Form C13: CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

between

AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

(Registration No. 1993/004149/30)

("Airports Company")

AND

[NAME OF SERVICE PROVIDER]

(Registration No: _____)

("_____")

of

[Service Providers Address]

1. INTERPRETATION

In this agreement -

"Confidential Information" – is information, which is confidential to the disclosing party, and includes whether in written, graphic, oral, proprietary, tangible, intangible, electronic or other form, and -

any information in respect of know-how, formulae, statistics, processes, systems, business methods, marketing, trading and merchandising methods and information, promotional and advertising plans and strategies, pricing, financial plans and models, inventions, long-term plans, research and development data, user or consumer/ customer data and profiles, ideas, computer programmes, drawings and any other information of a confidential nature of the disclosing party, in whatever form it may be.

the contractual business and financial arrangements of the disclosing party and others with whom it has business arrangements of whatever nature.

all information peculiar to the business of the disclosing party which is not readily available to a competitor of the disclosing party in the ordinary course of business.

the fact of and content of any discussions between the disclosing party and the receiving party as well as the existence and content of any agreement, which may be concluded between the disclosing party and the receiving party.

all other matters of a confidential nature which relate to the disclosing party's business.

generally, information which is disclosed in circumstances of confidence or would be understood by the parties, exercising reasonable business judgement, to be confidential.

all information of whatsoever nature relating to the disclosing party as contemplated in 2.1 below.

but does not include information which -

is or hereafter becomes part of the public domain, otherwise than as a result of a breach or default of the receiving party or of a representative or affiliate of the receiving party.

can be shown to have been lawfully in the possession of the receiving party or its affiliates or consultants prior to its disclosure and is not subject to an existing agreement between the disclosing party and the receiving party.

is acquired by the receiving party independently from a third party who lawfully acquired such information without restriction and who had not previously obtained the confidential information directly or indirectly under a confidentiality obligation from the disclosing party.

is acquired or developed by the receiving party independently of the disclosing party and in circumstances which do not amount to a breach of the provisions of this agreement.

is disclosed or released by the receiving party to satisfy an order of a court of competent jurisdiction or to otherwise comply with the provisions of any law or regulation in force at the time or the requirements of any recognised stock exchange; provided that, in these circumstances, the receiving party shall inform the disclosing party of the requirement to disclose prior to making the disclosure and provided further that the receiving party will disclose only that portion of the confidential information which it is legally required to so disclose; and the receiving party will use its reasonable endeavours to protect the confidentiality of such information to the widest extent lawfully possible in the circumstances (and shall co-operate with the disclosing party if it elects to contest any such disclosure);

For the purposes of this agreement the party, which discloses confidential information, shall be referred to as “the disclosing party” and the party, which receives the confidential information, shall be referred to as “the receiving party”.

““affiliate” –of a Party means any person, now or hereafter existing, who directly or indirectly controls, (holding company) or is controlled or is under common control of such Party (subsidiary company); a Person “controls” another person if it holds or is beneficially entitled to hold, directly or indirectly, other than by way of security interest only, more than 50% of its voting, income or capital.

“disclosing party” – the party disclosing confidential information in terms of this agreement and being Airports Company.

“receiving party” – the party receiving confidential information in terms of this agreement.

“the parties” – the Airports Company and _____.

INTRODUCTION

The parties intend to provide each other with certain information pertaining to their operations and the parties are in the process of discussing certain matters with a view to concluding an agreement (“the potential agreement”), which discussions have required and will require the disclosure to one another of information of a proprietary, secret and confidential nature. Whether or not the parties conclude the potential agreement will not affect the validity of this agreement.

If the confidential information so disclosed is used by the receiving party for any purpose other than that for which its use is authorised in terms of this agreement or is disclosed or disseminated by the receiving party to another person or entity which is not a party to this agreement, this may cause the disclosing party to suffer damages and material financial loss.

This agreement shall also bind the parties, notwithstanding the date of signature hereof, in the event that either party shall have disclosed any confidential information to the other party prior to date of signature hereof.

The parties wish to record the terms and conditions upon which each shall disclose confidential information to the other, which terms and conditions shall constitute a binding and enforceable agreement between the parties and their agents.

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3. USE OF CONFIDENTIAL INFORMATION

Any confidential information disclosed by the disclosing party shall be received and used by the receiving party only for the limited purpose described in 2.1 above and for no other purpose.

4. NON-DISCLOSURE

4.1 THE RECEIVING PARTY undertakes that -

it will treat the disclosing party's confidential information as private and confidential and safeguard it accordingly.

it will not use (except as permitted in 3 above) or disclose or release or copy or reproduce or publish or circulate or reverse or engineer and/or decompile or otherwise transfer, whether directly or indirectly, the confidential information of the disclosing party to any other person or entity; and the receiving party shall take all such steps as may be reasonably necessary to prevent the disclosing party's confidential information failing into the hands of unauthorised persons or entities;

it shall not disclose the confidential information of the disclosing party to any employee, consultant, professional adviser, contractor or sub-contractor or agent of the receiving party (collectively referred to herein as "representative") or an affiliate of the receiving party, nor shall they be given access thereto by the receiving party -

unless it is strictly necessary for the purposes referred to in 2.1 above; and

the receiving party shall have procured that the representative, affiliate or consultant to whom or to which such information is disclosed or made available shall have agreed to be bound by all the terms of this agreement,

and, in such event, the receiving party hereby indemnifies the disclosing party against any loss, harm or damage which it may suffer as a result of the unauthorised disclosure of confidential information by a representative, affiliate or consultant.

Any documentation or written record or other material containing confidential information (in whatsoever form) which comes into the possession of the receiving party shall itself be deemed to form part of the confidential information of the disclosing party. The receiving party shall, on request, and in any event if the discussions referred to in 2.1 above should not result in an agreement, return to the disclosing party all of its confidential information which is in physical form (including all copies) and shall destroy any other records (including, without limitation, those in machine readable form) as far as they contain the disclosing party's confidential information. The receiving party will, upon written or oral request from the disclosing party and within five (5) business days of the disclosing party's request, provide the disclosing party with written confirmation that all such records have been destroyed.

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5. COPIES

5.1 The receiving party may only make such copies of the disclosing party's confidential information as are strictly necessary for the purpose and the disclosures which are not in breach of this agreement and authorised in terms of this agreement. The receiving party shall clearly mark all such copies as "Confidential".

5.2 At the written request of the disclosing party, the receiving party shall supply to the disclosing party a list showing to the extent practical –

5.2.1 where copies of the confidential Information are held.

5.2.2 copies that have been made by the receiving party (except where they contain insignificant extracts from or references to confidential information) and where they are held; and

5.2.3 the names and addresses of the persons to whom confidential information has been disclosed and, if applicable, a copy of the confidentiality undertaking signed by such persons complying with the provisions of this agreement.

6. THE USE OF THE COMPANY'S INTELLECTUAL PROPERTY

The receiving party shall not use any intellectual property of the Company (including trademarks, service marks, logos, slogans, trade names, brand names and other indicia of origin) (collectively, the "Company IP") for any reason whatsoever without first obtaining the Company's prior written consent which consent the Company shall be entitled to grant solely at its own discretion.

If the receiving party requires the use of such Company IP, a request must be sent to the Brand Custodians Office, via email to brandcustodian@airports.co.za. Each single request by the same receiving party shall be treated as a new request.

Should the Company provide its consent in terms of clause 0 above, the receiving party shall comply with the Company's policies and standards with regard to the use of the Company IP. Such policies and standards shall be communicated to the receiving party at the time the Company grants the consent to the receiving party.

Failure to adhere to the provisions of this clause 6 or the policies, brand requirements and protocols that will be communicated by the Brand Custodians Office to the receiving party, shall result in the penalty equal to the value of 2% (two per cent) of the receiving party's annual turnover in the financial year in which the aforesaid failure occurred.

7. DURATION

Subject to Clause 2.3 this agreement shall commence or shall be deemed to have commenced on the date of signature of this agreement by the last party to sign the agreement.

This agreement shall remain in force for a period of 5 years (“the term”), or for a period of one (1) year from the date of the last disclosure of confidential information to the receiving party, whichever is the longer period, whether or not the parties continue to have any relationship for that period of time.

8. **Title**

All confidential information disclosed by the disclosing party to the receiving party is acknowledged by the receiving party:

to be proprietary to the disclosing party; and

not to confer any rights to the receiving party of whatever nature in the confidential information.

9. **RELATIONSHIP BETWEEN THE PARTIES**

The disclosing party is not obliged, by reason of this agreement, to disclose any of its confidential information to the receiving party or to enter into any further agreement or business relationship with the receiving party. Nothing herein shall imply or create any exclusive relationship between the Parties or otherwise restrict either Party from pursuing any business opportunities provided it complies at all times with the non-disclosure obligations set forth herein

The disclosing party retains the sole and exclusive ownership of intellectual property rights to its confidential information and no license or any other interest in such confidential information is granted in terms hereof or by reason of its disclosure.

The termination of the discussions referred to in 2.1 above shall not release the parties from the obligations set out in this agreement.

10. **ENFORCEMENT, GOVERNING LAWS AND JURISDICTION**

This agreement shall be governed by and interpreted according to the laws of the Republic of South Africa, without reference to the choice of laws' provisions of the Republic of South Africa. In the event of a conflict between or inconsistency in the laws applicable in the various provinces of the Republic of South Africa, the law as applied and interpreted in the Gauteng Province shall prevail.

The parties irrevocably submit to the exclusive jurisdiction of the High Court of South Africa, Witwatersrand Local Division, in respect of any action or proceeding arising from this agreement.

The parties agree that, in the event of a breach of this agreement, monetary damages would not be an adequate remedy. In the event of a breach or threatened breach of any provisions of this agreement by the receiving party, the disclosing party (and/or its relevant affiliate) shall be entitled to injunctive relief in any court of competent jurisdiction and the receiving party shall reimburse the disclosing party for any costs, claims, demands or liabilities arising directly or indirectly out of a breach. Nothing contained in this agreement shall be construed as prohibiting a party or its affiliate from pursuing any other remedies available to it for a breach or threatened breach.

The failure by the disclosing party to enforce or to require the performance at any time of any of the provisions of this agreement shall not be construed to be a waiver of such provision and shall not affect either the validity of this agreement or any part hereof or the right of the disclosing party to enforce the provisions of this agreement.

11. DOMICILIUM

The parties choose as their domicilium the addresses indicated in the heading to this agreement for the purposes of giving any notice, the payment of any sum, the serving of any process and for any other purpose arising from this agreement.

Each of the parties shall be entitled from time to time, by written notice to the other, to vary its domicilium to any other address which is not a post office box or poste restante.

Any notice required or permitted to be given in terms of this agreement shall be valid and effective only if in writing.

Any notice given and any payment made by one party to the other ("the addressee") which:

is delivered by hand during the normal business hours of the addressee at the addressee's domicilium for the time being shall be presumed, until the contrary is proved, to have been received by the addressee at the time of delivery.

is posted by prepaid registered post from an address within the Republic of South Africa to the addressee at the addressee's domicilium for the time being shall be presumed, until the contrary is proved, to have been received by the addressee on the fourth day after the date of posting.

is transmitted by facsimile to the addressee's receiving machine shall be presumed, until the contrary is proved, to have been received within one (1) hour of transmission where it is transmitted during normal business hours or, if transmitted outside normal business hours, within one (1) hour of the resumption of normal business hours on the next normal business day.

