TENDER REFRENCE NUMBER: CTIA8277/2026/RFP

AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

TITLE OF PROJECT: SERVICE AND REPAIRS OF ELECTRICAL CONTROL SYSTEMS IN THE BAGGAGE HANDLING SYSTEM AT CTIA FOR A PERIOD 5 YEARS

NEC 3: TERM SERVICE CONTRACT (TSC)

Between	**AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED** **Applicable at** CAPE TOWN INTERNATIONAL AIRPORT (Registration Number: 1993/004149/30)
and	…… (Registration Number: ……)
for	**SERVICE AND REPAIRS OF ELECTRICAL CONTROL SYSTEMS IN THE BAGGAGE HANDLING SYSTEM AT CTIA FOR A PERIOD 5 YEARS**

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Acceptance

Offer

The employer, identified in the acceptance signature block, wishes to enter into a contract for **SERVICE AND REPAIRS OF ELECTRICAL CONTROL SYSTEMS IN THE BAGGAGE HANDLING SYSTEM AT CAPE TOWN INTERNATIONAL AIRPORT FOR A PERIOD 5 YEARS**

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 of the obligations and liabilities of the Contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

The offered total of the prices (**INCLUSIVE OF VAT**) is: ……..

…… (in words);

R …… (in figures)

(The above amount should be calculated as per the guide provided in the Activity Schedule. In the event of any conflict between the amount above and the Activity Schedule, the latter shall prevail.)

for the contractor

Signature . . . . . Date . . . .

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

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

. . . . . .

. . . . . .

Name and signature of witness . . . . . .

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.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from 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 Service manager (to be confirmed) 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.

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

for the Employer

Signature . . . . . Date . . . .

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

Airports Company South Africa,
Cape Town International Airport
Southern Office Block, Administration Building
7525

Name and signature of witness . . . . .

1 Subject . . . . . .

Details . . . . . .

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2 Subject . . . . . .

Details . . . . . .

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3 Subject . . . . . .

Details . . . . . .

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4 Subject . . . . . .

Details . . . . . .

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5 Subject . . . . . .

Details . . . . . .

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By the duly authorised representatives signing this agreement, the employer and the contractor agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the tenderer and the employer during this process of offer and acceptance.

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

C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	**General**	
	The *conditions of contract* are the core clauses and the clauses for main Option:	
		A: Priced contract with price list
	dispute resolution Option:	**W1: Dispute resolution procedure**
	and secondary Options:	
		X1 Price Adjustment for inflation
		X2 Changes in the law
		X17 Low service damages
		X18 Limitation of Liability (as amended in Option Z)
		X19 Task order
		X20 Key performance indicators
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract (April 2013)	
10.1	The *Employer* is (Name):	**Airports Company South Africa SOC Limited**
	Address	Cape Town International Airport Southern Office Block, Administration Building 7525
10.1	The *Service Manager* is:	Thulani Vanqa
11.2(1)	The *Accepted Plan* is	**Included in Part C3 of this document, including Annexes thereto as submitted by the Contractor and accepted by the Service Manager.**
11.2(2)	The *Affected Property* is	Cape Town International Airport
11.2(13)	The *Service* is	**Service and Repairs of Electrical Control Systems in the Baggage Handling system** and all its related components, **as set out in part C3 *service information*.**
11.2(14)	The following matters will be included in the Risk Register	OHS Act and New Construction Regulation compliance.
11.2(15)	The *Service Information* is in	**The section titled Service Information included as Part C3 of this document.**
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**
21.1	The period within which the Contractor provides the Contractor's Plan	**30 calendar days from Contract Date**
2	**The Contractor's main responsibilities**	**Detailed in Part C3 (Service Information)**
3	**Time**	
30.1	The *starting date* is	**Upon signing of contract by ACSA**
30.2	The *Service Period* is	**Sixty (60) months from the *starting 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 on the	**Two (2) weeks**
51.1	The *currency of this contract* is the	**South African Rand (ZAR)**
51.2	The period within which payments are made is	**30 days upon receipt of a valid tax invoice**
6	**Compensation events**	**No data is required for this section of the *conditions of contract.***
7	**Title**	**No data is required for this section of the *conditions of contract.***
8	**Risks and insurance**	**Refer to Part C1.4**
83.2	The minimum amounts of cover or minimum limits of indemnity required for the insurance table	**Refer to Part C1.4**

9	**Termination**	**No data is required for this section of the *conditions of contract.***
10	**Data for main Option clause**	
A	**Priced contract with price list**	**Refer to Part C2**
11	**Data for Option W1**	
W1.1	The Adjudicator is	**The person appointed jointly by the parties from the list of adjudicators contained below**
W1.2	The Adjudicator nominating body is	**The current Chairman of Johannesburg Advocate's Bar Council**
W1.4	The tribunal is	**Arbitration**
W1.4	If the tribunal is arbitration, the arbitration procedure is	**The arbitration procedure is set out in The Rules for the Conduct of Arbitrations 2013 Edition, 7th Edition, published by The Association of Arbitrators, (Southern Africa)**
W1.4	The place where arbitration is to be held is	**Johannesburg, South Africa.**
W1.4	The person or organisation who will choose an arbitrator	**The Arbitrator is the person selected by the Parties as and when a dispute arises in terms of the relevant Z Clause, from the Panel of Arbitrators provided under the relevant Z clause if the arbitration procedure does not state who selects an arbitrator. The Arbitrator nominating body is the Chairman of the Johannesburg Advocates Bar Council.**
12	**Data for secondary Option**	
X1	**Price Adjustment for inflation**	**The index referred to in this clause shall be deemed to refer to the CPI index on the *starting date* as stated under Section 80.1. Price adjustment for inflation shall only take place on contract anniversary**
X2	**Changes in the law**	**No data is required for this secondary option.**
X17	**Low service damages**	**As per the Service Information (C3) – Annex I section 6**
X17.1	The *service level table* is in	**The Service Information, section 7**
X18	**Limitation of liability**	
X18.1	The Contractor's liability to the Employer for indirect or consequential loss is limited to	**Nil - Neither Party is liable to the other for any consequential or indirect loss, including but not limited to loss of profit, loss of income or loss of revenue**

X18.2	For any one event, the Contractor's liability to the Employer for loss of or damage to the Employer's property is limited to	**Total of the losses incurred and/or repairs to the damages caused**
X18.3	The Contractor's total liability to the Employer for defects due to his design which are not listed on the Defects Certificate is limited to	**Total of the losses incurred and/or repairs to the damages caused**
X18.4	The Contractor's total liability to the Employer for all matters arising under or in connection with this contract, other than excluded matters, is limited to	**The 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 losses incurred and/or repairs to the damages caused 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	**The date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.**
X19	**Task Order**	**X19**
X19.5	The *Contractor* submits a Task Order programme to the *Service Manager* within	**5 days of receiving the Task Order**

X 20.1 The incentive schedule for Key Performance Indicators is in - **As per the Service Information (C3) – section 7.**

Z	**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 or relaxation of any action stated in this contract by the Parties, the *Service Manager*, the *Supervisor*, or the *Adjudicator* does not constitute a waiver of rights and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.
Z2	**Providing the Service:**
Z2.1	**Delete core clause 20.1 and replace with the following:** 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.
Z5	**Termination**

Z5.1	**Add the following to core clause 91.1, at the second main bullet, fifth sub-bullet point, after the words "assets or":** "business rescue proceedings are initiated or steps are taken to initiate business recue proceedings"**.**
	Amendment to the Secondary Option Clauses
Z7	**Limitation of liability:**
Z7.1	**Insert the following new clause as Option X18.6:** The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss is limited to R0.00
Z7.2	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
Z8	**Cession, delegation and assignment**
Z8.1	The *Contractor* shall not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*, which consent shall not be unreasonably withheld. This clause shall be binding on the liquidator/business rescue practitioner /trustee (whether provisional or not) of the *Contractor*
Z8.2	The *Employer* maycede and delegate its rights and obligations under this contract to any person or entity
Z9	**Joint and several liability**
Z9.1	If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons, these persons are deemed to be jointly and severally liable to the *Employer* for the performance of the Contract.
Z9.2	The *Contractor* shall, within 1 week of the Contract Date, notify the *Service Manager* and the *Employer* of the key person who has the authority to bind the *Contractor* on their behalf.
Z9.3	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*.
Z10	**Ethics**
Z10.1	The *Contractor* undertakes:
Z10.1.1	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;
Z10.1.2	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.
Z10.2	The *Contractor*'s breach of this clause constitutes grounds for terminating the *Contractor*'s obligation to Provide the Works or taking any other action as appropriate against the *Contractor* (including civil or criminal action). However, lawful inducements and rewards shall not constitute grounds for termination.
Z10.3	If the *Contractor* is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices, including but not limited to the making of offers (directly or indirectly), payments, gifts, gratuity, commission or benefits of any kind, which are in any way whatsoever in connection with the contract with the *Employer*, the *Employer* shall be entitled to terminate the contract in accordance with the procedures stated in core clause 92.2. the amount due on termination is A1.
Z11	**Confidentiality**

Z11.1	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* or the *Employer*, which consent shall not be unreasonably withheld.
Z11.2	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*.
Z11.3	This undertaking shall not apply to –
Z11.3.1	Information disclosed to the employees of the *Contractor* for the purposes of the implementation of this agreement. The *Contractor* undertakes to procure that its employees are aware of the confidential nature of the information so disclosed and that they comply with the provisions of this clause;
Z11.3.2	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;
Z11.3.3	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);
Z11.4	The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Service Manager*. All rights in and to all such images vests exclusively in the *Employer*
Z11.5	The *Contractor* ensures that all his Subcontractors abide by the undertakings in this clause.
Z12	***Employer*'s Step-in rights**
Z12.1	If the *Contractor* defaults by failing to comply with his obligations and fails to remedy such default within 2 weeks of the notification of the default by the *Service Manager*, the *Employer*, without prejudice to his other rights, powers and remedies under the contract, may remedy the default either himself or procure a third party (including any subcontractor or supplier of the *Contractor*) to do so on his behalf. The reasonable costs of such remedial works shall be borne by the *Contractor*
Z12.2	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.
Z13	**Liens and Encumbrances**
Z13.1	The *Contractor* keeps the Equipment used to Provide the Services free of all liens and other encumbrances at all times. The *Contractor,* vis-a-vis the *Employer,* waives all and any liens which he may from time to time have, or become entitled to over such Equipment and any part thereof and procures that his Subcontractors similarly, vis-a-vis the *Employer,* waive all liens they may have or become entitled to over such Equipment from time to time
Z14	**Intellectual Property**
Z14.1	Intellectual Property ("IP") rights means all rights in and to any patent, design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works.
Z14.2	IP rights remain vested in the originator and shall not be used for any reason whatsoever other than carrying out the *works.*

Z14.3 The *Contractor* gives the *Employer* an irrevocable, transferrable, non-exclusive, royalty free licence to use and copy all IP related to the *works* for the purposes of constructing, repairing, demolishing, operating and maintaining the works

Z14.4 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

Z14.5 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:

Z14.5.1 the *Contractor's* design, manufacture, construction or execution of the Works

Z14.5.2 the use of the *Contractor's* Equipment, or

Z14.5.3 the proper use of the Works.

Z14.6 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.

Z15 Dispute resolution:

Z15.1 Appointment of the Adjudicator

An *Adjudicator* is appointed when a dispute arises, from the Panel of Adjudicators below. The referring party nominates an Adjudicator, which nomination is either accepted or rejected by the other party. In the instance of a rejection of the nominated *Adjudicator,* the referring Party refers the appointment deadlock to the Chairman of the Johannesburg Bar Council, who appoints an *Adjudicator* listed in the Panel of Adjudicators below

The Parties appoint the *Adjudicator* under the NEC3 Adjudicator's Contract, April 2013

Panel of Adjudicators

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

Z15.2 Appointment of the Arbitrator

An *Arbitrator* is appointed when a dispute arises from the Panel of Arbitrators below. The referring party nominates an Arbitrator, which nomination is either accepted or rejected by the other party. In the instance of a rejection of the nominated *Arbitrator,* the referring Party refers the appointment deadlock to the Chairman of the Johannesburg Bar Council, who appoints an *Arbitrator* listed in the Panel of *Arbitrators* below

Panel of Arbitrators

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

Z16 Notification of a compensation event

Z16.1 Delete “eight weeks” in clause 61.3 and replace with “four weeks”. Delete the words “unless the event arises from the Service Manager or the Supervisor giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption.

