

C1.1 Form of Offer & Acceptance

Offer

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of:

REPLACEMENT OF ESCALATORS

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

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

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

(The above amount should be calculated as per the guide provided in the Section C2.2: Bill of Quantities [Grand Total]. In the event of any conflict between the amount above and the Bill of Quantities [Grand Total], the latter shall prevail.)

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

Signature(s)

Name(s)

Capacity

For the tenderer:

Name & signature of
witness

*(Insert name and address of
organisation)*

Date

Tenderer's CIDB registration number:

Acceptance

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

The terms of the contract, are contained in:

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

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

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any).

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

Signature(s)

Name(s)

Capacity

for the Employer

**Airports Company South Africa SOC Ltd
King Shaka International Airport
King Shaka Drive
La Mercy
4407**

Name & signature of
witness

Date

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

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

Note:

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

No.	Subject	Details
1		
2		
3		
4		
5		

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Tender Schedules, as well as any confirmation, clarification, or changes to the terms of the Offer agreed by the tenderer and the Employer during this process of Offer and Acceptance.

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

I. For the tenderer:

II. For the Employer

Signature

Name

Capacity

On behalf of

(Insert name and address of organisation)

**Airports Company South Africa SOC Ltd
King Shaka International Airport
King Shaka Drive
La Mercy
4407**

Name &
signature of
witness

Date

C1.2 ECC3 Contract Data

Precedence in the interpretation of the contract:

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

Firstly, the Works Information (C3) and Annexes thereto shall prevail.

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

Thirdly the General Conditions of Contract.

Fourthly the Pricing data (Bill of Quantities).

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

General Conditions of Contract

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

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

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

C1.2a Data Provided by the *Employer*

The Conditions of contract are selected from the NEC3 Engineering and Construction Contract, April 2013.

Each item of data given below is cross-referenced to the NEC3 Engineering Construction Contract which requires it.

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for Main Option	
	Main Option	B: Priced contract with Bill of Quantities
	Dispute resolution Option	W1: Dispute resolution procedure
	Secondary Options (incorporating amendments)	X2: Changes in the law X7: Delay damages X13: Performance Bond X16: Retention X17: Low service damages X18: Limitation of liability Z: Additional conditions of contract
	of the NEC3 Engineering and Construction Contract, April 2013	
10.1	The <i>Employer</i> is:	Airports Company South Africa SOC Limited Reg. No 1993/004149/30 VAT no 4930138393
	Address	Airports Company South Africa SOC Ltd King Shaka International Airport King Shaka Drive La Mercy 4407
	Tel No.	
10.1	The <i>Project Manager</i> is	Sihle Zuma
	Address	Airports Company South Africa SOC Ltd King Shaka International Airport King Shaka Drive La Mercy 4407
	Tel No.	032 436 6548
	e-mail	sihle.zuma@airports.co.za

10.1	The <i>Supervisor</i> is	
	Address	Airports Company South Africa SOC Ltd King Shaka International Airport King Shaka Drive La Mercy 4407
	Tel No.	
	e-mail	
11.2	The <i>works</i> are	Replacement of Escalators as set out in the Section C3, Works Information
11.2	The following matters will be included in the Risk Register	1. Availability of the project material 2. Access to Site
11.2	The <i>Works Information</i> is in	Section C3, Works Information of this contract
11.2	The <i>Site Information</i> is in	Section C4, Site Information of this contract
11.2	The <i>boundary of the site</i> is	The boundary of King Shaka International Airport
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period of reply</i> is	Seven (7) days
3	Time	
31.2	The <i>starting date</i> is	Upon signing of the contract
11.2	The <i>completion date</i> is	48 weeks after signing of contract
30.1	The <i>access date</i> is	Upon signing of contract
31.1	The <i>Contractor</i> submits a first (preliminary) programme with the tender by the tender closing date	Two (2) weeks after the <i>access date</i>
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	Four (4) weeks
35.1	The <i>Employer</i> is not willing to take over the works before the <i>completion date</i>	The <i>Employer</i> and Others will have access to the <i>works</i> during construction or prior to completion. Such access by the Employer and others shall not relieve the <i>Contractor</i> from liability for the completion of the <i>works</i> in accordance with the Works Information and in terms of this contract.

4	Testing and Defects	
42.2	The <i>defects date</i> is	Twelve (12) months after Completion of the whole of the works
43.2	The <i>defects correction period</i> is	Two (2) weeks
5	Payment	
50.1	The <i>assessment interval</i> is	Four (4) weeks, on the 14th working day of each successive month
50.1	The <i>currency of this contract</i> is the	South African Rand (ZAR)
51.2	The period within which payment is made is	Four (4) weeks
51.4	The <i>interest rate</i> is	The prime lending rate of the Nedbank Bank, as determined from time to time
6	Compensation events	There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.
7	Title	No data required for this section of the <i>conditions of contract</i>
8	Risks and Insurance	
84.1	The <i>Employer</i> provides these insurances	Refer to the Insurance Clauses which is attached at the end of the Contract Data
84.2	The <i>Contractor</i> provides the insurance stated in	The Insurance Clauses which are attached at the end of the Contract Data. The insurances are in the joint names of the Parties and provide cover for events which are at the Contractor's risk from the starting date until the Defects Certificate or a termination certificate has been issued.
	The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Contractor</i> arising out of and in the course of their employment in connection with this contract for any one event is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993
9	Termination	No data required for this section of the <i>conditions of contract</i>

10	Data for Main Options	
B	Priced contract with Bill of Quantities	
11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	The person appointed jointly by the parties from the list of adjudicators contained below
W1.2	The <i>Adjudicator nominating body</i> is	The current Chairman of Johannesburg Advocate's Bar Council
W1.4	The <i>tribunal</i> is	Arbitration
W1.4	If the <i>tribunal</i> is arbitration, the <i>arbitration procedure</i> is	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 <i>Arbitrator</i> 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 Clauses	
X7	Delay Damages	
	Delay damages of the <i>works</i> are	Amount per day is 0.05% of the contract value, up to the maximum of 15% of the contract value
X13	Performance bond	
X13.1	The amount of the performance bond is	10% of the contract value. Pro-forma draft of a performance bond to be used is attached to this contract in Section C1.3: Sureties.
X16	Retention	
X16.1	The <i>retention percentage</i> is	5% of the Contract value.
X18	Limitation of Liability	

X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	Nil - Neither Party is liable to the other for any consequential or indirect loss, including but not limited to loss of profit, loss of income or loss of revenue
X18.2	For any one event, the <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	The total of the Prices
X18.3	The <i>Contractor's</i> total liability to the Employer for defects due to his design which are not listed on the Defects Certificate is limited to	The total of the Prices
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to	The Contractor's total direct liability to the Employer for all matters arising under or in connection with this contract, other than the excluded matters, is limited to the total of the Prices and applies in contract, tort, or delict and otherwise to the extent allowed under the law of the contract. The excluded matters are amounts payable by the Contractor as stated in this contract for - Loss of or damage to the Employer's property, - Delay damages, - Defect's liability, - Insurance liability to the extent of the Contractor's risks - loss of or damage to property (other than the works, Plant and Materials), - death of or injury to a person. - damage to third party property; and - infringement of an intellectual property right
Z(A):	The Additional conditions of contract Z1 – Z20 are	
	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 <i>Project Manager</i>, the <i>Supervisor</i>, or the <i>Adjudicator</i> does not constitute a waiver of rights and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.	
Z2	Providing the Works:	

Z2.1	Delete core clause 20.1 and replace with the following: The <i>Contractor</i> provides the works in accordance with the Works Information and warrants that the results of the Works, when complete, shall be fit for their intended purpose
Z3	Other responsibilities:
	Add the following at the end of core clause 27:
Z3.1	The <i>Contractor</i> shall have satisfied himself, prior to the Contract Date, as to the completeness, sufficiency and accuracy of all information and drawings provided to him as at the Contract Date
Z3.2	The <i>Contractor</i> shall be responsible for the correct setting out of the <i>Works</i> in accordance with the original points, lines and levels stated in the <i>Works</i> Information or notified by the <i>Project Manager</i> , <i>Supervisor</i> , or the <i>Employer</i> . Any errors in the positioning of the <i>Works</i> shall be rectified by the <i>Contractor</i> at the <i>Contractor's</i> own costs.
Z4	Extending the defects date:
	Add the following as a new core clause 46:
Z4.1	If the <i>Employer</i> cannot use the <i>works</i> due to a Defect, which arises after Completion and before the <i>defects date</i> , the <i>defects date</i> is delayed by a period equal to that during which the <i>Employer</i> , due to a Defect, is unable to use the <i>works</i>
Z4.2	If part of the <i>works</i> is replaced due to a Defect arising after Completion and before the <i>defects date</i> , the <i>defects date</i> for the part of the <i>works</i> which is replaced is delayed by a period equal to that between Completion and the date by when the part has been replaced
Z4.3	The <i>Project Manager</i> notifies the <i>Contractor</i> of the change to a <i>defect date</i> when the delay occurs. The period between Completion and an extended <i>defects date</i> does not exceed twice the period between Completion and the <i>defects date</i> stated in the Contract Data
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 rescue proceedings”.
Amendment to the Secondary Option Clauses	
Z6	Performance Bond
Z6.1	Amend the first sentence of clause X13.1 to read as follows: The <i>Contractor</i> gives the <i>Employer</i> an unconditional, on-demand performance bond, provided by a bank which the <i>Project Manager</i> and the <i>Employer</i> have accepted, for the amount stated in the Contract Data and in the form set out in Annexure C.ii of this Contract Data.