12. GENERAL

No party shall be bound by any representation, warranty, undertaking, promise or the like not recorded in this agreement.

No addition to, variation or agreed cancellation of this agreement shall be of any force or effect unless in writing and signed by or on behalf of the parties.

Any indulgence which either party may show to the other in terms of or pursuant to the provisions contained in this agreement shall not constitute a waiver of any of the rights of the party which granted such indulgence.

The parties acknowledge that this agreement and the undertakings given by it in terms hereof are fair and reasonable in regard to their nature, extent and period and go no further than is reasonably necessary to protect the interests of the parties.

The parties hereby confirm that they have entered into this agreement with full and clear understanding of the nature, significance and effect thereof and freely and voluntarily and without duress.

Neither party shall have the right to assign or otherwise transfer any of its rights or obligations under this agreement.

This agreement may be executed in several counterparts that together shall constitute one and the same instrument.

In this agreement, clause headings are for convenience and shall not be used in its interpretation.

Each clause of this agreement is severable, the one from the other and if any one or more clauses are found to be invalid or unenforceable, that clause shall not affect the balance of the clauses which shall remain in full force and effect.

SIGNED at _____ on _____day of _____2021

_____

AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

the signatory warranting that he is duly authorised thereto.

Name: _____

Designation: _____

AS WITNESSES

_____

2. **_____**

SIGNED at _____ on _____day of _____2021

AIRPORTS COMPANY
SOUTH AFRICA

_____

[NAME OF SERVICE PROVIDER]

the signatory warranting that s/he is duly authorised thereto.

Name: _____

Designation: _____

AS WITNESSES

_____

_____

Offer

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

KSIA----------2022/RFP REFURBISHMENT OF GOODS LIFTS

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:				

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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.

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

Note:

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.

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.

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.

	For the tenderer:		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.

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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 conditions of contract are the core clauses and the clauses for Main Option	
	Main Option Dispute resolution Option	B: Priced contract with Bill of Quantities 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 Employer 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 Project Manager 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 Supervisor 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 works are	Refurbishment of goods lifts as set out in the Section C3, Works Information
11.2	The following matters will be included in the Risk Register	Availability of the project material Access to Site
11.2	The Works Information is in	Section C3, Works Information of this contract
11.2	The Site Information is in	Section C4, Site Information of this contract
11.2	The boundary of the site is	The boundary of King Shaka International Airport
12.2	The law of the contract is the law of	the Republic of South Africa
13.1	The language of this contract is	English
13.3	The period of reply is	Seven (7) days
3	Time	
31.2	The starting date is	Upon signing of the contract
11.2	The completion date is	48 weeks after signing of contract
30.1	The access date is	Upon signing of contract
31.1	The Contractor submits a first (preliminary) programme with the tender by the tender closing date	Two (2) weeks after the access date
32.2	The Contractor submits revised programmes at intervals no longer than	Four (4) weeks

35.1	The Employer is not willing to take over the works before the completion date	The Employer and Others will have access to the works during construction or prior to completion. Such access by the Employer and others shall not relieve the Contractor from liability for the completion of the works in accordance with the Works Information and in terms of this contract.
4	Testing and Defects	
42.2	The defects date is	Twelve (12) months after Completion of the whole of the works
43.2	The defects correction period is	Two (2) weeks
5	Payment	
50.1	The assessment interval is	Four (4) weeks, on the 14th working day of each successive month
50.1	The currency of this contract is the	South African Rand (ZAR)
51.2	The period within which payment is made is	Four (4) weeks
51.4	The interest rate 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 conditions of contract
8	Risks and Insurance	
84.1	The Employer provides these insurances	Refer to the Insurance Clauses which is attached at the end of the Contract Data

84.2	The Contractor 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 Contractor arising out of and in the course of their employment in connection with this contract for any one event is:	As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993
9	Termination	No data required for this section of the conditions of contract
10	Data for Main Options	
B	Priced contract with Bill of Quantities	
11	Data for Option W1	
W1.1	The Adjudicator is	The person appointed jointly by the parties from the list of adjudicators contained below
W1.2	The Adjudicator nominating body is	The current Chairman of Johannesburg Advocate's Bar Council
W1.4	The tribunal is	Arbitration
W1.4	If the tribunal is arbitration, the arbitration procedure is	is set out in The Rules for the Conduct of Arbitrations 2013 Edition, 7th Edition, published by The Association of Arbitrators, (Southern Africa)
W1.4	The place where arbitration is to be held is	Johannesburg, South Africa.

W1.4	The person or organisation who will choose an arbitrator	The Arbitrator is the person selected by the Parties as and when a dispute arises in terms of the relevant Z Clause, from the Panel of Arbitrators provided under the relevant Z clause if the arbitration procedure does not state who selects an arbitrator. The Arbitrator nominating body is the Chairman of the Johannesburg Advocates Bar Council.
12	Data for Secondary Option Clauses	
X7	Delay Damages	
	Delay damages of the works 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 retention percentage is	5% of the Contract value.
X18	Limitation of Liability	
X18.1	The Contractor's liability to the Employer for indirect or consequential loss is limited to	Nil - Neither Party is liable to the other for any consequential or indirect loss, including but not limited to loss of profit, loss of income or loss of revenue
X18.2	For any one event, the Contractor's liability to the Employer for loss of or damage to the Employer's property is limited to	The total of the Prices

X18.3	The Contractor's total liability to the Employer for defects due to his design which are not listed on the Defects Certificate is limited to	The total of the Prices
X18.4	The Contractor's total liability to the Employer for all matters arising under or in connection with this contract, other than 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 are	Z1 – Z20
	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 Project Manager, the Supervisor, or the Adjudicator does not constitute a waiver of rights and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing.
Z2	Providing the Works:
Z2.1	Delete core clause 20.1 and replace with the following: The Contractor provides the works in accordance with the Works Information and warrants that the results of the Works, when complete, shall be fit for their intended purpose
Z3	Other responsibilities:
Z3.1	Add the following at the end of core clause 27: The Contractor 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 Contractor shall be responsible for the correct setting out of the Works in accordance with the original points, lines and levels stated in the Works Information or notified by the Project Manager, Supervisor, or the Employer. Any errors in the positioning of the Works shall be rectified by the Contractor at the Contractor's own costs.
Z4	Extending the defects date:
Z4.1	Add the following as a new core clause 46: If the Employer cannot use the works due to a Defect, which arises after Completion and before the defects date, the defects date is delayed by a period equal to that during which the Employer, due to a Defect, is unable to use the works
Z4.2	If part of the works is replaced due to a Defect arising after Completion and before the defects date, the defects date for the part of the works which is replaced is delayed by a period equal to that between Completion and the date by when the part has been replaced

Z4.3	The Project Manager notifies the Contractor of the change to a defect date when the delay occurs. The period between Completion and an extended defects date does not exceed twice the period between Completion and the defects date stated in the Contract Data
Z5	Termination
Z5.1	Add the following to core clause 91.1, at the second main bullet, fifth sub-bullet point, after the words “assets or”: “business rescue proceedings are initiated, or steps are taken to initiate business recue proceedings”.
	Amendment to the Secondary Option Clauses
Z6	Performance Bond
Z6.1	Amend the first sentence of clause X13.1 to read as follows: The Contractor gives the Employer an unconditional, on-demand performance bond, provided by a bank which the Project Manager and the Employer have accepted, for the amount stated in the Contract Data and in the form set out in Annexure 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:
Z7.1	Insert the following new clause as Option X18.6: The Employer's liability to the Contractor for the Contractor's indirect or consequential loss is limited to R0.00

Z7.2	Notwithstanding any other clause in this contract, any proceeds received from any insurances or any proceeds which would have been received from any insurances but for the conduct of the Contractor shall be excluded from the calculation of the limitations of liability listed in the contract
	Additional Z Clauses
Z8	Cession, delegation, and assignment
Z8.1	The Contractor shall not cede, delegate, or assign any of its rights or obligations to any person without the written consent of the Employer, which consent shall not be unreasonably withheld. This clause shall be binding on the liquidator/business rescue practitioner /trustee (whether provisional or not) of the Contractor
Z8.2	The Employer 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	

AIRPORTS COMPANY
SOUTH AFRICA

<table>
<tr>
<td></td>
<td>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</td>
<td>Panel of Adjudicators
<table>
<tr><th>Name</th><th>Location</th><th>Contact details
(phone & e mail)</th></tr>
<tr><td>Adv. Ghandi Badela</td><td>Gauteng</td><td>+27 11 282 3700
ghandi@badela.co.za</td></tr>
<tr><td>Mr. Errol Tate Pr. Eng.</td><td>Durban</td><td>+27 11 262 4001
Errol.tate@mweb.co.za</td></tr>
<tr><td>Adv. Saleem Ebrahim</td><td>Gauteng</td><td>+27 11 535-1800
salimebrahim@mweb.co.za</td></tr>
<tr><td>Mr. Sebe Msutwana Pr. Eng.</td><td>Gauteng</td><td>+27 11 442 8555
sebe@civilprojects.co.za</td></tr>
<tr><td>Mr. Sam Amod</td><td>Gauteng</td><td>sam@samamod.com</td></tr>
<tr><td>Adv. Sias Ryneke SC</td><td>Gauteng</td><td>083 653 2281
reyneke@duma.nokwe.co.za</td></tr>
<tr><td>Mr. Emeka Ogbugo
(Quantity Surveyor)</td><td>Pretoria</td><td>+27 12 349 2027
emeka@gosiame.co.za</td></tr>
</table>
</td>
</tr>
<tr>
<td>Z16.2</td>
<td>Appointment of the Arbitrator</td>
<td></td>
</tr>
</table>

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<table>
<tr>
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<td>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</td>
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(Quantity Surveyor)</td><td>Pretoria</td><td>+27 12 349 2027
emeka@gosiame.co.za</td></tr>
</table>
</td>
</tr>
<tr><td>Z17</td><td colspan="2">Notification of a compensation event</td></tr>
<tr><td>Z17.1</td><td colspan="2">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.</td></tr>
<tr><td>Z18</td><td>BBBEE Certificate</td><td></td></tr>
</table>

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 working areas are	Only the Site Area. See C4 'Site Information'
24.1	The Contractor's key persons are:	CV's to be appended to Tender Schedule
	Name: Job: Responsibility: Qualifications: Experience:	

	Name: Job: Responsibility: Qualifications: Experience:	
	Name: Job: Responsibility: Qualifications: Experience:	

	Name: Job: Responsibility: Qualifications: Experience:	
11.2	The following matters will be included in the Risk Register	Existing Services Delay in supply of material and/or equipment Progress of the works against the program 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]

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 works, entered into between the Employer and the Contractor, 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	"Contractor" means	_____ a company registered in accordance with the laws of _____ _____ under Registration No _____.
1.5	"Employer" 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 Employer stating that all amounts due from the Contractor as certified in terms of the contract have been received by the Employer and that the Contractor has fulfilled all his obligations under the Contract, or the date that the Bank issues a replacement Bond for such lesser or higher amount as may be required by the Employer.
1.7	"Guaranteed Sum" means	10% of contract value which must be submitted within 10 working days from notification of award
1.8	"works" means	Refurbishment of goods lifts set out in the Section C3, Works Information

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.

