaving or on the premises and to inspect any parcel, package, handbag and pockets. Persons who are not willing to permit such searches may not bring any such items or vehicles onto the premises.

The Contractor shall maintain good housekeeping standards in the area where he is working for the duration of the contract.

At no time, must the Contractor interfere with, or put at risk, the functionality of any Sprinklers and/or fire prevention system. Care must also be taken to prevent fire hazards.

The Contractor is required to issue all staff with standard uniforms. This shall as a minimum include: safety shoes, overalls (clearly marked with Contractor's company logo) and numbered reflective jackets (as per Airport requirements). All costs relating to uniforms shall be for the Contractor's account.

Cell phones and two-way radios

Use of cell phones on airside is **not** permitted unless the user is in possession of an appropriate Airport permit for the device. Cell phone permit issuing authority lies with the ACSA Security department.

The Contractor will **not** be allowed to use two-way radios at the Airport unless these radios are of the type, model and frequency range as approved by the ACSA IT department.

Protection of the public

The Contractor shall take special care in order not to harm or endanger the public in any way. Work shall be sufficiently hoarded and guarded to safeguard children and the general public from injury relating to machinery, work or other.

Barricades and lighting

Where hoarding, barricades or lighting is required in the execution of the Works, the Contractor shall provide same at his/her own expense. Hoarding, barricades and lighting shall comply with industry accepted norms and standards and may not be used for purposes of advertising or any other purpose than safeguarding the Works.

ANNEXES to C3 (Service information)

Title	Annex number
Risk Assessment	Annex A
Special requirements at an operational airport	Annex B
Schedule of Equipment	Annex C
Service Level Agreement	Annex D
Schedule of Tools and Special Equipment	Annex E
Contract start-up proposal	Annex F
Resource proposal	Annex G
Suggested Maintenance Programme	Annex H

RISK ASSESSMENT

ANNEX A

Ref	The risk	Risk Owner	How can it happen?	What can happen?	Assessment		Risk	Implementation of existing controls	Control Owner	Does the Control Affect Impact or Likelihood	Effective-ness	Weight-ing	Residual likely-hood	Residual Impact	Residual Risk
			(Cause)	(Effect)	Likely-hood	Impact									
2	Delay to Handover of Site to The Contractor	Project Manager	1. The Service Manager's late approval of The Contractor's Programme, Cashflow and Quality Plan	The Contractor waits for handover of site, further delaying the start date of Construction.	3	3	High	The Service Manager to be fully versed in ACSA/ICAO Standards to ensure swift review of The Contractor's Programme, Cashflow and Quality Plan	The Service Manager	I	80.00%	25.00%	2	3	High
			2. The Contractor does not have an approved Programme, Cashflow or Quality Plan in line with ACSA Standards					The Contractor to be fully versed in ACSA/ICAO Standards to ensure acceptable standards are met	The Contractor	L	80.00%	25.00%			
			3. Delay to security & guarantee approvals, permits and police clearance					The Contractor to be fully versed in the contract	The Contractor	L	80.00%	25.00%			
			4. Delay to statutory approvals					The Contractor to be fully versed in the contract	The Contractor	L	80.00%	25.00%			
3	Delayed/Short Payment to The Contractor & to Labour on site	Project Manager	1. Late payment of payment certificates to the contractor	The Construction works can be disrupted due to local labour not working because they haven't been paid.	3	3	High	The Service Manager to follow the approved programme from ACSA and ensure monthly reporting is done accurately and sent to the PM timeously	The Service Manager	L	80.00%	20.00%	1	3	Low
			2. The Contractor is falling behind on his approved programme (less work, less pay)	Cash flow is not met				The Contractor to follow the approved programme from ACSA and ensure monthly reporting is done accurately and sent to the PM timeously	The Contractor	L	70.00%	20.00%			
			3. The Service Manager has delayed the measurement of work done for payment to The Contractor	Payment certificate is delayed				The Service Manager to ensure payments are made timeously to ensure that work runs smoothly	The Service Manager	L	90.00%	20.00%			

			4. Delay in notification of compensation events and associated ACSA approvals 5. Inability to approve additional work	Not following administrative procedures Limited client budget				The Contractor to be fully versed in the contract to ensure timeous approvals	The Contractor	L	70.00%	20.00%			
								All to be fully versed in the contract to ensure timeous approvals	All	L	70.00%	20.00%			
4	Poor Standard of Maintenance Works	Project Manager	1. The Contractor not working to the acceptable standard 2. The Contractors sub-contractors not working to an acceptable standard	The repair of poorly maintained equipment can take several weeks to rectify.	3	3	High	The Service Manager to derive stop points for The Contractor based on the approved programme. This will define exactly when The Contractor should contract The Service Manager for approval of the works to ensure swift execution of The Works As above	The Service Manager	L	80.00%	60.00%	2	3	High
5	Late Delivery of Materials	Project Manager	1. The Contractor does not have the resources required to purchase materials to carry out The Works. 2. Shortage of materials on site due to supplier shortage or manufacturing delays. 3. Delays in Procurement of materials or sub-contractors due to administrative issues	Certain portions of The Works would be put on hold until the required materials are delivered	2	4	High	The Service Manager must ensure that The Contractor is making the necessary means of getting the required material on site as indicated on the approved Programme. The Contractor should source several quotes for materials that are identified to be in "short supply" or "Special" to ensure swift execution of The Works Contracts manager or procurements specialist to expedite processes.	The Service Manager The Contractor The Contractor	L L L	40.00% 70.00% 70.00%	30.00% 30.00% 40.00%	1	4	High
6	Insufficient Safety on Site	The Contractor & The Client	1. The Contractors Materials & Equipment are stolen from site	Materials and equipment can go missing at night or during long periods of required shutdown. This can cause a delay to the Completion date.	2	3	High	The Contractor to provide sufficient day/night security and to the Site	The Contractor	L	70.00%	100.00%	1	3	Low