Z6.2 Add the following new clause as Option X13.2:

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

Z7 Limitation of liability:**Insert the following new clause as Option X18.6:**

Z7.1 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* may cede 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 *Project 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 the 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 *Project 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 *Project 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 *Project 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 *Project 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 *Project 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, trademark, 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.

Z16 Dispute resolution:

Z16.1 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

Z16.2 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

Z17 Notification of a compensation event

- Z17.1** Delete “eight weeks” in clause 61.3 and replace with “four weeks”. Delete the words “unless the event arises from the Project Manager or the Supervisor giving an instruction, issuing a certificate, changing an earlier decision, or correcting an assumption.”

Z18 BBBEE Certificate

- Z18.1** The *Contractor* shall be expected to annually present a compliant BEE 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.

Z19 Communication

- Z19.1** **Add a new Core Clause** 14.5 and 14.6 to read as follows:
The *Project Manager* requires the written consent of the Employer if an action will result in a change to the design, scope, and Works’ information that is 5% or more
- Z19.2** The *Project Manager* requires the written consent of the Employer if an action will result in the Completion Date being extended by more than 30 days.

Z20 Delegation

As stipulated by Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993 as amended the *Contractor* agrees to the following:

- Z20.1** 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 regarding the Construction Regulations

Z21 Transformation Imperatives

- Z21.1** The Service Provider shall enter a contract (either through partnership, joint venture, or sub-contracting) with (a) Targeted Enterprise(s) to perform a minimum of 30% of work.
- Z21.2** A Targeted Enterprise is a registered built environment 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; or
- Z21.3** A built environment CIDB registered 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:
- Z21.3.1.** Does not share equity holding with the tenderer; and
- Z21.3.2.** 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
- Z21.3.3.** Is registered with the South African Revenue Service; and
- Z21.3.4.** Is at least an Exempted Micro Enterprise (EME) with a B-BBEE Status of "Level Two 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
- Z21.3.5.** Is at least a Qualifying Small Enterprise (QSE) with a B-BBEE Status of "Level Two 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); and
- Z21.3.6.** Is 50% or more black owned or 30% or more black women owned; and

Z21.3.7. Has entered into a written relationship agreement of co-operation and assistance with the tenderer for the duration of the contract.

The service provider shall achieve in the performance of the contract the contract skills development goal established in the CIDB Standard for developing skills through infrastructure contracts (August 2013)

The Employer shall have no contractual relationships with Subcontractors. However, if a Subcontractor is found by the Employer to be incompetent, the Employer may request the Service Provider either to provide a Subcontractor with qualifications and experience acceptable to the Employer as a replacement, or to resume the performance of the relevant part of the Services itself.

The Service Provider shall not sub-contract more than 25% of the tendered contract value excluding value of work allocated to Targeted Enterprise(s) and any services specified in the Scope of Work to be procured through the Employer's Supply Chain Procurement process) to any other enterprise that does not have an equal or higher B-BBEE status level, unless the intended sub-contractor(s) is an Exempted Micro Enterprise that has the capability and ability to execute the sub-contract.

The Targeted Enterprise(s) shall not be allowed to sub-contract any work that forms part of the specified participation percentage without the Employer's approval.

Z21.4 If due to his negligence or for reasons within its control, the Service Provider does not meet the specified target of work stated in the (measured through the value of the Fee Tendered) to the Targeted Enterprise the Employer shall be entitled to levy a penalty equal to 50% of the value by which the cumulative value of the payments to the Targeted Enterprise fails to meet the specified percentage.

Z20.4.1 If the service provider fails to substantiate that any failure to achieve the contract skills development goal was due to reasons beyond the service provider's control, which is the only reason that may be acceptable to the employer, sanctions shall apply as follows:

Z20.4.2 In the event that the service provider does not meet the specified CSDG target, ACSA shall levy a penalty which is equal to 50% of the Total Notional Cost over contract duration of the skills development programme.

C1.2 b - DATA PROVIDED BY THE CONTRACTOR

Clause	Statement	Data
10.1	The Contractor is (Name): Address: Telephone No. Fax No.	
11.2	The <i>working areas</i> are	Only the Site Area. See C4 'Site Information'
24.1	The <i>Contractor's key persons</i> 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

- 1. Existing Services**
 - 2. Delay in supply of material and/or equipment**
 - 3. Progress of the works against the program**
 - 4. Travelling public and ACSA stakeholders**
-

C1.3 Forms of Sureties

Pro forma's for Bonds & Guarantees

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

(to be reproduced exactly as shown below on the letterhead of the Bank providing the Bond / Guarantee)

[Insert *Contractor's* name and registered address]

Bank reference No.

Date:

Dear Sirs,

Performance Bond – Demand Guarantee for _____

[insert name of *Contractor*] required in terms of contract _____

_____ **[insert *Contractor's* contract reference number or title]**

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

1.1	"Bank" means	[Insert name of Bank], _____ Branch, Registration No. _____
1.2	"Bank's Address" means	[Insert physical address of Bank]
1.3	"Contract" means	the written agreement relating to providing the <i>works</i> , entered into between the <i>Employer</i> and the <i>Contractor</i> , on or about the __ day of _____ 20____ (Contract Reference No. ORT 6085/2019) as amended, varied, restated, novated, or substituted from time to time;
1.4	" <i>Contractor</i> " means	_____ a company registered in accordance with the laws of _____ _____ under Registration No _____.
1.5	" <i>Employer</i> " means	Airports Company South Africa SOC Limited, a company registered in accordance with the laws of the Republic of South Africa under Registration Number 1993/004149/30

1.6	"Expiry Date" means	the earlier of - the date that the Bank receives a notice from the <i>Employer</i> stating that all amounts due from the <i>Contractor</i> as certified in terms of the contract have been received by the <i>Employer</i> and that the <i>Contractor</i> has fulfilled all his obligations under the Contract, or - the date that the Bank issues a replacement Bond for such lesser or higher amount as may be required by the <i>Employer</i>.
1.7	"Guaranteed Sum" means	10% of contract value which must be submitted within 10 working days from notification of award
1.8	"works" means	Replacement of Escalators set out in the Section C3, Works Information

2. At the instance of the *Contractor*, we the undersigned _____ and _____, in our respective capacities as _____ and _____ of the Bank, and duly authorized thereto, confirm that we hold the Guaranteed Sum at the disposal of the *Employer* as security for the proper performance by the *Contractor* of all of its obligations in terms of and arising from the Contract and hereby undertake to pay to the *Employer*, on written demand from the *Employer* received prior to the Expiry Date, any sum or sums not exceeding in total the Guaranteed Sum.
3. A demand for payment under this guarantee shall be made in writing at the Bank's address and shall:
- be signed on behalf of the *Employer* by a director of the *Employer*.
 - state the amount claimed ("the Demand Amount").
 - state that the Demand Amount is payable to the *Employer* in the circumstances contemplated in the Contract.
4. Notwithstanding the reference herein to the Contract the liability of the Bank in terms hereof is as principal and not as surety and the Bank's obligation/s to make payment:
- is and shall be absolute provided demand is made in terms of this bond in all circumstances; and
 - is not, and shall not be construed to be, accessory or collateral on any basis whatsoever.
5. The Bank's obligations in terms of this Guarantee:
- shall be restricted to the payment of money only and shall be limited to the maximum of the Guaranteed Sum; and
 - shall not be discharged and compliance with any demand for payment received by the Bank in terms hereof shall not be delayed, by the fact that a dispute may exist between the *Employer* and the *Contractor*.
6. The *Employer* shall be entitled to arrange its affairs with the *Contractor* in any manner which it sees fit, without advising us and without affecting our liability under this Guarantee. This includes, without limitation, any extensions, indulgences, release, or compromise granted to the *Contractor* or any variation under or to the Contract.