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.

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.

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.

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.

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.

This Guarantee:

shall expire on the Expiry Date until which time it is irrevocable.

is, save as provided for in 0 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.

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		

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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

AIRPORTS COMPANY
SOUTH AFRICA

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

AIRPORTS COMPANY
SOUTH AFRICA

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.

AIRPORTS COMPANY
SOUTH AFRICA

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	(21) The Bill of Quantities is the bill of quantities as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.
		(28) The Price for Work Done to Date is the total of 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. Completed work is work without Defects which would either delay or be covered by immediately following work.
		(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.

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
m2	square metre

m2-pass	square metre pass
m3	cubic metre
m3-km	cubic metre-kilometre
MN	Meganewton
MN.m	meganewton-metre
MPa	Mega Pascal
No.	Number
Prov sum1	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.

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.

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 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)

Project estimated costs					
Pricing Schedule A- Preliminaries					
	Permits	13 000	1	R	13 000.00
	Induction	15000	1	R	15 000.00
	Safety File in compliance with OHSact			R	
	Site Establishment (including hoarding, signages, site register, site instruction book, etc)	120 000	1	R	120 000.00
Preliminaries subtotal				R	148 000.00
Pricing Schedule B- Admin cost				R	-
	traveling and accommodation if applicable		1	R	-
Pricing Schedule C- Condition assessments Cost	ITEM	Rate/h	Estimated hours	Price	
	Condition assessment of lifts	R	240	R	-

Pricing Schedule D- Recommissioning costs subtotal		Rate /unit	Number of units	R -
	Annexure B Inspection	R	4	R -
	Commissioning	R	4	R -
	Testing	R	4	R -
Subtotal				R -
Pricing Schedule E. Documentation		Rate/unit	Qty (A set of three copies to be provided)	
	Drawings			R -
	Annexure B Certification			R -
Another cost (Please specify)				R
Subtotal				R -
Pricing Schedule – Sub- Totals				R -

Pricing Schedule F – Mark up on bought- out Items

Estimated costs	Bidders to fill	R -
R1- R20 000	%	R -
R 20 000- R50000	%	R -
R50000- 1000000	%	R -
R 100 000- R250 000	%	R
	Total Mark-up Price	R
To the summary of the price	R 250 000 plus total mark up	R

Pricing Schedule G- Bill of quantities:

Items	Unit Price	Quantities (this is for 3 lifts)	Price
· Provide new Hoist Machines, Secondary Sheaves, and Deflector Sheaves		4	
· Provide new AC hoist motors.		4	
· Provide new Overspeed governors and tail sheaves.		4	
· Retain and refurbish car safeties and associated equipment.		4	
· Provide unintended movement of the car and ascending car over speed		4	
· devices.		4	
· Provide a new floor landing tape system or solid-state type selector and		4	
· landing system.		4	
· Provide new hoist and governor ropes.		4	
· Provide new cable guards.		4	
· Provide new car door operators, door clutches and associated equipment.		4	
· Provide new car door hangers, guides, cables, tracks, headers and gate switches.		4	
· Provide new hoist way door panels. Retain and reuse hoist way entrance frames and entrances sills. Refinish as specified.		4	
· Provide new hoist way door hangers, tracks, rollers, closers, door guides and door retainers.		4	
· Provide new hoist way door interlocks and door closers.		4	
· Provide new electronic door detector edges.		4	
· Provide new car and counterweight roller guides.		4	
· Retain and reuse counterweight frames and counterweights. Re-balance elevators as specified.		4	
· Retain and reuse car slings and platforms.		4	

· Provide new elevator interior wall panels, interior finishes, ceilings, and flooring as specified.		4	
· Provide new hoist way wiring, conduit, junction boxes, limit switches, and traveling cables.		4	
· Provide new pit stop switches.		4	
· Retain and refurbish new car and counterweight buffers.		4	
· Provide new hall pushbutton stations with digital position indicators.		4	
· Provide new hall directional lanterns.		4	
· Provide new car pushbutton panel, hall pushbuttons, and required devices.		4	
· retain and ensure the full functioning of handicap features to comply with code.		4	
· retain and ensure the full functioning of fire service features to comply with code.		4	
· Adjust all safety and emergency control-related devices and provide code safety and balance tests.		4	
· retain and ensure the full functioning of emergency access points with escutcheon tubes at all landings.		4	
· Provide all inspection and testing as required by ASME A17.1 by an approved independent third-party inspection company. Include required		4	
· testing for the interface, of the smoke detector system, terminal building fire alarm system, and emergency power system and sliding doors as well as the grounding of lifts the in state of fire detected.		4	
4. Related Required Building Work:			
· Verify electrical power feeders are adequate to support the new parts installed.		4	
· Furnish conduit and wiring to new controllers.		4	
· Provide any new electrical service and wiring required to support the installed elevator,		4	
5. Machine room and/or building equipment.			

· Ensure function and make provision for new telephone service and wiring to the elevator machine room if existing is not working. and controller for connection to the elevators. The owner shall order service and the Contractor shall coordinate the installation and connection of the telephone wiring to the elevator machine room as well as testing the of BMS connection.		4	
· Machine room, secondary sheave space, and pit lighting.		4	
· Add additional machine room and secondary sheave space lighting fixtures if required to achieve required lighting as per regulation in terms of SANS standards including lights in the pits.		4	
· Ensure that the GFCI electrical outlets are installed in the elevator machine room, secondary sheave space and elevator pits.		4	
6. Modifications to the existing building fire alarm system and smoke, to ensure interface connections			
· detector system and associated devices for elevator recall should be based on pre – a modernisation checklist report. Provide additional smoke detectors where required and necessary programming.		3	
· Retain and Reuse car lighting and switches.		4	
· Retain and reuse main line and switches.		4	
· Provide cleaning of elevator hoistways, machine room and elevator pit.		4	
· Provide all required patching and hoistway repairs required for the elevator system and associated spaces as required to pass inspection. Including all required patching and fire stopping.		4	
· cost associated with Guarding and protecting of hoistways and equipment spaces during construction.		4	
· Painting of elevator machine room ceiling, floor, walls, and elevator pit floor slab.		4	
· Ensure that the pit ladder is still in a good condition and weight tested or Provide one (1) new pit ladder for each lift.		4	

· Removal and proper disposal of all material, trash, and components as herein specified and affected by this project. Please note: The Owner retains the right to claim any abandoned components. The contractor shall not use the Owners trash and/or refuse containers, to provide their own.		4	
Hiring of container for temporal storage of trash		1	
Other items not listed above (Please specify)			
Item	Unit price	Quantities	Price

Sum of price based on Bill of quantities R

Summary of Price

Pricing Schedule A- Preliminaries	R 148 000.00
Pricing Schedule B- Admin cost	R
Pricing Schedule C- Condition assessments Cost	R
Pricing Schedule D- Recommissioning costs subtotal	R
Pricing Schedule E. Documentation	R
Pricing Schedule F – Mark up on bough out Items	R
Pricing Schedule G- Bill of quantities	R
Total Price Excluding Vat	
VAT	

Total Including Vat R

To be populated in the form of Offer.

Pricing Schedule- Points to note:

The employer reserves the right to further negotiate the price.

The provisional amount will be claimed based on proven costs, and the contractor will be expected to provide all supporting documents and the subcontractor's invoice.

ADHOD work will be charged as per contractual rates

The Main contractor to negotiate the labour rates with their sub-contractor to be in line with the contractual rate after mark-ups.

The final price for refurbishment will be negotiated at the stage after the final assessment is done by the contractor.

NEC3 contract will be signed prior to contracting and low service damages will be applicable for low service rendered and contraventions.

Labour rates are inclusive of profits, PPEs, consumables and travelling.

3.1 Employer's Works Information

Description of the works

Executive Overview

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

Background:

King Shaka International Airport is equipped with both passenger lifts and goods lifts for the conveyance of passengers and goods from one level to the other. The challenging part of this system

is that airport has a high volume of movement gives a little time or no time at all for these machines to cool down. This results to goods lifts being in continuous operations with the combination of age and use, since assets were installed in 2010 and are now due for midterm refurbishment.

INTENT

1. The Elevator Contractor will act as the Prime Contractor and shall bear the responsibility of obtaining and coordinating all trades, sub-contractors and

inspections required in performing the work as specified herein in order to provide a “Turn–Key” type project.

2. To ensure that the condition of the modernised assets is for purpose and meet the latest safety and operational standards in terms of the OHSact and SANS standard, in cases of contradiction, the stringent one to apply.

3. to conduct a detailed analysis of the assets in order to provide the employer with the latest condition assessment result. The results are to be used to detail the price of project execution.

4. To provide Annexure B certification and the end of the project.

by contractors, inspections involving other trades, Owner’s inspections, and required jurisdictional inspections.

INSTALLATION TO COMPLY WITH THE SPECIFICATION AND STANDARDS

The lift mordernisation and installations 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 REFURBISHMENT TO COMPLY WITH STATUTORY OBLIGATIONS, REGULATIONS & STANDARDS

Lift 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
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 different 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.

Scope of Work:

The bidder to provide a pre- modernisation report prior to the modernisation work as per attached Annexure A (The items below are to be used as a guide based on the age of equipment that is now 13 years and replaceable on midterm refurbishment., Service providers will have to conduct their own assessment to confirm the conditions of parts.)

Provide new Hoist Machines, Secondary Sheaves, and Deflector Sheaves

Provide new AC hoist motors.

Provide new Overspeed governors and tail sheaves.

Retain and refurbish car safeties and associated equipment.

Provide unintended movement of the car and ascending car over speed

devices.

Provide a new floor landing tape system or solid-state type selector and

landing system.

Provide new hoist and governor ropes.

Provide new cable guards.

Provide new car door operators, door clutches and associated equipment.

Provide new car door hangers, guides, cables, tracks, headers and gate switches.

Provide new hoistway door panels. Retain and reuse hoistway entrance frames and entrances sills. Refinish as specified.

Provide new hoistway door hangers, tracks, rollers, closers, door guides and door retainers.

Provide new hoistway door interlocks and door closers.

Provide new electronic door detector edges.

Provide new car and counterweight roller guides.

Retain and reuse counterweight frames and counterweights. Re-balance elevators as specified.

Retain and reuse car slings and platforms.

Provide new elevator interior wall panels, interior finishes, ceilings, and flooring as specified.

Provide new hoist way wiring, conduit, junction boxes, limit switches, and traveling cables.

Provide new pit stop switches.

Retain and refurbish new car and counterweight buffers.

Provide new hall pushbutton stations with digital position indicators.

Provide new hall directional lanterns.

Provide new car pushbutton panel, hall pushbuttons, and required devices.

retain and ensure the full functioning of handicap features to comply with code.

retain and ensure the full functioning of fire service features to comply with code.

Adjust all safety and emergency control-related devices and provide code safety and balance tests.

retain and ensure the full functioning of emergency access points with escutcheon tubes at all landings.

Provide all inspection and testing as required by ASME A17.1 and SANS 1545 by an approved independent third-party inspection company. Include required

testing for the interface, of the smoke detector system, terminal building fire alarm system, and emergency power system and sliding doors as well as the grounding of lifts the in state of fire detected.

4**. Related Required Building Work:**

Verify electrical power feeders are adequate to support the new parts installed.