7	Contractor Equipment Breakdown	The Contractor & The Engineer	1. Poor upkeep can cause The Contractors Machinery to breakdown.	Unplanned breakdowns can cause a delay to The Works and Completion date.	2	3	High	The Service Manager /H&S Officer to inspect and report on The Contractors equipment on a regular basis	The Service Manager	L	80.00%	50.00%	1	3	Low
			2. The Contractors equipment being damaged and/or destroyed due to inexperienced artisan piloting machinery.					The Contractor to ensure periodic upkeep of all equipment on site.	The Contractor	L	80.00%	50.00%			
8	Labour Disputes	The Contractor & CLO	1. Not properly relaying information between The Contractor and Local Labour 2. Local labour not getting paid enough	Local labour disputes can cause a delay to the completion date of The Works.	2	3	High	The Contractor to ensure that the full scope of works for local labour is clearly identified within their contract documents.	The Contractor	I	50.00%	100.00%	2	2	Low
11	Adverse Weather	The Contractor	1. Heavy Rain	Adverse weather can cause the flooding of excavations and other important works.	2	2	Low	The Contractor to have an approved procedure to adequately close up the works during adverse weather. This will ensure the least amount of down time caused during these delays	The Contractor	L	70.00%	70.00%	1	2	Low
			2. Heavy Wind					The Engineer to design for the Geotechnical Requirements of The Works area.	The Engineer	L	70.00%	30.00%			
12	Fire at the aerodrome during construction while pumps are not in operation	Client	1. Aeroplane accident	Assets can burn down, or major damages to the buildings could be suffered	2	5	Extreme	Existing pumps to be kept in operation for as long as possible. Changeover time to be minimised. Coordinate with the municipality to ensure that the municipal line is not closed simultaneously	The Contractor	I	75.00%	50.00%	2	3	High
			2. Kitchen accident					Notify insurer during times where there will only be a single source of fire water	The Client	I	15.00%	25.00%			
			3. Electrical fault					Notify the municipal fire brigade to put a fire engine on standby.	The Service Manager	I	0.00%	25.00%			
			4. Arson												
			5. Car fire												

13	Fire at the aerodrome during construction while reservoir is not in operation	Client	1. Aeroplane accident 2. Kitchen accident 3. Electrical fault 4. Arson 5. Car fire	Assets can burn down, or major damages to the buildings could be suffered	2	5	Extreme	The sectional steel backup fire water tank will be installed first. Changeover time to be minimised. Coordinate with the municipality to ensure that the municipal water line is not closed / unavailable simultaneously. Notify insurer during times where there will only be a single source of fire water	The Contractor The Service Manager	I I	75.00% 15.00%	60.00% 40.00%	2	3	High
14	Existing infrastructure failing during maintenance	Client	1. Existing infrastructure could fail (pipe burst, motor breakdown) 2. 3.3kV buried cable fault could develop	Water leak or shutdown of fire water system rendering the airport without fire hydrant water. Loss of power to entire pump room	2	4	High	Ensure servicing and maintenance is up to date. Perform regular inspections on the existing infrastructure in the plantroom Have a contingency plan in place with the municipal fire department Expedite the 3.3kV cable replacement through emergency maintenance procurement	The Service Manager The Contractor The Contractor The Service Manager	L L I L	75.00% 50.00% 75.00% 75.00%	20.00% 20.00% 30.00% 30.00%	2	4	High
15	Business Disruption / Asset Damage	Client	1. Theft of cables or other infrastructure. 2. Damage by contractor to existing infrastructure due to lack of Availability or accuracy of As Built Information 3. Damage by contractor to unknown services 4. Complications with tying into existing infrastructure	Disruption to works and airport	3	4	Extreme	Ensure fence is maintained. Ensure plantroom is locked after work. Arrange a ground penetrating scan prior to construction Arrange a ground penetrating scan prior to construction Follow method statements and employ necessary skilled labour	The Contractor The Contractor The Consultant The Consultant The Contractor	L L L L L	75.00% 75.00% 75.00% 75.00% 75.00%	20.00% 20.00% 20.00% 20.00% 20.00%	1	4	High

16	Site personnel contract COVID-19	Project Manager	1. Contractor staff contract Covid-19 at work or from elsewhere	Disruption to works	3	1	Low	Implement measures as per the legislation and revised H&S specification.	The Contractor	L	75.00%	60.00%	2	1	Low
								Have backup personnel	The Contractor	I	75.00%	40.00%			
17	Financial loss and/or injury of 3rd parties due to the proximity of the service (or of persons providing the service) to all airport users	The Contractor	1. Any construction related activity such as excavations, operation of plant or temporary installations could lead to an accident.	Injury to a 3rd party	1	3	Low						1	3	Low
18	Risk of injury to contract personnel and airport personnel	The Contractor	1. Lifting/moving of heavy objects. 2. Work in confined spaces 3. Work with flammable and toxic gases	Injury	3	3	High	Contractor to prepare and enforce method statements for work activities	The Contractor	L	75.00%	100.00%	1	3	Low

SPECIAL REQUIREMENTS AT AN OPERATIONAL AIRPORT

Work done on or near an active airport is subject to several special requirements and conditions to ensure the safe operation of the airport at all times.

The work under this contract is to be carried out under operational conditions. Various limitations and requirements are to be taken cognisance of during the preparation of the tender and the construction programme. These limitations will not entitle the contractor to claim for extension of time.

1. Airports Manager

The Airports Manager is at all times responsible for the effective and safe operation of the airport. The Airports Manager or his designated representative will represent the Employer at the airport and he has full authority to act on behalf of the Employer, as set out in the contract documents.

The Airport manager will issue the necessary application forms to those who apply to the airport management for an airside vehicle permit and/or an Airport Security Permit and will decide, on receipt of the completed forms, whether or not to issue permits.

The Airport Management may at any time withdraw or suspend an Airside vehicle Permit or any Airside Security Permit.

All negotiations between the Contractor and the airport management shall be through the Principle Agent.

2. Airport Security and Safety

All personnel of the Consultants or Contractor will have to undergo a Security and Safety Awareness Programme before the start of the contract.

The Principle Agent/Contractor shall ensure that airport security is at all times complied with by his own personnel, all subcontractors and their personnel as well as all suppliers.

Access to the security area for personnel, vehicles and construction plant can only be obtained with permission from the Employer. Permits may be required for personnel and vehicles frequently moving through the security check points and shall at all times be visibly displayed while a person or vehicle is within the security area. Identity Documents must be available and presented on request.

Permits are only valid for a specific area inside the security area and the responsibility rests with the Contractor to control the movement of personnel, plant and vehicles to ensure their compliance with this requirement. A Prime Cost Sum has been provided for the cost of any permits required.

The Contractor will be required to provide permits for each and every material delivery vehicle entering the site, and they are to be escorted by a permit and radio license holder. The Employer may withdraw any or all permits without prior notice in the case of misuse, in which case the Contractor will have no claim against the Employer.

The Contractor shall make specific arrangements with the Employer, through the Principle Agent, to ensure the expedient delivery of time-dependent materials such as asphalt. If required, the Contractor shall supply additional security personnel, approved by the Airport Manager to assist with security control. If, due to the extra volume of construction traffic that has to pass through security, additional entrance facilities have to be provided, it shall be done in consultation with the Airport Manager and Principle Agent. These facilities and personnel have to be provided by the Contractor.

The Employer will require that the contractor co-operates with ACSA Security relating to security issues.

