REQUEST-FOR-QUOTATION BID DOCUMENT

FOR

CONTRACTOR APPOINTMENT FOR THE MAINTENANCE OF THE FUEL HYDRANT RETICULATION, MONITORING AND CONTROL SYSTEM AT O. R. TAMBO INTERNATIONAL AIRPORT FOR A PERIOD OF SIX (6) MONTHS

Tender Reference Number:

JUNE 2026

Issued by
Airports Company South Africa
O. R. Tambo International Airport

Note:

Upon Acceptance of the Offer by the Employer, this Tender Document becomes the Contract Document, subsequent to which, all references to the term "Tenderer(s)" then become synonymous with the term "Contractor".

VOLUME 1

NAME OF TENDERER: ……...

BIDDER'S DETAILS

1.	NAME OF TENDERER (BIDDING ENTITY)	(FULL NAME, i.e. (CC, (Pty) Ltd, JV, SOLE PROPRIETOR
.2.	TEL NUMBER	
.3.	FAX NUMBER	
.4.	EMAIL	
5.	NAME OF CONTACT	
6.	NATIONAL TREASURY CSD REGISTRATION NUMBER	

Contents

C1.1 Forms of Offer and Acceptance

Offer
The employer, identified in the acceptance signature block, wishes to enter into a contract for the

MAINTENANCE OF FUEL HYDRANT RETICULATION, MONITORING AND CONTROL SYSTEM

The Contractor, identified in the offer signature block, has examined this document and addenda hereto as listed in the schedules, and by submitting this offer has accepted the conditions thereof.

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

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

(The above amount should be calculated as per the guide provided in the Pricing Data [Total F]. In the event of any conflict between the amount above and the Pricing Data [Total F], the former shall prevail.)

for the Contractor

Signature . . . . . Date . . . . . .

Name . . . . . Capacity . . . . . .

(Name and address of organisation) . . . . . .

. . . . . .

. . . . . .

Name and signature of witness . . . . . Signature . . . . . .

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the Bidder before the end of the period of validity stated in the tender data, whereupon the Bidder becomes the party named as the Contractor in the conditions of contract identified in the contract data.

Acceptance

By signing this part of this form of offer and acceptance, the employer identified below accepts the Contractor's offer. In consideration thereof, the employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the Contractor's offer shall form an agreement between the employer and the Contractor upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1: Agreements and contract data, (which includes this agreement)
Part C2: Pricing data and Price List
Part C3: Service information.
Part C4: Site information
and schedules, drawings and documents or parts thereof where so indicated.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the Bidder and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The Contractor shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the Bidder receives one fully completed original copy of this document, including the schedule of deviations (if any). Unless the Bidder (now Contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

for the Employer

Signature . . . . . Date . . . .

Name . . . . . Capacity . . . . . .

Airports Company South Africa,
3rd Floor ACSA North Wing Offices
O R Tambo International Airport
Kempton Park
1627

Name of witness . . . . . Signature . . . . . .

Schedule of Deviations

1 Subject . . . . . .

Details . . . . . .

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. . . . . .

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2 Subject . . . . . .

Details . . . . . .

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3 Subject . . . . . .

Details . . . . . .

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4 Subject . . . . . .

Details . . . . . .

. . . . . .

. . . . . .

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.

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 *conditions of contract* are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option:	**W1: Dispute resolution procedure**
	and secondary Options:	**X2: Changes in the law**
		X17: Low service damages
		X18: Limitation of Liability (as amended in Option Z)
		X19: Task Order
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract (April 2013)	
10.1	The *Employer* 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	**O. R. Tambo International Airport** **Private Bag X1** **3rd Floor ACSA North Wing Offices** **OR Tambo International Airport** **1627**
	Tel No.	**010 207 2397**
10.1	The *Service Manager* is:	**Nhlanhla Khanyi**
	Address	**O. R. Tambo International Airport** **Private Bag X1** **3rd Floor ACSA North Wing Offices** **OR Tambo International Airport** **1627**
	Tel No.	**010 207 2397**

	e-mail	**Nhlanhla.Khanyi@airports.co.za**
11.2(2)	The *Affected Property* is	**O. R. Tambo International Airport**
11.2(13)	The *service* is	**The Maintenance of Fuel Hydrant System, as more fully set out in section C3 *Service Information*.**
11.2(14)	The following matters will be included in the Risk Register	**1 Risk of 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** **2 Risk of injury to contract personnel and all airport users due to lifting/moving of heavy objects** **3 Work in confined spaces** **4 Work with flammable and toxic gases** **5 Refer to Annexure E for more risks**
11.2(15)	The *Service Information* is in	**Part C3: Employer's Service Information and all documents and drawings and other specifications to which it refers**
12.2	The *law of the contract* is the law of	**the Republic of South Africa**
13.1	The *language of this contract* is	**English**
13.3	The *period for reply* is	**3 working days**
2	**The Contractor's main responsibilities**	**Detailed in Part C3 (Service Information)**
21.1	The *Contractor* submits a first plan for acceptance within	**4 weeks of the *starting date***
3	**Time**	
30.1	The *starting date* is	**Upon signing of the Form of Acceptance by the Employer**
30.2	The *Service Period* is	**SIX (6) months after the contract start date**
4	**Testing and Defects**	**No data is required for this section of the *conditions of contract***
5	**Payment**	
50.1	The *assessment interval* is	**Monthly, between the 1st and 15th day of each successive month.**
51.1	The *currency of this contract* is the	**South African Rand (ZAR)**

51.2	The period within which payments are made is	**60 days upon receipt of a valid tax invoice**
51.4	The *interest rate* is	**(i) 0.00 percent above the publicly quoted prime rate of interest charged by Nedbank Bank for amounts due in Rands and** **(ii) the LIBOR rate applicable at the time for amounts due in other currencies**
6	**Compensation events**	**No data is required for this section of the *conditions of contract.***
7	**Use of Equipment Plant and Materials**	**No data is required for this section of the *conditions of contract.***
8	**Risks and insurance**	
83.1	The *Employer* provides these insurances from the Insurance Table	**(i) Insurance against loss of or damage to the *services*, Plant and Materials comprising Contract Works Insurance, SASRIA Special Risks Insurance and Marine & Air Cargo insurance; and** **(ii) Insurance (Public Liability Insurance) against liability for loss or damage to property (except the *services*, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with the contract;** **Note: 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 *contract* ("the Insurance Schedule").**
83.1	The *Contractor* provides these additional insurances	**Professional Indemnity Insurance** **Note: The terms and other matters applicable to this insurance provided by the Employer are likewise detailed in section C1.5 to the *contract*.**
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 *Employer* provides these insurances from the Insurance Table	**Refer to section C1.5 Insurance Schedule**
83.1	The *Employer* 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 *Contractor* to the *Employer*'s 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 *Employer* 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 *Employer*'s property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) arising from or in connection with the *Contractor*'s Providing the Service for any one event is:	**Refer to section C1.5 Insurance Schedule**
83.1	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is:	**As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 and the *Contractor's* common law liability for people falling outside the scope of the Act with a limit of Indemnity as indicated in section C1.5**
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 *Contractor* 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 *Adjudicator* is	**The person appointed jointly by the parties from the list of adjudicators contained below**

Name	**Location**	**Contact details (phone & e mail)**
Adv. Ghandi Badela	Gauteng	+27 11 282 3700 ghandi@badela.co.za
Mr. Errol Tate Pr. Eng.	Durban	+27 11 262 4001 Errol.tate@mweb.co.za

		Adv. Saleem Ebrahim	Gauteng	+27 11 535-1800 salimebrahim@mweb.co.za
		Mr. Sebe Msutwana Pr. Eng.	Gauteng	+27 11 442 8555 sebe@civilprojects.co.za
		Mr. Sam Amod	Gauteng	sam@samamod.com
		Adv. Sias Ryneke SC	Gauteng	083 653 2281 reyneke@duma.nokwe.co.za
		Mr. Emeka Ogbugo (Quantity Surveyor)	Pretoria	+27 12 349 2027 emeka@gosiame.co.za
W1.2(3)	The *Adjudicator nominating body* is:	**the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the Institution of Civil Engineers (London) (see www.ice-sa.org.za) or its successor body**		
W1.4(2)	The *tribunal* is:	**arbitration**		
W1.4(5)	The *arbitration procedure* is	**the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body**		
	The place where arbitration is to be held is	**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

X2	**Changes in the law**	**No data is required for this secondary Option**
X17	**Low service damages**	
X17.1	The *service level table* is in	**The Service Information, Annex I**
X18	**Limitation of liability**	
X18.1	The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to	**Nil - Neither Party is liable to the other for any consequential or indirect loss, including but not limited to loss of profit, loss of income or loss of revenue**
X18.2	For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to	**The total of the Prices**
X18.3	The *Contractor*'s liability for Defects due to his design of an item of Equipment is limited to	**The total of the Prices**

X18.4	The *Contractor*'s total liability to the *Employer*, 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:** **- 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 *end of liability date* is	**52 weeks after the end of the service period.**
X19	**Task Order**	
X19.5	The *Contractor* submits a Task Order programme to the *Service Manager* 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 *Service Manager*, the, or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.
Z2	**Providing the Service: Delete core clause 20.1 and replace with the following:**
Z2.1	The *Contractor* provides the *service* in accordance with the *Service* Information and warrants that the results of the *service*, 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 *Contractor* shall have satisfied himself, prior to the *starting date*, as to the completeness, sufficiency and accuracy of all information and drawings provided to him as at the *starting date* .
Z3.2	The *Contractor* shall be responsible for the correct setting out or carrying out of the *service* in accordance with the original points, lines and levels stated in the *Service* Information or notified by the *Service Manager*. Any errors in the setting or carrying out of the *service* shall be rectified by the *Contractor* at the *Contractor's* 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: • The additional conditions of contract under these Z clauses • The conditions of contract and • The other documents.
Z5.2	The Service Manager or the Contractor 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 Service Manager 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

- 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 (**Occupational Health and Safety 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 Occupational Health and Safety Act, as amended and agrees to ensure that all work performed, or equipment and materials used, are in accordance with the provisions of the Occupational Health and Safety 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.

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(8)	The *direct fee percentage* is	
	The *subcontracted fee percentage* is	
11.2(14)	The following matters will be included in the Risk Register	1. 2. 3. 4. 5. 6.
11.2(15)	The Service Information for the *Contractor*'s plan is in:	

21.1	The plan identified in the Contract Data is contained in:	
24.1	The *Contractor's* key people are:	**CV's to be appended to resource proposal**
	SITE MANAGER/SUPERVISOR	
	Name:	
	Qualifications relevant to this contract	
	Experience	
	ELECTRICIAN	
	Name:	
	Qualifications relevant to this contract	
	Experience	
	ELECTRICAL/ELECTRONIC TECHNICIAN	
	Name:	
	Qualifications relevant to this contract	
	Experience	
	MECHANICAL TECHNICIAN	
	Name:	
	Qualifications relevant to this contract	
	Experience	
	TECHNICAL ASSISTANT 1	
	Name:	
	Qualifications relevant to this contract	

Experience

TECHNICAL ASSISTANT 2

Name:

Qualifications relevant to this contract

Experience

TECHNICAL ASSISTANT 3

Name:

Qualifications relevant to this contract

Experience

TECHNICAL ASSISTANT 4

Name:

Qualifications relevant to this contract

Experience

TECHNICAL ASSISTANT 5

Name:

Qualifications relevant to this contract

Experience

TECHNICAL ASSISTANT 6

Name:

	Qualifications relevant to this contract	
	Experience	
	TECHNICAL ASSISTANT 7	
	Name:	
	Qualifications relevant to this contract	
	Experience	
	TECHNICAL ASSISTANT 8	
	Name:	
	Qualifications relevant to this contract	
	Experience	

A	**Priced contract with price list**	
11.2(12)	The *price list* is in	**See C2.2 'Price List'**
11.2(19)	The tendered total of the Prices is	**R**

C1.3 Occupational Health and Safety Agreement

OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

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

OBJECTIVES

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

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

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

The parties to this Agreement are:

Name of Organization: **AIRPORTS COMPANY SOUTH AFRICA** **O R Tambo INTERNATIONAL AIRPORT**
Physical Address: **Airport Company South Africa** **OR Tambo International Airport** **ACSA Building, 4th Floor**

Hereinafter referred to as "Client"

Name of organisation:
Physical Address:

Hereinafter referred to as "the Mandatary/ Principal Contractor"

MANDATORY'S MAIN SCOPE OF WORK

_____

_____

_____

_____

GENERAL INFORMATION FORMING PART OF THIS AGREEMENT

1. The Occupational Health & Safety Act comprises of SECTION 1-50 and all unrepealed REGULATIONS promulgated in terms of the former Machinery and Occupational Safety Act No.6 of 1983 as amended as well as other REGULATIONS which may be promulgated in terms of the Act and other relevant Acts pertaining to the job in hand.

2. "Mandatary" is defined as including as agent, a principal contractor or a contractor for work, but WITHOUT DEROGATING FROM HIS/HER STATUS IN HIS/HER RIGHT AS AN EMPLOYER or user of the plant

3. Section 37 of the Occupational Health & Safety Act potentially punishes Employers (PRINCIPAL CONTRACTOR) for unlawful acts or omissions of Mandataries (CONTRACTORS) save where a Written Agreement between the parties has been concluded containing arrangements and procedures to ensure compliance with the said Act BY THE MANDATARY.