Furnish conduit and wiring to new controllers.

Provide any new electrical service and wiring required to support the installed elevator,

machine room and/or building equipment.

Ensure function and make provision for new telephone service and wiring to the elevator machine room if existing is not working. and controller for connection to the elevators. The owner shall order service and the Contractor shall coordinate the installation and connection of the telephone wiring to **the elevator machine room as well as testing the of BMS connection.**

Machine room, secondary sheave space, and pit lighting.

Add additional machine room and secondary sheave space lighting fixtures if required to achieve required lighting as per regulation in terms of SANS standards including lights in the pits.

Ensure that the GFCI electrical outlets are installed in the elevator machine room, secondary sheave space and elevator pits.

5. Modifications to the existing building fire alarm system and smoke

detector system and associated devices for elevator recall should be based on pre – a modernisation checklist report. Provide additional smoke detectors where required and necessary programming.

Retain and Reuse car lighting and switches.

Retain and reuse main line and switches.

Provide cleaning of elevator hoistways, machine room and elevator pit.

Provide all required patching and hoistway repairs required for the elevator system and associated spaces as required to pass inspection. Including all required patching and fire stopping.

Guarding and protecting of hoistways and equipment spaces during construction.

Painting of elevator machine room ceiling, floor, walls, and elevator pit floor slab.

Ensure that the pit ladder is still in a good condition and weight tested or Provide one (1) new pit ladder for each lift.

Removal and proper disposal of all material, trash, and components as herein specified and affected by this project. The Owner retains the right to claim any abandoned components. The contractor shall not use the Owners trash and/or refuse containers, to provide their own.

1.02 REFERENCES

A. Applicable Codes:

1. American National Standard, Safety Code for Elevators and Escalators

(ANSI/ASME A17.1 - 2009).

2. International Building Code (IBC) - 2009

3. National Electric Code (NEC) - 2008

4. American National Standard Specification for Making Buildings and Facilities

Accessibility To and Usable By Physically Handicapped People (ANSI A117.1).

5. Relevant SANS Standard

6. OHSact 85 of 1993

7. SA Department of Labour manual.

1.03 OPERATION PERFORMANCE

A. The control system shall provide smooth acceleration and deceleration with 1/4" levelling

accuracy at all landings from no load to full rated load in the elevator. The floor-to-floor

performance time under the above criteria shall be 14.0 seconds (floor-to-floor time is

measured from the start of the door close on one floor to 3/4 open on the next floor).

B. The door open time shall be 2.0 seconds from the start of door open to fully open.

C. The speed of the elevator shall not vary +/- 5% under loading conditions.

D. Prior to final acceptance and prior to the termination of the maintenance period, the

elevators shall be adjusted as required to meet these performance requirements.

1.04 SUBMITTALS

A. Drawings and Samples:

1. Drawings: Provide complete Terminal drawings, to scale. Include layout of pits, machine rooms, overhead requirements, power and heat data for all equipment, static and impact loads, reaction points and required clearances. Provide manufacturers standard catalogue literature and brochures of all components scheduled for use as part of this project. Provide cab and fixture drawings for review. Final layout of equipment and components submitted shall be determined by the Owner.

Provide a standard submittal register that identifies all items scheduled for submittal and required by this section. Arrange register by specification section and item number for project tracking and coordination. Contractor should provide a submittal package with a table of contents, tabs and/or notes that clearly identify the information provided, where it is located and whether that information has been modified and/or updated since the previous submission in order to expedite the review process and to encourage a collaborative and efficient process for all involved parties.

All drawings shall bear a Professional Engineer's Stamp of a PE licensed in the jurisdiction of this project, in plans, sections, and elevations and

details of the machine room equipment, car enclosures and hoistway entrances. Include the following information:

a. Location of the traction machine, controller, Solid State Motor Drive unit, isolation transformer, choke coil, governor and other components located in the machine room.

b. Existing car, frame and platform, counterweight, sheaves, supporting beams, guide rails, buffers and other components located in the hoistway.

c. Weights of components.

d. Reactions at support points.

e. Maximum vertical and horizontal forces on guide rails.

f. Top and bottom clearance and overtravel of car and counterweight.

g. Location of fused, externally operable mainline disconnect switch and

shunt-trip circuit breaker (CB) without overcurrent trip, light switches, hands-free communication, communication with elevator car device and feeder termination at the controller.

h. Location of outlets for connection of traveling cables for car lights and telephone in the elevator machine room or hoistway.

i. Location of hoistway access switches.

j. Names of the manufacturer, type or style designation of all components provided.

k. Cuts or drawings showing details of hoistway access switches.

l. Provide reference drawings for Owner approval showing details of intended mounting brackets and mounting methods for all new devices (tachometers, rope grippers, etc.) to be attached to existing elevator machines or other existing elevator equipment.

Provide the following drawings for approval:

1. Complete drawings of the cab, showing details of construction and/or alteration and the location of car equipment.

2. Complete drawings of signal and control fixtures, showing all switches, push buttons lights, signage, and all other components of each signal or control fixture and operating device.

3. Corridor elevations, showing the location of each corridor fixture in relation to the hoistway entrance frames and the finished floor.

4. Other drawings, as required, requested or specified within the document.

2. The manufacturer's name, type, or style designation, and the information listed below shall be included on the shop drawings for each elevator.

In addition, the contractor to submit the manufacturer's catalogue data for approval.

a. Solid state drive set and Watt emission

b. Hoist machine.

c. Microprocessor-based controller.

d. Landing control device.

e. Governor.

f. Unintended Movement of Car Device, including mounting details.

g. Power door operator assembly.

h. Hoistway door interlocks and electrical contacts.

i. Buffers including stroke, piston diameter, certified maximum and

minimum loads and maximum striking speeds.

j. Firefighters' Emergency Operation.

k. Isolation transformer, chokes, etc.

l. Machine room monitors, diagnostic tools, service tools, data recording

and/or printing equipment.

m. Signal fixtures, corridor and car operating stations, main floor elevator

lobby panel and/or firefighters' service panel.

n. Door protective device.

3. Calculations:

a. Submit the following calculations and data signed and sealed by the

the qualified professional engineer responsible for its preparation, as

applicable to the equipment involved, within three (3) weeks of Notice to

Proceed:

b. Machine room equipment BTU output.

c. Power supply data sheets, indicating equipment power demand; main

line fuse and auxiliary circuit breaker or fuse sizes; and other pertinent

electrical data, relative to the elevators.

4. Samples: Materials and finishes exposed to public view, 6" by 6" panels or 12"

lengths as applicable.

5. All costs associated with the submittal packages shall be borne on the contractor.

The contractor shall be back charged a fee not in accordance with NEC 3 contract under LSD for each additional review of incomplete or partial submittal packages.

6. No specifications, drawings, sketches, models, samples, tools, computer

programs, technical information or data, written, oral or otherwise, furnished by

Contractor to Owner as part of this proposed project or in contemplation hereof

shall be considered by Seller to be confidential or proprietary. The technical

documentation shall be submitted to the Owner to determine equivalency. The

system, method, or device shall be approved for the intended purpose by the
The owner prior to being utilized.

7. Provide basic project schedule and billing schedule as directed in the bid document.

8. Provide preventative maintenance schedule and “check-in/check-out”
procedures. Submit sample service records and preventative maintenance records.
Electronic maintenance records that do not provide sufficient detail for Owners’
use shall be modified as required to provide all necessary information. On-site,
records are required.

9. Key Personnel Names:

Within 15 days after Purchase order issue date.

submit a list of key personnel assignments, including site manager and other
personnel in attendance at the Project site. Identify individuals and their duties and
responsibilities; list addresses and telephone numbers, including home and office
telephone numbers. Provide names, addresses, and telephone numbers of
individuals assigned as standbys in the absence of individuals assigned to the Project.

B. Equipment Brochure and Service Manuals:

1. Before acceptance of work, furnish three sets of manufacturer's equipment
brochures and service manuals. Assemble manuals in chronological order
according to the specification alpha-numerical system. Provide in heavy duty
three ring binders consisting of:

a. Equipment and components, descriptive literature.

b. Performance data, model number.

c. Installation instructions.

d. Operating instructions and technical field adjustment manuals including
all fault codes and troubleshooting information.

e. Maintenance and repair instructions.

f. Spare parts lists.

g. Lubrication instructions.

h. Detailed, record and as-built layout drawings.

i. Detailed, simplified, one line, wiring diagrams. Provide one complete set per manual.

j. Field test reports.

C. Machine Room Prints. Provide three complete sets of "as-built" field wiring and straight line wiring diagrams showing all electrical circuits in the hoistway as well as the machine room. One set of these diagrams shall be laminated and/or protected and mounted in the elevator machine room as directed.

D. Provide one set of all submittals, shop drawings, wiring diagrams and manuals in electronic format for long term document storage.

1.05 QUALITY ASSURANCE

A. Quality and gauges of materials:

1. New, best of their respective kinds, free from defects.

2. Materials, equipment of similar application; same manufacturer, except as noted.

3. Gauges as noted.

1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Ship in original crated sections of a size to permit passage through available space.

B. Obtain approval and schedule delivery of material to meet Owner's requirements.

C. Storage of equipment and materials shall be coordinated with the Owner.

1.07 SEQUENCING AND SCHEDULING

A. Schedule of operations:

1. Before commencing work, the Contractor shall submit a complete plan and schedule of its proposed operations for approval. In preparation of its plan and schedule, the Contractor shall make do allowance for and include the following:

a. Preparation of equipment and material submittals.

b. Review of each submittal.

c. Delivery lead times for equipment.

2. The schedule may be in the form of a bar chart, graph or other approved system by which are shown predicted starting and completion dates for the various work units or trades involved, together with such other information relative to job progress and completion.

3. The schedule shall be revised, resubmitted, and be kept reasonably current.

B. Interruptions of Building Elevator Service:

1. All work shall be done with a minimum amount of interference to the operation of the airport. The Contractor shall not interrupt the services without the expressed written permission of the Owner.

2. The maximum continuous shut down for each elevator shall not exceed 12 weeks.

3. Each elevator shall be tested and accepted by the Owner prior to starting work on another elevator. Punch list items must be rectified prior to beginning work on another phase.

4. Work may begin after:

a. Detailed work schedule has been approved.

b. A 7 day written notification of elevator shutdown has been given to the Owner stating:

(1) Date the elevator is to be removed from service.

(2) Date the elevator shall be returned to service.

1.08 WARRANTY

A. The elevators and associated equipment shall be free of defective material, imperfect work and faulty operation not due to ordinary wear and tear or improper use or care, for a period of one year from final acceptance of all elevator work. Defective work shall be repaired or replaced at no additional cost to the Owner.

1.09 MAINTENANCE SERVICE

This work does include maintenance of assets but the contractor to note that warranties should not be voided if maintenance is done by competent maintenance service providers.

1.10 ELECTRIC SERVICE

A. Power: 460 volts, 3 phase, 60 hertz. Elevator Contractor to verify.

B. Lighting: 120 volts, 1 phase, 60 hertz.

1.11 PROTECTION OF PERSONS AND PROPERTY

A. The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work.

B. The Contractor shall take reasonable precautions for the safety of, and shall provide reasonable protection to prevent damage, injury or loss to:
Employees of the Consulate and other persons who may be affected thereby.