Z17 BBBEE and Tax Clearance Certificates

Z17.1 The *Contractor* shall be expected to annually present a compliant BEE Certificate and a Tax clearance Certificate. Failure to do adhere to these requirements shall be considered a material breach of the conditions of this Contract, the sanction for which may be a cancellation of this Contract.

Z18 Communication

Z18.1 **Add a new Core Clause** 14.5 and 14.6 to read as follows:
The *Service Manager* requires the written consent of the Employer if an action will result in a change to the design, scope, and Service information that is 5% or more

Z18.2 The *Service Manager* requires the written consent of the Employer if an action will result in the Completion Date being extended by more than 30 days.

Z19 Delegation

As stipulated by Section 87(2) of the Occupational Health and Safety Act No. 85 of 1993 as amended the *Contractor* agrees to the following:

Z19.1 As part of this contract the *Contractor* acknowledge that it (mandatory) is an employer in its own right with duties as prescribed in the Occupational Health and Safety Act No 85 of 1993 as amended and agree to ensure that all work being performed, or Equipment, Plant and Materials being used, are in accordance with the provisions of the said Act, and in particular with regard to the Construction Regulations.

PART C1.2b CONTRACT DATA

PART TWO – DATA PROVIDED BY THE *CONTRACTOR*

Clause	Statement	Data
10.1	The Contractor is (Name): Address: Telephone No. Fax No.	
11.2	The *working areas* are	See C3 'Service Information'
24.1	The *Contractor's Key people* are:	**CV's to be appended to Tender Schedule**
	Name: Job: Responsibility: Qualifications: Experience:	
	Name: Job: Responsibility: Qualifications: Experience:	
	Name: Job: Responsibility: Qualifications: Experience:	

Name:

Job:

Responsibility:

Qualifications:

Experience:

11.2	The following matters will be included in the Risk Register	• Existing Services • Access to Site • Delay in supply of material and/or equipment • Use of tools and attaining permits for hot works and unplanned maintenance works • Travelling public and ACSA stakeholders

PART C1: AGREEMENTS AND CONTRACT DATA

C1.3: OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

OCCUPATIONAL HEALTH AND SAFETY MANDATARY AGREEMENT

1 AGREEMENT IN TERMS OF SECTION 87(2) OF THE OCCUPATIONAL HEALTH & SAFETY ACT (ACT 85 Of 1993), AS AMENDED & CONSTRUCTION REGULATION 5.1(k)

OBJECTIVES

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

1. The Occupational Health & Safety (Act 85 of 1993), as amended and its regulations and
2. The Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993) also known as the (COID Act).
3. Construction Regulations 2014

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

The parties to this Agreement are:

Name of Organisation: **AIRPORTS COMPANY SOUTH AFRICA" ACSA"**
Physical Address: Airport Company South Africa **The Maples, Riverwoods, 24 Johnson Road, Bedfordview, Gauteng, South Africa, 2008** **P O Box 75480, Gardenview, Gauteng, South Africa, 2047**

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 (OHS 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 OHSAct 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 OHS 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 OHS 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 OHS 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 OHS 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**

The successful bidder must source the following insurance cover, which is the deductible in the ACSA insurance cover:

- *Aviation liability insurance cover for an indemnity limit not less than R300 000 (three hundred thousand rands).*
- *Submit proof of insurance to ACSA before the work starts, and annually for the duration of the project.*

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

3 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 wit 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 *Contracto* 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 compl by the rate. (19) The Prices are the amounts stated in the Price column of the Price Where a quantity is stated for an item in the Price List, the Price is calculat 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 The 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 bidder should include the price for all Ps and Gs in their maintenance and inspections rates.

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

(NB: Maintenance cost schedule to be inclusive of labour, tools, consumables, PPEs, administrative cost, travelling and onsite vehicle.)

Table A: Activity Schedule Part 1 : Baggage handling system and Check in mechanical conveyors and carousels

Item no.	Activity Description	Frequency		Amount (per single item)	Total
Preliminary and General					
1	Airport personnel access permits,	Yearly		R 550	
	Airside training and vehicle airside access permits. Airside Induction training Ssecurity awareness training AVOP. training **(* multiplied by the number of resources) per resource**	2 Yearly		R4 023	
				Total Preliminary & General	**R**
Maintenance & Inspections					
2	Daily/weekly Inspections & Maintenance	Monthly	12		
3	Quarterly Inspections & Maintenance	Quarterly	4		
4	Semi-Annual Inspections & Maintenance	Six Monthly	2		
5	Annual Inspections & Maintenance	Yearly	1		
				Total Maintenance & Inspections	
6	Incentives: *see section on incentives (Consistent availability of 99.5% - 100.00% over six consecutively months. Contractor to be paid only 10% of one month's worth total of fixed cost billed*	Yearly	**1**	10% of One Month's maintenance & inspection costs	
Total	**Sub-total A (Total Preliminary & General + Total Maintenance & Inspections + Incentives)**				**R**

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.***

**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).

***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.
****Incentives and Low service damages will be applicable as per the Low **service damages table and Incentive table in this contract**

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 ACSA 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.

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

i) **LABOUR RATES:** ***(to be filled in)***

Item	Description	Normal hours(R/hour)	After hours (R/hour)	
			Saturday	Sunday/public holiday
1	Site Manager			
2	Engineer			
3	IT/Network specialist			
4	Technician			
5	Technician assistant/ Semi-skilled labour			

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 of Baggage handling system electrical controls. The Contractor shall continuously ensure that all staff is knowledgeable on all equipment relating to the Baggage handling system electrical controls.

Note the following minimum below as per standardised BHS Electrical Controls resources per infrastructure:

Site Supervisor	• Min SAQA Acredited Trade test (Millwright/Electrical/Instrument and control)	• Min 2 Yrs experience in management of an airport Baggage Handling System • 5 Yrs Experience in managing a site with a multi-disciplinary maintenance team
Commissioning Engineer	• IT Related degree/Diploma; or • Electronics Engineering degree/Diploma	• 3 yrs Experience in installing, commissioning and maintaining airport Baggage Handling Systems • 3 Yrs Experience in PLC maintenance and installations
IT Network Specialist	• IT Degree/Diploma	• 3 yrs Experience in maintenance of IT Networks
Technician (s)	• Min SAQA accredited Trade Test Certificate (Millwright/Electrician); or • N5 Control and Instrumentation	• Min 2 yrs experience in maintenance of airport Baggage Handling System Sorters and controls

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 *call out* 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) Call outs are not chargeable during hours technician/artisan/assistants or any applicable resource are on site.
d) Call outs are not chargeable during working hours' technician/ assistants are on site and these will be determined by the service manager during risk register meetings.
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 ACSA will not pay for breakdown which are due to preventative maintenance negligence by the contractor.

Table B: Call outs + Labour

Description	Quantity	Call out fee- *(Contractor to fill in)*	Total *(Contractor to fill in)*
Call Out			
*Call out Fee which includes first hour on site and travelling fee (after hours, weekends and holidays)			
Technician	100	R	R
Assistant/semi-skilled labor	100	R	R
Labor Sub-Total B			

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 ACSA system	Budgeted Quantity	Contractor time to repair: (Contractor to fill in)	Rate per hour (after hours): (Contractor to fill in)	Total: qty X contractor time to repair X rate (Contractor to fill in)
1	Faulty sensors belts	0.5	50			
2	Faulty sensors carousels	0.5	50			
3	Faulty sensors Sorter	0.5	50			
4	Faulty switches	2	20			
5	Faulty manual coding station, carousel and chutes	2	50			
6	Faulty PLC	5	15			
7	Belt at sortation area lost tracking	1	10			
8	Damaged/loose communication cables	0.5	10			
9	Faulty siren beacon at check in island	0.5	10			

10	**Operation panel at check-in area faulty**	**1**	**15**			
11	**Passenger panel at check-in area faulty**	**1**	**20**			
12	**Faulty motor control box (sivacon/LMS)**	**1**	**15**			
13	**Roller shutter door sensors faulty**	**0.5**	**15**			
14	**Power Related faults**	**2**	**25**			
15	**Inverter fault**	**2**	**15**			
16	**Sorter control field devices faulty**	**2**	**50**			
17	**Other: Unforeseen breakdown**		**1**			
18	**Other: Unforeseen breakdown**		**1**			
19	**Other: Unforeseen breakdown**		**1**			

iii) SPARES and MARK -UP

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

- Conducting and submission of monthly and quarterly 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 ACSA to the contractor and can be a shared space as per space availability.
- Management of inventory by the contractor as per ACSA inventory procedure

ADHOC COSTS – VARIABLE

- The Adhoc costs will not form part of the fixed contract costs and will be as per the schedule shown in the table below. For planned work, a quotation will be required and a PR (Purchase Requisition) created before work commences. Thereafter, invoices will be required to process payment.

- For emergency work, permission to carry out work outside the scope of the fixed contract service has to be obtained from the Service Manager or his authorised representative or the IAM Manager. PR and Orders for work done will be issued by the employer as soon as possible.

Spares and Ad hoc Provision List

Description	**Total (excluding VAT)**
Subtotal B- provisional sum for spares and Ad hoc	**R 6 841 777,99**

Mark-up (third party procured items/services)

Bidder to complete.

Value of Item or Services	****Mark-up** ***(spares only)***
R0 - R2,000	30 %
R2,001 - R5,000	20 %

R5,001 - R10,000	15 %
R10,001 - R50,000	10 %

[b]Cost shall be net cost (excluding VAT) of parts delivered to site with all discounts deducted.

The inserted amount ***Z** are for budgeting purposes. The Total mark -up amount in the table is not guaranteed, but the mark-up will be applicable on third party quotations as per requirements of the system. Thus, the contractor will be held accountable to the mark-up filled in this table.*
***The mark-up will be applicable to the total of the third-party quotation not on a single line item in a quotation.*
****Labour related cost shall not consist of any mark-up fees.*

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 ACSA will not be under any obligation to expend the full or any portion of this amount. Monthly contract expenditure will be strictly calculated according to the Activity Schedule as provided above.

*** N.B. Spares and Ad hoc repair costs not payable upfront but will be drawn off this amount as and when required as per Part C2.1 Price Instructions. This amount covers the full contract duration (60 months)**

Part 4 Activity Schedule: 5 Year Total Fixed Cost- Repairs and Maintenance of Baggage Handling System Electrical Controls.
[escalated Consumer Price Index Escalation (CPI)]

Fixed cost and Transport Period	Annual escalation	Rand value (excl. VAT)
Year 1 (**Sub-total A (Total Preliminary & General + Total Maintenance & Inspections + Incentives)**	0%	**R**
Year 2	Year 1 plus 6%	**R**
Year 3	Years 2 plus 6%	**R**
Year 4	Years 3 plus 6%	**R**
Year 5	Years 4 plus 6%	**R**
Total fixed cost for 5-year contract		**R**

NB: It should be noted that the contract will be subjected to CPI increase on its anniversary as per current index stipulated in Statistic SA Consumer Price Indices. Therefore 6% escalation should be used for illustrative purposes

Description	Total (excluding VAT)
Total fixed cost for 5-year contract	R
Subtotal B- provisional sum for spares and Ad-hoc	R 6 841 777,99
TOTAL EXCL. VAT for 5 Years	**R**
VAT @15%	**R**

TOTAL INCL. VAT for 5 Years	**R**

NB: All Amounts should exclude VAT, the total estimated contract value should be carried over to Form of Offer

PART C3: EMPLOYER'S SERVICE INFORMATION

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4 Description of the *service*

4.1 Executive overview

Purpose of Commodity
The purposes of this initiative are to source a supplier that can provide repairs and maintenance services of Electrical Controls for ACSA's Baggage Handling System for period of 60 Months or 5 years. The Baggage handling system includes hardware servers and software for Bagstage (SAC) operating system, SCADA, conveyance driven machinery (Conveyor belts) and carousels units and check in counters.

Criticality of Commodity
This initiative is of a high criticality to ACSA, as a failure in ensuring ineffective operation, maintenance and repairs for the BHS Electrical Controls could result in loss of customer luggage and flights delays. Poor/defective functioning of the equipment will endanger/injure staff onsite.