4. All documents attached or refer to in the above Agreement form an integral part of the Agreement.

5. To perform in terms of this agreement Mandataries must be familiar and conversant with the relevant provisions of the Occupational Health & Safety Act 85 of 1993 (Occupational Health and Safety Act) and applicable Regulations.

6. Mandatories who utilise the services of their own Mandatories (contractors) must conclude a similar Written Agreement with them.

7. Be advised that this Agreement places the onus on the Mandatary to contact the CLIENT in the event of inability to perform as per this Agreement.

8. This Agreement shall be binding for all work the Mandatary undertakes for the client.

9. All documentation according to the Safety checklist including a copy of the written Construction Manager appointment in terms of construction regulation 8, must be submitted 7 days before work commences.

THE UNDERTAKING

The Mandatary undertakes to comply with:

INSURANCE

1. The Mandatary warrants that all their employees and/or their contractor's employees if any are covered in terms of the COID Act, which shall remain in force whilst any such employees are present on the Client's premises. A letter is required prior commencing any work on site confirming that the Principal contractor or contractor is in good standing with the Compensation Fund or Licensed Insurer.

2. The Mandatary warrants that they are in possession of the following insurance cover, which cover shall remain in force whilst they and /or their employees are present on the Client's premises, or which shall remain in force for that duration of their contractual relationship with the Client, whichever period is the longest.

   a. Public Liability Insurance Cover as required by the Subcontract Agreement.

   b. Any other Insurance cover that will adequately makes provision for any possible losses and/or claims arising from their and /or their Subcontractors and/or their respective employee's acts and/or omissions on the Client's premises.

COMPLIANCE WITH THE OCCUPATIONAL HEALTH & SAFETY ACT 85 OF 1993

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

1. All work performed by the Mandatary on the Client's premises must be performed under the close supervision of the Mandatary's employees who are to be trained to understand the hazards associated with any work that the Mandatary performs on the Client's premises.

2. The Mandatary shall be assigned the responsibility in terms of Section 16(1) of the Occupational Health and Safety Act 85 of 1993, if the Mandatary assigns any duty in terms of Section 16(2), a copy of such written assignment shall immediately be forwarded to the Client.

3. The Mandatary shall ensure that he/she familiarise himself/herself with the requirements of the Occupational Health and Safety Act 85 of 1993 and that s/he and his/her employees and any of his subcontractors comply with the requirements.

4. The Mandatary shall ensure that a baseline risk assessment is performed by a competent person before commencement of any work in the Client's premises. A baseline risk assessment document will include identification of hazards and risk, analysis and evaluation of the risks and hazards identified, a documented plan and safe work procedures to mitigate, reduce or control the risks identified, and a monitoring and review plan of the risks and hazards.

5. The Mandatary shall appoint competent persons who shall be trained on any Occupational Health & Safety aspect pertaining to them or to the work that is to be performed.

6. The Mandatary shall ensure that discipline regarding Occupational Health & Safety shall be

strictly enforced.

7. Any personal protective equipment required shall be issued by the Mandatary to his/her employees and shall be worn at all times.

8. Written safe working practices/procedures and precautionary measures shall be made available and enforced and all employees shall be made conversant with the contents of these practises.

9. No unsafe equipment/machinery and/or articles shall be used by the Mandatary or contractor on the Client's premises.

10. All incidents/accidents referred to in Occupational Health and Safety Act shall be reported by the Mandatary to the Provincial Director: Department of Labour as well as to the Client.

11. No use shall be made by the Mandatary and/or their employees and or their subcontractors of any of the Client's machinery/article/substance/plant/personal protective equipment without prior written approval.

12. The Mandatary shall ensure that work for which the issuing of permit is required shall not be performed prior to the obtaining of a duly completed approved permit.

13. The Mandatary shall ensure that no alcohol or any other intoxicating substance shall be allowed on the Client's premises. Anyone suspected to be under the influence of alcohol or any other intoxicating substance shall not be allowed on the premises. Anyone found on the premises suspected to be under the influence of alcohol or any other intoxicating substance shall be escorted off the said premises immediately.

14. Full participation by the Mandatary shall be given to the employees of the Client if and when they inquire into Occupational Health & Safety.

FURTHER UNDERTAKING

1. Only a duly authorised representative appointed in terms of Section 16.2 of the Occupational Health and Safety Act is eligible to sign this agreement on behalf of the Mandatary. The signing power of this representative must be designated in writing by the Chief Executive Officer of the Mandatary. A copy of this letter must be made available to the Client.

2. The Mandatary confirms that he has been informed that he must report to the Client's management, in writing anything he/she deems to be unhealthy and /or unsafe. He has versed his employees in this regard.

3. The Mandatary warrants that he/she shall not endanger the health & safety of the Client's employees and other persons in any way whilst performing work on the Client's premises.

4. The Mandatary understands that no work may commence on the Client's premises until this procedure is duly completed, signed and received by the Client.

5. Non-compliance with any of the above clauses may lead to an immediate cancellation of the

contract.

ACCEPTANCE BY MANDATARY

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

I ……a duly authorised 16.2 Appointee acting for and on behalf of ……(company name) undertake to ensure that the requirements and the provision of the Occupational Health and Safety Act 85 of 1993 and its regulations are complied with.

Mandatary – WCA/ Federated Employers Mutual No…….

Expiry date …….

_____ _____

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

_____ _____

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

C1.4 Forms of Securities

No performance bond or parent company guarantee is required in this contract.

C1.5 Insurance Schedule

Summary of Terms and other Matters Applicable to Employer Provided Insurance

Part 1:

Notes to Schedule:

- The provision of insurance by the Employer does not limit the obligations, liabilities or responsibilities of the Contractor under this contract in any way whatsoever (including but not limited to any requirement for the provision by the Contractor of any other insurances).
- Unless specifically otherwise stated, capitalised terms in this schedule (other than Employer, Contractor and works where written in italics) have the meaning assigned to them in the relevant policy of insurance.
- This Insurance Schedule is a generic term sheet generally applicable to the Employer's projects. In the circumstances:
    - If this Insurance Schedule reflects the amount of any cover provided by the Employer to be higher than the amount required in the Contract Data, the Employer's obligation under this Contract is limited to the lower amount; and
    - If this Insurance Schedule provides for any cover which is not stated to be provided by the Employer in the Contract Data, the Employer's obligation under this Contract is limited to the cover stated in the Contract Data.
- **[**The terms governing the Employer provided policies of insurance are the terms detailed in the policies themselves. This schedule is merely a summary of the key terms. It is the responsibility of the tenderer to obtain copies of the policies and satisfy itself of the actual terms as required by the tenderer.**]**

Part 2:

ACSA Maintenance Contracts Insurance Clause.
Insurance Affected by the Employer.

Notwithstanding anything elsewhere contained in the Contract and without limiting the obligations liabilities or responsibilities of the Contractor in any way whatsoever (including but not limited to any requirement for the provision by the Contractor of any other insurances) the Employer shall effect and maintain as appropriate in the joint names of the Employer , Contractors and Sub-Contractors, Consultants and Sub-Consultants the following insurances which are subject to the terms, limits, exceptions and conditions of the Policy:

a) **PUBLIC LIABILITY Insurance** – which will provide indemnity against the insured parties legal liability in the event of accidental death of or injury to third party persons and/or accidental loss of or damage to third party property arising directly from the execution of the contract with a limit of indemnity of **R 100 million** in respect of all claims arising from any one occurrence or series of occurrences consequent on or attributable to one source or original cause. The policy will be subject to a Deductible of **R25 000** for Property Damage claims only but **R250 000** where Loss or Damage involves Aircraft.

(i) The Employer shall pay any premium due in connection with the insurance affected by the Employer.

(ii) The Contractor shall not include any premium charges for this insurance except to the extent that he may deem necessary in his own interests to effect supplementary insurance to the insurance effected by the Employer. The Employer reserves the

right to call for full information regarding insurance costs included by the Contractor.

(iii) Any further clarification of the scope of cover provided by the Policies arranged by the Employer should be obtained from the Employer.

(iv) In the event of any occurrence which is likely to or could give rise to a claim under the insurances arranged by the Employer the Contractor shall:

(A) in addition to any statutory requirement or other requirements contained in the Contract immediately notify the Employer's Insurance Broker or the Insurers by telephone or telefax giving the circumstances nature and an estimate of the loss or damage or liability

(B) complete a Claims Advice Form available from the Insurance Brokers to whom the form must be returned without delay.

(C) negotiate the settlement of claims with the Insurers through the Employer's Insurance Brokers and shall when required to do so obtain the Employer's approval of such settlement.

The Employer and Insurers shall have the right to make all and any enquiries to the site of the Works or elsewhere as to the cause and results of any such occurrence and the Contractor shall co-operate in the carrying out of such enquiries.

(v) The Contractor will be liable for the amount of the Deductible (First Amount Payable in respect of any claim made by or against the Contractor or Sub-Contractors under the insurances effected by the Employer.
Where more than one Contractor is involved in the same claim the Deductible will be borne in pro-rata amounts by each Contractor in proportion to the extent of each Contractor's admitted claim.

(vi) Any amount which becomes payable to the Contractor or any of his Sub-Contractors as a result of a claim under the Contact Works Insurance shall if required by the Employer be paid net of the Deductible to the Employer who shall pay the Contractor from the proceeds of such payment upon rectification repair or reinstatement of the loss or damage but this provision shall not in any way affect the Contractor's obligations liabilities or responsibilities in terms of the Contract.
In respect of any amount which becomes payable as a result of a claim under any Public Liability Insurance the Contractor or his Sub-Contractors shall be required to pay the amount of the Deductible to the Insurer to facilitate settlement of such claim.

Insurance Affected by the Contractor.

Without in any way detracting from any requirements contained elsewhere in this contract the Contractor and Sub-Contractors shall where applicable, provide as a minimum the following:

(a) INSURANCE OF CONTRACTORS EQUIPMENT (including tools offices and other temporary structures and contents) and other things (except those intended for incorporation into the Works) brought onto the Site for a sum sufficient to provide for their replacement.

(b) Insurance in terms of the provisions of the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993 as may be amended or in terms of any similar Workers Compensation and Unemployment Insurance enactment's in the Suppliers' or Sub Supplier's operational, manufacturing or assembly locations.

(c) Motor Vehicle Liability Insurance comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability indemnity.

(d) Public Liability Insurance for an amount sufficient to cover the Contractors obligations in terms of the Deductible of **R25 000** or **R250 000** as stated above.

i. The insurances to be provided by the Contractor and his Sub-Contractors shall:

(A) be affected with Insurers and on terms approved by the Employer.
(B) be maintained in force for whatever period the perils to be insured by the Contractor are at risk (including any defects liability period during which the Contractor is responsible for the care of the Works)
(C) submit to the Employer the relevant Policy or Policies of Insurance or evidence acceptable to the Employer that such insurances have been affected.

ii. In the event that the Contractor or his Sub-Contractor receives any notice of cancellation or restrictive modification to the insurance provided to them they shall immediately notify the Employer in writing of such cancellation or restriction and shall advise what action the Contractor or his Sub-Contractor will take to remedy such action.
If the Contractor fails to effect and keep in force the insurances referred to then the Employer may effect and keep in force any such insurances and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount paid by the Employer from any monies due or which may become due to the Contractor or recover same as a debt from the Contractor.

Sub-Contractors

The Contractor shall:

a) ensure that all potential and appointed Sub-Contractors are aware of the whole contents of this clause, and
b) enforce the compliance by Sub-Contractors with this clause where applicable."

C2.1 Pricing assumptions: Option A

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 *price list* 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 *Contractor* has completed and where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the *Contractor* 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.

The Employer reserves the right to vary all the activities according to the rates given in this contract.

Table A: Activity Schedule Part 1:

Item no.	Activity Description	Frequency	Quantity (per year)	Amount (per single item)	Total (per year)
Preliminary and General					
1	Airport permits and parking fees – provisional sum	Once off	1	R 10 000.00	R 10 000.00
2	Insurance (ACSA-required for this contract)	Monthly	6		
3	Inventory management and monthly reports	Monthly	6		
Total Preliminary & General					R
Maintenance & Inspections (Please refer to Annex K for the minimum required maintenance tasks)					
4	Daily Inspections	Daily	184		
5	Weekly Inspections	Weekly	26		
6	Monthly Preventative Maintenance	Monthly	6		
7	Quarterly Preventative Maintenance	Quarterly	2		
8	Semi-Annual Preventative Maintenance	Six Monthly	1		
	Total Maintenance & Inspections				
Sub-Total A: (Total Preliminary & General + Total Maintenance & Inspections)					**R**

NOTE:

1. The above activity schedule is minimum work required and the contractor as the subject expect matter on these services they are bidding for shall fill in any other activity with prices for "other" activities which they deem necessary to achieve the set out comes on availability, reliability, maintainability, MTTR, MTBF, legislative and all other targets set in this contract. Should an alternative not be presented, the offer will be deemed as the contractor's optimal proposal for which they will be liable for.
2. All rates for all activities including diagnostic and repair shall include all required tools, software, hardware and consumables (including all applicable specialized tools and software, hardware and consumables) Onus is on the contractor to price correctly).
3. It is noted that the required labour resources and skills for this contract is not prescribed in detail. The contractor is fully responsible to ensure that labour resources remain adequate and competent in order to maintain required service levels, system performance levels and according to all applicable laws and regulations. The Tenderer shall also ensure that all required maintenance is catered for as per the Original Equipment Manufacturer in the pricing above.
4. Low service damages will be applicable as per the Low service damages table in the Service Information.