2. The work, materials, and equipment to be incorporated therein, whether in storage on or off the site, under the care, custody or control of the Contractor or any of his Subcontractors or Sub-Subcontractors.
C. The Contractor shall comply with all applicable laws, ordinances, rules, regulations and lawful orders of public authority having jurisdiction for the safety of persons, property or to protect them from damage, injury or loss. He shall erect and maintain, as required by existing conditions and progress of the work, all partitions for safety and protection, including posting danger signs, and other warnings against hazards, promulgating safety regulations and notifying owners and users of adjacent utilities.
D. The Contractor shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated in writing by the Contractor to the Owner.
E. In any emergency affecting the safety of persons or property, the Contractor shall act, at his discretion, to prevent threatened damages, injury or loss.
F. The Contractor shall schedule a pre-construction meeting with the Tenant, Owner and Engineers to introduce the project superintendent perform a pre-construction inspection of all common areas, including restroom and areas not affected by the renovation work and discuss project specifics including schedules. Any pre-existing damages or deficiencies will be noted at that time and copies provided to all parties. Upon completion of work the Contractor shall return these areas in the same condition in which they were originally viewed. Any damages occurring during construction shall be corrected and the cost of such corrections is the responsibility of the Contractor.
G. The Owner, Property Manager and Consultant reserve the right to shut the job or a portion of the job down immediately if any danger to the building or an existing Tenant is noted. The Owner reserves the right to require certain portions of the project which create objectionable noise or odours (i.e., polymix, oil-based paint, etc.) be performed after hours, dependent on the sensitivity of existing Tenants adjacent to, above, or below space being

constructed.

H. Contractor is responsible for clean-up of their work area and trash including the removal of waste foods, and containers, from the building daily. The building's trash receptacles and compactors are not available for use by the Contractor and at no time is the Contractor to place any construction debris in the building's trash compactor or dumpster without prior approval of the Owner. The Contractor shall obtain the Owners prior approval before locating any dumpster on the site. Trash and debris must be removed off-site. If ceiling tile or fire stopping is disturbed, they must be replaced immediately.

I. Public spaces, corridor, elevators, bathrooms, lobby, etc. must be cleaned immediately after use. Construction debris or materials found in public areas will be removed at the Contractor's expense.

J. Upon completion of the work, space is to be thoroughly cleaned prior to being turned over to the Owner. This includes vacuuming of carpets, washing of all interior walls, windows and windowsills. Additionally, cleaning and wiping of all existing hardware and doors of dust and speckles of paint, cleaning of all restrooms that Contractor has used. Owner reserves the right to bill contractor for any cost incurred to clean up debris left by Contractor.

K. The Contractor shall ensure that their employees and Subcontractors protect the building and roof system against damage resulting from the performance of work and transportation of materials to or from the premises. Transportation of all materials in or out of the building shall not cut, mark or otherwise damage any area of the building.

L. The Contractor shall provide whatever protection is required to adequately protect carpets, stonework, wall coverings, floors, roof systems, stairwells, and elevators at the premises from damage. If carpeting is to remain, it is to be protected by heavy plastic cover or removed for future reinstallation upon completion of the work. Plastic, Masonite or carpet runners should be used from the elevators to the mechanical rooms.

The Contractor shall also provide heavy plastic screening or a temporary wall of suitable appearance, as required by the Owner, to screen in and protect adjacent areas from dust or debris.

M. During the course of the work the Contractor shall be responsible to the extent necessitated by such work, for the safety of the building its occupants, and their workmen and shall protect the same as required by good construction practice and law.

N. Contractor will be responsible for the behaviour of its employees and Subcontractor's employees. Harassment and/or "teasing" of tenants, occupants, guests, and the general public are specifically prohibited.

1.12 NOISE AND VIBRATION

Due to faulty equipment or workmanship; correct as approved without additional charge.

1.13 PERMITS AND INSPECTION FEES

All permit induction and site training are to be charged on price without mark-up to the owner. Permit requirements are attached in this document.

1.14 SIGNAGE

Provide "Temporarily Out Of Service For Renovation" signs and post at all elevators entrances.

PART 2 - PRODUCTS

2.01 MANUFACTURERS- The contractor to verify information as it pertains to the manufacturer and updates the information on outline of equipment after modernisation phase.

2.02 OUTLINE OF EQUIPMENT

A. Elevator number: 1

1. Elevator use: Passenger

2. Manufacturer: Otis Elevator Company

3. Contract load, in pounds: 2,500

4. Contract speed, existing: 200 FPM

After Modernization: 200 FPM

5. Travel distance: Field verify.

6. Number of stops: Four (4) – T, 1, 2, 3

7. Number of openings: Three (3) - Front, One (1) - Rear

8. Machine location: SS Landing

9. Machine type: Basement Traction

10. Type of control: VVVF Drive

11. Operation, Presently: Simplex Selective Collective

After Modernization: Simplex Selective Collective

12. Car and hoistway door size: 3' - 6" wide by 7' - 0" high

13. Car and hoistway door type: Centre Parting

Embassy of Brazil Bid Set

14. Car and hoistway door operation: power

a. Medium -speed, heavy duty (minimum opening speed 2.0 FPS)

15. Hoistway entrance: Retain and Refinish Existing.

16. Cab enclosure: Provide new as specified.

17. Door-reversal device: Provide new as specified.

18. Car operating panel: Provide new as specified.

19. Car position indicator (in car): Provide new as specified.

20. Hall call stations: Provide new as specified.

21. Lobby position indicator: Provide new as specified.

22. Hall Direction Lanterns: Provide new as specified.

23. Fire Control Panel: Incorporate in lobby station.

24. Communication system: ADA Compliant, Hands-Free Type.

B. Elevator number: 2

1. Elevator use: Passenger

2. Manufacturer: Otis Elevator Company

3. Contract load, in pounds: 2,500

4. Contract speed, existing: 200 FPM

After Modernization: 200 FPM

5. Travel distance: Field verify.

6. Number of stops: Five (5) – SS, T, 1, 2, 3

7. Number of openings: Five (5) - Front

8. Machine location: SS Landing

9. Machine type: Basement Traction

10. Type of control: VVVF Drive

11. Operation, Presently: Simplex Selective Collective

After Modernization: Simplex Selective Collective

12. Car and hoistway door size: 3' - 6" wide by 7' - 0" high

13. Car and hoistway door type: Centre Parting

14. Car and hoistway door operation: power

a. Medium -speed, heavy duty (minimum opening speed 2.0 FPS)

15. Hoistway entrance: Retain and Refinish Existing.

16. Cab enclosure: Provide new as specified.

17. Door-reversal device: Provide new as specified.

18. Car operating panel: Provide new as specified.

19. Car position indicator (in car): Provide new as specified.

20. Hall call stations: Provide new as specified.

21. Lobby position indicator: Provide new as specified.

22. Hall Direction Lanterns: Provide new as specified.

23. Fire Control Panel: Incorporate in lobby station.

24. Communication system: ADA Compliant, Hands-Free Type.

2.03 MACHINE ROOM EQUIPMENT

A. Provide equipment to fit existing space and project conditions.

B. Hoist Machine: Provide new worm geared traction type with brake, worm, gear and sheave mounted on a common bedplate. Provide ball or roller type bearings arranged to eliminate backlash. Provide vibration isolation, of an approved type, which shall effectively prevent transmission of machine vibration to the building structure.

C. Hoist Ropes: Provide new 8 x 19 sealed construction traction steel type and fasten with adjustable shackles. Hoist ropes shall be properly tensioned with tensioning device.

Submit documentation upon turnover of elevator.

D. Emergency Brake: Provide means to prevent ascending car overspeed and unintended car movement per Code.

Mount the auxiliary brake on suitable structural steel supports. Provide a drawing showing the supports, stamped by Professional Engineer verifying the adequacy of the support provided

Provide control circuits to enable the device to function as required by Code.

E. Hoist Motor: Provide new Alternating Current type, rated NEMA "D" and Type "F" insulation or better and designed to develop high starting torque with low starting current.

F. Motor Drive Unit: Provide new variable voltage, variable frequency (VVVF) drive.

1. Provide the elevators with new solid state motor drives, providing variable voltage and regenerative power controls by means of devices that can control

current without moving parts and that use static switching by means of solid state devices.

2. The static control system shall be arranged that during acceleration and retardation periods, graduated voltage shall be applied to the armature of the elevator hoisting motor by the use Variable Voltage Variable Frequency (VVVF). The system shall accomplish this gradual voltage change automatically and without interruption of power. The system shall provide smooth and practically uniform acceleration and retardation which shall be obtained electrically and independent of the carload. The control shall be equipped with overcurrent, overload and overvoltage protective devices to automatically limit current drawn by hoisting motor to that required for specific duty to prevent damage to hoisting motor and VVVF Drive Unit.

3. Provide dynamic braking so that under normal operation, the hoist motor shall be sufficiently slowed down electrically to be practically stopped at the instant of brake application.

4. Provide electronic feedback sensing circuits which shall cause the electric power to be removed from the motor armature and brake, unless there is sufficient current to prevent over speeding of the motor.

5. The motor drive unit shall be provided with high-speed fuses connected in series to protect each unit against current surges.

6. Fans or other devices shall be provided to extract heat emitted by the drive unit as required for proper operation.

7. Motor drive unit components shall be installed in a NEMA 1 enclosure located in the control cabinet. All components shall be conservatively rated to provide a life of not less than 100,000 hours. All electric connections between the electric feeder, the motor drive unit, and the elevator hoist motor shall be made with suitable connectors or to suitable terminal blocks.

8. Power to the car lighting and car fan or blower shall not be interrupted if a motor drive unit is shut down by an overload, blown fuse, or other abnormal conditions.

9. Elevator manufacturers shall provide necessary isolation transformers, reactors,

capacitors, filters and other devices to limit the overall Distortion Factors at the point connection of the elevator converter feeder to the electrical distribution system to a maximum of 3 percent. This shall include compensation for the following:

a. Harmonic Distortion

b. Power Factor

c. Flicker

d. Line Notching

10. All control wiring shall be isolated from power wiring to minimize inductive coupling.

11. Submit for approval, applicable brochures and technical information as required for solid state equipment (motor drives, system processors, etc.)

12. The use of solid-state equipment shall not interfere with any of the Owner's sensitive electronic equipment. In addition, provide adequate sound suppression equipment acceptable to the Owner to control airborne and/or structure-borne noises and vibration.

13. Inform the Owner of any possible or foreseeable problems associated with noise, vibrations, electrical interferences, etc., as related to solid state equipment.

G. Controller and Selector: Disconnect and completely remove the existing controller and selector for each elevator and replace with new controller, installed and connected in place, all complete as hereinafter specified. The system shall utilize isolated solid state input/output interface for the majority of signals. It is understood, where required by Code, relays and contacts are to be utilized for safety and power control considerations. The use of relays as input or output devices are not acceptable.

1. All controller components shall be designed to provide the required operation as herein specified.

2. All assemblies, power supplies, switches, relays and other items shall be securely mounted on a substantial, self-supporting steel frame of angles or channels and shall be totally enclosed with covers in a floor mounted cabinet. Equipment shall not be mounted on any of the covers.

3. All controller switches and relays shall be magnet operated with contacts of

design and material to insure maximum conductivity, long life and reliable operation without overheating or excessive wear and shall provide a wiping action to prevent sticking due to fusion.