3. Responsibilities of Consulting Engineers/Contractor

As a condition of approval of an application for an Airside Vehicle Permit, the Consulting Engineer/Contractor shall ensure that all vehicles and drivers are covered by the Contract Works, Public Liability and SASRIA Special Risks Insurance.

When a vehicle is no longer required for airside use, the Consulting Engineer/ Contractor must upon removing it from airside use, remove and return the Airside Vehicle Permit to the airport manager.

The Consulting Engineer/Contractor shall immediately report to the airport manager all notifiable accidents and shall ensure that arrangements are in place for the rapid removal and/or repair of its vehicles should they become immobilised on movement areas.

Plant, equipment and personnel of the Consulting Engineer/Contractor shall at all times operate and remain 50m clear of all active runways and taxiways (measured from nearest edge of facilities). In Cat 2 conditions the 50m increases to 100m.

4. Accident/Penalties

The Principle Agent/Contractor shall report to the Airport Manager any accident involving vehicle or plant under their control where the accident has involved injury or damage to another vehicle, aircraft or airport property; or where there is injury to driver(s) or passenger(s) in the vehicle. The prescribed accident report shall be used for this purpose.

Distinction will be made between the following types of accidents:

- (i) Accidents of minor nature not having effect on the operational efficiency of the involved vehicles, building or airport property.
- (ii) Accidents causing property damage affecting the operational efficiency of vehicles or infrastructure or causing injury to persons traveling in vehicles.

Accidents in the first category must be reported to the Airport Manager within 24 hours. Accidents in the second category must be reported to the Airport Manager immediately and the South African Police Services (SAPS) shall be called to the accident site to investigate and report on the causes of the accident. Where possible neither the driver, the passenger or vehicles should leave the accident site before the arrival of the SAPS.

The parties involved must ensure that adequate arrangements are made for the rapid removal or repair of the immobilised vehicles on operational areas.

All accidents/incidents, irrespective of the seriousness thereof, affecting aircraft or loading bridges, must be reported immediately to the AM.

The Airport Manager reserves the right to:

- Withdraw any airport security permit.
- Withdraw any airside vehicle permit, if it is considered necessary tow away vehicles when parked incorrectly.

5. Identification and Warning Lights

All construction vehicles and self-propelled plant used inside the security area shall be properly marked to promote easy identification. A register of all identification numbers for all vehicles shall be kept up to date by the Contractor and shall at all times be available for inspection by the Airport Manager or Engineer. Each vehicle or self propelled plant item, as required by the Engineer, shall be fitted with approved amber rotating warning light which shall be in continuous operation while the vehicle is moving in the security area. The Contractor will be responsible for all costs involved in this item.

6. Additional Security Measures

- No cameras or the taking of photos will be allowed within the security area without written approval from the Airport Manager. No fire-arms, explosives or any other weapons may be brought into the security area.
- Smoking and the making of fires are prohibited in certain areas of the airport. Open fires may only be made in designated areas after written permission has been obtained from the Airport Manager, who will also supervise such fires. No smoking is allowed in the apron areas.

- No accommodation of personnel will be allowed in the security area of the airport.
- No drawings, sketches, diagrams, information, etc. pertaining to the works, airport, accidents, etc. may be made, reproduced or registered, except when it is necessary for the execution of the contract. No information regarding accidents, airport activities, reports, etc. shall be given to anybody and no press release shall be made or interview may be given to anybody without the written permission from the Airport Manager.
- Any interference with airport personnel, equipment or aircraft will be considered as an infringement of this clause. The Contractor will be held responsible for any damage, direct or indirect, to any airport equipment, aircraft, etc. caused by his own personnel or those of his subcontractors or suppliers whether on duty or not. The Contractor shall make good all costs necessary to remedy the situation including re-calibration of equipment where necessary. The Contractor shall note that especially navigation equipment is extremely sensitive and may be disturbed by sitting or leaning on it.
- No aircraft may be touched or moved by any member of the construction team. In case of an aircraft accident, no assistance what so ever may be given by the Contractor unless specifically requested and all staff must stay away from any part of an accident scene for a distance of at least 300m.

If the Contractor is found lacking in any of the security measures or requirements, it will be sufficient cause for the termination of all construction activities until the matter has been rectified to the satisfaction of the Airport Manager. No claim resulting from inadequate security and safety measures will be considered.

7. Compliance with Instructions

If the Contractor does not promptly comply with all instructions of the Airport Manager and Principle Agent, the Employer has the right to amend the working schedule in aid of safety. The PA also retains the right to suspend all works until the Contractor, in the opinion of the PA, complies with the requirements.

8. Delays Caused by Airport Management

If delays, leading to an extension of time, are caused by aspects such as airport requirements, a reasonable claim for extension of time may be considered. However, if such delays coincide with delays caused by other circumstances, such as weather conditions, no claim for extension of time caused by requirements of airport management will be considered.

9. General Requirements for Execution of the Work

At the end of each work period, all plant, vehicles, material and obstructions must be removed to a demarcated safe area. The cost of removal of plant and materials and cleaning operations shall be deemed to be included in the relevant work items or in the general items. The Engineer reserves the right to ban any item of plant or equipment which leaks excessive amounts of fuel or oil. In addition all significant spillages of fuels and oils will be cleared immediately to the satisfaction of the Engineer failing which the Engineer reserves the right to have this work carried out by a third party to the cost of the Contractor.

The Employer retains the right to clean any of the mentioned areas if the Contractor neglects to do so to his satisfaction. In such a case the costs incurred by the Employer will be recovered from the Contractor at a rate of R400,00 per hour or part thereof taken by the sweeping machine of the Employer to do the work. This cost will be deducted from any monies payable to the Contractor.

If night work has to be done only suitable power and lighting units, approved by the Engineer, complying with the requirements of the Occupational Health and Safety Act No. 85 of 1993, SABS 0142-1981 and ICAO Annex 14 regulations shall be used.

10. Times for the Execution of the Works

Normal airport operational hours shall be **from 05:00 to 19:00** for every weekday of the year. The airport is open until 15:00 on Saturdays.

Most of the work on this contract must be executed during daytime. If, due to airport requirements, certain aspects of the work have to be done during night time, the following will apply:

- The Contractor shall supply sufficient lighting facilities to enable him and his subcontractors to perform the work according to the requirements of the specification.
- At the end of the night's work all lights, power plants, etc. must be removed to a safe area indicated by the PA and the Airport Manager. Remuneration for the acquisition, transport, erection and maintenance of lighting and power plants shall be included in the items provided and shall be all-inclusive. Power plants that spill fuel or oil will not be allowed on the works.

11. Movement on the Airport, Barriers, Lights and Marks

It is the responsibility of the Contractor to properly control the movement of personnel, vehicles and plant connected to the contract. The Contractor shall erect, remove and maintain all temporary barriers, warning lights and marks as required by the Airport Manager.