Complexity of Commodity
Service and repairs of control systems for BHS Electrical Controls is of high complexity, it requires qualified technicians or artisans. These should be knowledgeable of the following:
- automated systems,
- acumen in siemens PLC and SCADA,
- IT Hardware Servers, switches and routers
- electronics/electrical light current,
-Proximity Switches
-electrical geared motor units.

Service and repairs of Controls Systems should be conducted according to applicable OHS Act Standard, Driven Machinery Regulations and Engineering Standards. The Contractor will be responsible for providing staff that is sufficiently skilled and qualified for successful execution of the works during breakdowns in the Baggage Handling System and associated equipment.

The Contractor shall ensure compliance to general safety regulations and standards such as OHS Act Administration regulations of 2003, General Health & Safety Regulations of 2005, Electrical installation Regulation of 2009, General Machinery Regulation, Driven Machinery Regulations and Applicable Engineering Standards. The following SANS Standards should be adhered to during installation and maintenance of equipment within the baggage hall, SANS10142, SANS1173, SANS968, SANS971, SANS1669 & SANS1313.
.
Employer's Objective
The contractor will be responsible for the service and repairs of Electrical Control Systems in the Baggage Handling System infrastructure and associated components at Cape Town International Airport that is mainly located in the Central Terminal Building at CTIA.

The appointed service provider will be fully responsible for meeting all requirements regarding the Works. For each piece of equipment, all work will be carried out to standards as required by the Original Equipment Manufacturer (OEM) as well as any applicable governing law and/or regulations. The Contractor will be fully responsible for obtaining (and keeping up to date with) latest technology for improving the service and functionality of Baggage Handling System infrastructure and its components.

Overview Description of Maintenance Works

In brief, the Contractor will be responsible for service and repairs of control systems in the Baggage Handling System at Cape Town International Airport which (amongst other) comprises of:

1. CTB departure declines, Queue and Plough Baggage conveyors
    - 1- 8 declines belts conveyor control system with its associated components
    - Substation 1-10 Baggage conveyors
    - Automatic Tag Readers (ATR)
    - Siemens Sivacon and Sick Control Panels
    - Proximity Switches
    - Photocells (PEC)
    - Encoders

- Air Blowers and reflectors
- Inverters
- Hand Scanners, PC board and monitors
- Siemens Sivacon MCU
- Emergency stop buttons

2. The CTB departure sorter, its associate conveying systems and the baggage chutes

- MCC- Electrical Panel Switch Gear
- Bus bars sortation track/power rail and feed line Systems
- Linear induction motors
- Master and slave Cassette trays and associated components
- 1- 68 chutes, Level 4 chute, Laterals Proximity switches
- Inverters
- PC board and monitors
- Siemens Sivacon MCU and Sick Control Panels

3. The departure carousels in the Baggage Hall, International and Domestic

- Photocells (PEC)
- Siemens Sivacon MCU
- Emergency stop buttons
- Ethernet Communication Network and PLC's
- Service all UPS batteries associated with BHS Control Systems
- PC board and monitors

4. The Out of Gauge conveyor system, Inductions and MCS

- Photocells (PEC)
- Siemens Sivacon MCU and Sick Control Panels
- Hand Scanners, PC board and monitors
- Emergency stop buttons
- Sorter, Induction ATR's and Hoop Sensor Array

5. Computer Server, Operating Programme, and Substation Panels

- Hardware and Software Servers including Switches and Routers for SAC system
- Master, Slaves and Back -up computer /processor serves
- Reporting Interface hardware and software -SAC, Bag stage, SICK RDT, Data logic ATR system, BRS and SCADA for both check in counters and Baggage
- Substation 1-10 and including all electrical panels and interconnecting power and earthing cables
- Ethernet Communication Network and PLC's
- Service all UPS batteries associated with BHS Control Systems

6. Check in counters

- Control Panels- Electrical Switch Gears and interconnecting power and earthing cables
- Proximity Switches
- Photocells (PEC)
- Encoders
- PC board and monitors
- Scales and dispatch belts associated equipment's
- Emergency stop buttons

7. Security Check Points Counter- Roller Beds used for Trays

- Control switches and panels
- Emergency stops

8 . Hand Scanners and Monitors.

9. Support and provide first line response to the SAC software OEM on site by attending to minor SAC faults and escalate to OEM where resolution cannot be reached.

10. Support and Maintain BHS local network infrastructure which includes network switches, etc.

11. Service Provider to provides scales calibration certificate after annual maintenance in line with AITA

12.

INFRASTRUCTURE	FREQUENCY	MAINTENANCE ACTIVITIES
Baggage Handling Sortation System	As per Manufacturer's Specifications and Maintenance & Engineering procedures.	Executed in line with: - As per Manufacturer's Maintenance Manual and Maintenance & Engineering working procedures. - Must comply with OHS Act Administration regulations of 2003, General Health & Safety Regulations of 2005, Electrical installation Regulation of 2009, General Machinery Regulation, Driven Machinery Regulations and Applicable Engineering Standards. The following SANS Standards should be adhered to during installation and maintenance of equipment within the baggage hall, SANS10142, SANS1173, SANS968, SANS971, SANS1669, SANS1257 & SANS1313.

Baggage Handling System (BHS- Service and repairs of control systems)

Service and repairs of control systems has electronic components and most importantly, the upkeep of the automated PLC- IT infrastructure and controls that keep the system running. Various proprietary OEM (Original Equipment Manufacturer) technologies are built into the system to allow efficient transportation of bags from check-in to flight loading positions via bag X-Ray screening, early bag storage and automatic baggage sortation.

Frequency/Periodic Suggested Schedules

The contractor will provide service maintenance plan/chart and inspection sheet will be provided by the Service Manger which shall be conducted in line with the applicable regulations and engineering standards. The periodic schedule activities will be daily, weekly, monthly, quarterly, 6 monthly and yearly inspection as per Manufacture's prescribed maintenance schedules and frequencies. Furthermore, test and inspection are prescribed under Section 10.11 of the NEC Contract. There will be a need to review the maintenance regime due to equipment age, model and technical installation specification, where additional work may be necessary.

Manufacturer's prescribed maintenance schedule and frequencies:

Column Heading	Meaning
Asset Group	Baggage Handling Systems asset groups as defined above.
Activity	A short description of the maintenance activity to be performed.
Frequency	The code used to reflect the intervals between which maintenance activities will be performed. The convention used is: D = Daily, W = Weekly, M = Monthly, Y = Yearly

Asset Group	Activity	Frequency
Table - Ball Container	Daily Inspection	D
	Monthly Maintenance	M

Asset Group	Activity	Frequency
Chute - Baggage	Daily Inspection	D
	Monthly Maintenance	M
Conveyor - Belt	Daily Inspection	D
	Weekly Maintenance	W
	Three Monthly Maintenance	3M
	Yearly Maintenance	Y
Conveyor - Carousel	Daily Inspection	D
	Weekly Maintenance	W
	Three Monthly Maintenance	3M
	Yearly Maintenance	Y
Conveyor - Deflector / Plough	Daily Inspection	D
	Weekly Maintenance	W
	Monthly Maintenance	M
	Three Monthly Maintenance	3M
Conveyor - Roller	Daily Inspection	D
	Weekly Maintenance	W
	Monthly Maintenance	M
	Three Monthly Maintenance	3M
Conveyor - Sorter	Daily Inspection	D
	Weekly Maintenance	W
	Monthly Maintenance	M
	Three Monthly Maintenance	3M
Elevator - Baggage	Daily Inspection	D
	Weekly Maintenance	W
	Monthly Maintenance	M
	Three Monthly Maintenance	3M
Scanner - Label	Daily Inspection	D
	Monthly Maintenance	M
Scale	Daily Inspection	D
	Six Monthly Inspection	6M
	Yearly Verification/calibration	Y

The contractor shall maintain a record of services carried out and make it available to the Service Manager as and when it is required. The supply of tools and equipment necessary for carrying out the scope of work shall meet OEM and contract requirements.

All work shall be carried out by qualified technicians or artisans. The artisans and supervisory personnel shall be specifically trained and have extensive experience in the electrical control of Baggage Handling Systems as detailed in the scope of work.

Safety Related Provisions and guidelines that are required by law or imparted during routine training must be observed. The contractor personnel must comply with the requirements and responsibilities according to OHS Act Administration regulations of 2003, General Health & Safety Regulations of 2005, Electrical installation Regulation of 2009, General Machinery Regulation, Driven Machinery Regulations and Applicable Engineering Standards. The following SANS Standards should be adhered to during installation and maintenance of equipment within the baggage hall, SANS10142, SANS1173, SANS968, SANS971, SANS1669, SANS1257 & SANS1313. Before commencing or starting maintenance repairs, the relevant stakeholders i.e. ACSA Baggage Technician and Service Manager must be notified.

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 ACSA operations and IMC 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 the below and to **Annex E** list.

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 Works.

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

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 works. 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, able and competent for the duties required of them. The Contractor shall continuously ensure that all staff is knowledgeable and dependable in Baggage handling conveyors and carousels 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 ACSA 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 works, either on site or on their premises in order to comply with the Response Time requirements of this contract. Any exclusion to the above should be clearly communicated in the returnable schedules when submitting the tender.

The Contractor shall ensure that, unless a special arrangement is made with the Service Manager, all senior staff members and 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 works
The Works are located at Cape Town International Airport at various locations – mostly in controlled areas. It is crucial for the Contractor to note that Cape Town International Airport is a National Key Point and 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.

Spare Parts Requirements

The contractor shall provide spare parts list for repairs of each unit and ensures the supply of replacement parts are manufactured by the original equipment manufacturers (OEM) or parts are substantiated as equal by the Contractor and shall be approved by ACSA representative. The contractor shall have readily sufficient available spares for delivery and installation/repairs for BHS Electrical Control Systems. Maintenance under this contract shall provide a constant, high quality service to properly protect all equipment from deterioration and to provide constant peak performance of BHS resulting in a minimum of down time to the system.

A list of attainable replacements parts by part number shall be furnished when requested by Service Manager and the contractor will be responsible to maintain an up-to-date inventory and charged ACSA accordingly. The parts shall be kept on stock if not the contractor must source the required spares and be available within 24 Hours. The contractor will be responsible for providing all the critical spares foreseeable for the use in the Baggage Hall.

4.2 *Employer*’s requirements for the *service*

The contractor will provide complete service and repairs of control systems for BHS and shall provide all necessary qualified labour, supervision required to carry out inspection, preventative maintenance activity, and keep maintenance records of repair work performed and spare parts utilised. The contractor shall ensure the defects identified and reported during inspection or intervals shall be corrected within the service level agreement stipulated in the contract.

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 ACSA, Contractor 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 ACSA. The contractor shall NOT add any mark-up to any Hotline related expenses. A “Hotline” agreement shall typically ensure that problems relating to Electrical Control Systems are promptly rectified. It is intended that Hotline agreements will be in place with OEMs for Baggage Sortation System, Check in Counters and all its associated components.

The Contractor will be responsible for providing staff which are sufficiently skilled and qualified for successful execution of the works. The Contractor shall at all times remain responsible to ensure that the on-site staff complement is sufficient to maintain the service levels and system performance indicators as stipulated in the contract section 7. The Contractor shall comply with the Minimum Staffing Schedule at all times – as stipulated in the in the Section 7.3 of the NEC contract. This may be amended by mutual arrangement between ACSA and the Contractor from time to time.

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 contract Section 7 of the NEC contract for the required system performance indicators.

The Contractor will ensure that his/her staff complement 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 to avoid penalties.

The Contractor shall continuously ensure that all staff is suitable, able and competent for the duties required of them. The Contractor shall continuously ensure that all staff is knowledgeable and trustworthy of the Baggage Sortation System activities/procedures in the area. The Contractor shall further ensure that any staff

member partaking in baggage pilferage or other criminal activities is immediately removed from site and his permit returned and/or cancelled at the ACSA Permit Office.

All work shall be performed within the required Response Times – as stipulated in under Section 7.1 of the NEC Contract. 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 liability and be guaranteed for a period of 3 months after completion of work. Bagstage(SAC) and all other related systems availability and performance requirements as per OEM shall be met at all times as stipulated per the contract agreement in order to avoid penalties.

All work shall be charged according to the Price 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. Maintenance teams will attend to all scheduled maintenance as well as emergency breakdowns. As a result, night work will be unavoidable, and the contractor should price accordingly.