Labour rates and Mark-up
Any work not included under part 1 shall be deemed additional work or non-scheduled items and will be charged at the following rates:

Activity Schedule – part 2 (Labour rates and Mark-up - Breakdowns)

Any work not included under part 1 shall be deemed additional work or non-scheduled items and will be charged at the following rates:

*All rates to exclude vat. Subject to mutual agreement between the Employer 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.

Note: No labour shall be charged for travel or travelling. Labour time shall be calculated for the time spent on site.

i) **LABOUR RATES:**

Item	Description	After Hours – Weekdays (R/hour)	After Hours (R/hour)	
			Saturdays	Sundays/Public holidays
1	Site Manager			
2	Technician/Electrician			
3	Technical assistant/Unskilled labourer			

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 experience and applicable competencies as per OEM and all legislations in the maintenance Fuel Hydrant System. The Contractor shall continuously ensure that all members of staff are knowledgeable on all equipment relating to the Fuel Hydrant System.

Note the following minimum below as per standardised Mechanical resources per infrastructure:

Description of Key Personnel	Minimum Qualifications of Key personnel	Minimum Experience of key personnel
Site Supervisor/Manager	➢ BEng/BSc Mechanical Engineering degree (or SAQA approved equivalent) with a Pr. Eng. registration. OR ➢ BTech in Engineering (or SAQA approved equivalent): Mechanical with Pr. Tech OR ➢ Millwright OR Fitter and Turner OR Pipe Fitter (or SAQA-approved equivalent) ➢ Any Occupational Health and Safety Training certificate	4 or more years' experience in the maintenance of petroleum storage and/or pipeline facilities 3 years' experience in a technical supervisory role 3 years' experience in a role pertaining directly to the Occupational Health and Safety Act.
Mechanical Technician	Trade Test: Millwright OR Fitter and Turner OR Pipe Fitter (or SAQA-approved equivalent)	4 or more years' experience in the maintenance of petroleum storage and/or distribution facilities
Electronics Technician	Trade test - Engineering (or SAQA approved equivalent): Electrical OR Electronic OR Control and Instrumentation	4 or more years' experience in the maintenance of electronic systems
Electrician	Trade Test: Electrician (or SAQA-approved equivalent)	4 or more years in the maintenance of electrical components and/ or systems in petroleum storage and/or distribution facilities
Mechanical Assistant	N2: Mechanical Engineering (or SAQA-approved equivalent)	2 or more years' experience in the maintenance of mechanical and/or electrical equipment
Electrical Assistant	N2 - Engineering (or SAQA approved equivalent): Electrical OR Electronic OR Control and Instrumentation	2 or more years' experience in the maintenance of electronic and/or electrical equipment

ii) CALL OUT FEE + DIOGNOSTIC AND REPAIR RATES

NOTE:

a) All rates for all activities including diagnostic and repair shall include all required tools, software, hardware, and consumables (including all applicable specialized tools and software, hardware and consumables) Onus is on the contractor to price correctly).

b) All Callouts shall include all applicable travelling, all personnel insurance, holidays with pay, incentive bonuses etc. Labour laws and all applicable laws shall be followed by the contractor.

c) Callouts are not chargeable during hours technician/artisan/assistants, or any applicable resource are on site.

d) Callouts are not chargeable during working hours, except where the breakdown requires the intervention of key personnel more highly skilled than the deployed technical assistants (such as the technician or electrician). Breakdowns where the intervention of the technician or electrician is required shall be charged according to the labour rates table provided

e) The contractor will be compensated according to the contractor's repair rate provided in the below table B and it is subject to discussion with the service manager due to proven factors that are beyond the contractor's control (some of the internal and external factors are listed in Annex T).

f) Call-out remuneration is applicable to activities falling out of preventative maintenance activities that were supposed to be done by the contractor, thus the Employer will not pay for breakdown which are due to preventative maintenance negligence by the contractor.

Table B: Callouts and Labour

Description	Quantity	Call out fee
Call out Fee which includes first hour on site and travelling fee (after hours, weekends and holidays)	6	R
Sub-Total B: Callouts and Labour	**R**	

Diagnostic with repairs table:
(Time below includes the total time to do diagnostics and repairs for each failure mode and completely resolve the issues leaving the infrastructure totally correctly functional. Note the rates must include all required tools, special tools, software, and hardware require to completely resolve the failure)

Item #	Call description	Estimated time to repair/reset (hrs.) as logged in the Employer system	Quantity	Contractor time to repair:	Rate per hour (after hours):	Total: qty x contractor time to repair x rate
1	Hydrocarbon System – No fault found	0.25	1		**R**	**R**
2	Hydrocarbon System – Sensor cleaned	0.25	1		**R**	**R**
3	Hydrocarbon System – Sensor fault	1	1		**R**	**R**
4	Hydrocarbon System – UV flash malfunctioning	0.3	1		**R**	**R**
5	Fuel Hydrant System – Power Failure	0.25	1		**R**	**R**
6	Fuel Hydrant System – Actuator Fault Failure	1	1		**R**	**R**
7	Level Monitoring System – No fault found	0.25	1		**R**	**R**
8	Level monitoring system – Sensor Fault	0.3	1		**R**	**R**
9	Level monitoring system – Viga swing malfunction	0.5	1		**R**	**R**
10	Level Monitoring System – Moxa malfunction	0.5	1		**R**	**R**
11	Level monitoring system – antenna fault	0.3	1		**R**	**R**

12	Level monitoring system – Battery	0.3	1		**R**	**R**
13	Level monitoring system – module card	0.5	1		**R**	**R**
14	Level monitoring system – power supply fault	0.3	1		**R**	**R**
15	Level monitoring system – power failure	0.5	1		**R**	**R**
16	Level monitoring system – ACSA IT infrastructure failure	0.3	1		**R**	**R**
17	Level monitoring system – PLC malfunction	1	1		**R**	**R**
18	Other: Unforeseen breakdown	2	1		**R**	**R**
Sub-Total C: Total Diagnostic and Repairs					**R**	
Sub-Total D: Sub-Total B + Sub-Total C)					**R**	

iii) SPARES and MARK-UP

Spares will be managed by the contractor using the Employer's manual inventory management system.
The manual inventory management system will include but not limited to.

- Conducting and submission of monthly stock count to the Service Manager by the contractor,
- Keeping up-to-date inventory cards by the contractor,
- Management of spares movement by the contractor,
- Keeping an up-to-date inventory file (purchase order and request, work order, delivery note, stock count records, etc.).
- Ensure safety and security of the storeroom by the contractor as per space given to them.
- The space for spare storage shall be allocated by the Employer to the contractor and can be a shared space as per space availability.
- Management of inventory by the contractor as per the Employer inventory procedure.

Spares Provisional Sum:

Description	**Total (excluding VAT)**
Sub-Total E: Spares Provisional Sum	**R 700,000.00**

Mark-up (third party procured items/services)

Cost[b]	***Mark-up**
R 0.00 – R 49,999.99	%
R 50,000.00 – R 99,999.99	%
R 100,000.00 – R 499,999.99	%

R 500,000.00 or more	%

[b]Cost shall be net cost (excluding VAT) of services rendered or parts delivered to the Employer with all discounts deducted. The mark-up to be applied to the cost is applicable to the total combined subcontracted value of the cost assessment submitted to the Service Manager for review. This is regardless of the number of 3rd party (suppliers and/or sub-contractors) quotations utilised in the cost assessment of the service(s) to be rendered or item(s) to be delivered to the Employer.

Spares and subcontractors work will be charged at cost plus mark-up. VAT shall not form part of mark-up calculations. Cost shall be net cost (excluding VAT) of parts supplied to site with all discounts deducted.

The spares list must be prepared monthly based on tenderers best current spares prices (excl. VAT). The actual costs of spares will be reimbursed on submission of invoices and suppliers supporting documents.

Contract value

Below, 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 the Employer 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.

Fuel Hydrant Reticulation, Monitoring and Control System twelve (6) months maintenance expenditure:

Description	**Total (excluding VAT)**
Sub-total A (Total Preliminary & General + Total Maintenance & Inspections)	R
Sub-total D (Call out fee + Diagnostic and repairs)	R 15,596.58
Sub-total E: (Spares provisional sum)	R 700,000.00
***Total F - Total Maintenance Cost**	**R**

NOTE:
*TOTAL F (i.e., Total maintenance cost for duration of the contract) is to be entered as the contract value in the form of offer.

C3 Service Information

DESCRIPTION OF THE SERVICE

Employer's objectives
The objective is to maintain the serviceability of Fuel Hydrant System, Level Monitoring and Hydrant Control System, Tightness Control System, Emergency Shutdown Devices, Uninterruptible Power Supply and Hydrocarbon Detector Facilities at the Affected Property in a sustainable manner at the lowest operating and maintenance costs while ensuring compliance to general safety and aviation related legislation.

The Contractor will maintain all the Fuel Hydrant Reticulation, Monitoring and Control System on the apron and the hydrocarbon detector facilities at remote locations of the apron at the Affected Property as described in the scope of work below.

The contractor shall provide assurance that competent persons carry out all tasks in accordance with all the applicable standards (EI, JIG, API, etc.), OEM requirements, procedures, regulations, and legislative requirements. It must be noted that there are interfaces with the level monitoring and control system, and the cathodic protection system which are maintained by other the Employer maintenance contractors, respectively.

Scope of work

Equipment Life Span
- The life span of the Fuel Hydrant System is summarised in **Annex C.**
- The list of equipment commissioning dates has been provided on **Annex B.**

Original Equipment Manufacturer Requirements
The O.E.M recommended the below preventive maintenance for the Fuel Hydrant System:
- Monthly maintenance

Condition of the plant
The maintenance history of the equipment has been logged with the Employer Integrated Maintenance Centre.

- The list breakdowns and faults experienced and the estimated time for repair on the Fuel Hydrant System and Hydrocarbon Detector Facility are listed on **Annexure H.**
- The preventative maintenance previously performed on the fuel hydrant reticulation, monitoring and control system may be requested of the Service Manager by the Contractor.
- A sample of root cause analysis has been attached on **Annex G**. Also, the root cause analysis must be performed, and the Root cause analysis form completed by the contractor and handed over to the service manager after each breakdown.

Site Information
- The Fuel Hydrant System is located on the airside of the Affected Property (refer to Annexure A for a full list of equipment).
- The airside layout and site information has been provided on **Annex D**.

Minimum work requirements and Legislations:
Maintenance of fuel hydrant reticulation, monitoring and control system shall, as a minimum, conform to the following procedures and or other legislative references (Gazetted Standards or Occupational Health and Safety Regulations):

- Recommended Practice for the Operation, Inspection, Maintenance and Commissioning of Aviation Fuel Hydrant Systems and Hydrant System Extensions – EI1560
- JIG 1 Aviation Fuel Quality Controls and Operating Standards for Into-Plane Fuelling Services
- JIG 2 Aviation Fuel Quality Controls and Operating Standards for Airport Depots and Hydrants
- JIG HSSEMS Standard
- Pressure Equipment Regulations
- Electrical Installations Regulations
- Electrical Machinery Regulations
- SANS 10108
- SANS 10142
- API/EI 1584 Standard for Four-Inch Hydrant System Components and Arrangements
- NERSA License conditions
- Joint Inspection Group Standards (including all applicable Bulletins)
- ACSA maintenance procedure for Fuel Depot and Reticulations System - D060 021M as provided in **Annex N.**
- The preventative maintenance previously performed on the Fuel Hydrant System and the Level Monitoring System are listed on **Annex F**, for the actual work orders, ACSA Integrated Maintenance Centre can be contacted to obtain these records

Note: above is the list of minimum regulations and legislative requirements that the contractor needs to adhere to as mandatory requirements (work should be carried out by competent people as prescribed in the law and shall be auditable by the employer at any given time)

Access to site

- Airside training and permit should be completed and issued before accessing airside and commencement of work.
- AVOP training and permit should be completed and issued before the commencement of work for personnel driving required to drive on airside.
- Permission must be obtained from the Employer's Operations and IMC departments before an equipment can handed over to the contractor for works and such arrangements must be done prior and timeously.

Site Restrictions

- Airside training and permit should be completed and issued before accessing airside and commencement of work.
- AVOP training and permit should be completed and issued before the commencement of work for personnel driving required to drive on airside.
- The safety file should be completed and approved by the safety department before commencement of work. The safety file is a living document and must be continuously updated with all requirements as specified by law. Also, will be auditable from time to time.
- Personal Protective Equipment should be issued before the commencement of work.

Risk

The are some of the risks identified but not limited to those listed in **Annex E**.

Current Guarantees and warrantees to be maintained:

- Annex W - N/A

Extent of the works

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

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.

Where, such a need is mutually agreed between the Contractor and the Employer, the Employer shall put in place a “Hotline” (i.e., 24-hour telephonic support by product specialist) agreement with the relevant OEM. In this event the Contractor shall be responsible that such Hotline services are always operational and available, but all costs in this regard shall be carried by the Employer. The Contractor shall NOT add any mark-up to any Hotline related expenses. A “Hotline” agreement shall typically ensure that problems relating to system controls are promptly rectified. It is intended that Hotline agreements will be in place with OEMs for PLC related controls and computerised control systems.