These control and limitations to movement of the Contractor will not be paid for separately and sufficient provision for it shall be made in the tendered items. Delays and disruption of the contractor's programme or progress as a result of the above requirements will not constitute reason for a claim of whatever nature.

12. Dust and Pollution Control

The Contractor shall limit dust pollution to the minimum as required by the Airport Manager. During windy conditions, the PA may temporarily suspend all work where dust pollution creates unacceptable conditions until such time that conditions return to normal.

In the case of working areas alongside the taxiways it shall be a definite requirement that at all times, weekends included, exposed areas are kept damp and free from dust and loose material which may be sucked into the engines of passing aircraft. The taxiways adjacent to the works shall be swept as required but at least daily.

All costs involved in dust and pollution control shall be borne by the Contractor.

13. Storing of Vehicles, Plant and Materials

It is a requirement that, at the end of each work period, all vehicles and plant are returned to the designated camp area allocated to the Contractor. With the approval of the Project Manager / Engineer, certain equipment may remain on or near the work area if the area is properly demarcated.

If material is temporarily stored outside the designated campsite, stockpiles shall be limited to a height of 1,0 m above natural ground level.

14. Fires

No open fires whatsoever will be allowed. All necessary precautions must be taken to prevent veld or other unauthorized fires.

In the case of fire, including veld fires, the Contractor must instruct his employees to assist the airport management in extinguishing the fire if requested to do so.

The Contractor shall indemnify the Employer against claims that may arise from fires due to negligence by the Contractor or his operations. If it is required by the Employer to extinguish any fires caused by the Contractor, the cost thereof will be for the Contractor.

In case of a fire caused by air traffic activities, the area involved shall immediately be evacuated by the Contractor to an area beyond a radius of 300 m from the fire.

15. Environmental

The Airports Company South Africa (ACSA) recognises the impacts airport expansion projects have on the environment during the planning, design and construction phase of new projects and embraces the obligations of corporate environmental responsibility to manage and minimise these impacts as far as possible.

Design consultants are encouraged to explore and implement (where possible) feasible opportunities for minimising environmental impacts in the form of stormwater, soil and groundwater pollution, resource and raw material utilisation, as well as en

ANNEX C

SCHEDULE OF EQUIPMENT

GRJ

Fire Hydrants			
Item	Unit Type	Quantity	Location
1	Fire hydrant	1	Front of solar panel airside
2	Fire hydrant	1	Front of Electrical Complex
3	Fire hydrant	1	Front of Bidair building - airside
4	Fire hydrant	1	Front of Apron office
5	Fire hydrant	1	Front of smoking area airside
6	Fire hydrant	1	Front of Main gate airside
7	Fire hydrant	1	Front of Fire station
8	Fire hydrant	1	Front of Main gate landside
9	Fire hydrant	1	Airport main entrance
10	Fire hydrant	1	Car rentals parking
11	Fire hydrant	1	Grass parking north of the pond
12	Fire hydrant	1	Grass parking front of the recycle area
13	Fire hydrant	1	Maintenance entrance
14	Fire hydrant	1	Front of Bidair cargo
15	Fire hydrant	1	Front of Terminal Building - arrivals
16	Fire hydrant	1	Restaurant loading bay
17	Fire hydrant	1	Avis depot
18	Fire hydrant	1	Front of Air BP
19	Fire hydrant	1	Back of Bidvest car rentals
20	Fire hydrant	1	Front of Hertz car rentals
21	Fire hydrant	1	Front of Europe car rentals
22	Fire hydrant	1	Front main hangar gate
23	Fire hydrant	1	Front aviator hangar
24	Fire hydrant	1	Front of Old Blue Sky hangar
25	Fire hydrant	1	Aifa hangar 2
26	Fire hydrant	1	Front of Aifa kitchen
27	Fire hydrant	1	Front of Hangar gate Airside
28	Fire hydrant	1	Back Savanah hangar
29	Fire hydrant	1	Back Jabiru hangar
30	Fire hydrant	1	Back of Aquilla hangar

Booster Pump Station - GRJ

Item	Description	Make	Type /Model	Specifications	Qty	Location
1	Electric Motor	WEG	250S/M	55kW,(Delta/Star)	1	Booster Pump House -Main Gate
2	Pump 1	Curo	65-250	2500L/min	1	Booster Pump House -Main Gate
3	Diesel Motor	John Deere	4045T		1	Booster Pump House -Main Gate
4	Fuel tank			Steel day tank	1	Booster Pump House -Main Gate
5	Pump 2	Curo	80-400	2500L/min	1	Booster Pump House -Main Gate
6	Jockey Pump	Lowara	35V13	0.75kW	1	Booster Pump House -Main Gate
7	Auto-start arrangement			4 tier		Booster Pump House -Main Gate
8	Valves	AVK, etc			10	Booster Pump House -Main Gate
9	Valves, including pressure reducing valve	AVK, Bermad, etc.			5	Pump enclosure - External valve pits
10	Motor Control	Natal Pumps	ASIB Panel	400V	1	Booster Pump House -Main Gate
11	Domestic Water Booster Pump	TBC	TBC		1	Booster Pump House -Main Gate



12	Domestic water filtration equipment	TBC	TBC		1	Booster Pump House -Main Gate
13	Communication	GSM	TBC		1	Booster Pump House -Main Gate
14	Fire detection system	TBC	TBC		1	Booster Pump House -Main Gate
15	Concrete reservoir	TBC	TBC	165 kL	1	Pump enclosure
16	Sectional steel tank	TBC	TBC	29 kL	1	Pump enclosure
17	Inlet valves and level control system	TBC	TBC		2	Pump enclosure
18	Fresh air fans	Luft	LMP300A		2	Booster Pump House -Main Gate

SERVICE LEVEL AGREEMENT

Operational hours

Normal airport operational hours shall be as detailed below for the year but will be confirmed/amended by the Service Manager from time to time. The Contractor must allow for sufficient after-hours work for scheduled work not to interfere with airport operations.

Normal airport operational hours shall be

Port Elizabeth International Airport: Mon-Fri and Sun 06H00 – 22H00; Sat 07H00 – 19H00

East London Airport: Mon-Thu 06H00 – 20H30; Fri 06H00 – 20H30 Sat 08H00 – 18H00; Sun 08H00 – 20H30

George Airport: Mon Thu 06H30 – 19H00; Fri 06H30 – 20H00, Sat 08H30 – 15H00; Sun 08H30 – 19H30

Normal Working Hours shall be 07H00 – 17H00

Minimum Staffing Schedule

The Contractor shall continuously ensure that all staff is suitable, able and competent for the duties required of them. Staff must have mechanical/electrical experience related to the scope of work. The Contractor shall continuously ensure that all staff is knowledgeable on all equipment relating to fire systems.