Upon completion of the service/maintenance, the Contractor shall complete a comprehensive written service report in respect of Baggage Handling System, listing all activities undertaken, additional work performed and consumables used and submit this report to the Employer's representative for approval and endorsement before leaving the premises. The report pro-forma shall be to the Employer's approval. Detailed maintenance sheets shall be completed for Employer after service. All job-related certificates are to be handed to Maintenance and Engineering department e.g. calibration certificate for scanners.

All consumables such as cleaning materials will be supplied by the Contractor at his/her own cost. The costs are limited to the provision made in the cost breakdown. It should be noted that the preventive maintenance amount should include all standby fees, cell phone support and normal maintenance.

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 ACSA accordingly. All spares will be charged according to the ad- hoc Price Activity Schedule. ACSA shall provide an on-site spares room to the contractor free of charge. 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 and for all spares used monthly inventory should indicate reference number for the replacement of the spare as logged in IMC to keep track of spares usage. A resource from the contractor preferable technical personnel will be dedicated to ensure that spares are effectively managed and scrapped parts and waste is removed from the site.

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

The Contractor shall ensure that all building areas in proximity to conveyors, carousels and chutes as well as building areas mostly dedicated to the Baggage Sortation System are maintained in a broom-swept state.
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, correct PPE and a uniquely numbered reflective jacket (for easy identification via CCTV).

Furthermore, Contractor will be expected to be present for essential power simulation and testing during predetermined intervals that will be communicated to the contractor. It should be noted that ACSA will not compensate the service provider for being present for Essential Power Simulation.

4.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
ACSA	Airports Company South Africa
CTIA	Cape Town International Airport
OEM	Original Equipment Manufacturer
PPE	Personal Protective Equipment
CCTV	Closed Circuit Television
RCA	Root Cause Analysis
OHSACT	Occupational Health and Safety Act No. 85 of 1993
SANS	South African National Standard
SABS	South African Bureau of Standards
SHE-File	Safety and Health File
CTB	Central Terminal Building
SOB	Southern Office Building
ATR	Automatic Tag Readers
BHS	Baggage Handling System
IST	In-System-Time
MCS	Manual Coding Station
OOG	Out of Gauge
PLC	Programmable Logic Controller
SAC	Sort Allocation Computer
SCADA	Supervisory Control and Data Acquisition
GH	Ground Handlers
LIM	Linear Induction Motor

MANAGEMENT

Management of the works

Particular / generic specifications

All work shall conform to all relevant SANS standards, OHS ACT regulations and all other legislation that might be relevant to this Contract and the execution thereof.

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

Planning and programming

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

Normal airport operational hours shall be **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 Baggage handling systems
- Pointing out services to consultants or other contractors
- Providing access to other contractors
- Attending co-ordination and planning meetings
- Removing rubble and/or equipment from site
- Training of ACSA operators and/or technicians
- Training of check-in of Baggage handling systems staff
- Providing of system data and/or statistics to ACSA
- Recommending improvements on maintenance procedures
- Recommending improvements on operational procedures
- Co-operating with ACSA Security relating to security issues
- Safe / legal disposal of used and irreparable spares

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

Quality plans and control

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

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

At no time, shall the Contractor:
- allow any pollutive or toxic substance to be released into the air or storm water systems.
- interfere with, or put at risk, the functionality of any system or service.
- cause a fire or safety hazard.

Format of communications
Work instructions, daily check sheets, monthly maintenance reports, 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 include monthly reports on but not limited to:

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

An improvement on the minimization of spares holding (for example by increasing Mean Time to Failure of components) Etc.

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

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

ACSA has implemented a Computerised Maintenance Management System (CMMS). The Contractor shall take all reasonable actions to ensure that they facilitate successful implementation and execution of the CMMS work orders. 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 service amount.

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 is in compliance with a law or regulation.

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 OHS Act prescribes certification of competency of persons performing certain tasks, proof of such certification shall be provided to the Service Manager.

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

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

All airside areas

All basement areas

All areas accessible to the public

All enclosed areas

The terminal building

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

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

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

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

No unsafe/dangerous equipment or tools may be brought onto or used on Company premises. The Company reserves the right to inspect all equipment/tools at any time and to prevent/prohibit their use, without any penalty/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 children and the general public from injury relating to machinery, work or other.

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

Enterprise and Supplier Development Initiatives

It is a requirement of this project that the successful tenderer enters into a contract (either through partnership, joint ventures or sub-contractors) with Targeted Enterprise(s) as defined in the Contract Data to perform a minimum of Thirty percent (30%) of the tendered contract value.

Tenderers must state transformation deliverables that are both achievable and measurable as the successful tenderer will be required to issue comprehensive monthly reports in response to this tender requirement. The monthly report will be assessed by ACSA"s Internal Transformation Committee, which is accountable for implementation of ACSA"s Transformation initiatives.

C3.2.1 Definition of a Targeted Enterprise

A registered built environment professional firm contracted (either by Joint Venture, partnership or sub-contracting) by the tenderer to perform a specified percentage of work stated in the Contract Data under the guidance of the tenderer and which complies with the following:

a) does not share equity holding with the tenderer; and
b) is registered in terms of the Company's Act, 2008 (Act No. 71 of 2008) or

Close Corporation Act, 1984 (Act No. 69 of 1984); and

c) is registered with the South African Revenue Service; and
d) is at least an Exempted Micro Enterprise (EME) with a B-BBEE Status of "Level One "Contributor", as defined in the Amended Codes of Good Practice for measuring Broad-based Black Economic Empowerment (published in Government Gazette No. 36928 on 11 October 2013) or?
e) is at least a Qualifying Small Enterprise (QSE) with a B-BBEE Status of "Level One? Contributor", as defined in the Amended Codes of Good Practice for measuring Broad-based Black Economic Empowerment (published in Government Gazette No.36928 on 11 October 2013).
f) has entered into a written relationship agreement of co-operation and assistance with the tenderer for the duration of the contract.

C3.2.2 Participation of Targeted Enterprise(s)

The involvement of Targeted Enterprise(s) in the project management, manufacturing and testing is a mechanism to broaden the economic share of the national spend on engineering services and a means to hasten and improve the transfer of technical skills.

The percentage specified for Targeted Enterprise shall be applicable to the management, manufacturing and testing aspects of the project.

C3.2.3 Transformation monthly reporting

The tenderer shall report monthly and provide the following documents:

- The skill development or transferred during the month in question and
- The progress of the targeted enterprises skill development.
- Proof of payment to the target enterprise

C3.2.4 Sanctions for non-compliance with the transformation proposal

In the event that the tenderer does not meet the specified target of work value to the Targeted Enterprise, ACSA shall levy a penalty/low service damage. The penalty/low service damage payable is 50% of the value by which the cumulative value of the payments to the Targeted Enterprise fails to meet the specified percentage. The Targeted Enterprise(s) shall not be allowed to sub-contract any work that forms part of the specified participation percentage.

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
OHS Act Appointment by Contractor	Annex J	Applicable
Minimum Maintenance Programme	Annex K	Applicable
Environmental Terms and Conditions	Annex L	Applicable
Maintenance of Baggage handling systems Spares List	Annex M	Applicable
ACSA maintenance procedure for Baggage handling systems - D080 008M	Annex N	Applicable
Baggage handling systems – standard operating procedure	Annex O	Applicable
Maintenance of Baggage handling systems – Electrical lockout procedure	Annex P	Applicable
Cape Town International Airport – operating instruction for Electronic Controls	Annex Q	Applicable
Baggage handling systems - 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
Contract exclusion	Annex W	Applicable

ANNEX A

SCHEDULE OF EQUIPMENT

Item			
Baggage handling systems	**Manufacturer**	**Make** **Model**	**Location**
Check-in counters and conveyors controls	Van de lander and other local suppliers	Can be verified upon contract commencement.	Central Terminal Building
Baggage sortation controls	Daifuku logan and other local suppliers	Can be verified upon contract commencement	Airside Baggage hall
PLCs	Siemens	Can be verified upon contract commencement	Airside Baggage hall

ANNEX B

Equipment Commissioning Dates

	Check-in counters mechanical conveyors	Baggage sortation mechanical conveyors	Departure carousels	Domestic Arrival Carousels	International Arrival Carousels
2010	17-Mar				
2010					
2010		22-May			
2010			03-Jul		

ANNEX C

Equipment Life Span

Item	Location	Life Span
Baggage handling systems		
Check-in counters mechanical conveyors	Central Terminal Building	10
Baggage sortation mechanical conveyors	Airside Baggage hall	10
Departure carousels	Airside Baggage hall	24
Domestic Arrival Carousels	Airside domestic arrivals	24
International Arrival Carousels	Airside International arrivals	24

ANNEX D

Site Information

Description
The *services* are situated on the airside of Cape Town International Airport the services taking place on the aprons within the boundary limits of the Cape Town International Airport.

General Site Conditions

Temperature (Min - Max)	6ºC to 40ºC
Relative Humidity	15% to 75%
Wind	Varies daily
Height above Sea Level	46 m
Slope (Existing/Modified)	N/A
Seismic	N/A



ANNEX E

Risk assessment

OHS Risks

#	Department	Tenant / Sub-department	Activity / Task / Service	Risk Name	Risk Description	Control Measure Name	Control Measure Description
1	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	Fire hazard, fatalities	Combustion due hydraulic oil heating up	SWP	Remove all flammable material (papers, plastic etc.) around the oil tank area
2	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	Injuries, fatalities.	Oil spillage	Procedure	ARFF department on standby if required. Contractor to have a spill containment kit to contain the spill, while ARFF is contacted through the IMCC.
3	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	Occupational injury	Flying Objects	Procedure	Eye protection must be worn (Wear of Safety Glasses). Record of receiving PPE is to be kept on file,
4	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	Fire hazard, injuries, fatalities.	Hot work conducted such as grinding, welding	Procedure	Hot work permit be issued prior commencement of work. Fire equipment to be serviceable.
5	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	Occupational injury	Tripping Hazard	Procedure	Demarcate Working Area
6	Operations: M&E	Mechanical	Maintenance of PLBs and ADS	Hearing loss	Noise generated from the aircraft and dollies	Training	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.
7	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	Aircraft damage, fatalities	persons and vehicle in the airside	Training	On the job training is performed after Airside Induction Training is received.
8	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	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.
9	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	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.

10	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	FOD injected by aircraft, property damage, injuries	Vehicle and tools on at Aprons	Procedure	Area Demarcation during work where applicable and All tools & demarcation to be removed after work
11	Operations: M&E	Mechanical	Maintenance of BHS & Check-in counters	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 payed on time
13	Updated and compliant safety file regarding Covid 19 PPE and risk assessment, as per OHS 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 P. Ms

The list of preventative maintenance previously performed with activities on the baggage handling mechanical conveyors and carousels actual work orders is available on request, ACSA Integrated maintenance centre can be contacted to issue or, the below link can also be used to access these records:
https://airports-my.sharepoint.com/:f:/r/personal/busisiwe_mthimunye_airports_co_za/Documents/Lebogang/OLD?csf=1&web=1&e=Voaky6

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.**

5 WHY

Date:	Notification Number	Equipment/Machine Name

Equipment Number/ACSA barcode

1. Description of the problem / incident: (describe the end state or effect)

2. What has caused this problem?	What did you See; Hear; Smell; Feel??
1	
WHY?	Evidence
2	
WHY?	Evidence
3	
WHY?	Evidence

4	

WHY? Evidence

5	

WHY? Evidence

3. What was done to fix the problem or to get the process to continue.

Root Cause

4. Proposed preventative measures

Damage Code	
Dirty	
Erratic Operation	
Faulty Indication	
Flow	
Jammed	
Leaks	

Corrective Activity
Adjusted
Aligned
Calibrated
Cleaned
Investigated
Lubricated

Loose		Temporary Mod	
Noisy		Removed	
Out of Control Limits		Repaired	
Out of Position		Replaced	
Physically Damaged		Reset	
Pressure		Tightened	
Temperature		Setup	
Trips			
Utility/ Service Failure			
Vibrates			
Will Not Reset			
Will Not Run			
Other			

Name:		
Sign:		

ANNEX H

Estimated times for breakdowns/faults

Item #	Call description	Estimated time to repair/reset (hrs.) as logged in the ACSA system
1	**Faulty sensors belts**	**0.5**
2	**Faulty sensors carousels**	**0.5**
3	**Faulty sensors Sorter**	**0.5**
4	**Faulty switches**	**2**
5	**Faulty manual coding station, carousel and chutes**	**2**
6	**Faulty PLC**	**5**
7	**Belt at sortation area lost tracking**	**1**
8	**Damaged/loose communication cables**	**0.5**
9	**Faulty siren beacon at check in island**	**0.5**
10	**Operation panel at check-in area faulty**	**1**
11	**Passenger panel at check-in area faulty**	**1**
12	**Faulty motor control box (sivacon/LMS)**	**1**
13	**Roller shutter door sensors faulty**	**0.5**
14	**Power Related faults**	**2**

15	**Inverter fault**	**2**
16	**Sorter control field devices faulty**	**2**
17	**Other: Unforeseen breakdown**	
18	**Other: Unforeseen breakdown**	
19	**Other: Unforeseen breakdown**	

ANNEX I

Service Level Agreement

1. Performance objectives

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 baggage handling mechanical conveyors and carousels for routine maintenance shall be arranged with the 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 Staffing Schedule

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	Mon-Fri (08:00-17:00) and whenever deemed necessary by the Employer	Mon-Fri (08:00-17:00) and whenever deemed necessary by the Employer
Commissioning Engineer/ Controls Specialist	Mon-Fri (08:00-17:00) and whenever deemed necessary by the Employer	Mon-Fri (08:00-17:00) and whenever deemed necessary by the Employer
IT / Network Specialist	Mon-Fri (08:00-17:00) and whenever deemed necessary by the Employer	Mon-Fri (08:00-17:00) and whenever deemed necessary by the Employer
Technician (s) and Assistant Technician (s)	7	Airport operation hours every day

* the service manager will/can adjust the maintenance hours requirements based on the airport operations requirements

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

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.