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

The Contractor shall always remain responsible to ensure that the on-site staff 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 and competent for the duties required of them. The Contractor shall continuously ensure that all staff is knowledgeable and dependable in Fuel Hydrant System maintenance activities/procedures in the area. 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 be 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.

The Contractor will be responsible for keeping spares levels up to a sufficient quantity and standard as to comply with the requirements of this contract and will charge the Employer accordingly. All spares will be charged according to the Activity Schedule. The Contractor shall arrange for the spares room. The Contractor shall keep the spares room in a neat and clean state and an updated spares list will always be available on-site. Spares will be neatly arranged and easily locatable via an appropriate index on the spares list. Wherever practicable, a notice will be placed on the rack, next to the spare part, as to where the part is used in the installation. A resource will be dedicated to ensuring that spares are effectively managed, and scrapped parts and waste removed from site. The space for spare storage shall be allocated by the Employer to the contractor and can be a shared space as per space availability.

The Contractor will be responsible for holding all tools and/or special equipment that might be required for the execution of the service, 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 on-site 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, track suit and a uniquely numbered reflective jacket (for easy identification via CCTV).

Location of the service
The service is to be carried out on the equipment listed in Annex A of the Service Information, which are located at the Affected Property on the airside area (parking bay aprons and taxiways) which requires personnel permits issued by the ACSA Permit Office to gain access. It is crucial for the Contractor to note that the Affected Property is a National Key Point and is governed as such.

PROCUREMENT

Preferential procurement procedures
Requirements
The Contractor will respect OEM warrantees to the Employer 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 conveyor belts and/or other equipment or spares.

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

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

MANAGEMENT

Management of the service
Particular / generic specifications
All work shall conform to all relevant SANS standards, Occupational Health and Safety 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 **from 04:00 to 24:00** for every day of the year.

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 the Employer's business. Therefore, within reason and with prior arrangement with the Contractor, the Employer might require the following from time to time:

- Assisting with emergency repairs on
- Assisting with airport operations Re-scheduling of work to accommodate other contractors
- Allowing access and providing assistance to OEM suppliers to correct defects on equipment and/or systems
- Checking on other contractors in order to reduce risk to Fuel Hydrant System
- 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
- Training of ACSA operators and/or technicians
- Training of check-in of Fuel Hydrant System staff
- Providing of system data and/or statistics to the Employer
- Recommending improvements on maintenance procedures
- Recommending improvements on operational procedures
- Co-operating with the Employer's Security department relating to security issues
- Safe / legal disposal of used and irreparable spares

The Service Manager may instruct operational and service 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, inventory 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 meetings.

Electronic payments

The Contractor should arrange with the Employer'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 content of monthly reports shall include but not be limited to the following:

1. system availability (averaged per week)
2. maintenance work (including % of scheduled maintenance work completed)
3. daily checks performed
4. maintenance plan for the next month
5. the latest spares inventory
6. Assets register up to date including equipment data
7. Root cause analysis records
8. Safety/Environmental or legislative issues and compliance
9. Outstanding maintenance/contractual issues

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 the Employer's 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 the Employer'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 the Employer 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 complies with a law or regulation.

Health and safety
Health and safety requirements and procedures
The Service Manager shall be entitled to fine the Contractor low service damages 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 Occupational Health and Safety 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 low service damages 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 steel-tipped safety shoes/boots, overalls (clearly marked with Contractor's company logo) and numbered reflective jackets (also clearly marked with Contractor's company logo, the team members unique personnel number in a font size to be instructed by the Service Manager). 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 the public, travellers and stakeholders from injury relating to machinery, hazardous and/or toxic substances, work or other risks associated with providing the service.

Barricades and lighting
Where hoarding, barricades or lighting is required in the execution of the Service, 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 Service.

ANNEXES to C3 (Service information)

Title	Annex number	Applicable or N/A
Schedule of Equipment	Annex A	Applicable
Equipment commissioning dates	Annex B	Applicable
Equipment life span	Annex C	Applicable
Site information	Annex D	Applicable
Risk assessment	Annex E	Applicable
Previous completed PMs	Annex F	Applicable
Root cause analysis	Annex G	Applicable
Estimated times for breakdowns/faults	Annex H	Applicable
Service Level Agreement	Annex I	Applicable
Occupational Health and Safety Act Appointment by Contractor	Annex J	Applicable
Minimum Maintenance Programme	Annex K	Applicable
Environmental Terms and Conditions	Annex L	Applicable
Maintenance of Fuel Hydrant System Spares List	Annex M	Applicable
ACSA maintenance procedure for Fuel Depot and Reticulation System - D060 021M	Annex N	Applicable
Fuel Hydrant System – standard operating procedure	Annex O	Applicable
Maintenance of Fuel Hydrant System – Electrical lockout procedure	Annex P	Applicable
O.R. Tambo International Airport – operating instruction	Annex Q	Applicable
Fuel Hydrant System - Fire Emergency procedure	Annex R	Applicable
IMCC procedure	Annex S	Applicable
Internal and external factors outside the contractor's control	Annex T	Applicable
ACSA Mechanical Standardised Minimum: legal requirements and minimum competency requirements	Annex U	Applicable
ACSA Inventory management procedure	Annex V	Applicable
Guarantees and warrantees to be maintained	Annex W	N/A
Hydrant Drawing available from the Employer	Annex X	Applicable

ANNEX A

SCHEDULE OF EQUIPMENT

Valve chambers

Location	Name
Main feeder	VCM1
	VCM2
	VCM3
	VCM4
	VCM5
Alpha Apron	VCA0
	VCA1
	VCA2
	VCA3
	VCA4
	VCA5

Location	Name
Bravo Apron	VCB0
	VCB1
	VCB2
Charlie Apron	VCC1
	VCC2
	VCC3
	VCC4
	VCC5
	VCC6
Echo Apron	VCE1
	VCE2
	VCE3

Location	Name
Delta Apron	VCD0
	VCD1
	VCD2
	VCD3
	VCD4
	VCD5
	VCD6
	VCD7
	VCD8
	VCD9
	VCD10
	VCD11

Location	Name
Foxtrot Apron	VCF1
	VCF2

Equipment Summary		
Equipment type	**Quantity**	**Description/Location**
Valve Chamber	30	Valve chambers each equipped with explosion proof box, level probe, antenna and 12V DC Battery
Valve Chamber	6	Valve chambers with TCS level monitoring equipment
Boosting Station	1	Delta Satellite Station
Satellite Station	2	Main Satellite Station and Echo Satellite Station
Tightness control system	1	Tightness control system (TCS)
Uninterruptible Power Supply (UPS)	6	HIMA Station (OEM: Eaton)
Uninterruptible Power Supply (UPS)	1	HIMA Station (OEM: Siemens) - Golf Apron
Hydrocarbon Detector Facility	3	Flow meters and data logger

Motor-operated Valves (MOV's)/ Actuated Valves		
Section	**Motor-operated valves**	**Location**
Dual Feeder line	MOV D1 & MOV D2	Fuel Storage depot
Alpha Apron	VCA1 VAO1	VCA1
	VCA2 VA01	VCA2
	VCA5 VA01	VCA5
	VCA5 VA03	
Bravo Apron	VCM1 VA01	VCM1
Charlie Apron	VCC3 VA01	VCC3
	VCC5 VA01	VCC5
	VCM3 VA01	VCM3
Delta Apron	VCD1 VA01	VCF2
	VCD1 VA02	VCD9
	VCD6 VA01	VCD6
	VCD8 VA02	VCF2
	VCD9 VA03	VCD9
Echo Apron	VCE1 VA03	VCE1

Motor-operated Valves (MOV's)/ Actuated Valves		
Section	**Motor-operated valves**	**Location**
	VCE1 VA02	
	VCE3 VA01	VCE3
	VCE3 VA03	
Foxtrot Apron	VCF1 VA02	VCF1

Equipment	**Area**	**Quantity**
Level Monitoring Equipment	Alpha Apron Valve Chambers	Vibrating Tuning Fork Level Switch (1); Wireless Controller (868 MHz) and add-on IO Module; Batteries; 868 MHz Antenna
Level Monitoring Equipment	Bravo Apron Valve Chambers	Vibrating Tuning Fork Level Switch (1); Wireless Controller (868 MHz) and add-on IO Module; Batteries; 868 MHz Antenna
Level Monitoring Equipment	Charlie Apron Valve Chambers	Vibrating Tuning Fork Level Switch (1); Wireless Controller (868 MHz) and add-on IO Module; Batteries; 868 MHz Antenna
Level Monitoring Equipment	Delta Apron Valve Chambers	Vibrating Tuning Fork Level Switch (1); Wireless Controller (868 MHz) and add-on IO Module; Batteries; 868 MHz Antenna
Level Monitoring Equipment	Echo Apron Valve Chambers	Vibrating Tuning Fork Level Switch (1); Wireless Controller (868 MHz) and add-on IO Module; Batteries; 868 MHz Antenna
Level Monitoring Equipment	Foxtrot Apron Valve Chambers	Float Level Switches (2); Remote Terminal Unit and associated power supply; Batteries; Protection Equipment; MDS Digital

Emergency Shutdown Devices		
Section	**Zone**	**No of Emergency Shutdown Buttons (ESB's)**
Alpha apron	VCE3 – VCA1	2
	VCA1 – VCA2	3
	VCA2 – VCA5	10
Bravo apron	VCA1 – VCM1	8
Charlie apron	VCA5 – VCC3	8
	VCC3 – VCC5	8
	VCC5 – VCM3	7
Delta apron	VCD1 – VCD6	12
	VCD6 – VCD8	5
	VCD8 – VCD9	1
	VCD9 – VCF1	3
Echo apron	VCE1 – VCE3	4
Foxtrot apron	VCF1 – VCE1	3
Golf apron	VCD1 – VCD1	7

Hydrocarbon separator facilities	
Location	**Capacity**
Golf Apron	10,000 l (10K)
Runway 21L	1,000,000 l (XK)
Denel Aviation complex	5,000 l (5K)

Fuel Pipeline Bellows				
Alpha Apron	**Bravo Apron**	**Delta Apron**	**Echo Apron**	**Foxtrot Apron**
VCA0	VCB 1	VCD1	VCE1	VCF1
VCA1	VCB2	VCD2	VCE2	VCF2
		VCD3	VCE3	
		VCD4		
		VCD5		
		VCD6		
		VCD7		
		VCD8		
		VCD9		
		VCD10		
		VCD11		

Item No.	Description
A	**Isolation Valves**
1	Twin-seal DBB (double block and bleed) valves on all aprons
2	True seal DBB (double block and bleed) valves on all aprons
3	Ball Valves (20NB, 40NB and 50NB) [APV, Worcester and Hi Cap Engineering] on all aprons
B	**Fuel Hydrant Pit Valves**
1	3rd Edition 4-inch Carter 60554 Valves
2	24-inch Cavotec Dabico - DAB 236
C	**Valve Chambers**
1	Fuel Reticulation and Paintwork
2	Joint seals (inside/outside of valve chambers; pipe penetrations into valve chambers)
3	Lighting
4	Steel Ladders
5	Steel Grating
6	Fuel Reticulation Cladding (or wrapping)
7	Ground and Rainwater pump
8	Valve Chamber paintwork
9	Motorized actuators
10	Electrical wiring
11	Bellows

Item No.	Description
D	**Emergency Shutdown Device System**
1	Satellite Stations
2	Emergency shutdown buttons and ESB station
3	Steel barriers around ESB stations and satellite stations
E	**Tightness Control System (Leak Detection)**
1	Level switches
2	Relief valves
3	Solenoids
4	Pressure and temperature transducers
F	**Hydrocarbon Separator**
1	XK unit and 10K Unit
2	Primary chamber
3	Secondary chamber
4	Level switches
5	Oil sensors
6	Sluice gates
7	Scour valve
8	Air valves
9	Siphons
10	Air vents
11	Programmable Logic Computer (PLC)

ANNEX B

Equipment Commissioning Dates

Asset Type	Asset Name	Area	Commissioning date
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Main feeder line	1993
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Alpha Apron	1993
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Bravo Apron	1993
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Charlie Apron	1993
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Delta Apron	1993
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Echo Apron	2010
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Foxtrot Apron	1993
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Golf Apron	1993
Hydrant line	Hydrant pit valves	Alpha Apron	1993
Hydrant line	Hydrant pit valves	Bravo Apron	1993
Hydrant line	Hydrant pit valves	Charlie Apron	1993
Hydrant line	Hydrant pit valves	Delta Apron	1993
Hydrant line	Hydrant pit valves	Echo Apron	2010
Hydrant line	Hydrant pit valves	Foxtrot Apron	2010
Hydrant line	Hydrant pit valves	Golf Apron	1993
Level monitoring equipment	Level monitoring equipment	All aprons	2010
Satellite Stations	Satellite Stations	Alpha Apron	2010
Tightness control system	Tightness control system	Bravo Apron	2010
Uninterruptible power supply	Uninterruptible power supply	Charlie Apron	2010
Motor-operated Valve (actuator)	D1 & D2	Dual-feeder line (Tank Farm)	1993
Motor-operated Valve (actuator)	VCA1 VAO1 - VCA1	Alpha Apron	1993
Motor-operated Valve (actuator)	VCA2 VA01 - VCA2	Alpha Apron	1993
Motor-operated Valve (actuator)	VCA5 VA01 - VCA5	Alpha Apron	1993
Motor-operated Valve (actuator)	VCA5 VA03 - VCA5	Alpha Apron	1993
Motor-operated Valve (actuator)	VCM1 VA01 - VCM1	Bravo Apron	1993