7. Should the *Employer* cede its rights against the *Contractor* to a third party where such cession is permitted under the Contract, then the *Employer* shall be entitled to cede to such third party the rights of the *Employer* under this Guarantee on written notification to the Bank of such cession.
8. This Guarantee:
- shall expire on the Expiry Date until which time it is irrevocable.
 - is, save as provided for in 7 above, personal to the *Employer* and is neither negotiable nor transferable.
 - shall be returned to the Bank upon the earlier of payment of the full Guaranteed Sum or expiry hereof.
 - shall be regarded as a liquid document for the purpose of obtaining a court order; and
 - shall be governed by and construed in accordance with the law of the Republic of South Africa and shall be subject to the jurisdiction of the Courts of the Republic of South Africa.
 - will be invalid and unenforceable if any claim which arises or demand for payment is received after the Expiry Date.
9. The Bank chooses domicilium citandi et executandi for all purposes in connection with this Guarantee at the Bank's Address.

Signed at _____ on this _____ day of _____ 20__

For and on behalf of the Bank

Bank Signatories(s)

Name(s) (printed)

Witness

Bank's seal or stamp



C1.4 Insurance Schedule

SECTION A: DEFINITIONS

Landside refers to:

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

Airside refers to:

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



SECTION B: INSURANCE CLAUSES

1. Insurance requirements for contracts with a value below R50million on the LANDSIDE

1.1 Contract Works

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

1.2 Public Liability

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

1.3 Professional Indemnity

- All consultants are responsible for Professional Indemnity cover of R5million
- Contractors who have a material design element, excluding typical P & G related work, as part of their scope, are responsible for Professional Indemnity cover of R5million
- In the event of a claim above R5million, the ACSA PI cover will kick in for the amount in excess of R5m.
- Proof of cover in the form of a certificate of insurance should be provided to ACSA before a contract is signed between ACSA and the contractor and/or consultant.

2. Insurance requirements for contracts below R50million on the AIRSIDE

2.1 Contract Works

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

2.2 Public Liability

- In the event of a claim brought against the contractor / consultant for 3rd party property damage the contractor / consultant will be responsible for a deductible (excess) of R525 000
- In the event of a claim brought against the contractor / consultant for removal of lateral support, the contractor / consultant will be responsible for a deductible (excess) of R750 000
- In the event of a claim brought against the contractor / consultant for damage to aircraft, the contractor / consultant will be responsible for a deductible (excess) of R750 000
- Contractors / consultants may re-insure the deductibles

2.3 Professional Indemnity

- All consultants are responsible for Professional Indemnity cover of R5million
- Contractors who have a material design element, excluding typical P & G related work, as part of their scope, are responsible for a Professional Indemnity cover of R5million.
- In the event of a claim above R5million, the ACSA PI cover will kick in for the amount in excess of R5million.
- Proof of cover in the form of a certificate of insurance should be provided to ACSA before a contract is signed between ACSA and the contractor and/or consultant.

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



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

3.1 Contract Works

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

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

3.2 Public Liability

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

3.3 Professional Indemnity

- All consultants are responsible for Professional Indemnity cover of R10million
- Contractors who have a material design element, excluding typical P & G related work, as part of their scope, are responsible for a Professional Indemnity cover of R10million
- In the event of a claim above R10million, the ACSA PI cover will kick in for the amount in excess of R10m
- Proof of cover in the form of a certificate of insurance should be provided to ACSA before a contract is signed between ACSA and the contractor and/or consultant.

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

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

4.1 Contract Works

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

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

4.2 Public Liability

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

4.3 Professional Indemnity



- All consultants are responsible for Professional Indemnity cover of R10million
- Contractors who have a material design element, excluding typical P & G related work, as part of their scope, are responsible for a Professional Indemnity cover of R10million
- In the event of a claim above R10million, the ACSA PI cover will kick in for the amount in excess of R10m
- Proof of cover in the form of a certificate of insurance should be provided to ACSA before a contract is signed between ACSA and the contractor and/or consultant.



C2.1 Pricing assumptions: Option B

The *conditions of contract*

How work is priced and assessed for payment

Clause 11 in NEC3 Engineering and Construction Contract, April 2013 of Option B states:

- | | | |
|-------------------------------------|------------|--|
| Identified and defined terms | 11
11.2 | <p>(21) The Bill of Quantities is the <i>bill of quantities</i> as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.</p> <p>(28) The Price for Work Done to Date is the total of</p> <ul style="list-style-type: none"> • the quantity of the work which the Contractor has completed for each item in the Bill of Quantities multiplied by the rate and • a proportion of each lump sum which is the proportion of the work covered by the item which the Contractor has completed. <p>Completed work is work without Defects which would either delay or be covered by immediately following work.</p> <p>(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.</p> |
|-------------------------------------|------------|--|

This confirms that Option B is a re-measurement contract, and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

Function of the Bill of Quantities

Clause 55.1 in Option B states, “Information in the Bill of Quantities is not Works Information or Site Information”. This confirms that instructions to do work or how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, “The *Contractor* Provides the Works in accordance with the Works Information”. Hence the *Contractor* does **not** provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract (April 2013) Guidance Notes before preparing the *bill of quantities* or before entering rates and lump sums into the *bill*.

The NEC approach to the P & G bill assumes use will be made of method related charges for Equipment applied to Providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of Equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the bill.

The P & G section of the bill is not used for the assessment of compensation events.



Measurement and payment

Symbols

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	Percent
H	Hour
Ha	Hectare
Kg	Kilogram
Kl	Kilolitre
Km	Kilometre
km-pass	kilometre-pass
kPa	Kilopascal
kW	Kilowatt
L	Litre
m/s	Metres per second
M	Metre
Mm	Millimetre
m ²	square metre
m ² -pass	square metre pass
m ³	cubic metre
m ³ -km	cubic metre-kilometre
MN	Meganewton
MN.m	meganewton-metre
MPa	Mega Pascal
No.	Number
Prov sum ¹	provisional sum
PC-sum	prime cost sum
R/only	Rate only
Sum	Lump sum
T	ton (1000kg)
W/day	Workday

General assumptions

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

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

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

¹Provisional Sums should not be used unless unavoidable. Rather include specifications and associated bill items for the most likely scope of work, and then change later using the compensation event procedure if necessary.



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

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

Amplification of or assumptions about measurement items

For the avoidance of doubt the following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.

C2.2 The *bill of quantities*

Option B (refer to Works Information C3 for more details)

Sub Total A – Preliminaries and General

Item	Description	Amount
1. SITE ESTABLISHMENT		
1.1	Mobilisation costs including site movement	
1.2	Tools and Equipment	
1.2.1.	Containers for storage of both new escalators and old parts. (Bidders to quote for 2 of 6M X 4M Lockable containers)	
1.3	Permits	R 10 0000
1.4	Health, Safety and Environmental	
1.5	Site Establishment including hoarding costs	
1.6	Others (Please indicate)	
Sub-Total A: Preliminaries and General		R

All mounts to entered exclusive of VAT

Sub Total B: Labour cost:

Resource	Quantity	Rates	Total hours for 12 escalators inclusive work all-	Total amount
Site Manager				
Artisans /Technicians				
General Workers				
Other: Specify				

Please Note: labour total hours should be in line with bidders project plan and methodology


Sub- Total C- Cost of assets – 12 Escalators

Escalator	Machine No.	Steps	Direction	Inc. Angle (deg)	location	Flight length(m)	R.Speed (m/s)	Capacity (kw)	Price
1	72NE9122	90	Both ways	30	Inter Gate Bussing	71,4	0,5	5,5	R.
2	72NE9123	90	Both ways	30	Inter Gate Bussing	71,4	0,5	5,5	R.
3	72NE9124	100	Both ways	30	Domestic bussing gate	81,5	0,5	11	R.
4	72NE9125	100	Both ways	30	Domestic bussing gate	81,5	0,5	11	R.
5	72NE9126	55	Both ways	30	Dom arri.Bag Reclaim	35,5	0,5	5,5	R.
6	72NE9127	55	Both ways	30	Dom arri.Bag Reclaim	35,5	0,5	5,5	R.
7	72NE9128	55	Both ways	30	Inter.arrivals	35,5	0,5	5,5	R.
8	72NE9129	55	Both ways	30	Inter.arrivals	35,5	0,5	5,5	R.
9	72NE9130	90	Both ways	30	Exclusive books/infor	71,4	0,5	11	R.
10	72NE9131	90	Both ways	30	Exclusive books/infor	71,4	0,5	11	R.
11	72NE9132	90	Both ways	30	Food Court	71,4	0,5	11	R.
12	72NE9133	90	Both ways	30	Food Court	71,4	0,5	11	R.