Detail requirements regarding staff

The Contractor shall continuously ensure that all staff is suitable, able and competent for the duties required of them. Staff must have mechanical experience. The Contractor shall continuously ensure that all staff is knowledgeable on all equipment relating to the Fire suppression and detection systems.

For all staff and senior personnel working on this contract, the following must be submitted in detail:

- ☐ **Full Names**
- ☐ **Proof of qualifications and work experience on maintaining similar equipment system.**

Minimum qualifications of staff

Maintenance contract manager

Relevant qualification (Trade certificate in: Millwright; fitting; Electrical trade test Certificate; Pipe Fitter)

Experience as a supervisor / contracts manager in maintenance works involving pump stations and having duties such as preventative maintenance and reporting to the client.

- The ability to conduct investigations and supervise/ manage a maintenance team
- The ability to prepare comprehensive reports, sign off all maintenance records and verify that the systems are safe and fit for use on monthly basis
- Representative for the Contractor regarding: attendance of scheduled meetings with Service Manager / Employer's stakeholders, contract management, preparing and submission of monthly reports/incident reports to the Service Manager.

The Contractor must maintain the following **minimum** technical staff available when required and should price accordingly:

Skill	Quantity	Frequency
Field Engineer	1	When required
OEM Specialist	1	When required
Technician/Artisan	1	Planned and Unplanned Maintenance

The Contractor must have additional resources available to attend to lengthy breakdowns or breakdowns of a specialised nature.

It shall be the Contractor's responsibility to ensure that all relevant labour and safety legislation is adhered to in rostering staff.

The Contractor shall schedule staff to complete the preventative maintenance schedule accordingly. The Tenderer must ensure that sufficient allowance for all these items is made for in his/her pricing in the Activity Schedule.

Response Times

Description	Benchmark
Availability	Notwithstanding the closure time required for breakdowns requiring spare part(s) or a second level of response; ➤ Fire systems availability shall be kept at or above 99.99% overall per month.

Response time	All breakdowns shall be responded to within: ➤ 24hrs from the time the Contractor is notified of the breakdown - during normal working hours and after hours
Closure Duration	All breakdowns shall be resolved within: ➤ 45min hours from the time the Contractor arrives on site – during normal working hours and afterhours ➤
% of planned maintenance completed per month	100% of all planned maintenance shall be completed per month
Total breakdowns requiring a second level of response (the intervention of a Field Engineer or higher expertise or requirements of spares)	➤ All breakdowns requiring a second level of response shall be resolved within 24 hours (subject to the lead time of required spares) and shall be limited to a total of 3 occurrences per month.

Human resources

The following minimum standards shall apply to resourcing:

- For all call-outs: Considering current airport access control infrastructure and security arrangements and considering the physical layout of the apron, the Contractor shall ensure a sufficient quantity and effective positioning of staff to meet or exceed the Service Level Agreement.
- The rostered maintenance staff compliment shall be sufficient to perform all required preventative maintenance for each month.
- During operational hours, the Contractor shall respond in accordance to the S.L.A to successfully attend to breakdowns.
- During operational hours, the Contractor shall have at least one senior person who will respond to the call outs who:
 - Is suitably qualified and experienced to resolve breakdowns and system stoppages.
 - Is suitably qualified and experienced to work on any electrical control panel.
 - Is able to successfully interact with OEM personnel.
 - Is of a level of seniority to successfully direct and manage Contractor staff and possible sub-contractors during system breakdowns and can successfully interact with airport operational staff and airport management.
 -

Staff qualifications

It will always remain the Contractor's responsibility to ensure that staff is suitably qualified and experienced for the duties expected of them. Further all applicable legislative requirements must be adhered to in rostering staff.

ACSA reserves the right to verify all personnel employed under this contract. Furthermore, ACSA reserves the right to order that personnel that are not adequately qualified or suited for this contract are removed from the site.

The Contractor must comply and respond to the following:

*Compliance to benchmarks will be calculated on a weekly average except on repairs that will be calculated on a monthly average. The total operational hours for the respective week/month shall be used as a guide. The only exceptions will be stoppages due to mains electricity supply failures and/or where ACSA has refused system repairs and/or adequate access to the site.

Detail on how calls will be dispatched will be discussed on site with the Service Manager as the call dispatch process varies from airport to airport.

*Availability will be calculated on a monthly average. This will include all stoppages, even if such stoppages are not under the Contractor's control. The only exceptions will be stoppages due to mains electricity supply failures and/or where ACSA has refused system repairs and/or adequate access to the site. The total operational hours for the respective week/month shall be used as a measure for calculating availability. All other benchmarks above will be calculated on a weekly average. Reports will be provided by the ACSA Computerised Maintenance Management System.

Defect free liability period

Defect free liability period – corrective or breakdown maintenance	The defect free period will be no less than 90 days.
Defect free liability period – project work	The defect free period will be no less than 12 months.

Low service damages

Low service damages are limited to a

maximum of **25% of the fixed cost /month.**

Service level table

Low service damage Description	Amount
Where a repair cannot be completed the same day due to the unavailability of a spare part.	R 1 250.00 (unless the unavailability of the spare part was agreed to by the Service Manager or his/her duly authorised representative)
Leaving a breakdown unattended or incomplete for another day or shift Not meeting call response and closure time SLA.	R 1 000.00 (unless the delay in repair was agreed to by the Service Manager or his/her duly authorised representative or unless the required spares are not available to complete the work)
Safety infringement (for example: leaving moving machinery exposed)	R 2 500.00 per incident
Availability not meeting requirements	R 1 000.00 per month

Continuous Improvement Program

It is hereby required that the Contractor ensures that a continuous improvement program is in place. For example, the criteria below may be used but not only limited to the items mentioned below.

1. An improvement in the availability of systems
2. An improvement on the minimization of spares holding (for example by increasing Mean Time to Failure of components)
3. Etc.

As mentioned above this list is not comprehensive and it is only used for illustrative purposes. Upon implementation of the contract the Employer and the Contractor shall agree targets for the continuous improvement program.

It is important to note that continuous improvement will only apply to those items that meet minimum benchmarks. Continuous improvement initiatives shall be reviewed every quarter or when deemed necessary by the Employer or the Contractor.

MAINTENANCE RECORD SHEETS

When maintenance is performed, record sheets must be completed and signed off by both the Technician and an ACSA representative.

These record sheets must be stored for the duration of the contract and should be available for inspection at any time.

All record sheets, job cards, history reports etc. will stay the property of ACSA and should be available on request. At the end of the contract period a complete set of documentation must be handed over to ACSA.