Asset Type	Asset Name		Area	Commissioning date
Motor-operated Valve (actuator)	VCC3 VA01 - VCC3		Charlie Apron	1993
Motor-operated Valve (actuator)	VCC5 VA01 - VCC5		Charlie Apron	1993
Motor-operated Valve (actuator)	VCM3 VA01 - VCM3		Charlie Apron	1993
Motor-operated Valve (actuator)	VCD1 VA01 - VCF2		Delta Apron	1993
Motor-operated Valve (actuator)	VCD1 VA02 - VCD9		Delta Apron	1993
Motor-operated Valve (actuator)	VCD6 VA01 - VCD6		Delta Apron	1993
Motor-operated Valve (actuator)	VCD8 VA02 - VCF2		Delta Apron	1993
Motor-operated Valve (actuator)	VCD9 VA03 - VCD9		Delta Apron	1993
Motor-operated Valve (actuator)	VCE1 VA03 - VCE1		Echo Apron	2010
Motor-operated Valve (actuator)	VCE1 VA02 - VCE1		Echo Apron	2010
Motor-operated Valve (actuator)	VCE3 VA01 - VCE3		Echo Apron	2010
Motor-operated Valve (actuator)	VCE3 VA03 - VCE3		Echo Apron	2010
Motor-operated Valve (actuator)	VCF1 VA02 - VF1		Foxtrot Apron	2010
Emergency Shutdown Device system	**ESD Zone**	**ESD Quantity**		
Emergency Shutdown Device system	VCE3 – VCA1	2	Alpha Apron	1993
Emergency Shutdown Device system	VCA1 – VCA2	3	Alpha Apron	1993
Emergency Shutdown Device system	VCA2 – VCA5	10	Alpha Apron	1993
Emergency Shutdown Device system	VCA1 – VCM1	8	Bravo Apron	1993
Emergency Shutdown Device system	VCA5 – VCC3	8	Charlie Apron	1993
Emergency Shutdown Device system	VCC3 – VCC5	8	Charlie Apron	1993

Asset Type	Asset Name		Area	Commissioning date
Emergency Shutdown Device system	VCC5 – VCM3	7	Charlie Apron	1993
Emergency Shutdown Device system	VCD1 – VCD6	12	Delta Apron	1993
Emergency Shutdown Device system	VCD6 – VCD8	5	Delta Apron	1993
Emergency Shutdown Device system	VCD8 – VCD9	1	Delta Apron	1993
Emergency Shutdown Device system	VCD9 – VCF1	3	Delta Apron	1993
Emergency Shutdown Device system	VCE1 – VCE3	4	Echo Apron	2010
Emergency Shutdown Device system	VCF1 – VCE1	3	Foxtrot Apron	2010
Emergency Shutdown Device system	VCD1 – VCD1	7	Golf Apron	1993
Hydrocarbon detector facility	10,000 l (10K)		Golf Apron	2012
Hydrocarbon detector facility	1,000,000 l (XK)		Runway 21L	2012
Hydrocarbon detector facility	5,000 l (5K)		Denel Aviation complex	2012

ANNEX C

Equipment Life Span

Asset Type	Asset Name	Area	Expected service life (years)	Date of last refurbishment / replacement	Next Refurbishment /replacement
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Main feeder line	30	never	2023
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Alpha Apron	30	never	2023
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Bravo Apron	30	never	2023
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Charlie Apron	30	never	2023
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Delta Apron	30	never	2023
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Echo Apron	30	never	2040
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Foxtrot Apron	30	never	2023
Hydrant line	Pipeline (including bellows, DBB valves, high-point vents and low-point ducts)	Golf Apron	30	never	2023
Hydrant line	Hydrant pit valves	Alpha Apron	10	2016	2026
Hydrant line	Hydrant pit valves	Bravo Apron	10	2016	2026
Hydrant line	Hydrant pit valves	Charlie Apron	10	2016	2026
Hydrant line	Hydrant pit valves	Delta Apron	10	2016	2026
Hydrant line	Hydrant pit valves	Echo Apron	10	never	2020
Hydrant line	Hydrant pit valves	Foxtrot Apron	10	2016	2026

Asset Type	Asset Name	Area	Expected service life (years)	Date of last refurbishment / replacement	Next Refurbishment /replacement
Hydrant line	Hydrant pit valves	Golf Apron	10	2016	2026
Level monitoring equipment	Level monitoring equipment	All aprons	5	never	2023
Satellite Stations	Satellite Stations	Alpha Apron	10	never	2023
Tightness control system	Tightness control system	Bravo Apron	10	never	2023
Uninterruptible power supply	Uninterruptible power supply	Charlie Apron	10	never	2023
Motor-operated Valve (actuator)	D1 & D2	Dual-feeder line (Tank Farm)	10	2012	2022
Motor-operated Valve (actuator)	VCA1 VAO1 - VCA1	Alpha Apron	10	2012	2022
Motor-operated Valve (actuator)	VCA2 VA01 - VCA2	Alpha Apron	10	2012	2022
Motor-operated Valve (actuator)	VCA5 VA01 - VCA5	Alpha Apron	10	2020	2030
Motor-operated Valve (actuator)	VCA5 VA03 - VCA5	Alpha Apron	10	2020	2030
Motor-operated Valve (actuator)	VCM1 VA01 - VCM1	Bravo Apron	10	2012	2022
Motor-operated Valve (actuator)	VCC3 VA01 - VCC3	Charlie Apron	10	2012	2022
Motor-operated Valve (actuator)	VCC5 VA01 - VCC5	Charlie Apron	10	2012	2022
Motor-operated Valve (actuator)	VCM3 VA01 - VCM3	Charlie Apron	10	2020	2030
Motor-operated Valve (actuator)	VCD1 VA01 - VCF2	Delta Apron	10	2020	2030
Motor-operated Valve (actuator)	VCD1 VA02 - VCD9	Delta Apron	10	2020	2030
Motor-operated Valve (actuator)	VCD6 VA01 - VCD6	Delta Apron	10	2020	2030

Asset Type	Asset Name		Area	Expected service life (years)	Date of last refurbishment / replacement	Next Refurbishment /replacement
Motor-operated Valve (actuator)	VCD8 VA02 - VCF2		Delta Apron	10	2020	2030
Motor-operated Valve (actuator)	VCD9 VA03 - VCD9		Delta Apron	10	2020	2030
Motor-operated Valve (actuator)	VCE1 VA03 - VCE1		Echo Apron	10	never	2020
Motor-operated Valve (actuator)	VCE1 VA02 - VCE1		Echo Apron	10	never	2020
Motor-operated Valve (actuator)	VCE3 VA01 - VCE3		Echo Apron	10	never	2020
Motor-operated Valve (actuator)	VCE3 VA03 - VCE3		Echo Apron	10	never	2020
Motor-operated Valve (actuator)	VCF1 VA02 - VF1		Foxtrot Apron	10	2020	2030
Emergency Shutdown Device system	**ESD Zone**	**ESD Quantity**				
Emergency Shutdown Device system	VCE3 – VCA1	2	Alpha Apron	10	2012	2022
Emergency Shutdown Device system	VCA1 – VCA2	3	Alpha Apron	10	2012	2022
Emergency Shutdown Device system	VCA2 – VCA5	10	Alpha Apron	10	2020	2030
Emergency Shutdown Device system	VCA1 – VCM1	8	Bravo Apron	10	2012	2022
Emergency Shutdown Device system	VCA5 – VCC3	8	Charlie Apron	10	2012	2022
Emergency Shutdown Device system	VCC3 – VCC5	8	Charlie Apron	10	2012	2022
Emergency Shutdown Device system	VCC5 – VCM3	7	Charlie Apron	10	2020	2030

Asset Type	Asset Name		Area	Expected service life (years)	Date of last refurbishment / replacement	Next Refurbishment /replacement
Emergency Shutdown Device system	VCD1 – VCD6	12	Delta Apron	10	2020	2030
Emergency Shutdown Device system	VCD6 – VCD8	5	Delta Apron	10	2020	2030
Emergency Shutdown Device system	VCD8 – VCD9	1	Delta Apron	10	2020	2030
Emergency Shutdown Device system	VCD9 – VCF1	3	Delta Apron	10	2020	2030
Emergency Shutdown Device system	VCE1 – VCE3	4	Echo Apron	10	never	2020
Emergency Shutdown Device system	VCF1 – VCE1	3	Foxtrot Apron	10	2016	2020
Emergency Shutdown Device system	VCD1 – VCD1	7	Golf Apron	10	2020	2030
Hydrocarbon detector facility	10,000 l (10K)		Golf Apron	10	never	2022
Hydrocarbon detector facility	1,000,000 l (XK)		Runway 21L	10	never	2022
Hydrocarbon detector facility	5,000 l (5K)		Denel Aviation complex	10	never	2022

ANNEX D

Site Information

Description
The *services* are situated on the airside of the Affected Property, the services taking place on the aprons within the boundary limits of the the Affected Property.

General Site Conditions

Temperature (Min - Max)	6ºC to 40ºC
Relative Humidity	15% to 60%
Wind	28m/s
Height above Sea Level	1,680 m
Slope (Existing/Modified)	Level
Seismic	N/A

ANNEX E

Risk assessment

The following is a baseline risk assessment. The contractor shall provide a full risk assessment to the service manager within 4 weeks of the start of the contract.

#	Department	Tenant / Sub-department	Activity / Task / Service	Risk Name	Risk Description	Control Measure Name	Control Measure Description
1	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Occupational injuries	Lifting of heavy objects	Procedure	Where possible, crawl beams/mobile cranes are to be used to retrieve submersible pumps with the assistance of chained block-and-tackle
2	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Occupational injury	Inspection on valves in pits	Procedure	Risk of injury
3	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Fire hazard, injuries, fatalities.	Hot work conducted such as grinding, welding	Procedure	Hot work permit be issued prior commencement of work, based on full work order specific risk assessments.
4	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Electrocution	Fault on electrical earth cable	Procedure	Daily/weekly inspection conducted
5	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Falling hazard, fatality, occupational injuries	Lack of ladder access to the roofs	Procedure	Lifelines and fall protection plan in place.
6	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Fire hazard, injuries, fatalities.	Confined Space Entry	Procedure	Hot work permit be issued prior commencement of work, based on full work order specific risk assessments.
7	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Environmental	Fuel Spillage	Procedure	Hot work permit be issued prior commencement of work, based on full work order specific risk assessments.
8	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Occupational injury	Flying Objects	Procedure	Eye protection must be worn (Wear of Safety Glasses). Record

#	Department	Tenant / Sub-department	Activity / Task / Service	Risk Name	Risk Description	Control Measure Name	Control Measure Description
							of receiving PPE is to be kept on file,
9	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Occupational injury	Tripping Hazard	Procedure	Demarcate Working Area
10	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Hearing loss	Noise generated from the aircraft	Training/PPE	Ear protection must be worn. Record of receiving PPE is to be kept on file Airside Induction Training is mandatory prior to receiving a permit to work at the airport. Refresher training is provided every 2 years thereafter.
11	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Aircraft damage, fatalities	persons and vehicle in the airside	Training	On the job training is performed after Airside Induction Training is received.
12	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Aircraft damage, fatalities	Moving Machinery	Training, Procedure	Airside Induction Training is mandatory prior to receiving a permit to work at the airport. Refresher training is provided every 2 years thereafter.
13	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Occupational injuries	Hand Injury	Training, Procedure	Hand protection must be worn (gloves). Record of receiving PPE is to be kept on file. Airside Induction Training is mandatory prior to receiving a permit to work at the airport. Refresher training is provided every 2 years thereafter.
14	Operations: M&E	Mechanical	Maintenance of Fuel	FOD injected by aircraft, property	Vehicle and tools on at Aprons	Procedure	Area Demarcation during work

#	Department	Tenant / Sub-department	Activity / Task / Service	Risk Name	Risk Description	Control Measure Name	Control Measure Description
			Hydrant System	damage, injuries			where applicable and All tools & demarcation to be removed after work
15	Operations: M&E	Mechanical	Maintenance of Fuel Hydrant System	Property damage, vehicle damage, injuries	Driving of vehicles at airside	SWP	AVOP training should be done by drivers with valid driver's license. Vehicles should be deemed serviceable or roadworthy by safety department.