Please note: Escalator's unit price to include the following activities:

- 2.1. demolishing work
- 2.2. tiling finishing
- 2.4 electrical supply and electrical installations
- 2.4.4 conduit / trunking facilities by the electrical contractor
- 2.4.5 wiring
- 2.4.6 temporary electrical supply if needed
- 2.5. finish and painting
- 2.7 cutting away and making good
- 3. verifications and deviations program (including all parameter settings)
 - 3.1. Testing commissioning
 - 3.2. Adjustments, performance tests, and commissioning
 - 3.3. Certificate of compliance (Annexure A)
 - 3.4. Testing
 - 3.5. Free maintenance and guarantee period

removal of old escalators and transportation of parts to be stored in a provided container.



Part 2 Replacement of Escalators Cost

All Amounts are to be entered exclusive of VAT.

Contract value

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

Estimated Contract Value for the Replacement of Escalators

Description	Total (excluding VAT)
Sub-Total A: Preliminaries and General	R
Sub-Total B: Labour Cost	R
Sub -Total C: Escalators prices	R
Grand Total	R

All amounts to entered exclusive of VAT. Grand Total C to be carried over to Form of Offer.

Adhoc Rates: Pert three- Rates for ADHOC services and contingencies: below is the guide that will be used in case on additional service required. Tenderers are reminded that this amount is for illustrative purposes only and that ACSA will not be under any obligation to spend on this portion of this amount

Item	Rates
Engineer	
Technician	
Technical Assistants	
Mark up on bought out items	

C3.1 *Employer's Works Information*

Description of the works

Executive overview

1.1. A list of Explanatory of abbreviations in this Specification

DTI Department of Trade and Industry
 EN 81 European Standards Code of Safety
 LIASA Lift Inspectors Association of South Africa
 LEA Lift Engineering Association
 SANAS South African National Accreditation System
 SANS South African National Standards
 VVVF Variable Voltage Variable Frequency
 AC Alternating current
 N/A Not applicable
 DC Direct current
 M Meter
 FRP Fire Rating Protection
 LED Light Emitting Diodes
 DC MG Kg Kilogram
 MR Machine Room
 HR Head Room
 MRL Machine Room-Less
 OHS Occupational Health and Safety
 CoC Certificate of Compliance
 Direct current Motor generator

1.2. Background:

King Shaka International airport is equipped with escalators for conveyance of passengers from one level to the other. The challenging part of this system is that airport has a high volume of passengers which gives a little time or no time at all for these machines to cool down. This results to escalators being in continuous operations. The airports have similar make of escalators for both outdoor and indoor use.

1.2.1. INTENT

Work described in this Section includes providing equipment, incidental material and labour required for complete, escalators installation.

This specification provides a broad outline of required equipment and does not describe the details of design and construction. Escalators shall be manufactured, installed, adjusted, tested, and placed in operation by the escalators system manufacturer, or the manufacturer's authorized installer.

1.2.2. INSTALLATION TO COMPLY WITH THE SPECIFICATION AND STANDARDS

The Escalators installation shall comply in every respect with this General Specification unless otherwise specified in the currently in force Legislation and other Subsidiary Legislation, the Particular Specification, Drawings and/or any other relevant contract documents of the Contract, and in particular



the latest revision of any specification under the EN115:1995 Code, SANS 21:2003 standards and any parallel codes of practice or standards referred to in this specification shall apply.

1.2.3 INSTALLATION TO COMPLY WITH STATUTORY OBLIGATIONS, REGULATIONS & STANDARDS

Escalator installations shall comply with the following statutory obligations, regulations, standards. together with any additions or amendments thereto currently in force: -

- The Code of Practice for the application of the National Building Regulations SABS 0400-

1990

- SANS 0142-1 Code of Practice for Wiring of Premise - Low Voltage Installations
- SANS 21:2003 - Electric escalators
- EN 115:1995 Electric escalators.
- SANS 10360- Maintenance and repairs of electric escalators.
- Occupational Health and Safety Act, Act No 85 of 1993.
- Local fire regulations

1.2.4. The service provider to ensure full compliance with Occupational Health and Safety Act, 1993 Lift, Escalator and Passenger Conveyor Regulations, 1994, with special attention to rules relating to **Permission to install and use.**

Design and Construction

(Please note: The service provider to act on behalf of the owner is the sourcing of certification and permission as promulgated by the act)

Acceptable standards:

SANS Number	Year	Edition	Title
SANS 21-1	2009	1.00	Safety of escalators and moving walks — Part 1: Construction and installation
SANS 204	2011	1.00	Energy efficiency in buildings
SANS 1543	2015	2.03	Escalators and passenger conveyors
SANS 1545-1	2015	3.05	Safety rules for the construction and installation of lifts — Part 1: Electric lifts
SANS 10142-1	2012	1.08	The wiring of premises — Part 1: Low-voltage installations
SANS 10400-A*	2010	3.00	The application of the National Building Regulations — Part A: General principles and requirements
SANS 10400-B	2012	3.00	The application of the National Building Regulations — Part B: Structural design
SANS 10400-C	2010	3.00	The application of the National Building Regulations — Part C: Dimensions



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SANS 10400-D	2011	3.00	The application of the National Building Regulations — Part D: Public safety
SANS 10400-F	2010	3.00	The application of the National Building Regulations — Part F: Site operations
SANS 10400-M	2011	3.00	The application of the National Building Regulations — Part M: Stairways
SANS 10400-N	2012	3.01	The application of the National Building Regulations — Part N: Glazing
SANS 10400-O	2011	3.00	The application of the National Building Regulations — Part O: Lighting and ventilation
SANS 10400-P	2010	3.00	The application of the National Building Regulations — Part P: Drainage
SANS 10400-T	2011	3.00	The application of the National Building Regulations — Part T: Fire protection
SANS 14798	2009	3.00	Lifts (elevators), escalators and passenger conveyors — Risk analysis methodology
SANS 53015	2010	1.00	Maintenance for lifts and escalators — Rules for maintenance instructions

European escalator code EN 115 recognizes that there is difference between commercial escalators and public use escalators. The code refers to public use escalators as heavy-duty escalators while commercial use as light duty.

The following regulations and Annexures are hereby repealed:

- (a) Regulations C.113 to C.172, published under Government Notice No. R. 929, dated 28 June 1963.
- (b) Regulations C.131A, C.156A, C.160A and Annexure F25(A), published under Government Notice No. R. 2262 of 4 November 1977; and
- (c) Annexures F19, F20, F21, F22, F23, F24 and F25 published under Government Notice No. R. 929 dated 28 June 1963.

OCCUPATIONAL HEALTH AND SAFETY ACT, 1993 (ACT NO. 85 OF 1993)

- Lift, Escalator and Passenger Conveyor Regulations, 1994

Design and Construction

3. (1) No person shall use or modify or permit the use or modification of any lift, escalator, or passenger conveyor unless -

- (a) such lift, escalator or passenger conveyor has been designed or constructed or modified in accordance with the relevant standard or specification pertaining to such lift, escalator, or passenger conveyor and which is incorporated for this purpose in these regulations in terms of section 44 of the Act; and
- (b) the requirements of The National Building Regulations, if applicable, have been complied with: Provided that a lift, escalator, or passenger conveyor installed prior to 1 May 1994, shall be deemed to comply with these regulations or said specifications if it complies with the regulations or specifications which were in force at the time such lift, escalator or passenger conveyor was installed.

(2) The user shall ensure that all electrical components of a lift, escalator or passenger conveyor installed in a location where there is a danger of fire or explosion due to the presence, occurrence, or development of explosive or flammable atmospheres, or where explosive articles are manufactured,



handled, or stored, is in compliance with regulation 8 of the Electrical Machinery Regulations, 1988, published under Government notice R 1593 of 12 August 1988.