The contractor shall further provide copies of these record sheets to the ACSA contract manager by the fifth day of every month. **No money will be paid out if record sheets are not handed in.**

ANNEX E

TOOLS AND SPECIAL EQUIPMENT

The Contractor shall have **all** Tools and Special Equipment, necessary for the execution of the works, either on site or readily available at his/her premises. The principle that applies to Tools and Special Equipment is that downtime must be kept to an absolute minimum. Any **exclusion** to the above should be listed with the lead-time required to deliver same to site.

Number	Item description	Lead time
1		
2		
3		
4		
5		
6		
7		

ANNEX F

RESOURCE PROPOSAL

The Contractor shall include a detailed resource proposal (including an organogram for on-site personnel) at the bidding stage. This shall, as a minimum, include the quantity of staff (regarding level of skill and formal training of each) and how/where they will be deployed and utilised under this contract.

ANNEX H

SUGGESTED MAINTENANCE PROGRAMME

The Contractor shall include a suggested maintenance programme that must attempt to cover all requirements under this contract.

Contractor is to ensure that the proposed maintenance programme agrees with the OEM maintenance recommendations.

As a minimum and where applicable, the Contractor must perform the following:

All Preventive Maintenance shall be scheduled, at least, to the requirements of the following table. The contractor shall ensure that all maintenance is done in accordance to the OEM requirements, SANS 10400 part T, SANS 1475, SANS 10139, SANS 10287 and SANS 246, OHS ACT regulations and all other legislation that might be relevant to this Contract and the execution thereof.

Maintenance Schedule for Fire Systems

Fire Hydrant System	
Item	Monthly Maintenance Task
1	Check condition of Hydrant and replace or paint
2	Check for leaks on valve and replace or repair if necessary
3	Check hose couplers, and repair when necessary

Fire Detection System	
Item	Monthly Maintenance Task
1	Check if all Radios are in working order and clean out all radio panel
2	Check if all radio signals are going through
3	Make sure that the panel exterior is clean by lightly polishing with a dry cloth
4	Clean exterior and check general condition of control panel
5	Ensure legends and labels are correct and in place and legible
6	Clean and test lamps
7	Visually inspect interior for ingress of moisture or deterioration and checking wiring and connections
8	Check operations of key and keypad
9	Check power supply failure by disconnecting the main supply
10	Check electrical connections and relays and ensure they are in good condition and functional
11	Ensure warning and information notices are displayed and legible on Detectors
12	Check that all contacts and magnets are aligned and that all magnets are secure and free of corrosion on doors
13	Release all door open by automatic release mechanism by simulation of alarm conditions
14	Check and Record the operation of the fail and safe mechanisms by simulating failure main power supply
15	Check that doors operate a circuit back to control panel
16	Examine colour coding of cable and ensure cores correctly connected on Systems wiring
17	Examine for loose terminals on Systems wiring
18	Disconnect the battery from the charger and check mains supply voltage and voltage across the battery and Ensure battery voltage does not fall below the specified level

Fire Detection System	
Item	Monthly Maintenance Task
19	Where applicable check specific gravity of electrolyte and top up as necessary
20	Ensure battery terminals are clean and tight and clean grease terminals as necessary
21	Ensure positioning is still suitable on Sounders
22	Visually inspect for damage or deterioration
23	Check and clean all gas control units on CO2 system (where applicable)
24	Check if GCU are in working order (where applicable)
25	Check that all GCU are in working order and securely in position (where applicable)
26	Check all GCU protection covers condition and all fixations are secured (where applicable)
27	Disconnect all cylinders and do a complete test on the system. Ensure blankets roll down and ventilation system shut off (where applicable)
28	Check all valves are in open position
29	Check that are rolled up and in good condition and remove any dust
30	Check and if opening found through walls or doors, take action to rectify
31	Clean breathing apparatus and check they are in working order (where applicable)
32	Check and log reading on breathing apparatus (where applicable)
33	Check detector and filters on Aspirating systems (where applicable)
34	Inspect beams (where applicable)

Fire Detection System	
Item	3-Monthly Maintenance Task
1	Take a print out of all sensors that are in a service or pre-service condition and Service them
2	Use the panel menu to generate printer reports of devices analogue values and Compare these values to the permitted values for each print and Replace identified faulty devices or repair wiring
3	Checks disabled devices and investigate reason and Rectify faults
4	Check that the panel correctly reports the event when a device is removed and Replace sensor and reset
5	Check that all control functions and the ACCEPT and RESET keys and are operating correctly
6	Ensure that the printer is printing all events generated during service (where applicable)
7	Check the earth leakage
8	Manually activate a Manual Call Point to ensure the system is active (where applicable)
9	Verify the Manual Call Point is properly located and unobstructed and accurately identified (where applicable)
10	Inform the Service Manager of the test before and at completion
11	Test the ability of the control panels and smoke extraction fans and central monitoring system to receive signal and Test each zone every three months
12	Simulate at least 25 percent of smoke and fire detectors and record test results for night work
13	Examine insulation of terminal wiring and ensure connections are sound
14	Service and clean at least 25 percent of all detectors

Fire Detection System	
Item	3-Monthly Maintenance Task
15	Verify siting and range of detectors
16	Check supply voltage is in accordance with Manufacturer's requirements
17	Check the circuit back to control panel.
18	Visually inspect for damage or other conditions and such as coats of paint, likely to interfere with correct operation.
19	Examine fixings and tighten as necessary
20	Examine insulation of terminal wiring and ensure connections are sound
21	Check that the device is securely fixed
22	Check that entry holes are sealed
23	Verify the detector is properly located and the field of view is unobstructed
24	Examine cables and containment and fixings braid and brittle insulation
25	Carry out audibility test
26	Check all connections are tight and free from corrosion.
27	Examine insulation of terminal wiring and ensure connections are sound
28	Operate switch of each supervisory device and verify receipt of signal
29	Adjust supervisory device (if field adjustable) to operate at the approved at the approved set point
30	Verify the detector is properly located and the field of view is unobstructed
31	Check that detector is free from physical damage and securely mounted and operational
32	Inspect the detector lens for cleanness
33	Clean detector lens when required
34	Adjust sensitivity (if field adjustable) to be within the approved range when required
35	Test 25 percent of UV detectors and Perform functional test in place to ensure alarm response and Manufacturer approved radiant light source (where applicable)
36	Test 25 percent of Beams (where applicable)
37	Conduct local panel functionality test
38	Perform system integrity smoke test