Administrative Risks

Risk Number	Risk Description and Mitigations
1	Safety File not being 100% compliant or safety/environmental infringement could lead to the contractor being taken off site
2	Expired COIDA letter; contractor will be taken off site.
3	Insufficient resources on site to perform the work required roster; low service damages will be levied and failing rehabilitation, the contract will be terminated as specified in this contract
4	Failure to annually present a compliant Tax Clearance Certificate which is considered a material breach of the conditions of this Contract
5	Not meeting set availability target; low service damages will be levied and failing rehabilitation, the contract will be terminated as specified in this contract
6	Not meeting set MTTR target; low service damages will be levied and failing rehabilitation, the contract will be terminated as specified in this contract
7	Spares list not being updated could lead to extended equipment down times; low service damages will be levied, and failing rehabilitation, the contract will be terminated as specified in this contract
8	Root cause analysis not performed could lead to repeated equipment failures; low service damages will be levied and failing rehabilitation, the contract will be terminated as specified in this contract
10	Failure to annually present compliant BEE certificate which is considered a material breach of the conditions of this Contract
11	Contract value being expended before contract expiry date; contract will be terminated
12	Contractor not giving documentation for work assessments and payment on time; Contractor will not be paid on time
13	Updated and compliant safety file regarding COVID-19 PPE and risk assessment, as per Occupational Health and Safety and regulation. low service damages will be levied, and failing rehabilitation, the contract will be terminated as specified in this contract
14	Any change in the law that is reinforced as per clause X2 (Changes in the law)

ANNEX F

Previously completed Preventative Maintenance Work Orders

The list of preventative maintenance previously performed with activities on the fuel hydrant system, the level monitoring system, the tightness control system and hydrocarbon detector facilities can be obtained from the ACSA Integrated Maintenance Centre or from the *Service Manager* on request.

ANNEX G

Root cause analysis

Root cause analysis must be done for each failure and the form is per below must be handed over after closing any works/services.

ORTIA ME Root Cause Analysis Sheet

Function failure:(Which function was no longer execute) The bridge could not drive due to torn wheel.	Alpha 12passenger loading bridge was not moving due to wheel puncher	**Date:** 2 Decemebr 18	**Time of incident:**	**Reported by/Operator**	MCS. Tsholofelo
Asset class: AIRBRIDGE - APRON DRIVE **Dept:** Mech	**Asset Description:** PLB A12	**Total downtime** 26 hours	**Warning signs before the breakdown:** NO WARNING SIGNS		
Repaired by: G.Opperman	**Repair time:** 3 hrs	**Waiting time:** 22 -23hrs			

Description f fault finding and repair:(what was done to fix the machine/equipment and start operations)
The wheel rubber teared off.

Sketch the working principles and the failure mode:(Event which caused functional failure)
Include pictures of the brackets.?? In position

Part/s/component/s replaced:	**Work order/Work Request**	**Failure mode:(Event which caused functional failure)**
1. Bearings 2.Wheel	WO 542949	Torn wheel rubber

Why1 Was rubber torn	**Why2** Shear force	**Why3** out of life expetancy/age was reached	**Why4** Replacemet cycle/not replaced in cyc	**Why5**	**Counter measures:**	**Category**	**Who**	**Date complete**
1.Shear forces	1. Driven over an object 2. Driven with high speed	1. Rushing to dock the A/C	1. Operator not at the loading bridge in time.		1. Operation's procedure to be inforced 2. wheel Inpections to be included in thepreventative maintenence	Man Machine Method Material Environment		

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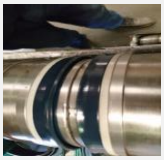
ORTIA ME Root Cause Analysis Sheet

Function failure: (Which function was no longer execute) Passenger loading bridge cannot extend or retract.	Alpha 12passenger loading bridge was not moving due to wheel puncher		**Date:** Monday, 20 May 2019	**Time of incident:** 09:00	**Reported by/Operator** IMC / Leonora
Asset class: AIRBRIDGE - APRON DRIVE **Dept:** Mech	**Asset Description:** PLB A1RB	**Total downtime** 31Days	**Warning signs before the breakdown:**	PLB struggles to move and is shaking forward and backwards.	
Repaired by: M.Fourie	**Repair time:** 14 hrs	**Waiting time:** 30Days	**Sketch the working principles and the failure mode:(Event which caused functional failure)**		
Description f fault finding and repair:(what was done to fix the machine/equipment and start operations) Steel wire rope was replaced, set new limits and guide bearings was adjusted.					
Part/s/component/s replaced: 1. Steel wire rope 2. Bearing Roller adjustment		**Work order/Work Request** WR 408955	**Failure mode:(Event which caused functional failure)** Steel wire rope damaged		

Why1 Was the steel wire rope damaged	**Why2** Cable Tension	**Why3** Out of life expectancy/age was reached	**Why4** Replacemet cycle/not replaced in cycle	**Why5**	**Counter measures:**	**Category**	**Who**	**Date complete**
Tension of cable incorrect	Tension of bearings between tunnels	Visual Inspection to be done prior to use	Bearing roller adjustments		1. Operation's procedure to be inforced 2. Steel wire rope tension to be included in inspections 3.Keep spare steel wire rope in stock	Man, Machine, Method, Material, Environment		

ORTIA ME Root Cause Analysis Sheet

Function failure: (Which function was no longer execute) The handrail was not turning/moving	Bridge had an auto level failure, Cylinder were leaking internally.		**Date:** 09/062019	**Time of incident:** 16h30	**Reported by/Operator** IMC
Asset class: AIRBRIDGE - APRON DRIVE **Dept:** Mech	**Asset Description:** PLB A13	**Total downtime** 2496 hours	**Warning signs before the breakdown:**	Auto level failure	
Repaired by: G.Opperman	**Repair time:** complete 08-10-2019	**Waiting time:** 2150 hrs	**Sketch the working principles and the failure mode:(Event which caused functional failure)** Include pictures of the brackets ?? in position		
Description f fault finding and repair:(what was done to fix the machine/equipment and start operations) Hyd cylinders were leaking internally.					
Part/s/component/s replaced: Hyd cylinders repaired , flush hyd system, new hyd filter		**Work order/Work Request** WO 590388	**Failure mode:(Event which caused functional failure)** Hyd cylinders leaking through		

Why1 did it lower by itself	**Why2** seals collapse	**Why3**	**Why4**	**Why5**	**Counter measures:**	**Category**	**Who**	**Date complete**
1.Internal seals were leaking through	1. Hydraulic seals collapse	1.	1.		1. Do more regular test on bridge cylinders	Man, Machine, Method, Material, Environment		

ANNEX H

Estimated times for breakdowns/faults

Item #	Call description	Estimated time to repair/reset (hrs.) as logged in the ACSA system
1	Hydrocarbon System – No fault found	0.25
2	Hydrocarbon System – Sensor cleaned	0.25
3	Hydrocarbon System – Sensor fault	1
4	Hydrocarbon System – UV flash malfunctioning	0.3
5	Fuel Hydrant System – Power Failure	0.25
6	Fuel Hydrant System – Actuator Fault Failure	1
7	Level Monitoring System – No fault found	0.25
8	Level Monitoring System – Sensor fault	0.3
9	Level Monitoring System – Viga Swing Malfunctioning	0.5
10	Level Monitoring System – Moxa Malfunctioning	0.5
11	Level Monitoring System – Antenna Fault	0.3
12	Level Monitoring System – Battery	0.3
13	Level Monitoring System – Module Card	0.5
14	Level Monitoring System – Power supply fault	0.3
15	Level Monitoring System – Power failure	0.5
16	Level Monitoring System – ACSA IT Infrastructure failure	0.3
17	Level Monitoring System – PLC malfunctioning	1
18	Other: Unforeseen breakdown	2

ANNEX I

Service Level Agreement

STAFFING SCHEDULE

Normal airport operational hours shall be **from 04:00 to 24:00** for every day of the year but will be confirmed/amended by the Service Manager from time to time. Down-time of any portion of the hydrant line which will directly or indirectly interrupt the fuelling operations and/ aircraft parking bays for routine/corrective maintenance shall be arranged with the ACSA Airport Management Centre three months in advance to suit airport operations. The Contractor must allow for sufficient after-hours work in order for scheduled work not to interfere with airport operations.

Minimum staff complement:

The Contractor must maintain the following **minimum** staff available at all times and should price accordingly but not limited to the listed resources:

Skill	Days per week	Hours
Site Manager/Supervisor	Whenever deemed necessary	Mon-Fri (08:00-16:00) and whenever deemed necessary by the Employer
Electrician	5	Mon-Fri (08:00-16:00) and whenever deemed necessary by the Employer
Mechanical Technician	5	Mon-Fri (08:00-16:00) and whenever deemed necessary by the Employer
Electrical/Electronics Technician	5	Mon-Fri (08:00-16:00) and whenever deemed necessary by the Employer
Mechanical assistant	*As per shift cycle	*As per shift cycle
Electronic assistant	*As per shift cycle	*As per shift cycle

* The shift cycle is intended to achieve a 24-hour presence on site every day of the week (24/7 coverage), including public holidays. The team complement (number of staff per team) is to be provided by the tenderer. The shift cycle is as summarised in the table below:

SHIFT CYCLE

Team/Day	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8
Team 1	06:00 to 18:00	06:00 to 18:00	18:00 to 06:00	18:00 to 06:00	OFF	OFF	OFF	OFF
Team 2	18:00 to 06:00	18:00 to 06:00	OFF	OFF	OFF	OFF	06:00 to 18:00	06:00 to 18:00
Team 3	OFF	OFF	06:00 to 18:00	06:00 to 18:00	18:00 to 06:00	18:00 to 06:00	OFF	OFF
Team 4	OFF	OFF	OFF	OFF	06:00 to 18:00	06:00 to 18:00	18:00 to 06:00	18:00 to 06:00

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 scheduling 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.

SERVICE LEVEL BENCHMARKS

The Contractor must comply with the following minimum system performance benchmarks:

The Employer has authority to give the contractor the call-out, the authority will be from both IMC and Service Manager.

Service Level Table
The following service levels are the minimum acceptable service levels for this contract.

Item	**Benchmark***
Fuel Hydrant System – Availability	Availability must be a minimum of 99.98% per month.
Hydrocarbon Detector Facilities – Availability	Availability must be a minimum of 99.99% per month.
Fuel Hydrant System – MTTR	0.5 hours
Fuel Hydrant System – MTBF	360 hours
Fuel Hydrant Level Monitoring and Control System – MTTR	0.25 hours
Fuel Hydrant Level Monitoring and Control System – MTBF	720 hours
% Of planned maintenance completed per month	100%
Response time for Callouts (After working hours, weekend and holidays)	30 minutes: (The response time is calculated from the time the contractor receives a call/missed call/voice mail etc. from IMC and sometimes from service manager)
Closure of Planned Maintenance (PM) Work Orders (WO) (Planned by the Employer)	All PM WO shall be closed within 6 working days from date of issuing to contractor, (Issued by the Employer either by mail or manual collection)
Closure of Corrective Maintenance (CM) Work Orders (WO)	All CM WO shall be closed within 1 working day from date of issuing to contractor (Issued by the Employer either by mail or manual collection)

*The PMs' and Work Orders are not closed until all works have been correctly completed and the correct completed documents have been sent to both the IMC and the Service Manage.
** Availability, MTTR and MTBF as defined in the IMC procedure.

EMERGENCY RESPONSE TIME
Employer deems an emergency as a situation caused by unforeseen circumstance. This is only instances where:

- Delaying sourcing the required goods,
- Services will result in Loss of life or injury,
- Reputational harm,
- Financial losses,
- Legal consequences,
- Interruption of essential or
- Business services and
- Any other relevant consideration

Emergencies are defined, but not limited to, those described in the table below. In addition, these emergencies have defined response times. The entries, defined emergency conditions and required response times may be changed/updated at any time through an instruction issued by the Service Manager and recorded in the risk register.

Emergency Condition	Response Time
In a case where a leak has been detected on the fuel hydrant system either through the tightness control system or through visual inspection.	20 minutes during normal working hours (The response time is calculated from the time the contractor receives a telephone call (including missed calls or voice mail) or message via social media from the ACSA IMC, the Service Manager and/or any other duly appointed representative of the Employer
In a case where an emergency shutdown device has been activated on any zone of the fuel hydrant system.	20 minutes during normal working hours (The response time is calculated from the time the contractor receives a telephone call (including missed calls or voice mail) or message via social media from the ACSA IMC, the Service Manager and/or any other duly appointed representative of the Employer

GUARANTEES

The defect free period is defined as that period following completion of the work where no defect directly associated with the Contractors workmanship is detected.

Defect free liability period – preventative maintenance	The defect free period will be no less than the interval between preventative maintenance intervals.
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.

ASSESSMENTS AND REVIEWS

- Monthly assessment/review shall be done according to this NEC contract.
- Safety issues and file reviewed as per Safety department frequency.
- Contract shall be Audited and Assessed the from time to time.

LOW SERVICE DAMAGES

Notification of Low service damages

The Service Manager will notify the contractor in writing of any low service damages.

The Service Manager will also notify the contractor of any claims directed and incurred by the Employer as a result of the contractor failure of duties, **this will be for the account of the Contractor**.

The sources of the information shall be all reports and Audit reports which the infrastructure is subjected to (e.g., any authorised employees of the Employer and any internal and external audits).

The Employer must notify the contractor in writing of its intention to claim low service damages within 30 days of an event or the Employer will lose its right to claim the Low service damages. Should the Employer not claim low service damages for an event it shall not be interpreted that the level of performance is acceptable or that the Employer shall not be entitled to claim Low service damages for similar future events. Under no circumstances shall low service damages be regarded as the only action the Employer may take against the Contractor or the only amount it may claim from the Contractor.