Escalator Duty:

The service provider to design escalators that can be able to convey an estimated 5000 people per hour. Defining an escalator duty is not only based on classification above but to other contributing functions. The contractor to also look at three functions as follows:

Application	Airport environment
Location	Indoor use
Estimated number of people per hour	5000 most with pull bags for an estimated weight of (85kg + 40Kg) spread over three steps

Escalator duty equation:

Escalator duty equation is estimated based on below information's:

Application + Location + Persons per Hour = Definition of Escalator Duty

Commercial or Heavy Duty or Transit + Indoor + above 5000 passengers per hour = Escalator Duty

Commercial with a maximum rise of about 30 feet to 65 feet

Commercial escalators are typically designed to move thousands of people and yet look elegant.

Elegancy:

To improve elegance the escalators will include glass balustrades, under handrail lighting and unique handrail presentations. These escalators must be able to convey heavy traffic applications and be suitable for airport environment. With technical design that has increased chain and motor sizing.

The differentiation of escalators according to American Public Transit association (APTA)

Feature	APTA Heavy Duty	Commercial
Radius	>2000mm	1000mm
Design Load brakes	674 pounds	190 pounds
Design Load Machines	674 pounds	190 pounds
Design load truss	674 pounds	190 pounds
Design load machine chains	674 pounds	190 pounds
Truss deflection	,1:1000 between supports	No standard
Engineered design	100 000 hours	25-30 000 hours
Handrail construction	V-groove profile	U- groove
Galvanizing to ASTM123	Weatherproofing	Galvanizing may warp lighter truss
Flat steps	3	2
Track thickness	3mm	1.5mm
Balustrades	High deck solid balustrade with 16 ga stainless steel	Glass Or 3/8-inch steel sandwich panel
Motors	Waterproof high insulation rating available	Varies
Roller diameter	4 inches (100mm)	3 inches (75mm)

2. SCOPE OF WORK

PURCHASER'S GOODS INFORMATION

1. DESCRIPTION OF THE GOODS AND SERVICES

General description of the goods

The scope seeks a suitable service provider to supply and install escalators at KSIA

2. MANAGEMENT AND START-UP

the supplier shall: provide schedule/delivery program.

3. Engineering, and the supplier's design

3.1 introduction and the purchaser's design

Design services & activity matrix

The service provider to provide the following information at a bidding stage:

The OEM specifications
Equipment designer
The equipment installer
Year and model of equipment.
Concept feasibility and overall process

4. Packaging, transport, and delivery / offloading

4.1 Packaging:

The Supplier shall: Package and mark.

5. incidental services

The Supplier shall: Liaise with local authorities.

6. Specifications and drawings.

The supplier to provide all necessary drawings and specifications including:

- design drawing
- AS Built
- Layouts
- Maintenance procedure manual
- And Equipment specifications.
- List of spares
- Annexure A

6.1. Specifications:

The contract to ensure that the end-product of the escalator supplied meets the following technical requirements specified below.

Feature	APTA Heavy Duty	Contractor to "tick"	Comment if differ from the specification
Radius	>2000mm		
Design Load brakes	305.701kg		
Design Load Machines	305.701kg		
Design load truss	305.701kg		
Design load machine chains	305.701kg		
Truss deflection	,1:1000 between supports		
Engineered design	100 000 hours		
Handrail construction	V-groove profile		
Galvanizing to ASTM123	weatherproofing		
Flat steps	3		
Track thickness	3mm		
Balustrades	High deck solid balustrade with 16 ga stainless steel		
Motors	Waterproof high insulation rating available		
Roller diameter	4 inches (100mm)		

Specification of escalators currently on site.

Terminal Building Escalators (TMB)



AIRPORTS COMPANY SOUTH AFRICA

Escalator	Machine No.	Steps	Direction	Inc. Angle (deg)	Location	Flight length(m)	R. Speed (m/s)	Capacity (kw)
1	72NE9122	90	Up	30	Inter Bussing Gate	71,4	0,5	5,5
2	72NE9123	90	Down	30	Inter Bussing Gate	71,4	0,5	5,5
3	72NE9124	100	Down	30	Domestic bussing gate	81,5	0,5	11
4	72NE9125	100	Up	30	Domestic bussing gate	81,5	0,5	11
5	72NE9126	55	Down	30	Domestic arrival Bag Reclaim area	35,5	0,5	5,5
6	72NE9127	55	Down	30	Domestic arrival Bag Reclaim	35,5	0,5	5,5
7	72NE9128	55	Down	30	Inter.arrivals	35,5	0,5	5,5
8	72NE9129	55	Down	30	Inter.arrivals	35,5	0,5	5,5
9	72NE9130	90	Up	30	Exclusive books/infor	71,4	0,5	11
10	72NE9131	90	down	30	Exclusive books/infor	71,4	0,5	11
11	72NE9132	90	Up	30	Food Court	71,4	0,5	11
12	72NE9133	90	Down	30	Food Court	71,4	0,5	11

6.1.1 Technical specifications – scope of work

The scope of this tender is to obtain competitive tender returns for the:

- Supply of twelve(12) escalators
- A commitment of support through spares availability and technical support to ACSA maintenance service provider.

Spares will be ordered on an 'as and when required basis.

The Parties main responsibilities

The Supplier provides the following additional documentation at the time of delivery:

1. OEM Manuals and Operating Procedure (1 X hard copies and 1 X electronic copy)
2. Guarantee and Warrantee documentation and Service Manuals.
3. Body building certifications if applicable and licensing documentation where applicable.

4. Time

- The *Starting date* is to be confirmed.
- The *delivery date* is to be confirmed.
- **Testing and Defects**
- The *warranty period* is 12Months after delivery.
- The *defect correction period* is three months.

QUALITY ASSURANCE

Escalator Specification: The execution of work of this section shall be conducted by a company who has adequate product liability insurance.

The employees of the contractors must be skilled, competent, registered and certified with the relative qualifications authority, with demonstrated ability to perform the work on a timely basis.

PROGRAMME OF WORKS

The Contractor shall submit a detailed programme within 7 days of the acceptance of the Tender. The work programme should be based on contractors given two escalators to work on at a time. Contractor to work on a set that is adjacent to each before proceeding to another set to ensure minimum disruption to passenger movement.

Showing:

- methodology,
- stages and order of proceeding the Works,
- together with the period estimated for each stage of progress for comment by the Employer or his/her duly appointed representative.

The programme shall include the following: -

- Date of order of equipment and materials,
- Site establishment and date of delivery of equipment and materials to site,
- date of commencement and completion of every stage of the Works in line with the building
 - construction programme,
 - Date of requirement of temporary and permanent electricity supply, and
 - Date of completion, commissioning, and testing

Note: date of works completion and handover Programme shall be regularly updated to reflect the actual progress and to meet the obligations under the Contract.

DRAWINGS TO BE SUBMITTED AFTER ORDER PLACEMENT

The Contractor shall submit for approval, within Two (2) weeks of placing of the order, three (3) copies (unless otherwise specified) of drawings giving details of all Builder's Work required for the Lift installation. Such drawings shall clearly indicate the position and sizes of all holes and cuttings, the loads on beams and structures, and all other requirements in relation to: -

Escalator Installation

- Escalator machine room and associated equipment,
- All structural openings, such as landing entrances (including structural dimensions), ventilation openings, etc.
- All bases, channels, holes, grouting-in of fixings, etc.
- Suitable locations of luminaries for escalator machine room and pit lighting.
- Guard rails in the machine room.
- Power and Ventilation requirements,
- General illustration and finish of escalator/passenger conveyor installation.

OPERATING AND INSTRUCTION MAINTENANCE MANUALS

The Contractor shall, unless otherwise specified, provide two (2) hard copies and two (2) soft copies in CD-ROMs of approved software format of the operating & maintenance manual of the whole installation. The structure and contents of the



operation and maintenance manual shall be specified in the Contract Preliminaries and approved. All commissioning and testing results, certificates and record, photographs as necessary, description of the escalator system and equipment detail, user operating instruction and safety procedures, “as built” drawings, electrical wiring diagrams, rope certificates and planned maintenance schedule shall be included in the final manuals. Documentation proving that the control system has been subjected to extensive testing by an approved authority to verify the design in terms of safe, redundancy, reliable and full compliance with the SANS-21 (Type Tested) and all national and local regulations and by-laws shall without exception be.

provided with the tender submission.

Presentation of the manual shall be as follows:

1. Index
2. User Operating & maintenance manual escalator safety procedures
3. “as built” drawings
4. Electrical wiring diagrams
5. Planned maintenance schedule
6. All commissioning and testing results – Annexure A
7. Annexure One (permission to install and use) and Annexure B Compliance certificate
8. Type test Certificates
9. Guarantee's

REMOVAL OF EXISTING ESCALATORS

CONTRACTS RESPONSIBILITIES

The Contractor shall be responsible for all work to remove and dismantle all existing equipment including the old machine room equipment that must be completely removed.