2. Availability, mean time before failure, mean time to repair and callout response times

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

The Period of review shall be Monthly.

ACSA 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*
Baggage handling Overall System - Availability	Availability must be a minimum of 99.5% per month.
Baggage handling Overall System - MTTR	0.517 Hrs.
Baggage handling Overall System - MTBF	48 Hrs.
% of planned maintenance completed per month	100%
Response time for call outs (after working hours, weekend and holidays)	45- 60 minutes on land side and on the airside (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 ACSA)	All PM WO shall be closed with 6 working days from date of issuing to contractor, (Issued by ACSA either by mail or manual collection)
Closure of Corrective Maintenance (CM) Work Orders (WO)	All CM WO shall be closed with 1 working day from date of issuing to contractor (Issued by ACSA 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.

3. Emergency Response time

ACSA deems an emergency as a situation caused by unforeseen circumstance. This is only instances where:

- Delaying sourcing the required goods,
- Works or 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

Below are some of the emergencies identified but not limited to the below list and also the emergency response times:

Item Description	Response Time
In case there is a mechanical or electrical malfunction of the system (check in or BHS) malfunctions.	5 minutes during normal working hours (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)
In case there is a mechanical or electrical malfunction of the system (check in or BHS) malfunctions.	45-60 minutes after hours, weekend and holiday (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)

4. 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.

There are no current (the time of this bid) warrantees and guarantees on the infrastructure to be maintained by the contractor.

5. Assessments and Reviews

- Monthly assessment/review shall be done according to this NEC contract.
- Safety issues and file reviewed quarterly or as per Safety department frequency.
- Contract shall be Audited and Assessed the from time to time.
- The contractor will be assessed and scored quarterly also through the ACSA supplier development system or any other ACSA system.

6. 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 ACSA 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 ACSA employees and any internal and external audits).

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

Low service damages tables

Progressive Punitive low service agreements which are entirely the contractor's fault shall be applied as below:

Item No.	Achieved Overall System Availability per Month	Low service damages amount
1	99.9%	100% Full fixed cost billed, minus any other low service damage included in this contract.
2	99.499% - 94.00%	10% reduction of monthly maintenance & inspection costs minus any other low service damages included in this contract.

Any availability less than 99.4% for six consecutive months (which is the entirely the contractor's fault) will lead to contract termination.

Item Description	Low service damages amount
Not meeting system MTTR of 0.517 Hrs (i.e. MTTR >0.517 Hrs).	R10 000/month
Not meet system MTBF 48 Hrs (i.e. MTBF > 48Hrs)	R10 000/month
Not maintaining the required minimum on-site staff requirements.	R2 000.00/position/day
Noncompliance to the Response time for call outs (after working hours, weekend, and holidays) as stipulated in the Service Level and this contract.	R2 000.00/event
Noncompliance of emergency response times as stipulated in the Service Level and this contract.	R2 000.00/event
Occupational health and safety act 85 of 1993 (Non-compliance with the OHS Act and its associated regulations (for example: leaving moving machinery exposed)	R2 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: 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.*	R4 000/month
Not turning PO into completed works / completion certificate on agreed times lines as stated in Risk register	R4 000.00 / per PO / month
Other occupational health and safety act 85 of 1993 which are criminal offences according to the OHS act	Termination
3 Months Consecutive (monthly on contract period) occupational health and safety act 85 of 1993 of the same offence/class	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.

7. Incentives and Continuous improvement

Item No.	Achieved Availability per Month	Payment presentence
1	Consistent Overall system availability of 99.5% - 100.00% over six consecutive months.	Only 10% of One Month's maintenance & inspection costs

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. Continuous improvement initiatives shall be reviewed every quarter or when deemed necessary by the Employer or the Contractor.

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.

8. 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 both the Technician and an ACSA representative.

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

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

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

ANNEX 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 Tenderer should include a suggested maintenance programmed that must attempt to cover all requirements under this contract. The list below should be used as a minimum. The responsibility lies with the contractor in ensuring compliance with OEM instructions.

DB Earth leakage test records	Quarterly (Q)
Electrical and Control panel wiring drawings	Yearly (Y)
Sorter and conveyor Interlocks and trip sequence test	Monthly (M)
Maintenance records as per procedure	Monthly (M)/Quartely/Six Monthly/Yearly
E-Stop System test records	Monthly (M)
Sorter and conveyor siren test records	Monthly (M)

ANNEX L (Contractor to fill in)

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 not be 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 to 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 of Baggage handling system Spares List

Part code	Part description
A447001	Bearing Rod End Assembly.rose coupler
	Nuts nylock M5
N20-4520x1000	4520x1000 Endless flat belt
922266	Bearing 2 Hole Flanged (40 Bore)
SFT40	Bearing 2 Hole Flanged (40 Bore)
40PRRP	Bearing Cap
Guide Bearing 1 917348	Bearing Guide assembly for carousels
G185142	Bearing lower holder for bends
922304	Bearing Pillow Block 40 Dia Eccentric L/C.
922923	Bearing Rose Female-M16X2 Mm LH Thread
922922	Bearing Rose Female-M16X2 Mm RH Thread
922467	Bearing Sealed Spherical Roller
922466	Bearing Self Alligning Double Row
922465	Bearing Self Alligning Double Row
922274	Bearing Self Lube Cast Iron SF40EC
TS1500/100	Grooved ball bearings for curved conveyors
YAR 205-2F	Flange Bearing 25mm
YAR 207-2F	Flange Bearing 35mm
100299	Bearing SNP 40 DEC
G185141	Bearing Upper holder for bends
922262	Bearing-Housed-Flanged-50 B- 4 Hole-Rhp
FYC 205TF	Inside radius Bearings 25mm
FYC207TF	Inside radius Bearings 35MM
922255	Bearings-Flange 25Mm X 2 Hole
924073	BELT "V"(REF: SPA 900)
924923	Belt 1TSS Fastener
FB2150	Belt Finger 2,150 Meter
FB2730	Belt Finger 2,730 Meter
FB2440	Belt Finger 2.440 Meter
FB3010	Belt Finger 3,010 Meter
FB3300	Belt Finger 3,300 Meter
FB3590	Belt Finger 3,590 Meter
FB3870	Belt Finger 3870 Meter
100219	Belt H.T.D.Plus Toothed
BELT/A/LF/1000/50,000/O	Belt Low Friction 1000w x 30,000mm(2,500mm)

BELT/A/LF/1,200/10,000/O	Belt Low Friction 1200w x 05,000mm
BELT/A/RT/1,000/50,000/O	Belt Rough Top 1000w x 25,000mm
BELT/H/RT/0,120/25,000/O	Belt Rough Top 120 x 25,000 - V
BELT/A/RT/1,200/60,000/O	Belt Rough Top 1200w x 56,000mm(4,000mm)
BELT/A/ST/1000/3670	Belt smooth
BELT/A/ST/1000/3108/E	Belt Smooth Top
BELT/A/ST/1000/2508 E	Belt Smooth Top
BELT/A/ST/1000/3108/E Zipper	Belt Smooth Top Zipper
BELT/A/LF/1000/5000 E	Belt Low Friction
BELT/A/LF/1000/4580 E	Belt Low Friction
BELT/A/LF/1000/4510 E	Belt Low Friction
BELT/A/LF/1000/4370 E	Belt Low Friction
BELT/A/LF/1000/4820 E	Belt Low Friction
924765	Belt Rough top 3492 LG x 350 Wide
BELT/A/ST/1,000/50,000/O	Belt Smooth Top 1000w x 43,600Mm(8,00mm)
BELT/A/ST/1,200/10,000/O	Belt Smooth Top 1200 x 10,000
BELT/A/LF/1000/04370/E	Flat Belt assy
BELT/L4510/1000	Low Friction Merge belt
924636	Belt-Flat Toothed 85 T, 1190 Lg.Htd
211-07-B01	45 degree flat KT96A (Flat curve)
211-07-B02	60 degree flat KT96A (Flat curve)
211-07-B03	90 Degree Flat KT96A (Flat curve)
	90 degree spiral curve belt KT96V6 Hight diff. =1065mm
212-07-SB01	90 degree spiral curve belt KT96V6 Hight diff. =420mm
212-07-SB02	45 degree spiral curve belt KT96V6 (OOG) =225 Diff
M8x40LG	Bolts allen M8x40LG
FKE 12.9 BOLTS	Bolts Ellen Cap
9365206	Brush Carbon Earth(Ref:Skn Ea 0254892)
9365205	Brush Carbon Phase(Ref:Skn Ph 0254890)
9365229	Brush Potted break unit (break relay)
999641	BRUSH STRIP
936030	Bus Bar Collector - Front
936032	Bus Bar Collector - Rear
928146	Bush-T/L-1610X25Mm
928152	Bush-T/L-1610X40Mm
928177	Bush-T/L-2012 X 40Mm
H748001	Carriage Cassette Flexible Mount.
A689001	Carriage Cowl (end cover assembly)
A435002	Carriage Link Assembly 1200 Pitch
	Carrousel chain links
5m.SH Chain IS0.08B1	Chain

	Master chain link
06B--1X10FT	Chain
	Chain
FR100027	Chain links moving platform carousel
140M-D8N-C16	Circuit Breaker - 16.0A
C60HC320	Circuit Breaker 3 pole 20A
C60HB110	Circuit Breaker 1 pole 10A B Type
C60HB101	Circuit Breaker 1 pole 1A B type
C60HC120	Circuit Breaker 1 pole 20A C type
C60HC140	Circuit Breaker 1 pole 40A C type
C60HC104	Circuit Breaker 1 pole 4A C type
C60HB106	Circuit Breaker 1 pole 6A B type
C60HC106	Circuit Breaker 1 pole 6A C type
C60HC110	Circuit Breaker 1pole 10A C type
C60HC204	Circuit Breaker 2 pole 4A C type
C60HD325	Circuit Breaker 3 pole 25A D type
C60HD332	Circuit Breaker 3 pole 32A D type
C60HD340	Circuit Breaker 3 pole 40A D type
C60HC304	Circuit Breaker 3 pole 4A C type
C60HD350	Circuit Breaker 3 pole 50A D type
C60HD306	Circuit Breaker 3 pole 6A D type
30403	Circuit Breaker 3 pole Compact NS160N
140M-C2E-B25	Circuit Breaker Motor : 1.6 - 2.5A (0.75kW)
140M-C2E-B40	Circuit Breaker Motor : 2.5 - 4.0A (1.1/1.5kW)
140M-C2E-B63	Circuit Breaker Motor : 4.0 - 6.3A (2.2kW)
GV2-ME16	Circuit Breaker Motor 9.0-14.0A
254895	Guide wheels for collectors
22.F5.G0R-960A	Combivert F5-G - 55kW
ZB4-BZ102	Contact Body - 1NC
ZB4-BZ103	Contact Body - 2NO
ZB4-BZ105	Contact body 1NO/1NC
LC1-D25P7	Contactor 11kW(25A) 230V(50/60Hz)
LP4-K0910BW3	Contactor 4kW (9A) 24V - 1NO
100-K09DJ10	Contactor 4kW(9A) 24VDC
LP4-K1210BW3	Contactor 5.5kW(12A) 24VDC(LC)
LC1-D150P7	Contactor 75kW(150A) 230V(50/60Hz)
GV-AE11	Contactor auxiliary front GV2-ME 1NO/1NC
140M-C-AFA11	Contactor Auxiliary Front mount - 1NO/1NC
140M-C-ASA20	Contactor Auxiliary Side mount - 2NO
XAL-K178E	Emergency stop 1NC/1NO
946046	Encoder Strip Screen Printed 1200 P
946446	Encoder Strip Screen Printed 1200 P
9365239	Flying lead - 1200 carriage