Booster Pump Station	
Item	Maintenance Activity - Electric Pump-Set -Monthly
1	THE FOLLOWING TASK MUST BE PERFORMED ON THE BUTTERFLY VALVES
2	Remove locks and chains
3	Check that the suction and discharge/delivery valves on the main lines are open in the full position
4	Check that the test valves on the test lines are closed in the full position
5	Refit chains and locks on valves in the required position
6	THE FOLLOWING TASKS MUST BE PERFORMED ON THE CONTROLLER

Booster Pump Station	
Item	Maintenance Activity - Electric Pump-Set -Monthly
7	Check the panel for any visible Faults and indicator lights are Operational (report fused light bulbs and replace) – push button light indicating yellow “Lamp Test”
8	Check the panel “Emergency Start” selector switch – push to start / twist to stop
9	Check the panel light indicating “Pump Fail”
10	Check the panel light indicating “Pump Run”
11	Check the panel light indicating “Fire”
12	Check pump speed
13	Record the number of hours the pump has run
14	Record phase to neutral voltage and current drawn for each phase at running pressure
15	THE FOLLOWING TASK MUST BE PERFORMED ON THE OPERATIONAL CHECKS
16	Notify ACSA Control Room of intention to conduct tests
17	Drop the pressure on the Electric Pump Start/Test Arrangement by closing the system side valve and opening the waste side valve slowly (second switch down) check the Electric Pump starts and “Fire Alarm” notifies “Pump Run” which should indicate after approximately 5 seconds on changeover from Star to Delta. Electric Pump Operating Pressure: Start – 600 kPa Stop – Automatic after pressure reaches 900 kPa (may vary per site)
18	Check the pump mechanical seals – they must not leak when the pump is running or stationary.
19	Record electric pump cut in and cut out pressure on Start/Test Arrangement pressure gauge
20	Check the pressure return back to normal
21	To stop the electric pump, push the “Stop/Reset” Push Button on the Electric Controller
22	Push the “Emergency Start” push button in – check the electric pump starts and “Pump Run” comes on after 5 seconds – twist to release to stop the electric pump.
23	Check pump holding down bolts with ring spanner and tighten if loose
24	Test domestic water pump set for water circulation functioning, and pressure

Item	Maintenance Activity Electric Pump-Set - 3-Monthly
1	IN ADDITION TO THE MONTHLY ACTIVITY SCHEDULE, THE FOLLOWING:
2	Run electric pump for approximately 10 minutes
3	Check and record motor rotational speed
4	Check motor and pump shaft alignment and condition of coupling and report any abnormalities
5	Check pump shaft and bearings during cooling line operation
5	Check for excessive motor and pump vibration
12	Inspect glands/seals, check shaft, bearings and casing temperatures and report any abnormalities

Item	Maintenance Activity – Diesel Pump-Set - Monthly
1	THE FOLLOWING TASK MUST BE PERFORMED ON THE BUTTERFLY VALVES
2	Remove locks and chains
3	Check that the suction and discharge/delivery valves on the main lines are open in the full position



Item	Maintenance Activity – Diesel Pump-Set - Monthly
4	Check that the test valves on the test lines are closed in the full position
5	Refit chains and locks on valves in the require position
6	THE FOLLOWING TASK MUST BE PERFORMED ON THE FUEL SYSTEM
7	Check fuel tank level (must be at least 75% full). Refill if required.
8	Check piping and flexible hose connections for fuel leaks
9	THE FOLLOWING TASK MUST BE PERFORMED ON THE WATER COOLING SYSTEM
10	Check that all valves are in the open position
11	Check cooling water is flowing through the sight glass and the cooling line pressure does not exceed 200 kPa (the gauge on the cooling line should read approximately 100 to 150 kPa)
12	Check the cooling line strainer if the flow on the cooling line appears to be low.
13	Check the heat exchanger coolant level - it should be 20mm below the radiator cap on top of the heat exchanger. Top up with water if necessary.
14	Check the cooling water drain pipe (adjacent the radiator cap) discharge into container.
15	Check all hose connections for leaks and tighten pipe clips if required. If leak persists, replace hose.
16	THE FOLLOWING TASK MUST BE PERFORMED ON THE CONTROLLER
17	Check the panel for any visible Faults and indicator lights are Operational (report fused light bulbs and replace) - push button light indicating yellow "Lamp Test"
18	Push the Cell phone maintenance pushbutton once to put it into maintenance mode so SMS signal is not sent out while testing.
19	After testing push the Cell phone maintenance pushbutton once to reactivate the SMS signal.
20	Check the panel lights indicating Faults – Annunciator "System On" lamp should be the only light on.
21	Check the panel lights indicating "Low Oil Pressure"
21	Check battery charger operation. Switch "Battery Volts" selector switch to check voltage on both battery sets - reading should be app 13,0 to 13,8 Volts. The panel lights indicating "Battery Charger 1 or 2 Fail" should be green to indicate a charged, healthy battery (a yellow/white or a black light means the battery and charging circuit require attention)
22	Check the panel lights indicating "Control Circuit Fail"
23	Check the panel lights indicating "Mains Fail"
24	Check that Pump Operation lights indicating "Pump Fail"
25	Check the panel lights indicating "High Engine Temperature"
26	Check the panel lights indicating "Pump House Protection"
27	Check the panel lights indicating "Diesel Tank Low Level"
28	Check the panel Engine Temperature Gauge indicating engine coolant temperature run between 60 and 85 deg. C after warm up period
29	Check the panel lights indicating "Water Tank 1 / 2 High Level"
30	Check the panel lights indicating "Water Tank 1 / 2 Low Level"
31	Check pump speed should run at 2000 rpm on the Ammeter/Voltmeter
32	Record the number of hours the pump has run
33	Record phase to neutral voltage and current drawn for each phase at running pressure
34	THE FOLLOWING TASK MUST BE PERFORMED ON THE OPERATIONAL CHECKS
35	Notify ACSA Control Room of intention to conduct tests
36	Check diesel engine oil level and report any abnormalities



Item	Maintenance Activity – Diesel Pump-Set - Monthly
37	Hold the engine stop lever over to prevent starting and crank the engine on each battery separately via the “Emergency Start” Push-Buttons for 10 seconds to exercise the batteries and battery chargers – the ammeters should indicate charge rates of 3 to 5 Amps to restore the battery after cranking
38	Drop the pressure on the Diesel Pump Start Arrangement “Switch 1” by closing the system side valve and opening the waste side valve slowly - check the pump comes on and switches off again automatically at the correct pressures.
39	Check “Fire” alarm and continuous siren to come on and engine cranking during stat up. Push the Alarm Accept pushbutton.
40	Check “Pump Run” comes on immediately as the engine starts (this engages the starter motor). Let the engine run for 15 minutes – check all appears in good order.
41	Check the pressure return back to normal
42	Stop the diesel pump unit and re-set, then repeat on “Switch 2” to ensure it operates correctly – let the engine run for another 15 minutes. Diesel Pump Start Pressure: Switch 1 – 500 kPa, Switch 2 – 450 kPa
43	Check the pump mechanical seals – they must not leak when the pump is running or stationary.
44	Record diesel pump cut in and cut out pressure on Start/Test Arrangement pressure gauge
45	Check diesel pump mechanical seal for leaks when the pump is stationery or running.
46	Check pump holding down bolts with ring spanner and tighten if loose
47	Refill diesel tank