The chopping out and building in equipment as required shall form part of the Contractor's scope of work.

The Contractor's shall be responsibility to check and verify all on-site dimensions and on-site conditions prior to tender and/or placing the order for the equipment. The Contractor assumes full responsibility to ensure that the equipment offered and supplied is compatible with the existing shaft structure.

PROTECTION OF THE BUILDING

The contractor to ensure that the escalators are removed without damage to the existing finished on the building. The Contractor must take all the necessary precaution to ensure that the existing building finish including floor and walls are not damaged during the removal and installation of the new escalators. The Contractor shall repair any damaged caused during the removal and installation of the escalators.

INSPECTION OF EXISTING EQUIPMENT

Tenderers shall inspect the site to verify and confirm all site information on existing equipment details, Shaft/pit dimensions. Tenderers shall make themselves thoroughly acquainted with the site conditions under which the work is to be carried out.

The nature of the site, means of access to and any restrictions on such access area for site establishment and on transport and storage of materials and equipment to and from the site, and generally, all circumstances, conditions under which the work under

this subcontract has to be carried out, and all matters which may in any way influence the cost, conduct or execution of the work, before submitting their tenders as no extra arising out of their failure to do so will be entertained.

BARRICADES AND HORDING OFF THE WORK AREA

The Contractor to provide enough barricades / hoarding together with the necessary safety notices and signs as per the requirements of the Occupational Health & Safety Act 85 of 1993.

Hoarding requirement for installation of new escalators at King Shaka International Airport.

It is important to note that the application of hoarding specifications as detailed herein is the ACSA-KSIA Standard and must be issued to every (Hoarding) Contractor for implementation prior to execution of any hoarding work. It is the responsibility of the consultants and contractor to verify the latest revision with the ACSA-KSIA Project Manager. Failure to verify all requirements of all hoarding finishes internal and externally may result in the contractor having to incur additional costs for alterations. The scope of hoarding work should always be part of this construction programme construction work to commence on site for ACSA- KSIA. Contractors are informed that working on the airport environment will require them to execute hoarding work outside normal working hours.

It is envisaged that the manual will be informative enough to everyone involved but in certain areas the specification for internal and external hoarding may not be applicable, such exceptions will be addressed as they arise and must be referred to the Project Manager. All hoarding remains the property of ACSA (if paid for in Preliminaries) but must be removed off site by the contractor on completion of the project and be handed over to ACSA project manager for further instruction.

Hoarding Type: This type of internal hoarding will be applicable for this construction work before actual work takes to minimize noise, dust, and visual screening.

Hoarding Construction and Material

The board on the public side will be 16 mm chip board. The method of construction is like permanent type except that the hoarding is only on the public side and is melamine finish (Grey Cambrink).

Hoarding Construction and Material

The construction method will match that of the Permanent hoarding on the public side only and no finishes on the construction side. No insulation for this type of hoarding will be required.

4. Document check list

Commissioning document check that will be used	
The minimum general escalator specifications for airport applications shall be as follows	
Application type:	Heavy Duty
Inclination:	30 deg
Transition Radius:	1.5m
Lower curvature radius:	1m
Speed:	0.5 - 0.65m/s
Min Width:	1000mm
Lubrication free step rollers and step chain:	yes
Rollers outside step chain:	yes
Sealed step and step chain bearings:	yes
Operating Mode:	Combination of standby speed and stop & go mode
Balustrade:	10mm self-supporting tempered glass
Balustrade min height:	900mm
Power:	380-400V/ 50Hz
Minimum motor efficiency class:	IE2
Motor IP Rating:	IP55
Regenerative braking:	Yes
Operating Hours per day:	18-20hrs
Landing plate:	Non-slip
Side cladding material:	3mm Stainless Steel
Running direction: Dual	Dual
Escalator Logs and trends:	Yes
Link to site BMS and web application:	Yes
Minimum logs and trends retention period:	30 days
USB/Computer download capability of logs	Yes
Smart Energy Metering:	yes
People counting:	yes
Truss segments: 1 for new buildings and multiple in existing buildings	
Stainless steel or Hot-dip galvanized truss:	Yes
Trolley pole barriers:	yes, Stainless steel
Side Brushes:	Yes
Passenger detection:	Yes
Traffic lights: On both landings	yes
Min Passenger circulation area:	Depth=2500mm, Width=escalator width+ 160mm or Depth=2000mm,

	Width=2xEscalator width +160mm
Min Head room above step band: 2300mm	2300mm
Min clearance between escalators: 160mm	160mm
Stainless steel handrail guide:	yes
Vibration isolation pads:	Yes
Protective devices:	Yes
Lighting type:	LED
Lower pit water safety switch: Yes, where there is possibility of pit flooding	Yes
Status notification and viewing	Yes
via mobile phone:	Yes
Minimum Warranty Period:	1 Calendar Year
If an escalator position is outdoors, the following additional minimum specifications shall apply:	shall-20hrs
Water drain channel in the truss:	truss-20hrs
Corrosion proofing:	Yes
Stainless steel handrail guide:	Yes
Weatherproof electrical system:	Yes

SECTION 2 - EXECUTION OF WORKS

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- 2.1. BUILDERS WORKS
- 2.2 EQUIPMENT GUARANTEE
- 2.3 SITE SUPERVISION
 - 2.3.1 Occupational Health and Safety Compliance
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- 2.4 ELECTRICAL SUPPLY AND ELECTRICAL INSTALLATIONS
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- 2.6. FINISH AND PAINTING
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2.1. BUILDERS WORKS

The following builder's works in connection with Escalator installation shall be carried out by the

Contractor: -

Provision of necessary holes, chases, openings, and vents.

Provision and fixing of steel joists and scaffoldings required for the escalator shaft installation.

Provision of concrete fill and/or grouting of and finishing off -of new equipment installed, etc.

Provision of structural steelwork for escalator machinery required for the installation.

Provision of drain outlet and/or sump pump in the escalator pit, where necessary.

All additional openings, holes through the building structure, partition walls and all concrete bases, supports, ducts etc. required by the Contractor beyond those included in the Architectural or Structural Drawings will also be carried out by the Contractor, provided that the Contractor shall submit to the Project manager for approval, full details of such requirement, so that due consideration may be given before the Contractor commences work in the area concerned.

The Contractor shall be responsible for marking out the exact position and sizes of all such work or providing detailed information to the Contractor to carry out such work as his work proceeds. The Contractor shall check that the builder's works executed by the Building Contractor are carried out to the Contractor's requirements.

Existing Buildings: The Contractor shall obtain approval from employer or the Project Manager for all cutting / core drilling of existing floor slabs or structural supports or beams. Should the Contractor proceed with the cutting or core drilling of floor slabs or structural supports or beams without written approval, the Contractor shall be held liable for any consequence associated with the weakening of the slabs, beams or supports covered under this section.

After Market Equipment support:

Replacement equipment shall be readily available. The contractor shall be requested to guarantee that the equipment or components will be available in South Africa in the foreseeable future for at least 15 to 20 years.

All losses, costs or expenditures which may arise because of negligence to comply with any regulation applicable to this installation as specified above shall be for the explicit account of the contractor.

All materials shall be new, undamaged, free of rust or other defects and shall be of the best quality.

Materials shall comply with the relevant SANS and EN81 specifications where applicable. The contractor shall upon the request of the Project manager, furnish him with documentary proof to his satisfaction that the materials are of the quality specified. Samples of materials for testing, if required, shall be supplied by the contractor, free of charge.



ELECTRICAL SUPPLY AND ELECTRICAL INSTALLATIONS

ELECTRICITY POWER SUPPLY

Unless otherwise stated in the Particular Specification, the electricity supply for the electrical machinery will be 380V, 3-phase, 50 Hz, 5 wire i.e., 3 live with neutral and 10mm earth and the electricity supply for lighting will be 220V single-phase, 50 Hz, 2 wire + 10mm earth conductor.

ELECTRICAL CONTRACTOR RESPONSIBILITIES

The Electrical Contractor will be responsible for providing the power supply for the electrical equipment.

The supply point will be terminated at an isolating switch or sub-distribution board at the following location according to the type of installation: -

- Escalator installation: - Escalator machine room

The Contractor will provide permanent lighting in the machine room and pulley rooms and socket outlets in the machine room.

Temporary electricity supply during the construction period will be provided by the Client.

Elect: CONTRACTOR RESPONSIBILITIES

From the isolating switch or sub-distribution board provided by the electrical contractor, all electrical work required for the lift shall be the responsibility of the Contractor.