Fuse	Fuse 1.5 A 5x20 cartridge
Fus+A184e2A	Fuse 2A Mini
13394	Fuse 500mA 10 x 38 cylindrical
254903	Guide Wheels for SKN, SWN
P13433	Chute end roller
TO-215679/I1/SVB	Isolator main switch
TO-22003006	Isolator socomec circo M2
VBS40258818	Joint kit KSL4 Bolted joints
258754	Line feed special KNKL 4/60 (busbar power inlet)
	Mechanical Spares
9365234	Modem Power Cable
951310	Motor SEW 0.75 KW, Grd 173 rpm
951318	Motor SEW 0.75 KW, Grd 31 rpm
951200	Motor SEW 0.75 Kw,(0.5 M/S) Braked 72 rpm
951207	Motor SEW 0.75 Kw,(0.8 M/S) 119 rpm
951202	Motor SEW 0.75 Kw,(0.8 M/S) Braked 117 rpm
951203	Motor SEW 0.75 Kw,(1.0 M/S) Braked 154 rpm
951215	Motor SEW 1.1 Kw,(0.5 M/S) 72 rpm
951210	Motor SEW 1.1 Kw,(0.5 M/S) Braked 72 rpm
951217	Motor SEW 1.1 Kw,(0.8 M/S) 120 rpm
100KFA22Z	Contact Block for 100-K09 (2NO)
951237	Motor SEW 1.1 Kw,(0.8 M/S) 72 rpm
951212	Motor SEW 1.1 Kw,(0.8 M/S) Braked 120 rpm
951232	Motor SEW 1.1 Kw,(0.8 M/S) Braked 72 rpm
951213	Motor SEW 1.1 Kw,(1.0 M/S) Braked 155 rpm
951220	Motor SEW 1.5 Kw,(0.5 M/S) Braked 71 rpm
951227	Motor SEW 1.5 Kw,(0.8 M/S) 119 rpm
951222	Motor SEW 1.5 Kw,(0.8 M/S) Braked 119 rpm
GM/SEW/R47/1.5/176/004	Motor SEW 1.5 kW Grd 176 rpm
GM/SEW/R47/1.5/203/001	Motor SEW 1.5 kW Grd 203 rpm
951250	Motor SEW 2.2 Kw,(0.5 M/S) Braked 46 rpm
951257	Motor SEW 2.2 Kw,(0.8 M/S)
951252	Motor SEW 2.2 Kw,(0.8 M/S) Braked
GM/SEW/KA47/2.2/120/007	Motor SEW 2.2 kW 0.8m/s Grd 120 rpm
GM/SEW/KA47/2.2/120/008	Motor SEW 2.2 kW 0.8m/s Grd 120 rpm
951265	Motor SEW 3.0 Kw,(0.8 M/S)
SA47TDT90L4,	Motor SEW 1.5 KW Type RPM 194, Ratio 7.28, Shaft Dia 30mm
SA47TDT80N4,	Motor SEW 0.75 KW Type: RPM 190, Ratio 7.28, Shaft Dia 30mm

SA47TDT80K2,	Motor SEW 0.75 KW Type: RPM 2800/259 Ratio 10.8, Shaft Dia 30mm
SA47TDT90S4,	Motor SEW 1.1 KW Type:RPM 192, Ratio 7,28, Shaft Dia 30mm
SA57TDT90L4,	Motor SEW 1.5 KW, Type:RPM 1410/117 Ration 12, Shaft Dia 30mm
SA57TDT90L4 / BMG,	Motor SEW 1.5 KW, Type: RPM 1410/194, Ratio 7,28, Shaft Dia 30mm
SA57TDT90S4 / BMG,	Motor SEW 1,1 KW, Type:RPM 1400/130 Ratio 7,28, Shaft Dia 30mm
440R-N23126	MSR127T safety relay (3NO + 1NC)
546-3068	N-Type to SMA female adaptor
45X75X8cc	Oil seal
999818	Perspex tow plate
999480	Pivot arm rubbers / Anti Vibration Pads
	RIVET BLIND 3mm
D866001	Idling Roller
W267002	Roller Dive Pulley
W213002	Roller Drive Pulley 124.5 D,1135 O/S,1513L
W213001	Roller Drive Pulley 124.5 D,935 O/S,1313L
W267001	Roller Drive Pulley 218 Dia,1010 O/S,1359L
A686001	Roller Drive Pulley Assembly
A554002	Roller Drive Pulley Lagged 1010 O/S,1359 L
A554005	Roller Drive Pulley Lagged 1210 O/S,1559 L
D711002	Roller Drive Pulley-Lagged 124.5 D,1225 L
A555002	Roller End 127 Dia X 153.5 O/Shaft.
A555001	Roller End 127 Dia,140 O/Shaft.
229SA57	Roller for curve conveyor
958315	Roller PULLEY BELT "V" (REF: SPA 100)
958640	Roller Pulley Htd 28 Tooth X 2012 Bore
961000	Roller Return 60 D,1010 Rl,1025 Agl
961001	Roller Return 60 D,1210 Rl,1225 Agl
C704003	Roller Snubber 76.1 Dia X 1025 Long
C704006	Roller Snubber 76.1 Dia X 1225 Long
D866007	Roller Stub Shaft Pulley 100 Dia,1164 Lg
D866008	Roller Stub Shaft Pulley 100 Dia,1364 Lg
D866002	Roller Stub Shaft Pulley 124.5 Dia,1355 Lg
A556001	Roller Take Up 100 Dia,130 O/Shaft.
A422001	Take Up Roller Assy 100 Dia,1025 L
A685001	Roller Take Up Pulley.
961004	Tension Roller Takeup 89 D,1010 O/B,1100 Lg
Rollers 1.2 Meter	Rollers for roller table 1.2 meter
Rollers 1.22 Meter	Rollers for roller table 1.22 meter
22205E	SKF Explorer Bearing
526-0308	SMA assembly RG174 cable (1m)

	Sprocket
938933	Stud 9 Mm Panex Recess Head / DZUS bolt
FR300259	Support travers
RE7-TP13BU	Timer On Delay DPDT
A438001	Tipper Distribution Cassette 1200 P
A436001	Tipper Master Cassette Assy 1200 P
A462001	Tipper Pivot Arm Assembly.(Rear).
A462002	Tipper Pivot Arm Assembly.(Front).
A437001	Tipper Slave Cassette Assy 1200 P
339-400-190	Panex Receptacle 9mm-riveted
A478002	Tipper Undercarriage of tray/Sorter under carriage tray
A690002	Top Cover (For 1200 Long Carriage)
100131	Transformer 10kVA - 400V/220V
100132	Transformer 2kVA 3P - 400V/220V
999906	Tray Curved Edge-1200 Fireretardent
938934	Washer Nylon Retaining .
972437	Wheel Tyred 50 Dia,12 Bore,15 W-Red
972439	Wheel.Tyred 101.6 mm Dia
972438	Wheel.Tyred 50 mm Dia
9365237	Wires Earth for carriage
502150	Carousel Slats / Flexible Slats
H800001	Collector Cable Pick Up Anchor / Cable Tie Clamp
206226-1	Locking Nut for Elect + Comms leads of Sorter Cassette.
101648	Nylon blocks/sliding friction piece
FR101196	Caterpillar pusher dog drive chain assembly
951130	LIM motor capsule - Linear Induction motor
951102	Linear Induction Motor
91490	Pathfinda 2011 35mm bearing housing
91494	Pathfinda 2011 25mm bearing housing
91491	Pathfinda 2011 Tail shaft
91492	Pathfinda 2011 Drive shaft
91493	Pathfinda snub roller shaft
O2209	Bearing SFT40 2 Hole e .collar
O2158	Bearing self aligning 2207 2RS 35mm
O2159	Bearing self aligning 1305 25mm
73991BLUE	Rubber disc 4 "diameter 30mm square bore"
11651 / 11648	Intralox Series 400 ARB Belt overlenght 1.0m
11600	Intralox sprocket 12T Acetal 7.8 400 Series Sq Bore
11601	Intralox retainer ring 40mm
91487	Parthfinda wear finger
SA4177	Conveyor carryway assembly Roller

W4720 KTM4 - FM804	Terminal Block (SEW motor terminals)
	SEW No
	KA47/TDT80N4/BMG/HF
	KA47/TDT80N4/BMG/HF
	KA47/TDT80N4/BMG/HF
	KA47/TDT80N4/BMG/HF
	KA47/TDT80N4/BMG/HF
	KA47/TDT80N4
	KA47/TDT80N4
	KA47/TDT90S4/BMG/HF
	KA47/TDT90S4/BMG/HF
	KA47/TDT90S4/BMG/HF
	KA47/TDT190S4
	KA47/TDT90S4
	KA47/TDT90L4/BMG/HF
	KA47/TDT90L4/BMG/HF
	KA47/TDT90L4
	KA47/TDT90S4/BMG/HF
	KA47/TDT90S4
	KA57/TDV100M4/BMG/HF
	KA47/TDTV100M4/BMG/HF
	KA47/TDV100M4
	KA57/TDV100L4
	SA47/TDT90L4
	KA47/2.2/120/007
	R27DT80N4
	R47/1.5/176/004
	R47/1.5/203/001
	R47/2.2/291/003
	SA47/TDT80N4
	SA57/TDT90S4/BMG

6 Check-in counters spares list

No.	Item Description
1	BALL BEARING - ROLLER SHUTTER DOORS
2	Carousels - Arrival - 3P Switch Enclosure ACZ1A 16 A - P/No.GAZ016
3	Check-In System - 18 Roller Door Slat -P/No. 008200-06367
4	Check-In System - Epic H-A 3 MTGVB M20 N.Gen - P/No. 19512-100
5	Check-In System - Epic H-A 3 MTGVB M20 N.Gen - P/No. 19512-900
6	Check-In System - H-A 3 Pin/Socket Insert Female - P/No. 1042-1000
7	Check-In System - Human Intervention PEC - P/No.ML100-55-5573/247209
8	Check-In System - Human Intervention Reflectors BRT-92x92c - P/no.49808
9	Check-In System - Human Intervention Reflectors MH82 - P/no.127831
10	Check-In System - Human Intervention Siemens Flashing lights P/No.8WB4 420-5EB
11	Check-In System - Long Range PEC - P/No.RL28-55-las/76A/82B/105/110
12	Check-In System - Olflex Classic 110 Cable - P/No.1119-308
13	Check-In System - Sensor Cable Plug M8 P/No.sspc3k/8004831
14	Check-In System - UPS Batteries
15	Check-in System - 18 Aluminium Hollow Bottom Slat 75 - P/No. 008200-06361
16	Check-in System - 18 Aluminum Profile - P/No. 008200-06360
17	Check-in System - 2 Channel ASI Gateway VBG PB K20 DMD - P/No. 005303-00502
18	Check-in System - 4519 Guide Rail URF 95 -P/No. 008200-06356
19	Check-in System - ASI Afsluitweerstand VAZ TERM - P/No. 005303-00517
20	Check-in System - ASI Cable Coupler VAZ-2FK-B3 - P/No. 006002-14980
21	Check-in System - ASI Power Supply 4Amp VAN 115/230AC-K17 - P/No. 005303-00512
22	Check-in System - ASI Tap-off Cable M12 L=2m st. Vaz-2t1-fk-2m-pur-v1-g - P/No. 006002-14918
23	Check-in System - ASI to M12 Tap-off Connector VAZ-G6F-V1 - P/No. 006002-14926
24	Check-in System - ASI-Bus Mod M 8 4xI/4xQ ExT24V M12 VAA-4E4A-G16-ZEJ/E2LASI2.1 - P/No. 005303-00534
25	Check-in System - ASI-Bus Module 4xI/4xQ Screw VAA-4E4A-KE-ZE/E2 - P/No. 005303-00536
26	Check-in System - Actuator Mushroom Shaped Push- 3SB3000-1HA20 - P/No. 006013-10375