Item	Maintenance Activity - Diesel Pump Set - 3-Monthly
1	INADDITION TO THE MONTHLY ACTIVITIES, THE FOLLOWING:
2	Check filler pipe, foot valve, manual pump and breather cap
3	Check flexible connectors and jubilee clips/T-bar clamps
4	Check and clean the cooling line strainer
5	Check sirens operation
6	Check annunciator and cell phone relay operation
7	Check diesel engine batteries electrolytes, battery terminals and battery connections
8	Record diesel pump crank up time
9	Record diesel pump run up time
10	Run diesel pump for app 30 minutes
11	Check and record motor rotational speed
12	Check operation of over speed governor
13	Check for excessive engine and pump vibration
14	Inspect glands/seals, check shaft, bearings and casing temperatures and report any abnormalities
15	Record cooling water temperature, oil pressure and all engine gauge readings
16	Check operation of low oil pressure cut out switch
17	Check crankcase breather
18	Check condition of air filter and report any abnormalities
19	Check exhaust system and report any leaking joints



Item	Maintenance Activity - Diesel Pump Set - 3-Monthly
20	Shut down diesel pump and immediately after, run a restart test using the manual start push button on the control panel

Item	Maintenance Activities - Diesel Engine- Overall
1	Conduct annual / hours of runtime service as necessary

Item	Maintenance Activities- Jockey Pump - Monthly
1	THE FOLLOWING TASK MUST BE PERFORMED ON THE CONTROLLER
2	Check the panel for any visible Faults (pump trip) and indicator lights are Operational (report fused light bulbs and replace).
3	Check the panel for light indicating green "Pump Run" should be the only light on
4	Check that Pump Operation selector switch is set to "Automatic"
5	Record the number of hours the pump has run
6	Record phase to neutral voltage and current drawn for each phase at running pressure
7	THE FOLLOWING TASK MUST BE PERFORMED ON THE OPERATIONAL CHECKS
8	Notify ACSA Control Room of intention to conduct tests
9	Drop the pressure on the Jockey Pump Start/Test Arrangement by closing the system side valve and opening the waste side valve slowly - check the Jockey Pump comes on and switches off again
10	automatically at the correct pressures. Jockey Pump Operating Pressures: Start – 760 kPa, Stop – 960 kPa
11	Check the pump mechanical seals – they must not leak when the pump is running or stationary.
12	Record jockey pump cut-in and cut-out pressure on Start/Test Arrangement pressure gauge
13	Check pump holding down bolts with ring spanner and tighten if loose

Item	Maintenance Activity- Jockey Pump - 3-Monthly
1	THE FOLLOWING TASK MUST BE PERFORMED ON THE CONTROLLER
2	Run electric pump for approximately 10 minutes
3	Check for excessive motor and pump vibration
4	Inspect glands/seals, check shaft, bearings and casing temperatures and report any abnormalities

**George Specific Additional Maintenance Activities
 Booster Pump Station**

Item	Monthly Maintenance Activities
1	Test Domestic Water pump for water circulation functioning, and pressure
2	Inspect water pump station
3	Check and clean water pump station
4	Check if enough water in the reservoir tank
5	Check reservoir water level control system
6	Check packing
7	Check lubrication
8	Check mounting
9	Check performance of pump dropout
10	Check the undesirable flow condition that could be caused by obstruction/sharp elbows in the suction piping
11	Check the starting and examine any noisy
12	Run and test the pump station for at least 20minutes maximum
13	Test functionality of electrical sequencing
14	Inspect electrical contactors in the main distribution board



	Annual Maintenance Activities
1	Service all safety valves
2	service all the water pumps
3	service all water pump motors
4	check all flow switches
5	Service all municipal incomer valves
6	check and service all water flange valves-surface areas
7	Repair all leaks
8	Test all water system
9	Check and service all water pumps
10	Check all fire hydrant supply
11	Check and service all water pumps
12	Check and balance the pressure in a system
13	Test water leaks
14	Check if enough pressure in the water supply system
15	Adjust pressures in the pump house if necessary
16	Remove unnecessary pressures which could lead up to water pipe burst
17	Check reduction of the flow at the pump suction
18	Increase in the fluid velocity in the pump suction
19	Check performance of pump dropout
20	Check motor condition
21	Check bearings
22	Check motor and pump motor alignment
23	Lock and tag out equipment
24	Record equipment data
25	Check all mounting and flange bolts to ensure proper torque
26	Check equipment base for soundness
27	Visual inspection of pump grout for soundness
28	Check for mechanical seal leaks
29	Check condition of oil and grease seals
30	Check packing for excessive leakage and adjust and/or replace
31	Make sure all gauges are operational
32	Remove coupling guard, check alignment and correct as required
33	Lubricate coupling assembly as required
34	Lubricate pump and motor
35	Change oil on equipment as recommended by OEM
36	Check and measure winding resistance in electrical motor, if necessary megger and repair terminal block if necessary
37	Check and replace components in electrical panel if necessary
38	Check and repair electrical wiring in a panel if necessary
39	Service electrical contactors in main distribution board
40	Ensure all auxiliary equipment is functioning properly
41	Put unit into service, check bearing temperatures, listen & record any mechanical or hydraulic noise
42	Make note on the field report of any findings that may require additional work

Annual Statutory Maintenance

Activity	Description
Fire Hydrants	Statutory servicing of the fire hydrant in line with the requirements of SANS 10475 and OEM requirements.
Booster Pump Station (performance test in line with SANS requirements) and fire hydrant reticulation pipeline pressure testing	Annual certification of the booster pump station in line with SANS requirements by an SANS approved supplier/entity or competent person. Fire hydrant pipeline pressure testing
Independent review of the fire detection system by a SAQCC (level 4) or professionally registered engineer (mechanical or electrical)	Annual inspection of the fire detection system including its subsystems by a professional engineer or SAQCC (Level 4) Technician for compliance to the governing regulations.

Part C4: Site Information

Location of the works

The Works are located at George Regional Airport at various locations. Refer to Annex A (schedule of equipment).
For additional details refer to Volume 2 Contract.

Part C5: Contractual Annexures

Forms C1, C2 and C5 to C15 from Volume 1 to be appended here for the contract to be signed with the successful bidder