The Contractor will provide permanent lighting in the escalator machine room and in the pit. The Contractor will provide permanent socket outlets in the escalator machine room and in the pit. The socket outlet in the pit will be of weather-proof type.

Elect: CONDUIT/TRUNKING FACILITIES BY ELECTRICAL CONTRACTOR

The Contractor shall be responsible for the provision of all cabling, buzzers (or alarm bells) and indicator board(s) in connection with all alarm system specified in this General Specification.

WIRING

All cables, trunkings, conduits, and conduit fittings necessary for the circuits (including power, lighting

and control circuits) for the lift installation shall be installed in accordance with the SANS1545.

regulations.

All exposed metalwork liable to become electrically charged shall be bonded and earthed.

All wiring installed in the lift machine room and lift well, other than traveling cables, shall be enclosed in galvanized steel or plastic conduits or trunkings.

SECTION 3 (A) - GENERAL SPECIFICATIONS FOR ESCALATOR

EQUIPMENT

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- GENERAL SPECIFICATIONS FOR ESCALATOR EQUIPMENT
- 4.1 SAFETY DEVICES AND CONTROL OPERATION
- 4.1.1 SAFETY DEVICES
- 4.2.2 Type of switch
- 4.1.1.1 Emergency stopping devices.
Emergency stop devices shall be placed in an easily accessible positions at each end or near to landings of the escalator. For escalators with rise above 12 m, and for passenger conveyors with a length of the tread-way of more than 40m, additional emergency stopping devices shall be installed.
- 4.1.1.2 Broken step chain device
The broken chain safety device shall be incorporated as part of the tension carriage, and they shall operate if the bottom sprocket moves unduly in either direction in the event of either both step chains breaking or becoming unduly lengthened or elongated due to wear of the pins, or tension in either chain dropping below a pre-determined value.
- 4.1.1.3 Broken drive chain device



A device shall operate for breakage of the chain between the driving machine and the escalator main drive shaft. Auxiliary brake if provided shall also operate.

4.1.1.4 Broken step device

If any part of the step is sagging so that meshing of the combs is no longer ensured, switching off shall be operated at a distance before the comb intersection line to ensure that the step which has sagged does not reach the comb intersection line. The control device can be applied at any point of the step.

4.1.1.5 Broken handrail device

Broken handrail devices shall be situated inside both balustrades at the lower end of the incline, which shall be actuated if either or both handrails break.

4.1.1.6 Non-reverse device

A non-reversing device shall be arranged to prevent a travelling escalator to slow unduly or attempts to reverse its direction of travel. The escalator shall be stopped once the device is operated, and it shall only be started again by the key operated switch.

4.1.1.7 OPERATION OF THE SAFETY DEVICE

The operation of anyone of these safety devices shall cause the electrical supply to the driving motor to be disconnected and the electro-mechanical brake to be operated thus bringing the escalator to rest.

4.2 CONTROL STATION

4.2.1 Position

A Control station shall be provided at both the upper and lower landing ends of the escalator which shall contain an emergency stop switch, two key operated direction switches and if specified a foot light switch. The station shall be so positioned as to enable any person operating any of the switches to afford a full view of the escalator.

4.2.2 Type of switch

The emergency stop switch shall be push button type with a red button and shall be suitably protected against accidental operation. But the up and down directional starting switch shall be of the key operated spring off type.

4.2.3 Marking

All control switches shall be provided with clearly engraved markings in English.

4.3 AUTOMATIC OPERATION

Escalators should start automatically by the passing of a user shall start to move before the person.

walking reaches the comb intersection line. This can, for instance, be accomplished by light -ray.

The escalator shall be stopped automatically after a sufficient time (at least the anticipated passenger transfer time plus 10 seconds) the passenger has actuated the automatic starting device.

4.4 ENERGY SAVING OPERATION (Green Escalators)

4.4.1 Provide escalators with energy saving operation. When the escalator is not transporting passengers / unloaded the nominal speed shall reduce to approximately 20% of its nominal speed. As soon as a passenger approaches the unit and is detected by a light barrier / proximity detector installed in the skirting, the escalator shall accelerate up to nominal speed. When an approaching passenger is detected and before stepping on to the first moving step, the escalator will have already accelerated up to its nominal speed. The 20% energy saving speed will ensure that the escalator travel direction is visible to approaching passengers.



4.4.2 The time after the escalator becomes unloaded and before it initiates the slow speed operation, will be controlled by an adjustable electronic timer. At works Completion this slow speed initiation time will be set at 120-seconds.

4.4.3 Provide escalator drives fitted with frequency converters capable of reducing peak currents by approximately 80% and energy saving of approximately 60% will be expected in the slow speed operation.

4.4.4 Provide an external button or key switch operation to select energy saving mode or continues running mode.

4.5 PROVISION FOR FUTURE REMOTE MONITORING OF ESCALATOR

The Contractor shall provide dry contacts of the following output signals for each escalator installation to serve as the interface unit for future connection by others: -

- Normal/Fault status
- Duty/Standby status
- Normal/ Essential Power status
- Power Supply Normal/ Fault status
- Emergency stop button activated.

This interface unit shall be located at the management office/caretaker's room next to the escalator.

monitoring panel unless otherwise specified on the Drawing and/or in the Particular Specification.

BALUSTRADES

TYPE OF BALUSTRADES

Solid balustrades shall be installed on each side of the escalator and shall consist of the following.

components: -

- Skirting

The skirting panels shall be vertical and constructed of smooth hairline finish stainless steel with thickness of not less than 2 mm. Embossed, perforated or roughly textured materials shall not be used.

- Interior profile

The interior profile shall be of hairline finish stainless steel with thickness not less than 2 mm.

The interior profile and the balustrade interior paneling shall have an angle of inclination of at least 25° to the horizontal.

- Interior and exterior paneling

Both the interior and exterior paneling shall be of hairline finish stainless steel with thickness of not less than 1.5 mm. If glass balustrade is specified, the glass shall be of a laminated or splinter-free one-layer safety glass (tempered glass type) and shall have sufficient mechanical strength and rigidity. The glass panels shall be at least 6 mm thick.

- Balustrade decking



The decking shall be of stainless steel or extruded aluminum, polished and anodized in natural color. The decking is to be situated under the handrail and forms the top cover of the balustrade paneling. Appropriate measure shall be provided to discourage people from sliding along the decking.

DRESS GUARD

Dress guards of brush bristles type shall be provided along the full length of the lower part of the skirting panels.

Brush bristles type dress guard shall be made of nylon filaments. The nylon filaments shall not support combustion and shall be durable and with flagged ends to give a soft face and be securely held within a pressed steel holder. The assemblies shall be easily removed when replacement is necessary. It shall consist of anodized aluminum carrier which is suitable for the escalator sidewall. The bottom of the carrier shall have chamfer angle to eliminate trapping of feet, trolley wheels and parcels, etc. The carrier shall be fixed onto the skirting panel by secret fixings which are concealed by the filaments but are easily removable.

RUBBER HANDRAIL

The handrails shall be constructed of multi-layered canvas with the exposed surface covered with

smooth black abrasion resistant rubber which shall be vulcanized into an endless loop.

NOTICE ON THE ACCESS DOOR

On each access door to the machinery space in upper and lower landing a notice of durable materials

with the inscription of the following message in English shall be fixed: -

"Machinery space - danger, access prohibited to unauthorized persons.

MARKING OF ESCALATOR

At least at one landing, the name of the manufacturer & official registration number shall be indicated, visible from outside.

STEP LIGHTS UNDER LANDINGS

Energy efficient fluorescent luminaries shall be provided underneath landings to illuminate the clearance between steps, steps and skirting, steps, and comb, at the horizontal steps portion of the escalator. The color of these lights shall be green.

Facility shall be incorporated for the easy replacement of lamp.

Handrail lighting

Handrail must be equipped with LED continuous lighting stripe under the handrail.

Please note: The handrails to be equipped with handrail led UV sterilizers to help the fight against covid pandemic.

NOTICE FOR AUTOMATIC START

In the case of escalators starting automatically, a clearly visible and audible signal system, e.g., road traffic signals, shall be provided indicating to the user whether the escalator is available for use, and its direction of travel.

NOTICES NEAR ENTRANCES OF ESCALATOR

The following notices for the user shall be fixed in the vicinity: -

- Small children must be held firmly.
- Dogs must be carried.
- Stand facing the direction of travel; keep feet away from sides.
- Hold the handrail.
- Transportation of bulky and heavy loads not permitted.