27	Check-in System - Actuator Mushroom Shaped Push- 3SB3400-OC - P/No. 006013-10376
28	Check-in System - Actuator Pushbutton with Flat 3SB30000AA11 - P/No. 006013-10300
29	Check-in System - Actuator with 1 Contact 1NC 3SB34000C - P/No. 006013-10309
30	Check-in System - Actuator with 1 Contact 1NO 3SB34000B - P/No. 006013-10308
31	Check-in System - Alusolid Aluminium Slat RM0810 - P/No. R 3464-001
32	Check-in System - Aluvista End Locks Nylon Left BT1370 - P/No. R 3464-004
33	Check-in System - Aluvista End Locks Nylon Right BT1380 - P/No. R 3464-005
34	Check-in System - Assy 2D Chain L=1010 mm - P/No. 0L8340-00004
35	Check-in System - Assy Flat Carrier Width=1000 Clockwise/ Anti - P/No. 0L8327-00001
36	Check-in System - Assy Pressure Roll - P/No. 0L8344-00001
37	Check-in System - Assy Tension Pulley 205mm - P/No. 0L8343-00001
38	Check-in System - Assy Tilted Carrier 25deg - P/No. 0L8329-00001
39	Check-in System - Assy Wheel 90 - P/No. 0L8342-00001
40	Check-in System - Assy Wheel Pressure Unit 3 Wheels - P/No. 0L0439-00003
41	Check-in System - Aux Switch Block DIN EN 50005 3RH19211MA02 - P/No. 006011-01642
42	Check-in System - Aux Switch Mount 2S T=70 5ST3011 - P/No. 006012-05490
43	Check-in System - Auxil. Switch laterally fitt. 3RV1901 - 1B - P/No. 006011-02526
44	Check-in System - Battery Back-Up 3,6V 0,85Ah 6ES79711AA000AA0 - P/No. 005302-10190
45	Check-in System - Bearing Ball 6003/2RS-C3-17 ISI15-1981 - P/No. 004904-00404
46	Check-in System - Bearing Ball 6006/2RS-C3-30 ISO15-1981 - P/No. 004904-00407
47	Check-in System - Bearing Ball 6204/2Z-CN-20 ISO15-1981 - P/No. 004904-00705
48	Check-in System - Bearing Ball 6205/Z-C3-25 ISO15-1981 - P/No. 004904-00606
49	Check-in System - Bearing Ball 6206/2ZR-C3-30 ISO15-1981 - P/No. 004904-62061
50	Check-in System - Bearing Ball 6308/2ZR-C3-40 ISO15-1981 - P/No. 004904-63081
51	Check-in System - Bearing Block Flange Rnd PME-50 N - P/No. 004931-00850
52	Check-in System - Bearing Block Flange Sqr PCJ-35 - P/No. 004931-00335

53	Check-in System - Bearing Safety Cap DIA35 KA SK 07 B - P/No. 004931-11035
54	Check-in System - Bearing Slide Flange BP25C 16/20X16 Porous Bronze Kr.27x3 - P/No. 004901-00165
55	Check-in System - Bearing Slide Flange BP25C 22/29x18 Porous Bronze - P/No. 004901-00205
56	Check-in System - Belt Edge Holder Bottom for TS 1600 - P/No. G401564
57	Check-in System - Belt Edge Holder Top for TS 1600 - P/No. G401562
58	Check-in System - Belt Flexam 2X0281 FR W=1000 Prepared Flame Retardant - P/No. 004405-10032
59	Check-in System - Belt Flexam EX 10/2 0+A32 W =1000 Black AS FR Endless - P/No. 004406-10012
60	Check-in System - Belt Protection Drawing y-029 Alum. Right - P/No. 000470-02901
61	Check-in System - Belt Protection Drawing y-030 Alum. Left - P/No. 000470-03001
62	Check-in System - Blind Plug (for M12 Sockets) VAZ-V1-B - P/No. 006002-14972
63	Check-in System - Brush for SPO Left Side - P/No. 006881-30230
64	Check-in System - Brush for SPO Right Side - P/No. 006881-30231
65	Check-in System - Cable M12 Male 3p/M12 Female 3p/H.F./L=0,2mtr - P/No. 006002-13705
66	Check-in System - Cable M12 Male 4p/M12 Female 4p/H.F./L= 3mtr - P/No. 006002-13684
67	Check-in System - Cable M12 Male 4p/M12 Female 4p/H.F./L= 5mtr - P/No. 006002-13682
68	Check-in System - Cable M12 Male 4p/M8 Female 4p H.F./L 1mtr - P/No. 006002-13672
69	Check-in System - Cable M12 Male 4p/M8 Female 4p H.F./L= 2mtr - P/No. 006002-13670
70	Check-in System - Cable M12 Male 4p/M8 Female 4p H.F./L= 3m - P/No. 006002-13668
71	Check-in System - Cable M12 Male 4p/M8 Female 4p H.F./L= 7mtr - P/No. 006002-13671
72	Check-in System - Cable M12 Male 4p/M8 Female 4p H.F./L=10mtr - P/No. 006002-13663
73	Check-in System - Cable M8 3p Male/M8 4p Female H.F./L=2mtr - P/No. 006002-13930
74	Check-in System - Central Processor Unit CPU319 - P/No. 005302-10130
75	Check-in System - Chain Conn Sim DIN8187-08B-1 Type 26 1/2x5/16 - P/No. 004821-03102
76	Check-in System - Chain Conn Sim DIN8187-12B-1 Type 26 3/4x7/16 - P/No. 004821-03104
77	Check-in System - Chain Guide 54x16 - P/No. 006881-10000
78	Check-in System - Chain Sim DIN8187-08B-1 1/2x5/16 for Take Up - P/No. 004821-10102

79	Check-in System - Channel Connection TF - P/No. 006881-00204
80	Check-in System - Circuit Breaker 2Amp 5SY4402-7 - P/No. 006012-07585
81	Check-in System - Circuit Breaker 10Amp 5SY4210-8 - P/No. 006012-07604
82	Check-in System - Circuit Breaker 25A 4 P 5SY4425-6 - P/No. 006012-07456
83	Check-in System - Circuit Breaker 3P/2A/C 5SY4302-7 - P/No. 006012-07565
84	Check-in System - Circuit Breaker VL 160N Stand 3VL27161EE430AB1 - P/No. 006013-10421
85	Check-in System - Circuit breaker 10KA 3POL B6 5SY44306-6 - P/No. 006012-07433
86	Check-in System - Circuit breaker 4,5,6,3A 3RV10211GA10 - P/No. 006011-02517
87	Check-in System - Cladding Connection TF/TT PE48DB/Perfo/Adh - P/No. 006881-00141
88	Check-in System - Complete Control Cabinet - P/No. R004560-010
89	Check-in System - Complete Unit Rnd Ind Light W 3SB3244-6AA60 - P/No. 006013-10324
90	Check-in System - Complete Unit Rnd Ind Light W 3SB32446AA40 - P/No. 006013-10322
91	Check-in System - Complete Unit Rnd Light Blue 3SB32446AA50 - P/No. 006013-10323
92	Check-in System - Contactor 4p-230V-11kW 3RT13261AP00 - P/No. 006011-01780
93	Check-in System - Control Box 180x110x165mm PK 9516.000 - P/No. 006003-02956
94	Check-in System - Current Transformer 400/1A RM60-E3A 4M2418N - P/No. 006002-03052
95	Check-in System - DIA60 Gravity Roller with Spring st/hex11 EL=1080 - P/No. 001090-11080
96	Check-in System - DIA60 Roller AGL= 453mm Axle=DIA17 - P/No. 001093-00453
97	Check-in System - DIA71 Driven Roller - P/No. 059005-123-01191
98	Check-in System - Digital Input Module 32x24VDC 6ES73211BL000AA0 - P/No. 005302-10270
99	Check-in System - Digital Output Module 32x24VDC 6ES73221BL000AA0 - P/No. 005302-10271
100	Check-in System - Drive Pulley Conical for TS 1600-105 FH Inside Drive RN=1000 mm BN=1100 mm DWAN=30 mm - P/No. U1008659-V009
101	Check-in System - Drive Pulley Conical for TS 1600-105 FH Outside Drive RN=1000 mm BN=1100 mm DWAN=30 mm - P/No. U1005030-V0001
102	Check-in System - Drive Pulley DIA100 - P/No. 0L0789-01318
103	Check-in System - Drive Pulley DIA150 Crowned SA57/KAZ47 - P/No. 011507-481-51430

104	Check-in System - Drive Pulley V-Belt STC 205mm Type TB-12-PL - P/No. 004868-00100
105	Check-in System - Electrical Fan 230V 230m? SK3325.107 RAL7035 - P/No. 006003-02003
106	Check-in System - Emergency Cover Plate - P/No. 006881-00218
107	Check-in System - Emergency Relay 3TK28211CB30 - P/No. 006002-00150
108	Check-in System - Emergency Relay 3TK28301CB30 - P/No. 006002-00152
109	Check-in System - Emergency Stop in Enclosure with key - P/No. 0E1025-00002
110	Check-in System - Emergency Stop in Enclosure without Key - P/No. 0E1025-00001
111	Check-in System - Flange Bearing DIA40 2 Hole - P/No. N400063
112	Check-in System - Flat Cable Entry Bushing RA-C1-DF - P/No. 006010-00216
113	Check-in System - Flexam EX 8/2 0+A20 Black AS FR W=550 Endless - P/No. 004412-05512
114	Check-in System - Frontplate Alum. 1 Pos XAP-E301 - P/No. 006001-10474
115	Check-in System - H-A 3 Pin/Socket Insert Male - P/No. 1042-0000
116	Check-in System - Housing for XAP-E301 XAP-E901 - P/No. 006001-10475
117	Check-in System - JP 70 415/420V Electric Operator - P/No. R 3464-007
118	Check-in System - JP 70 Roller Shutter door Motor 380V - P/No. R3463-007
119	Check-in System - LMS DOL-1D/HanQ5/230Vac Brake RA-MO-005400-50006 - P/No. 005400-50006
120	Check-in System - LMS DOL-2D Con.Q5 Brk.230 RA-MO2.1-W4(230)/C3A-061 V2.4 - P/No. 005400-50016
121	Check-in System - Loadcell Cable LCC - P/No. R 3298-006
122	Check-in System - Loadcell OIML 65023-500kg - P/No. R 3298-001
123	Check-in System - Locking Part for Belt Edge Holder TS 1600 Grey - P/No. G1009427-V0001
124	Check-in System - Loctite 243 Nut Lock 50ml - P/No. 007232-00242
125	Check-in System - Logic module LOGOI 6ED1-052-1MI - P/No. 005303-00070
126	Check-in System - Main Control Switch 4P IU=32 3LD2203-1TL51 - P/No. 006013-10400
127	Check-in System - Miniature Circuit Breaker 2 400V 5SY61066 - P/No. 006012-05401
128	Check-in System - Miniature Circuit Breaker 400V 5SY4206-6 - P/No. 006012-07421
129	Check-in System - Miniature Circuit Breaker 400V 5SY4210-6 - P/No. 006012-07422