LOW SERVICE DAMAGES TABLES

Non-compliance to performance benchmarks by the Contractor are penalised according to the low service damages table(s) below:

Item No.	Achieved Overall System Availability per Month	Low service damages amount
1	97.00% - 99.979%	10% reduction of monthly maintenance & inspection costs minus any other low service damages included in this contract.
2	96.00% - 96.999%	15% reduction of monthly maintenance & inspection costs minus any other low service damages included in this contract.
3	95.99% or lower	25% reduction of monthly maintenance & inspection costs minus any other low service damages included in this contract.

***If the availability of the fuel hydrant reticulation, monitoring and control system remains at 95,99% or less for six (6) consecutive months (which is entirely the contractor's fault) will lead to contract termination.**

Item Description	Low service damages amount
Not meeting system MTTR	R 10,000.00/month
Not meet system MTBF	R 10,000.00/month
Not maintaining the required minimum on-site staff requirements.	R 2,000.00/position/day
Non-compliance to the Response time for Callouts (after working hours, weekend, and holidays) as stipulated in the Service Level and this contract.	R 2,000.00/event
Non-compliance of emergency response times as stipulated in this service level agreement.	R 2,000.00/event
Committing an infringement of the Occupational Health and Safety Act 85 of 1993 and the regulations of the Occupational Health and Safety Act	R 2,000.00/event
Less than 100% of planned maintenance (PMs) completed per month (unless the delay in repair was agreed to by the Service Manager or his/her duly authorized representative or unless the required spares are not available to complete the work). **Note: No work order shall be considered closed until all works have been correctly completed and the correct completed documents have been sent to both the IMC and the Service Manager.**	R 4,000.00/month
Failure to completed works or provide completion certificates as per issued purchase order (PO) and on agreed times lines as stated in Risk register	R 4,000.00/per PO/month
Committing an infringement of the Occupational Health and Safety Act 85 of 1993 and the regulations of the Occupational Health and Safety Act which is a criminal offence (reason no. R15 in the Termination Table).	Termination
Committing the same offence/class of infringement of the Occupational Health and Safety Act 85 of 1993 and the regulations of the Occupational Health and Safety Act for three (3) consecutive months (reason no. R15 in the Termination Table).	Termination

Discretionary annual contractor's performance review/assessment will be performed to consider the renewal of contract. Should the contractor's performance deemed below satisfactory the contract will not be renewed upon contract anniversary, therefore the contract will be terminated.

Continuous Improvement Program and the Computerized Maintenance Management System

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.

The Contractor shall take all reasonable actions to ensure that they facilitate successful implementation and execution of the CMMS. The Contractor shall before each anniversary date of the Contract investigate available CMMS data and report if savings can be achieved on the Contract for the next year. This may also include savings on the Contract monthly maintenance amount.

INTERNAL AND EXTERNAL FACTORS

A list of some of the internal and external factors which may affect equipment SLAs / availability and are beyond the contractor's control are listed in **Annex T.** In such an event the contractor will not pay for low services damages which were caused by factors which were proven to be beyond the contractor's control.

MAINTENANCE RECORD SHEETS

When maintenance is performed, record sheets must be completed and signed off by representatives of both the Employer and the Contractor (the key person employed in this contract in the role of the Technician suffices).

These record sheets must be stored for the duration of the contract and should be available for inspection at any time. **The lack of complete history files will result in immediate termination of the contract.**

All record sheets, job cards, history reports etc. remains the property of the Employer and shall be made available on request by the Service Manager or any other duly appointed representative of the Employer. At the end of the contract period a complete set of documentation must be handed over to the Employer.

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

ANNEX J

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

This form is in C1.3 in this contract and must be filled in by the contractor

ANNEX K

Minimum Maintenance Programme

The Contractor shall include a minimum maintenance programme that must attempt to cover all requirements under this contract. The Contractor is to ensure that the proposed maintenance programme tasks, frequencies and personnel are in accordance with all applicable laws, standards and best practise. This includes (but is not limited to).

- OEM standards, recommendations, and specifications
- API standards,
- EI standards,
- JIG standards,
- ASTM standards,
- SANS standards,
- Occupational Health and Safety Act and regulations.

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 with the OEM requirements.

Maintenance Schedule for Fuel Hydrant System

The purpose of the following Maintenance Record Sheet is to keep complete and signed record of the performance, failure rate and repair history throughout the lifetime of the Jet A1 Fuel Hydrant System. It includes a list of the maintenance tasks which must be carried out and indicates the frequency at which each task must be carried out. The checks are provided in the form of a checklist.

Fuel Hydrant Valves and Actuators		
Infrastructure	**Frequency**	**Maintenance Activity**
Valves	Monthly	Check condition of valves
Valves	Monthly	Check that all bolts are tight
Valves	Monthly	Check for any fuel leaks
Valves	Monthly	Check for leaks on body bleed valves and their position status
Valves	Monthly	Check for leaks on seats
Valves	Monthly	Check all terminations and connections to ensure compliance with SANS 10142 on specialised Installations.
Actuated (Rotork) and manual valves	3-monthly	Observe the full stroke of the valve, the closing and opening by manual hand wheel and actuator, if applicable. OEM to be consulted as manual operation of the actuator may disrupt the programming of the actuator to the SCADA. If this happens, the actuator must be reprogrammed after manual operation. This is applicable only to those valves that are on the ESD Matrix.

Hydrant pit valves		
Infrastructure	**Frequency**	**Maintenance Activity**
Pit valves	Monthly	Check condition of lanyard cables
Pit valves	Monthly	Check operation of pilot valves
Pit valves	Monthly	Check condition of dust covers
Pit valves	Monthly	Check pressure equalizing valves
Pit valves	Daily	Check valves for external leakage at poppet, pilot valve, valve body pressure equalizing valve

Hydrant pit valves		
Infrastructure	**Frequency**	**Maintenance Activity**
Pilot valves	Monthly	Service isolation valves
Pit valves	Monthly	Perform Valve dynamic test and record results

Hydrant pit boxes		
Infrastructure	**Frequency**	**Maintenance Activity**
Pit boxes	Weekly	Clean pit boxes
Pit boxes	Weekly	Inspect all pit boxes for any damage
Pit boxes	Weekly	Remove slops from pit boxes and dispose of same according to Safety, Health and Environmental procedures
Pit boxes	Monthly	Visually inspect and clean the mating surface between pit flange and cover
Pit boxes	Monthly	Inspect pit box covers for damage or cracks, deterioration of the anodising and the hold-down bolts for tightness or damage and that all are present. NB If anodising has deteriorated, the cover must be replaced immediately to avert possibility of sparks in a possible flammable atmosphere.
Pit boxes	Monthly	Inspect the hinge assembly for loose fasteners, springs, clips, retaining pins, etc.
Pit boxes	Monthly	Inspect water resistant seals or O-rings on cover for cracks and remove dirt and debris from the mating surface. Check for nicks and rough edges on cover seals. Replace the water seals immediately if damaged.
Pit boxes	Monthly	Inspect the inside of the pit box cleanliness and remove and foreign debris or water or fuel.
Pit boxes	Monthly	Inspect the pit box boot collar and bottom seal and clamp for any signs of damage or deterioration
Pit boxes	Monthly	Clean rust, scale or sand deposits built up on pit box cover assembly
Pit boxes	Monthly	Lubricate moving surfaces and hinge assembly
Pit boxes	Monthly	Inspect for wear on hinge/cover, moving surfaces and bolts
Pit boxes	Monthly	Check hinge hydraulic cylinder and springs
Pit boxes	3-monthly	Conduct a full functional test by means of: On counterweight assisted opening mechanism, open through 90 degrees. Observe operation for vibrations, grinding sounds and additional resistance.

Level Monitoring System		
Infrastructure	**Frequency**	**Maintenance Activity**
Level Monitoring System	Daily	Check valves status at all chambers
Level Monitoring System	Daily	Check communication to Master Stations at Echo and Bravo
Level Monitoring System	Daily	Check communication to the master PLC's (programmable logic computers)
Level Monitoring System	Daily	Check for process instrumentation status and alarming
Battery change-out	Fortnightly	Replace control Batteries at each valve chamber

Battery change-out	Fortnightly	Document Battery change outs to ensure continuous communication
Battery change-out	Fortnightly	Check battery voltage and condition
Battery change-out	Fortnightly	Recharging of batteries performed as per best practise.
Level Monitoring System	Monthly	Check panels and hardware at each valve chamber
Level Monitoring System	Monthly	Check Level Probe at the relevant chambers
Uninterruptible Power Supply (UPS)	Daily	Check communication to the UPS and the ACSA IMC SCADA
Uninterruptible Power Supply (UPS)	Daily	Check Status and Alarming

Fuel Hydrant System Low Point Drains		
Infrastructure	**Frequency**	**Maintenance Activity**
Low point drains	Weekly	Visually inspect all low points for leaks

Fuel Hydrant System High Point Vents		
Infrastructure	**Frequency**	**Maintenance Activity**
High point vents	Weekly	Inspect all high point vents for leakages
High point vents	Weekly	Clean all high point vents

Emergency Shutdown Device System (ESD)		
Infrastructure	**Frequency**	**Maintenance Activity**
Emergency stop	Weekly	The following checks are to be performed at the Main, Pier, Charlie and Freight Satellite stations: 1. Check for noisy relays. 2. Clean out control panels. 3. Check zone bypass isolators. 4. Check that no miniature circuit breakers (MCB's) are tripped. 5. Check for any visibly damaged connections, burnt components, etc.
Emergency stop	Weekly	Check all alarms for correct functioning
Emergency stop	Monthly	Emergency stop switches must be activated once a month to check for correct operation
Emergency stop	Monthly	Do a complete check on ESD as per monthly inspection sheet. Check also that the respective valves are activated as per the ESD matrix.
Emergency stop	Monthly	Check all electrical connections
Steel Barriers	Monthly	Check that steel barriers are in place and secured around ESD poles and satellite stations.
Emergency Shutdown Button glass covers	Monthly	Check glass covers
Emergency Shutdown Device Stations	Monthly	Check the signage for looseness and compliance.

Valve Chambers		
Infrastructure	**Frequency**	**Maintenance Activity**

Lighting	Monthly	Check all lighting in valve chambers for correct and safe functioning
Sealant	Weekly	check all sealant at valve chamber joints and at pipe penetrations
O-rings	Weekly	check condition of O-rings around the lids
Water ingress	Daily	Ensure valve chambers are free of water by pumping out all ground seepage and storm water
Steel ladders	Monthly	Check that all rawl bolts on the ladders are secure and ladders are affixed to valve chamber walls
Steel grating	Monthly	Ensure the steel grating rawl bolts are secure
Painting	Monthly	Check the condition of the paint and rectify any and all defects (chamber and pit markings as well as within the chambers)
Pipe Bellows	Weekly	Check for corrosion or oxidation (rust)
Pipe Bellows	Monthly	Clean bellows, grease bolts and tie rods

Tightness Control System (TCS)		
Infrastructure	**Frequency**	**Maintenance Activity**
Temperature and pressure transducers	Monthly	Check that transducers are secure and operate correctly
Temperature and pressure transducers	Annual	Calibration for accurate readings
Pressure Relief valves	Monthly	Check for leaks

Hydrocarbon detector facilities		
Infrastructure	**Frequency**	**Maintenance Activity**
Hydrocarbon flow meters	Monthly	Check communication to all Remote meters
Hydrocarbon flow meters	Monthly	Physical preventative Maintenance and monthly downloading of Data
Hydrocarbon detector facility	Monthly	Check panels and hardware

ANNEX L

ACSA SERVICE & MAINTENANCE CONTRACTORS
ENVIRONMENTAL TERMS AND CONDITIONS TO COMMENCE WORK - EMS 048

The following Environmental Terms and Conditions shall be strictly adhered to by all contractors when conducting works for the Employer. The Employer shall audit Contractor activities, products and services on an ad hoc basis to ensure compliance to these environmental conditions. Any pollution clean-up costs shall be borne by the Contractor.

ISSUE	REQUIREMENT
Environmental Policy	ACSA's (the Employer's) Environmental Policy shall be communicated, comprehended, and implemented by all appointed Contractor staff.
Storm water, Soil and Groundwater Pollution	• No solid or liquid material may be permitted to contaminate or potentially contaminate storm water, soil or groundwater resources. • Any pollution that risks contamination of these resources must be cleaned-up immediately. Spills must be reported to the Employer immediately. Contractors shall supply their own suitable clean-up materials where required. • Washing, maintenance and refuelling of equipment shall only be allowed in designated service areas on the Employer property. It is the Contractor's responsibility to determine the location of these areas. • No leaking equipment or vehicles shall be permitted on the airport.
Air Pollution	• Dust: Dust resulting from work activities that could cause a nuisance to employees, or the public shall be kept to a minimum. • Odours and emissions: All practical measures shall be taken to reduce unpleasant odours and emissions generated from work related activities. • Fires: No open fires shall be permitted on site.
Noise Pollution	• All reasonable measures shall be taken to minimize noise generated on site due to work operations. • The Contractor shall comply with the applicable regulations regarding noise.
Waste Management	• Waste shall be separated as general or hazardous waste. • General and hazardous waste shall be disposed of appropriately at a permitted landfill site should recycling or re-use of waste is not feasible. • Under no circumstances shall solid or liquid waste be dumped, buried or burnt. • Contractors shall maintain a tidy, litter free environment always in their work area. • Contractors must keep on file: 1. The name of the contracting waste company 2. Waste disposal site used

	3. Monthly reports on quantities – separated into general, hazardous and recycled 4. Maintained file of all Waste Manifest Documents and Certificates of Safe Disposal 5. Copy of waste permit for disposal site This information must be available during audits and inspections.
Handling & Storage of Hazardous Chemical Substances (HCS)	• All HCS shall be clearly labelled, stored and handled in accordance with Materials Safety Data Sheets. • Materials Safety Data Sheets shall be stored with all HCS. • All spillages of HCS must be cleaned-up immediately and disposed of as hazardous waste. (HCS spillages must be reported to the Employer immediately). • All contractors shall be adequately informed with regards to the handling and storage of hazardous substances. • Contractors shall comply with all relevant national, regional and local legislation regarding the transport, storage, use and disposal of hazardous substances.
Water and Energy Consumption	the Employer promotes the conservation of water and energy resources. The Contractor shall identify and manage those work activities that may result in water and energy wastage.
Training & Awareness	The conditions outlined in this permit shall be communicated to all contractors and their employees prior to commencing works at the airport.