- Whenever possible, these notices shall be given in the form of pictographs.
The minimum size of the

pictographs shall be 80 x 80 mm.

Compulsory Test and Examinations

The Contractor shall test and examine all safety devices and governors, as required by

the latest edition of the South African Notational Standard Safety Code for Elevators and

Escalators, as per the regular intervals mentioned in the standard. And provide relevant annexure for installation of new assets. The Contractor shall promptly correct any defects that may be found in the testing and examining of the Safety Devices. Records of the annual safety device test results and examination shall be recorded in the elevator maintenance book. The report will list condition of all equipment covered by this agreement.

Additional Quality and Mandatory Compliance inspections

The Contractor shall employ the Clients appointed Consultant as required for any additional Quality and Mandatory checks and examinations as deemed necessary as per the Clients request.



ANNEX C

**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)**

OBJECTIVES

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

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

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

The parties to this Agreement are:

Name of Organization:	AIRPORTS COMPANY SOUTH AFRICA KING SHAKA INTERNATIONAL AIRPORT
Physical Address:	Airport Company South Africa King Shaka International Airport La Mercy Farm 4407

Hereinafter referred to as "Client"

Name of organisation:
Physical Address

Hereinafter referred to as "the Mandatary/ Principal Contractor"

To be completed by contractor

[illegible]



GENERAL INFORMATION FORMING PART OF THIS AGREEMENT

1. The Occupational Health & Safety Act comprises of SECTION 1-50 and all un-repealed 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. "Mandatar" 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. Mandataries who utilize the services of their own Mandataries (contractors) must conclude a similar Written Agreement with them.
7. Be advised that this Agreement places the onus on the Mandatar" 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 Mandatar" undertakes for the client.
9. All documentation as per 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 Mandatar" undertakes to comply with:

INSURANCE

1. The Mandatar" warrants that all their employees and/or their contractor's employees if any are covered in terms of the COIDA 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 Mandatar" 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.
 - Public Liability Insurance Cover as required by the Subcontract Agreement.
 - Any other Insurance cover that will adequately make 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 always 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 OHS Act 85 of 1993, if the Mandatary assigns any duty in terms of Section 16(2), a copy of such written assignment shall immediately be forwarded to the Client.
3. The Mandatary shall ensure that he/she familiarise himself/herself with the requirements of the 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 user 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 duty 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, _____ (Name and Surname), 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
(Warrant his authority to sign)

DATE

SIGNATURE ON BEHALF OF THE CLIENT
AIRPORT COMPANY SOUTH AFRICA

DATE



ANNEX D

**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 ACSA. ACSA 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 Environmental Policy shall be communicated, comprehended, and implemented by all ACSA 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 ACSA 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 ACSA property. It is the contractor's responsibility to determine the location of these areas. - No leaking equipment or vehicles shall be permitted on the airport.
Air Pollution	- Dust: Dust resulting from work activities that could cause a nuisance to employees or the public shall be kept to a minimum. - Odours and emissions: All practical measures shall be taken to reduce unpleasant odours and emissions generated from work related activities. - Fires: No open fires shall be permitted on site.
Noise Pollution	- All reasonable measures shall be taken to minimize noise generated on site due to work operations. - The Contractor shall comply with the applicable regulations regarding noise.
Waste Management	- Waste shall be separated as general or hazardous waste. - General and hazardous waste shall be disposed of appropriately at a permitted landfill site should recycling or re-use of waste is not feasible. - Under no circumstances shall solid or liquid waste be dumped, buried, or burnt. - Contractors shall maintain a tidy, litter free environment always in their work area. - Contractors must keep on file: - The name of the contracting waste company - Waste disposal site used



	3. Monthly reports on quantities – separated into general, hazardous, and recycled 4. Maintained file of all Waste Manifest Documents and Certificates of Safe Disposal 5. Copy of waste permit for disposal site This information must be available during audits and inspections.
Handling & Storage of Hazardous Chemical Substances (HCS)	• All HCS shall be clearly labelled, stored, and handled in accordance with Materials Safety Data Sheets. • Materials Safety Data Sheets shall be stored with all HCS. • All spillages of HCS must be cleaned-up immediately and disposed of as hazardous waste. (HCS spillages must be reported to ACSA 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	ACSA 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.

Penalties

Penalties shall be imposed by ACSA 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 penalty. The Contractor shall take the necessary steps (e.g., training/remediation) to prevent a recurrence of the infringement and shall advise ACSA accordingly.

The Contractor is also advised that the imposition of penalties does not replace any legal proceedings, the Council, authorities, landowners and/or members of the public may institute against the Contractor.

Penalties shall be between R200 and R20 000, depending upon the severity of the infringement. The decision on how much to impose will be made by ACSA's Airport Environmental Management Representative in consultation with the Airport Manager or his/her designate and will be final. In addition to the penalty, 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 ACSA's right to impose penalties 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 E

Technical Specifications

Regulation and Standards

When carrying out any Replacement or installation of the people movers, the following Regulatory Standards shall be adhered to,

- OHS Regulations - Lift, Escalator and Passenger Conveyor Regulations, 1994
- SABS 1543 Escalators and Passenger Conveyors
- SABS 1545 Part 1 Electric Lifts
- SABS 1545 Part 10 Testing and Inspection Documents for Lifts
- SABS 1545 Part 2 Hydraulic Lifts
- SABS 1545 Safety Rules for the Construction and Installation of Lifts

C3.2.1 Contractor's Works Information

The Contractor is to provide details or specification of parts to be used for the Replacement of escalators



C4 Site Information

Terminal Building Escalators (TMB)								
Escalator	Machine No.	Steps	Direction	Incl. Angle (deg)	location	Flight length(m)	R. Speed (m/s)	Capacity (kw)
1	72NE9122	90	Up	30	Inter Gate Bussing	71,4	0,5	5,5
2	72NE9123	90	Down	30	Inter Gate Bussing	71,4	0,5	5,5
3	72NE9124	100	Down	30	Domestic bussing gate	81,5	0,5	11
4	72NE9125	100	Up	30	Domestic bussing gate	81,5	0,5	11
5	72NE9126	55	Down	30	Dom arri. Bag Reclaim	35,5	0,5	5,5
6	72NE9127	55	Down	30	Dom arri. Bag Reclaim	35,5	0,5	5,5
7	72NE9128	55	Down	30	Inter.arrivals	35.5	0,5	5,5
8	72NE9129	55	Down	30	Inter.arrivals	35.5	0,5	5,5



9	72NE9130	90	Up	30	Exclusive books/infor	71,4	0,5	11
10	72NE9131	90	down	30	Exclusive books/infor	71,4	0,5	11
11	72NE9132	90	Up	30	Food Court	71,4	0,5	11
12	72NE9133	90	Down	30	Food Court	71,4	0,5	11

X17 Annexure A- Low service damages – Replacement od Escalators at King Shaka International Airport

NO.	CONTRAVENTION	PENALTY TRANSGRESSION	PER
1.	Unauthorized water connections	R 5 000-00	
2.	Unauthorized connections to fire main	R 5 000-00	
3	Unauthorized electricity connections	R 5 000-00	
4.	Unauthorized use of passenger trolleys	R 2 500-00	
5.	Unauthorized dumping of spoilt material or debris	R 4 000-00	
6.	Unauthorized dumping into storm water and sewer mains	R 5 000-00	
7.	Non-compliance with environmental specifications	In accordance with ACSA Environmental Specification	
8.	Non-compliance with safety specifications	In accordance with the OHS Act	

Technical low service damages as part of annexure A

Where a service cannot be completed within 2 weeks after agreed project completion date.	R20 000.00 (R10 000 a week there after) (Unless the unavailability of resources was agreed to in writing by the Project Manager or his/her duly authorised representative.
Delay damages (failure to start the project execution as per contractor's schedule of work	Amount per day is 0.05% of the contract value, up to the maximum of 15% of the contract value
Poor housekeeping and failure to provide demarcations. Hoarding not meeting standard as specified in the contract	R10 000.00
For each sub-system: Repetition of non-conformances or not meeting the minimum performance benchmarks for 3 consecutive times	R20 000.00. (Unless a special arrangement is made with the Service Manager in advance relating to factors beyond the Contractor's control.)
Safety infringement	R2 000.00



Poor Housekeeping (failure to leave the area tidy before and of each shift)	R 1000 per incident.
Non-compliance with the defect free liability period	The full cost of the 2 nd repair (including the cost of making use of a 3 rd party should ACSA wish to utilise a 3 rd party for the subsequent repair)