4. Where time delay relays are used in the circuits, they shall be of an acceptable design that is reliable and consistent, such as condenser timing or electronic timing circuits. No dashpot time relays shall be used.

5. Each device on all panels shall be properly identified by name, letter, or standard symbol which shall be neatly stencil painted (or otherwise marked), in an indelible and legible manner, on device or panel. Identification markings shall be coordinated with identical markings used on wiring diagrams. The ampere rating shall be marked adjacent to all fuse holders. All spare conductors shall be neatly formed, laced and identified.

6. Safety switch shall cut off current, automatically apply brake and stop car upon current failure or upon operation of any electrical safety device.

Speed Regulation:

1. The rate of acceleration and deceleration of the cars under any condition of load shall be as nearly constant as is possible with the method of control specified and employed and shall be independent of the operating devices in the car.

2. The acceleration, deceleration and velocity shall all be computer controlled. The detection of velocity and position of the car shall be fed into the computer.

The computer shall compare this information with the velocity profile and adjust as necessary to ensure a fast and smooth acceleration and deceleration curve. The maximum acceleration/deceleration shall be 4 feet/sec2 and shall change uniformly.

3. Entire elevator equipment including hoisting machines and controllers shall operate without irregularities and quietly by use of high-grade materials, first class workmanship and adjustments.

L. Overspeed Governor, Tension Sheave and Car Safety Device:

1. Governor: Provide new overhead centrifugal type, car driven, with electrical shutdown switches. Properly calibrate and test in accordance with Code requirements.

2. Car and platform safety device: Retain and reuse existing. Dismantle and replace any worn components. Properly adjust and test in accordance with Code

requirements.

3. Tension Sheave: Provide new.

4. Governor Rope: Provide new 8 x 25 wire type governor rope. Fasten with adjustable shackles.

5. Adjustment: The governor shall be accurately adjusted and full-load, full-speed tested to operate within limits specified by code. All adjustable parts shall be sealed. Provide each unit with a test tag.

6. Switches: The operation of the governor on over-speed shall open a switch disconnecting the power from the elevator before a safety mechanism has tripped. A second switch shall be provided to reduce the speed of the elevator prior to the operation of the disconnect switch.

7. Marking Plate: A metal marking plate shall be securely fastened to the governor and marked with governor tripping speed, pull through data and rope size and construction.

M. Machine Beams: Existing machine beams, anchor bolts and floor slabs may be reused in place. Contractor shall provide any necessary blocking or support beams as required to

complete the renovation or to facilitate the installation of necessary safety devices or support equipment.

N. Templates, Forms, Sleeves and Guards: All templates, forms and sleeves for providing necessary openings in the concrete slab over the hoistway shall be provided as part of this work. Sleeves for conduit and other small holes shall project 4" above the concrete slab. Provide 6" steel angle guards around cable or duct slots.

O. Deflector and Secondary Sheaves: Provide steel machined and grooved for diameter of ropes and supported by or attached to steel beams or channels. Provide cable guards designed to withstand shock and prevent ropes from leaving their proper grooves. All bearings are to be shielded or sealed. Provide drip pans, where required, under deflector sheaves.

2.04 HOISTWAY EQUIPMENT

A. Guide Rails and Brackets:

1. Retain existing car and counterweight guide rail brackets.

2. Thoroughly clean all guide rails of grease, oil and other foreign substances, file and remove all rough edges and surfaces. Realign, and tighten bracket bolts and guide rail clips for smooth and quiet operation of car and counterweight.

3. Guide rail loads shall be shown on Elevator Contractor's drawings. Include safety application, running, loading and seismic loads.

B. Buffers: Retain and reuse existing.

1. Buffers shall be load tested and tagged after equipment modifications.

2. Load reactions, on buffer application, shall be indicated on the Elevator Contractor's drawings.

C. Counterweight and Roller Guides:

1. Retain and reuse existing counterweight frame and counterweights. Provide necessary retainer rods and tie down assemblies. The counterweight shall weigh the same as the complete elevator car plus approximately 40% of the specified capacity load. Filler weights shall be held securely in alignment with tie rods passing through holes in the weights and frame members. Rods shall be equipped with double locknuts secured by cotter pins at each end.

2. Roller Guides: Provide new roller type with three or more sound deadening rollers per guide with adjustable springs or other method to maintain rail contact. Provide retainer plates top and bottom.

3**. Counterweight Guard: Retain existing. Clean, lightly sand and paint.**

D. Normal and Final Terminal Stopping Devices:

1. Normal Device Operation: Normal terminal stopping devices shall be provided new, consisting of electrical contacts located on top of the elevator car which are operated by cams mounted at the top and bottom of the hoistway or shall consist of electrical contacts located at the top and bottom of the hoistway and operated by a cam or cams located on top of the elevator car. This device shall automatically bring the elevator to a stop at the top and bottom terminal landings with any load up to and including 125% of the contract capacity from any speed attained in normal operation. This device shall operate independently of any other operating devices and shall continue to function until the final limit switch operates.

2. Final Device Operation: Final limit switches located at top and bottom of the hoistway shall be arranged to automatically stop the car and counterweight within the predetermined overtravel limits, independently of all other devices.

3. Rollers: Switches shall be equipped with engaging arms provided with polyurethane-tired rollers for engagement with cams.

E. Electrical Wiring: Terminal connections for all conductors at equipment panels, centre of hoistway and on elevator car shall be made with terminal blocks or studs having identifying numbers. All conductor connections shall be made with terminal eyelets of the solderless type.

1. Wiring, Duct and Conduit:

a. Stranded or Solid copper wiring throughout.

b. All required new wiring from the controller, selector, dispatch panels, etc., and from the separate outlet for car lights and telephone to all elevator equipment, shall be furnished installed as part of this work. Wiring shall be properly insulated and have a flame-retarding and moisture-resistant outer cover shall be run in galvanized metallic conduit or duct, using strain boxes as required. Interlock wiring from the hoistway riser to each new interlock shall be fire resistant NEC Code type SF-2 or equivalent.

c. Conduits or other wiring shall not be exposed in the lobby or other occupied parts of the building.

2. General Wiring Requirements:

Provide a completely properly operating system for each item of electrical equipment required to complete the project. Installations shall be in accord with manufacturer’s instructions, the best industry standards and practices and the contract documents.

a. Install all wiring and conduit in accordance with National Electric Code requirements and industry standards and practices.

b. Rout wire and cable as required to meet project conditions.

c. Make installation in a neat, finished and safe manner, according to the

latest published NECA Standard of Installation under competent supervision.

d. Neatly train and secure wiring inside boxes, equipment, and panel boards.

e. Install systems, materials, and equipment level and plumb, parallel and perpendicular to other building systems and components. As much as practical, connect equipment for ease of disconnecting, with minimum of

interference with other installations.

f. Riser cables shall have cable supports as required by Code.

g. Identify all wire and cable as required. Identify each conductor with its circuit number and/or designation.

h. Connect all conductors. Torque each terminal connection to the manufacturers recommended torque value.

i. Support conductors installed in vertical raceways at intervals not exceeding those distances indicated in the National Electric Code. Support conductors in pull boxes with strain reducing supports provided for the size and number of conductors in the raceway. Do not splice conductors in pull boxes used for vertical cable support.

j. Control, communications or signal conductors shall be installed in separate raceway systems from branch circuit or feeder raceways.

k. Where mounting heights are not detailed or dimensioned, install systems, materials, and equipment to provide maximum headroom possible.

l. Properly ground and bond all electrical conduits and raceways in accordance with National Electric Code requirements.

3. Electrical Cables:

a. Traveling Cables shall be provided new. Pad cab platforms where cables rub. Provide hardware cloth or antichaf protection for full traveling cable movement height between cables and all hoistway divider beams.

b. The car operating panel, position indicator, and other electric equipment on the car shall be connected directly to the controller by means of

flexible cables run from the bottom of the car to the machine room control panel.

c. Cables shall have a flame-retarding and moisture-resistant outer cover, and shall be suitably suspended to relieve strain in individual conductors.

d. Each traveling cable shall contain 10% spare wires and in any event not less than five spare wires. At least one travel cable shall contain a minimum of six (6) shielded twisted pair and one (1) coaxial cable for Owners use.

e. Provide a separate junction box on the cartop and at the controller that is clearly identified as “Security and Communication Wiring and Coaxial Cable”. All unused conductors shall be neatly coiled and stored within the junction boxes.

F. Pit Stop Switch: Provide new red coloured stop switches to meet Code requirements.

2.05 DOOR AND ENTRANCE EQUIPMENT

A. General: Retain existing entrance frames and door panels. All entrance frames and door panels shall be sanded, re-finished and painted with an electro-static finish in a colour selected by the Owner.

B. Frames: Retain existing entrance frames. All entrance frames and door panels shall be sanded, re-finished and painted with an electro-static finish in a colour selected by the Owner.

C. Provide handicapped designations at a height of 60" above the floor.

1. The plaques shall have light coloured numerals on a black background. The numeral colour is to be eggshell finish (11-to-19-degree gloss).

2. Designations shall be flush with inconspicuous mechanical mounting.

D. Sills: Retain existing.

E. Struts: Retain existing.

F. Header: Retain existing.

G. Hanger Cover Plates: Retain existing. Replace any missing cover plates with new removable, full length No. 14 gauge steel. Covers shall be made in sections for convenient access to hangers.

H. Fascia: Retain existing. Clean and paint as specified.

I. Toe Guard: Retain existing. Clean and paint as specified.

J. Dust Cover: Retain existing. Clean and paint as specified.

K. Door Bumpers: Provide new on vertical struts at top and bottom.

L. Doors: Doors: Provide new door panels of hollow metal flush door construction, 16 gauge furniture steel. Fill with fireproof, sound deadening material. Provide reinforcement by formed vertical sections running full height of door. Doors shall be provided with two removable, non-metallic gibs, located at the leading and trailing edge of the door panel. Centre opening doors shall be provided with full length rubber astragal at leading edge of each door. Finish shall be baked enamel colour as selected by the Owner. Door roller and mounting assemblies shall be detachable and/or removable from the door panels. Landing designations shall be permanently applied to the inside of each door panel. Provide door retainers.

M. Sight guards: Provide for each landing door panel, constructed of No. 16 gauge furniture steel. Finish to match doors.

N. Hanger: Provide two-point suspension sheave type with provisions for vertical and lateral adjustments. Sheaves shall be minimum 2 1/4 inch in diameter with sealed ball or roller bearings.

O. Tracks: Provide cold drawn steel shaped and finished to permit free movement of sheaves. Bottom of track shall be in contact with upthrust roller.

P. Closer: Provide spring or aspirator type.

Q. Door Protection: Provide new. The face of the electronic edge shall illuminate GREEN when opening, RED when closing and flash 5 seconds prior to closing.

1. Electronic Entrance Protection: Provide car door with full height protective device which projects infrared light beams across the entire opening and beyond the leading edge of the door panels. Doors shall automatically return to open position if any light beam is blocked or obstructed. Doors shall not be required to contact an obstruction to initiate the reopening process. Provide onboard automatic diagnostic circuits.

2. Differential Door Timing Feature: Provide adjustable timers to vary the time that the doors remain open in response to a car or hall call.