Low Service Damages

Low service damages shall be imposed by the Employer on Contractors who are found to be infringing these requirements and/or legislation. The Contractor shall be advised in writing of the nature of the infringement and the amount of the low service damages to be imposed. The Contractor shall take the necessary steps (e.g., training/remediation) to prevent a recurrence of the infringement and shall advise the Employer accordingly. The Contractor is also advised that the imposition of low service damages does not replace any legal proceedings the Council, authorities, landowners and/or members of the public may institute against the Contractor.
Low service damages shall be between R 200.00 and R 20,000.00, depending upon the severity of the infringement. The decision on how much low service damages to impose will be made by ACSA's (the Employer) Airport Environmental Management Representative in consultation with the Airport Manager or his/her designate and will be final. In addition to the low service damages, the Contractor shall be required to make good any damage caused due to the infringement at his/her own expense.

I, _____ (name & surname) of _____

_____ (company) agree to the above conditions and acknowledge the Employer's right to impose low service damages should I or any of my employees or sub-contractors fail to comply with these conditions.

Signed: _____ on this date: _____ (dd/mm/yyyy)

at: _____ (airport name).

ANNEX M

Maintenance Spares List for Fuel Hydrant System

Item	Spare Part Description
1	STUD-NOVUS-B7 1" X 120MM
2	STUD-NOVUS-B7 1" X 130MM
3	STUD-NOVUS-B7 1" X 160MM
4	STUD-NOVUS-B7 1" X 185MM
5	WASHER-NOVUS-1" FLAT
6	BOLT-NB-M12 X 60MM GALVANIZED
7	BOLT-NB-M10 X 60MM GALVANIZED
8	BOLT-NB-M8 X 45MM GALVANIZED
9	BOLT-NB-M6 X 40MM GALVANIZED
10	D/SHACKLE-TOCO-8MM GALVANIZED
11	CARABINE HOOK-TOCO-8MM W/O INSERT
12	LID CHAIN ASSEMBLY-PARNIS-18" LID
13	EYEBOLT-TOCO-M10 GALVANISED
14	RING DUST CAP-RIS-40MM
15	CHAIN DUST CAP-RIS-4MM
16	FERRULES-HELLERMANN-6MM
17	PISTON-M&H-DABICO LID
18	STOPPER-M&H-DABICO LID
19	COVER ESD BOX-M&H-TRANSPARENT PLASTIC
20	ESD BOX-M&H-YELLOW N/C CONTACTS
21	GASKET-NOVUS-4" GREEN
22	SANDING PAPER-RIS-80 GRIT
23	SLICK SLEUTH UNIT-AFROBAN-HYDROCARBON SENSOR
24	POWER SUPPLY-AFROBAN-FLASHER POWER SUPPLY
25	PC BOARD-AFROBAN-MAIN PC BOARD
26	PC BOARD-AFROBAN-RELAY PC BOARD
27	FLASH-AFROBAN-XENON
28	HINGE - TRIDENT - LID
29	VALVE-CARTER-OPTION X
30	TOOL-CARTER-PILOT VALVE ASSEMBLY
31	ESD STEEL-LOVATO-YELLOW
32	UPPER HOUSING-CARTER-STAINLESS STEEL
33	ADAPTER RING-CARTER-STAINLESS STEEL
34	SERVICE KIT-CARTER-4" HYDRANT VALVE
35	LANYARD-CARTER-PILOT VALVE
36	O/RING-CARTER-PILOT VAVE
37	PIN-CARTER-PILOT VALVE HANDLE

38	HANDLE-CARTER-PILOT VALVE
39	KNOB-CARTER-PILOT VALVE
40	CLAMP-CARTER-15MM
41	VALVE-ISOLATION ASSY + O-RING & ORIFIS
42	VALVE-CARTER-UPPER SCREWS, WASHERS, RINGS
43	COVER-CARTER-PILOT VALVE LATCH
44	POPPET-CARTER-MAIN POPPET PILOT VALVE
45	PTFE TAPE-RIS-BLUE
46	STUD LOCK-LOCTITE-243
47	GLASS-M&H-BREAK GLASS INSERT
48	POPPET-CARTER-PISTON POPPET
49	STOPPER-CCG-EXD
50	GREASE NIPPLES-RIS-6MM
51	KEYS-M&H-YELLOW ESD BOX
52	O-RING- CARTER - PACKING UPPER-221118
53	STEM ASSY-CARTER-VALVE-47576
54	ADAPTOR-CARTER-RING, SCREWS,WASHER
55	O/RING-CARTER-MS29513/249
56	PISTON SEAL-CARTER-4" HYDRANT VALVE PISTON
57	O/RING-CARTER-201201/014
58	O/RING-CARTER-MS29513/245
59	O/RING-CARTER-MS29512/12
60	POPPET SEAL-CARTER-200013
61	O/RING-CARTER-207585
62	SEAL-CARTER-203028
63	ISOLATION POPPET-CARTER-202597
64	SEAL-CARTER-203030
65	O/RING-CARTER-201201/008
66	CLAMP-RIS-4MM
67	JIG-CARTER-SEALING FACE TEMPLATE
68	LID-AVERY HARDOLL-18"
69	LID-DABICO-18"
70	LID SEAL-AVERY HARDOLL-18"
71	LID SEAL-DABICO-18"
72	VALVE-CARTER-4" HYDRANT VALVE
73	HINGE-M&H-DABICO LID
74	HINGE BASE-M&H-DABICO LID
75	GASKET-NOVUS-16" PTFE
76	DUST CAP-CARTER-4"
77	ACTUATOR-ROTORK-MK2
78	OIL-STIHL-2 STROKE
79	SILICON-HENKEL-BLACK

80	FOAM SEAL-FISCHER-YELLOW
81	PAINT-CRAYON-ORANGE
82	OIL-BARRAT-Q20
83	JOINT KIT-METAPLAST-MX1
84	PRIMER-PLASCON-RUST CONVERTER
85	BRUSH STEEL-RIS-200MM
86	MASKING TAPE-3M-40MM
87	RULERS-HARDMAN-STAINLESS STEEL
88	TRIM LINE-STIHL-HEAVY DUTY
89	OIL-BARRET-Q10
90	RAGS-RIS-BULK PACK
91	DEGREASER-FOX-25LT
92	GHREASE-VALVOLINE-ALL PURPOSE
93	GHREASE-NOVUS-BOLT LUBE
94	CABLE TIES-HELLERMANN-T120L
95	GLANDS-CCG-EXD
96	BUSH CUTTER-STIHL-FS
97	TEMPLATES-PARNIS-NO ENTRY
98	GAUGE-BLANES-PRESSURE-1600kPa
99	JACK-PARNIS-PIPE JACK
100	GASKET-NOVUS -16" SPIRAL
101	GASKET-NOVUS - 6" SPIRAL
102	GASKET-NOVUS - 4" SPIRAL
103	GASKET-NOVUS - 3" SPIRAL
104	GASKET- NOVUS - 1 1/2" SPIRAL
105	O-RING- MS29513-165
106	STUD - NOVUS - B7 1" X 165MM
107	STUD - NOVUS - B7 1" X 140MM
108	STUD - NOVUS - B7 1" X 180MM
109	STUD - NOVUS - B7 5/8" X 100MM
110	STUD - NOVUS - B7 1/2" X 75MM
111	POPPET-CARTER-
112	ENVIRONMENTAL SEAL-M&H-18" AVERY HARDOLL PIT
113	POPPET - KD60554-1 - KIT
114	COMPRESSOR-RAND AIR-200LT
115	GUAGE-CARTER-4" PRESSURE COUPLING
Level Monitoring and Control System	
116	HIMA Modbus Interface
117	TCS - Rosemount Scalable Ultra In-Line Gage Pressure Transmitter
118	TCS - Rosemount Temperature Transmitter
119	TCS - Moxa Serial to Ethernet Converter

120	TCS - 22Bit A-to-D Converters
121	TCS - Level Transmitter - Endress + Hausen Liquiphant 51
122	Phoenix Controller - 868 MHz Wireless Control Module
123	Digital combination I/O Extension Module - RAD-DAI06
124	Digital Input Module - RAD-DI4
125	PUCK OMNI DIRECTIONAL ANTENNA
126	Booster OMNI DIRECTIONAL ANTENNA
127	DC TO DC 24VOLT CONVERTERS
128	100AH Battery
129	Vega Level Monitoring Switch - Vibrating Level Switch
130	Antenna Cable
131	Surge Arrestor

ANNEX N

ACSA maintenance procedure for Fuel Depot and Reticulation System - D060 021M

Available upon request from the Service Manager.

ANNEX O

Fuel Hydrant System – standard operating procedure

Not applicable

ANNEX P

Maintenance of Fuel Hydrant System – Electrical lockout procedure

Available upon Request from the Service Manager

ANNEX Q

O.R. Tambo International Airport – operating instruction for Fuel Hydrant System

The fuel hydrant system operator is responsible for slops removal, hydrant pit coupler dynamic and static pressure testing. The process shall be shared with the Contractor by the Service Manager upon request.

ANNEX R

Fuel Hydrant System - Fire Emergency procedure

Available upon Request from the Service Manager

ANNEX S

ACSA IMC procedure for call out and corrective maintenance work orders

Available upon Request from the Service Manager

ANNEX T

Internal and external factors

Below is a list of internal and external factors which may affect equipment availability and are beyond the contractor's control:

	Type	Comment
External resources	Utilities •Water •Electricity •Gas •IT Support and other interfaces outside the contractor battery limit	-No impact to reliability/Maintainability. -It Impact on availability from operations view
External causes	•Outside Operating conditions/parameters •Operator fault/incorrect operation, consider shifting the risk to the Contractor by giving him responsibility to support Operations/Operators •Damage by others(users and Third parties) i.e. Elevator doors •Incorrect use •Foreign material is system	-No impact to reliability/Maintainability. -Impact on availability from operations view This are some of the occurrences that may not be considered the Normal Operating conditions
Other	•Lack of information/Drawings •Lack of access due to no fault of the contractor after they have requested access timeously •Equipment's under Projects •Other factors that can be proven that was beyond the contractor's fault	
Spares	Availability of spares (if the spares are not under the control of the Contractor due to budgetary constraints)	-Affect Maintainability

	Typically: It is the responsibility of the Employer to ensure adequate administration and re-order spares timely, it is the responsibility of the Contractor to ensure that the stores administration is done and minimum stock levels are adhered to, the request to buy spare are replenished are done on time intime	No impact on Contractor. The Risk is not sitting with a single owner

ANNEX U

ACSA Mechanical standardised minimum legal requirements and minimum competency requirements for the maintenance of the fuel hydrant reticulation, monitoring and control system:

Description of Key Personnel	**Minimum Qualifications of Key personnel**	**Minimum Experience of key personnel**
Site Supervisor	Trade Test: Millwright OR Fitter and Turner OR Pipe Fitter (or SAQA-approved equivalent) Any Occupational Health and Safety Training Certificate	> 3 years' experience in the maintenance of petroleum storage and/or pipeline facilities > 2 years' experience in a technical supervisory role > 2 years' experience in a role pertaining directly to the Occupational Health and Safety Act.
Mechanical Technician	Trade Test: Millwright OR Fitter and Turner OR Pipe Fitter (or SAQA-approved equivalent)	3 years' experience in the maintenance of petroleum storage and/or distribution facilities
Electronic Technician	N5 - Engineering (or SAQA approved equivalent): Electrical OR Electronic OR Control and Instrumentation	3 years' experience in the maintenance of electronic systems
Electrician	Trade Test: Electrician (or SAQA-approved equivalent)	3 years' experience in the maintenance of electrical components and/or systems in petroleum storage and/or distribution facilities
Mechanical Assistant	N2: Mechanical Engineering (or SAQA-approved equivalent)	2 years' experience in the maintenance of mechanical and/or electrical equipment
Electrical/Electronic Assistant	N2 - Engineering (or SAQA approved equivalent): Electrical OR Electronic OR Control and Instrumentation	2 years' experience in the maintenance of electronic and/or electrical equipment

ANNEX V

ACSA Inventory procedure

Available upon request from the Service Manager.

ANNEX W

Current Guarantee and Warrantee

N/A

ANNEX X

Hydrant System Drawings available to the Employer

Available from Service Manager on request