130	Check-in System - Miniature Circuit Breaker 400V 5SY4216-6 - P/No. 006012-07424
131	Check-in System - Monitoring Relay 3UG4512-1BR20 - P/No. 006011-01762
132	Check-in System - Motor Cable Local DOL Halogen Free L=10m - P/No. 006010-00168
133	Check-in System - Motordrive - P/No. R004560-009
134	Check-in System - Motordrum 00TL135 D=30 F=20 0,37KW /EURO/0,63 RL=554+ Cable - P/No. 000108-25563
135	Check-in System - Motordrum 99TL113 D=30 F=20 0,18KW /EURO/0,35 RL=570+ Cable - P/No. 000106-25735
136	Check-in System - O-ring 43, 4x3,6 NBR 70 Sh A - P/No. 006881-03825
137	Check-in System - Operator Panel-ABS950 OP950 - P/No. R 3298-003
138	Check-in System - PA End Lock - P/No. 008200-06366
139	Check-in System - PDC Cable - P/No. R 3298-005
140	Check-in System - PPI Sensor Assy - P/No. 0L9196-00001
141	Check-in System - PPI Sensor Wheel - P/No. 006881-00123
142	Check-in System - Panel PC P1515 Panel PC VI Config - P/No. 005302-20800
143	Check-in System - Passenger Panel-ABS950 PP950 - P/No. R 3298-004
144	Check-in System - Pedestal Bearing DIA35 - P/No. N1004192-V0001
145	Check-in System - Photoswitch Incl Reflector E3Z-KIT-42-VI= E3Z-R86+E39-R42 - P/No. 006002-14450
146	Check-in System - Power Cable LMS Halogen Free Cable L= 5000mm - P/No. 006010-00192
147	Check-in System - Power Supply 120/230V - 24V20A 6EP13362BA00 - P/No. 005510-00463
148	Check-in System - Power Supply PS950 - P/No. R 3298-007
149	Check-in System - Printboard AS-130 - P/No. R004560-008
150	Check-in System - RJ45 Mounting Frame 1689433 - P/No. 005301-00496
151	Check-in System - RJ45 Socket Insert 1653155 - P/No. 005301-00495
152	Check-in System - RU 5 x 400 mm Left BT0720 - P/No. R 3464-006
153	Check-in System - Relay Terminal PLC-RSC-24DC/21 No:2966171 - P/No. 006005-00900
154	Check-in System - Return Idler - P/No. G1009600
155	Check-in System - Ring Ret Shaft A20, DIN471 Ck 75 - P/No. 002746-00020
156	Check-in System - Ring Ret Tlock 2513-75 - P/No. 004840-90035
157	Check-in System - Rosta Tension Element SE-18 Conform - P/No. 004785-00018
158	Check-in System - Rubber Insert Bottom -P/No. 008200-06392

159	Check-in System - S 67 DV100M 4/ 2/ 2,20/ 41/ M6A/ 0/ EURO/ - P/No. 000081-00406
160	Check-in System - SK02050AZ D B H-80L4 Bre 10 HL 0,75/193/H3A/0 DEG - P/No. K1003847-V0024
161	Check-in System - SK02050AZ D B H-80L4 Bre 10 HL 0,75/193/H3B/0 DEG - P/No. K1003847-V0026
162	Check-in System - SK02050AZ D B H-90S4 Bre 20 HL 1,10/196,H3B/ 0 DEG - P/No. K1003847-V0025
163	Check-in System - SK02050AZB-80S4 / 0,55/ 146 / H3A/ 4/EURO/B/ Axle=DIA30 - P/No. 000704-11463
164	Check-in System - SK12063AZB-90L4 / 1,5/ 91 / H3A/ 4/EURO/B/ Axle= DIA35 - P/No. 000707-10913
165	Check-in System - SK12080-31-REP165 - P/No. P918-11071992056
166	Check-in System - Side Slat CW 470x155 T300NZ - P/No. 006881-00221
167	Check-in System - Signal Column Connect Element 8WD44080AA - P/No. 006013-10284
168	Check-in System - Signalling Column Siren Element 8WD44200EA - P/No. 006013-10271
169	Check-in System - Signalling Light Yellow 24V 8WD44200CD - P/No. 006013-10254
170	Check-in System - Sirius starter size S00, 9A, 3RW3016-1CB04 - P/No. 005400-10220
171	Check-in System - Slat TF SBR-6-B1 W=1000CW/CCW with Flex NOK - P/No. 006881-00233
172	Check-in System - Slat TT SBR-6-B1 W=1200CW - P/No. 006881-00229
173	Check-in System - Spare Belt for Belt Curve Conveyor TS 1600-105 YG=KT 96 RN=1000mm BN=1100mm wN=30DEG - P/No. U1009423-V0031
174	Check-in System - Spare Belt for Belt Curve Conveyor TS 1600-105 YG=KT 96 RN=1000mm BN=1100mm wN=90DEG - P/No. U1009423-V0001
175	Check-in System - Special Chain for Take Up - P/No. 059005-024-02413
176	Check-in System - Special Chain for Take Up - P/No. 059005-024-02425
177	Check-in System - Spring Carrier Bolt 2-D Chain Triplaner - P/No. 001693-41011
178	Check-in System - Spring Torsion DIA2,8mm 50668 - P/No. 001690-01025
179	Check-in System - Stabilized Power Supply Input 6EP1333-2AA01 - P/No. 005510-00461
180	Check-in System - Standard Aluminium Guide Plain RM2030 - P/No. R 3464-002
181	Check-in System - Subcon-Plus-Profib/PG/SC Profibus Art.2708245 - P/No. 005302-30021
182	Check-in System - T-Bar Aluminium + WStrIP DA0060 - P/No. R 3464-003

183	Check-in System - Tail Pulley Conical for TS 1600-105 FH RN=1000 mm BN=1100 mm - P/No. U1005044-V0001
184	Check-in System - Take Up Pulley DIA100 Cylinder - P/No. 059005-135-01180
185	Check-in System - Take Up Pulley DIA55 Crowned A =620 - P/No. 0L4400-40550
186	Check-in System - Take Up Pulley DIA55 Crowned A =620 - P/No. 0L4400-90550
187	Check-in System - Take-up Pulley DIA103 Crowned A=1027mm Axle=DIA40 - P/No. 011507-605-11027
188	Check-in System - Take-up Pulley DIA103 Crowned A=1060mm Axle=DIA40 - P/No. 011507-605-01060
189	Check-in System - Take-up Pulley DIA71 - P/No. 011507-611-01170
190	Check-in System - Temperature Regulator SK3110 - P/No. 006003-02498
191	Check-in System - Tension Roll 50mm - P/No. 0P9794-00001
192	Check-in System - Time-Counter for Distribution Board 7KT5801 - P/No. 006011-01765
193	Check-in System - Trimmer Box LC550 - P/No. R 3298-002
194	Check-in System - Triplanar Wheel 55 6004-2Z TP Low Noise - P/No. 0K4508-00002
195	Check-in System - UPS-APC SUA1500I - P/No. 006002-20000
196	Check-in System - V-Belt 3492-PL-12 Rippen Type: HUTCHISO - P/No. 004888-34923
197	Check-in System - Varistor AC127.240V DC150 250V 3RT19261BD00 - P/No. 006011-01628
198	Check-in System - Varistor AC24 48V, DC 24 70V 3RT1916-1BB00 - P/No. 006011-01626
199	Check-in System - Vertical Chain Pin - P/No. 0P9754-00001
200	Check-in System - Wheel Nylon PL80/30/112 (80x30x12) - P/No. 000760-10080
201	Check-in System-Ball bearing-P/No. 008200-62713
202	CheckIin System - M20 Glands - P/No.53111-020
203	Lovato Foot Pedals
204	Main Panel Filter Material
205	RECEIVER -TRANSMITTER
206	RUN-IN ROLLER SET LEFT
207	RUN-IN ROLLER SET RIGHT
208	Roller Shutter Door Limit Units
209	Roller Shutter Door Motors
210	Security Check Point Carrier Bearing
211	Security Check Point Geared Pully
212	Security Check Point Plastic Chain
213	Security Check Point Shaft
214	Security Check Point Single Phase Motor 0.18kW

ANNEX N

ACSA maintenance procedure for Baggage handling system - D080 029M

- Available upon request from the ACSA service manager

ANNEX O

Baggage handling system – standard operating procedure

Available upon Request from the ACSA service manager

ANNEX P

Maintenance of Baggage handling system – Electrical lockout procedure

Available upon Request from the ACSA service manager

ANNEX Q

Cape Town International Airport – operating instruction for Baggage handling system

Available upon Request from the ACSA service manager

ANNEX R

Baggage handling system - Fire Emergency procedure

Available upon Request from the ACSA service manager

ANNEX S

ACSA IMC procedure for call out and work orders

Available upon Request from the ACSA 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 batery 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 Service provider by giving him responsibility to support Operations/Operators •Damage by others (users and Third parties) i.e. ground handlers, check in agents •Incorrect use •Foreign material is system as a result of other people	-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 acess timeosly •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 Service provider to the limit of the budget) Typically: It is the responsibility of the Client to ensure adequate administration and re-order spares timely, It is the responsibility of the service provider 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	-Affect Maintainability No impact on service provider. The Risk is not sitting with a single owner

ANNEX U

ACSA Electronics/Electrical Controls Standardised Minimum: legal requirements and minimum competency requirements

Site Supervisor	• Min SAQA Acredited Trade test (Millwright/Electrical/Instrument and control)	• Min 2 Yrs experience in management of an airport Baggage Handling System • 5 Yrs Experience in managing a site with a multi-disciplinary maintenance team
Commissioning Engineer	• IT Related degree/Diploma; or • Electronics Engineering degree/Diploma	• 3 yrs Experience in installing, commissioning and maintaining airport Baggage Handling Systems • 3 Yrs Experience in PLC maintenance and installations
IT Network Specialist	• IT Degree/Diploma	• 3 yrs Experience in maintenance of IT Networks
Technician (s)	• Min SAQA accredited Trade Test Certificate (Millwright/Electrician); or • N5 Control and Instrumentation	• Min 2 yrs experience in maintenance of airport Baggage Handling System Sorters and controls

ANNEX V

ACSA Inventory procedure

Available upon Request from the ACSA service manager

ANNEX W

Current Guarantee and Warrantee

N/A

Annexure X

Contract Exclusions BHS Operations, Electrical and Mechanical maintenance

BHS Contract maintenance scope details

Electrical Controls
Baggage Hall & Check in Counters
Conveyor Belts Line 1 -8 - including OOG • PLC Substation 1 – 10 & Controls components i.e. i/o modules, Contactors, Circuit Breakers, Relays & Safety Relays, key switches, Push buttons, LED's , UPS, etc • Sivacon Units and its components i.e KEB Invertors, I/O modules • PEC sensors and reflectors • ART Tag readers/Barcode Scanners including control panels • E stops and panels • Encoders, Tracking devices, Limit and Proximity switches • Monitors and Handheld Scanners
Induction lines & MCS • Monitor and Handheld Scanners • Sivacon Units, • PEC sensors and reflectors • ART Tag readers including control panels • E stops and panels • Encoders and Proximity switches
SORTER • Encoders and Proximity switches • Master, Distributor and Slaves Carriages- I/O modules • VSD /inverters • Sivacon units • Radio Modem and leak feeder Aerials • Profibus Cables • Local Junction box for LIM • LIM laser micro switches and limit switches • LIM inverters • HMI Controls • Hoop sensors and reflective beams • Encoder strips • Tray Commination cables • Safety interlock switches • Profibus Repeaters • UPS battery
BHS- Domestic and International Carousel • Local junction box- stop and start(key switches) • PEC sensors and reflectors • E stops and relays • Limit , Transmitter and Proximity switches • Monitors including 1st and last bag SAC monitors • Sivacon unit • VSD • Asi Modules • PLC's • Profibus and ethernet cables • UPS batteries.

CHUTES & LATAREL CHUTES

- Chutes Monitor Screens
- PEC Sensors and reflectors
- I/O modules
- Contactors
- Sivacon units
- Siren Indictors- beacon lights

CHECK IN COUNTERS & SECURITY CHECK POINTS

- LMS- local motor starter- similar to Sivacon
- Asi Modules
- Motor switch and Keys witches
- PPI – Plus Position Indicators
- Motor isolator switch
- Limit switches
- Proximity switches and Sensors
- Emergency stops
- Controls Cabinet- Connection box
- Profibus and ethernet cables
- Dispatch Control box
- Baggage Scales
- Siren Indicators-beacon lights
- UPS batteries
- SCADA

COMPUTER SERVER & OPERATING PROGRAMME – BHS AND CHECK IN COUNTERS

- SAC servers
- Router for SAC
- SAC Network Switches
- SAC processor servers -hardware and software
- SCADA – Check in Counters & BHS (including hardware)
- System interface i.e SAC bag stage , SICK RDT
- PLC’s , Profibus cabling & Ethernet Communication for both Check in counters and BHS