The doors shall remain open for one second in response to a car call and five to eight seconds for a hall call. This time shall be reduced to ½ second if the light ray is interrupted. The doors shall remain open as long as passengers are crossing the threshold.

3. Nudging: When doors are prevented from closing for 20 seconds due to failure of the light ray or obstruction, the doors shall close at reduced speed and a buzzer shall sound. Provide all required fire service operating features.

R. Door Operator: Provide a medium speed, closed-loop type, heavy-duty master electric power door operator to automatically open and close the car and hoistway doors. The doors shall be capable of smooth and quiet operation without slam or shock.

1. Opening speed shall not be less than 2.0 f.p.s. with reversal in no more than 2-1/2 inches.

2. Hoistway doors shall be automatically closed by an auxiliary closing device if car leaves the landing zone.

3. Provide restricted car door opening in accordance with code requirements.

4. In case of a power interruption, it shall be possible to manually operate car and hoistway doors.

S. All hoistway doors shall be equipped with a new electromechanical interlock, designed to prevent the starting of the car until the doors are closed and locked. The interlock shall be of a type to meet all requirements of the Code. Engaging components of the mechanical-locking device shall be free of noises.

T. Car Door Contacts: Electrical contacts shall prevent the operation of the elevator by normal operating devices unless car doors are closed or within tolerances allowed by Code.

U. Unique Identifier: Provide elevator identification number at the main landing in accordance with ASME A17.1, rule 2.29.1.

2.06 CAR EQUIPMENT

A. Car Frame: Retain existing.

1. Elevator Safety Device: Retain and reuse existing. Dismantle and replace any worn components. Properly adjust and test in accordance with Code requirements.

2. Safety Contact: If required, provide an electrical contact, connected electrically in the safety circuit and mechanically to the safety device shall be arranged to shut off power to the elevator motor upon engagement of the safety jaws.

B. Platform: Retain existing.

C. Roller Guides: Provide new three-point roller type with neoprene or polyurethane type rollers.

D. Sill: Retain existing. Clean as required to provide a “like new” appearance.

E. Levelling Apron: Provide new, minimum length 48 inches. Overall length may be adjusted based on existing pit depth.

F. Hangers and Tracks: Provide new. Requirements same as hoistway entrance door hangers and tracks.

G. Car Enclosure: Retain the existing shell and refurbish the elevator interior.

Provide the following features:

1. General: The enclosure shall be adequately reinforced and ventilated to meet all the Code requirements. The intent is to match exactly the existing elevator finishes with new.

2. Shell:

a. Sides and back shall be 14-gauge sheet steel with baked enamel interior finish. Baked enamel colour as selected by the Owner. Arrange shell to accept interior panels as specified.

1. Canopy: Provide maximum clear height obtainable under car sling crosshead. Reinforced 14-gauge furniture steel. Underside painted baked enamel reflective white.

Arrange for hinged top emergency exit including lock as required by Code.

b. Suspended ceiling and lighting:

1. Provide manufacturer's standard t-frame drop ceiling with milk white acrylic lenses.

2. Interior lighting shall provide a minimum of 10 ft. Throughout the elevator interior.

3. Provide clear access to the emergency exit per Code requirements.

c. Front return panels: Retain and reuse existing. Modify as required to accept car pushbuttons, required devices and signal fixtures. All signage shall be engraved. Applied or attached signage of any kind is

unacceptable. Clean and re-grain existing surface.

d. Transom: Provide new transom in order to eliminate the car position indicator cut-out. Finish shall match the return panels.

e. Car door panels: Provide new. Door panels shall be hollow metal construction, 16-gauge furniture steel. Fill with fireproof, sound deadening material. Provide reinforcement by formed vertical sections running full height of door. Doors shall be provided with two removable, non-metallic gibs, located at the leading and trailing edge of the door panel. Finish shall be stainless steel No. 8 mirror finish.

f. Interior panels: Provide either applied panels of plywood or wood coreboard construction with stainless steel. Stainless steel finish as selected by the Owner.

g. Handrail: None.

h. Base: Provide a 2-inch-high base. Finish shall be stainless steel No. 4 brushed finish.

i. Pads and Hooks: Provide pad hooks and pads. Pad hooks shall be conspicuous type (buttons) at front return panels and sides and rear walls. Mount pad hooks at sides and rear above suspended ceiling line. Pads shall cover all walls and front return panels. Elevator shall not be placed into service without protection pads.

j. Ventilation: Two-speed exhaust fan.

k. Floor Covering: Provide new VCT tile flooring and three (3) precut carpet mats. Carpet mats shall be cut to match the completed interior dimensions with all edges bound and sewn. Colors as selected by the Owner.

2.07 SIGNALS AND FIXTURES

A. Provide metal disc pushbutton modules with blue L.E.D. illuminated halos. The intent is not to furnish buttons or modules with plastic bezels or bases or those of an integral design. All illumination including the emergency lighting shall utilize blue L.E.D. technology.

B. Car Operating Panel:

1. Provide one car operating panel with the front of the elevator cab panels. Panels shall have illuminating pushbuttons numbered to conform to floors served. Buttons shall light to show registration and extinguish when car stops in response to a call. Each panel shall include an emergency stop switch, alarm bell button, DOOR OPEN, and DOOR CLOSE buttons. All operating controls shall be located no higher than 48" above the car floor, (35" for stop switch and alarm button). Provide main car panel with locked Fireman's Service cabinet and required Phase II emergency fire operation. Provide hands free type surface mounted telephone/intercom system. Braille/Arabic designations shall be flush with inconspicuous mechanical mounting. Finish shall be stainless steel no. 4 finish.

2. Provide the following switch type controls within locked service cabinet:

a. A light switch.

b. Two Speed Fan switch.

c. Independent service switch.

d. Emergency Stop Switch.

e. Inspection Service Operation.

4. Engrave the panels with the following:

a. No Smoking.

b. Elevator Number over operating buttons.

c. Elevator Capacity.

d. Fire service operating instructions.

C. Car Position Indicator: Provide new digital readout type with 2 inch high (minimum) indications in the transom above the elevator entrance. Colour of the position indicator shall match car pushbutton illumination. Provide audible floor passing electronic chime.

D. Hall Direction Lanterns: Provide new UP and DOWN square white lanterns mounted at each entrance to the elevator. Provide new illumination and electronic chimes that shall sound once for the up direction of travel and twice for the down direction of travel. Finish shall match the hall pushbutton stations.

E. Hall Buttons: Provide two new risers of hall pushbuttons with direction of travel arrows incorporated into the button design. Stations shall include flush mounted oversized

faceplate to eliminate patching or repair of existing wall covering. Finish shall be stainless steel No. 4 brushed finish. Fire and Emergency Exit signage (Appendix O) shall be engraved on the faceplate. Incorporate Fire Service operating features in the main lobby hall station. Provide communication failure indicator.

F. Hall Position Indicators: Provide within the hall pushbutton stations digital readout type indications and direction of travel arrows for each elevator. Colour of the position indicator shall match car pushbutton illumination.

G. Emergency Car Lighting and Alarm System: Unit shall provide emergency L.E.D. lighting in car upon failure or interruption of normal car lighting. L.E.D. emergency lighting unit shall provide a minimum illumination of 0.2 footcandle at 4 feet above car floor approximately 1 foot in front of car operating panel for not less than 4 hours. Battery shall be sealed rechargeable type. Battery charger shall be capable of restoring battery to full charge within 16 hours after resumption of normal power. Provide an external means for testing battery, lamps, and alarm bell.

Incorporate in the design of the car pushbutton station.

H. Hoistway Access: Provide hoistway inspection access key switches at the terminal landings. Mount adjacent to entrance frames. Finish shall be stainless steel No. 4 brushed finish.

I. Provide Firefighters rescue key box mounted in the main lobby.

2.08 COMMUNICATION SYSTEM

A. Telephone System: Provide ADA hands free telephone system integral with main car return panel. Engrave all required signage and operating instructions.

B. Provide wiring from car to telephone terminal box in elevator machine room.

PART 3 - EXECUTION

3.01 EXAMINATION OF EXISTING BUILDING AND CONTRACT DOCUMENTS

A. Bidder shall carefully examine all existing building conditions and be informed as to facilities for delivery of materials and equipment, floor loading limitations, and be familiar with difficulties that may be encountered in completing execution of all work, prior to bid.

B. Bidder will be held to have examined all specifications and all other data or institutions pertaining to work.

C. The Owner shall bear no responsibility for any incomplete or missing wiring diagrams or other data which may be needed to adapt the new equipment to the existing equipment. Obtaining such information from other sources is the Contractor's responsibility.

D. No consideration or allowance will be granted for failure to visit site, or for alleged misunderstanding of materials to be furnished, or work to be done, it being understood that tender of proposal carries with it agreement to all items and conditions referred to herein.

3.02 MAJOR ALTERATION - INCREASE IN DEAD WEIGHT

A. The original car shall be weighed, and documentation furnished to the enforcing Code authorities prior to the addition of any specified items.

B. After the addition of any specified items to the car, the car is to be reweighed to ensure that the additions do not exceed the Code limit of 5%. Documentation shall be furnished to the enforcing Code authorities verifying the results. If the load exceeds the 5% limit the rated load shall be increased.

3.03 FIELD QUALITY CONTROL

A. Tests:

1. Perform as required by code, and authorities having jurisdiction.
2. Provide labour, material, equipment and connections.
3. Repair or replace defective work as required.
4. Pay for restoring or replacing damaged work due to tests.

B. Final Inspection:

When all work is completed, and tested, notify the Owner in writing that the elevator is ready for final inspection and acceptance test. A testing and inspection date shall then be arranged. The proper operation of every part of the elevator system and compliance with contract requirements of the Code shall be demonstrated to the Owner. Furnish all test instruments, weights, and materials, required at the time of final inspection.

A. Final System Tests for Smoke Detection/Fire Elevator Recall: After work is completed, conduct a final test of entire system. Submit results on approved test report forms.

B. Reinsertion: If any equipment is found to be damaged or defective, or if the

performance of the elevator does not conform to the requirements of the contract specifications or the Safety Code, no approval or acceptance of the elevators shall be issued until all defects have been corrected. When the repairs and adjustments have been completed and the discrepancies corrected.

The Owner shall be notified, and the elevator shall be reinspected. Rejected elevators shall not be used until they have been reinspected and approved.
If deficiencies are found, or if the consultant/owner deems it to be necessary the contractor shall perform the following tests at no additional charge immediately following the final inspection.
1. Test Period: The elevator shall be subjected to a test for a period of one hour continuous run, with full specified load in the car. During the test run, the car shall be stopped at all floors in both directions of travel for a standing period of 10 seconds per floor.
2. Speed Load Tests: The actual speed of the elevator car shall be determined in both directions of travel with full contract load and with no load in the elevator car. Speed shall be determined by a tachometer. The actual measured speed of elevator car with full load shall be within 5% of rated speed. The maximum difference in actual measured speeds obtained under the various conditions outlined between the "UP" and the "DOWN" directions shall be checked.
3. Floor-to-floor times with no load in the car, balanced load in the car and full load in the car shall be checked.
4. Car Levelling Tests: Elevator car levelling devices shall be tested for accuracy of landing at all floors with no load in the car, balanced load in; the car and full load in the car, in both directions of travel. Accuracy of floor landing (plus or minus 1/4 inch) shall be determined both before and after the full-load run test.
5. Insulation Resistance Tests: The complete wiring systems of the elevator shall be free from short circuits and grounds, and the insulation resistance shall be determined by use of a "Megger." Conductors shall have an insulation resistance of not less than one megohm between each conductor and ground and between each conductor and all other conductors.

6. Reinspection: If any equipment is found to be damaged or defective, or if the performance of the elevator does not conform to the requirements of the contract specifications or the Safety Code, no approval or acceptance of the elevators shall be issued until all defects have been corrected. When the repairs and adjustments have been completed and the discrepancies corrected. the Owner shall be notified and the elevator shall be reinspected. Rejected elevators shall not be used until they have been reinspected and approved.

3.04 ADJUSTING AND CLEANING

A. All equipment shall be adjusted prior to final testing and acceptance.

B. Paint exposed work soiled or damaged during installation. Repair to match adjoining work prior to final acceptance. At a minimum all hoistway and machine room components shall be field painted with at least one coat of machine grade enamel. Paint the machine room and pit floor in a standard grey and machine room walls in an off-white colour. The intent is to provide a final product that is neat, clean and painted.

3.05 INSTRUCTIONS

Upon completion of all work, the Elevator Contractor shall provide an instruction period. Instructions shall be given by competent supervisory personnel and shall apply to actual field conditions. The instructions shall cover, but shall not be limited to the following:

A. Operation of elevators under emergency conditions.

B. Operation and maintenance of smoke detector and elevator fire recall system.

C. Operation of elevator communication, electronic entrance detector, hoistway access devices, etc.

END OF SECTION

Annexure A

PRE-MODERNIZATION CHECKLIST ELECTRIC ELEVATORS

BUILDING: _____ EQUIPMENT #:_____

Manufacturer: _____
Model:_____

Evaluation Performed By:
_____

INTRODUCTION:

The following checklist of items should be used for evaluating the existing elevators for modernization. It is not intended to replace the complete hoistway and machine room survey that is required to prepare a proper layout.

Given the scope, variety, and complexity of the equipment, a small item that is overlooked, may prove extremely costly when the job is in progress. The format has been arranged to follow the sequence of Sections 8.10 and 8.11 of the ASME A17.1/CSA B44 Code. The engineering section is intended to aid the engineering officials in their evaluation. Insert “NA” in the note column where the item does not apply.

“Notes” Reference individual user comments on the attached separate sheet on factors that may affect compliance with contract specifications. Preface each question with “Have I checked”			
1.0	INSIDE CAR	Yes	Comment

1.1	For compliance with codes, clearances and space including out of plumb conditions and for compliance to ASME A17.3, Paragraph 3.4.3?		
1.2	Car and car doors:		
1.2.1	Car inside dimension vs. capacity?		
1.2.2	Condition (enclosure, floor, hang on panels, support rails)?		
1.2.3	Keying to suit security requirements?		
1.3	The existing operator will meet performance specifications.		
1.3.1	For the ability to add nudging?		
1.3.2	For heavy doors (limit open and close speeds)?		
1.3.3	Sound produced vs. specifications?		
1.3.4	That reversal device is suitable to be reused or is replacement required? Note: Certain light rays or equal require reduced energy closing.		
1.3.5	Door restrictors?		
1.4	Firefighters' Service to suit applicable code? NFPA-72 requirements?		
1.5	Communication system per code (fire phone) (fire speaker)?		
1.6	Fixtures:		
1.6.1	Compliant with accessibility regulations?		
1.6.2	Technical interface?		
1.7	Emergency lighting?		
1.8	Car light fixture is code compliant (light bulbs or tubes properly protected and retained)?		
1.9	All car to hoistway sill clearances?		
2.0	MACHINERY SPACES, MACHINE ROOM, CONTROL SPACES AND CONTROL ROOM		
2.1	Elevator equipment rooms for access, lighting, space, guards and clearances? (also see item #1.1)		

2.2	For temperature and humidity ranges as required (HVAC)?		
2.3	And gathered completed data for drive motor and MG?		
2.4	Standby (emergency) power characteristics and requirements?		
2.5	Size and configuration of disconnect feeders, fuses or circuit breakers?		
2.7	Machine support?		
2.8	Hoist beams; door or trap door permit equipment access?		
2.9	Basement machine support?		
2.10	Basement machine sheave support (overhead)?		
2.11	Sprinklers? Fire extinguishers to suit code requirements.		
2.12	Railings, ladders, steps in machine rooms?		

PRE-MODERNIZATION CHECKLIST ELECTRIC ELEVATORS BUILDING: _____ EQUIPMENT #:_____ Answer each question with “Have I checked”			
Number	ITEM	Yes	Comments
2.13	Fire alarm initiating devices (smoke detectors)?		
2.14	Number of units?		
2.15	Non elevator pipes, ducts, wiring, etc.?		
2.16	Machine:		
2.16.1	Groove condition (can sheave be regrooved if necessary)?		
2.16.2	Condition of all bearings?		
2.16.3	Permissible load on sleeve bearings?		
2.16.4	Replace ball or roller bearings?		
2.16.5	Shaft sleeving necessary.		
2.16.6	Fatigue? Examine shafts & load bearing elements?		

2.16.7	Increased load? Examine shafts & load bearing elements?		
2.16.8	Signs of previous turned shaft. Examine minimum diameter, fillets?		
2.16.9	Sound isolation?		
2.16.10	For oil leakage?		
2.16.11	Shaft seals?		
2.16.12	Proper lubrication?		
2.16.13	Lubrication means?		
2.16.14	For ability to add tachometer?		
2.17	Suspension means and sheaves:		
2.17.1	Rope lead and sheave alignment?		
2.17.2	Condition of deflector/secondary sheaves?		
2.18	Brake:		
2.18.1	Wear of pins, sleeve and cores?		
2.18.2	Lining condition?		
2.18.3	Parts available?		
2.18.4	Decision – to rebuild or replace (ac to be replaced)?		
2.18.5	Suitable to meet code required stopping requirements?		
2.18.6	Coil condition, operating voltage?		
2.18.7	Condition of coupling, braking surface, loose keys, and bolts?		
2.18.8	For brake switch?		
2.18.9	Emergency brake, if existing? Space to add?		
2.19	Motor:		
2.19.1	Suit new drive?		
2.19.2	Will accel/decel profiles need to be reduced?		
2.19.3	Ability to commutate necessary current?		
2.19.4	Need to add forced cooling?		
2.19.5	Condition of existing blower?		
2.19.6	Rotor or armature clearance?		
2.19.7	Shaft and bearing condition?		

2.19.8	Commutator condition – remaining stock, oil saturated, loose risers, wires or bars?		
2.19.9	Armature winding?		
2.19.10	Insulation resistance?		
2.19.11	Condition of banding, slot wedges?		
2.19.12	Clean, dip and bake?		
2.19.13	Rewind?		
2.20	Motor field condition and insulation resistance:		
2.20.1	Clean, dip and bake?		
2.20.2	Rewind or replace?		

2.21	AC motor:	Yes	Comments
2.21.1	Condition of winding and insulation resistance?		
2.21.2	To ensure motor voltage matches confirmed power?		
2.21.3	Condition of rotor?		
2.21.4	Shaft interface?		
2.21.5	Loose rotor bars?		
2.21.6.	Damaged end rings?		
2.21.7	For availability of replacement parts?		
2.22	Gearing:		
2.22.1	Worm and gear for wear (backlash)?		
2.22.2	For excessive vibration?		
2.22.3	End thrust clearance?		
2.22.4	Thrust bearing replacement required?		
2.22.5	Condition and wear of sheave shaft bearings?		
2.22.6	Rehabitate or replace?		
2.22.7	Worm shaft bearings (gear case bearing)?		
2.22.8	All seals, packings for excessive leakage?		

2.22.9	Decision to rebuild or replace machine?		
2.23	MG Set:		
2.23.1	Generator drive motor electrical characteristics, including voltage?		
2.23.2	To ensure that MG drive motor can produce specific accel/decel rates? Reduced profiles may be required?		
2.23.3	Generator response (may limit performance)?		
2.23.4	Generator commutation and output capacity, particularly when car size dictates an increase in capacity?		
2.23.5	Overall condition, ventilation and the bearings?		
2.23.6	Decision to replace, recondition or add solid-state drive?		
2.23.7	Condition of motor windings/insulation resistance?		
2.23.8	Generator armature windings/insulation resistance?		
2.23.9	Condition of commutator?		
2.23.10	Brushes for burning, rapid wear?		
2.24	Existing overbalance?		
2.25	Governor(s):		
2.25.1	Bearings?		
2.25.2	Gears?		
2.25.3	Adequate switches?		
2.26	Code data plate?		
3.0	TOP OF CAR		
3.1	Surveyed hoistways for compliance with codes, clearances and space including out of plumb conditions?		
3.1.1	Top clearances and run by of car and counterweight?		
3.1.2	Car top refuge space?		

3.1.3	Checked crosshead data plate as required by applicable code? (date of installation, suspension means data, weight and load data, etc.)		
3.2	Hoistway wall:		
3.2.1	Hoistway wall composition?		
3.2.2	Wall condition – repair, code, suitable for fastening equipment?		
3.3	Asbestos abatement required?		
3.4	Guide rail supports?		

3.5	Sill angle or concrete support projection?		
3.6	Hoistway projections, recesses, opening?		
3.7	Divider beams (multiple hoistways)?		
3.8	Sprinklers and smoke detectors?		
3.9	Hoistway windows?		
3.10	Floor to floor height, short floor(s)?		
3.11	Light and receptacle?		
3.12	Existing doors, labelled (if required)?		
3.13	Interlock switch box adequately fastened?		
3.14	Fascia, covers, toe guards?		
3.15	Entrance locations (alignment) and for compliance to ASME A17.3, Paragraph 3.4.3?		
3.16	Hoistway wall type or composition and thickness; (new entrance)?		
3.17	Number of stops per car?		
3.18	Non elevator pipes, ducts, wiring, etc.?		
3.19	Condition of deflector/secondary sheaves?		
3.20	Rails:		
3.20.1	Rail joints including fishplates and joint design?		
3.20.2	Bent sections?		
3.20.3	General condition?		

3.20.4	Brackets, separator beams, clips and building compression?		
3.20.5	Cold rolled rails (safety slide problems)?		
3.20.6	Counterweight rails and guides?		
3.21	Guide shoes for wear – pivots, pins and rollers?		
3.22	Hoistway windage and sway?		
3.22.1	Influence of adjacent elevators?		
3.23	Hangers – Car and hoistway:		
3.23.1	Replacements required?		
3.23.2	Complete hanger?		
3.23.3	Complete hangers @ _____ landings?		
3.23.4	Rollers only @ _____ landings?		
3.23.5	Relating device?		
3.23.6	Tracks only?		
3.23.7	Door closers?		
3.23.8	Condition of hoistway sills and grooves for door guides?		
3.24	Door panels –Suitable to be retained:		
3.24.1	Vision panels?		
3.24.2	Condition?		
3.24.3	Asbestos?		
3.24.4	Label?		
3.24.5	Condition of bottom door guides and door safety retainers?		
3.25	Interlocks – (suitable to be retained)?		
3.25.1	Door panels of suitable construction to fasten replacement interlock latch?		
3.25.2	Unlocking devices?		
3.25.3	Retiring cam and operating device?		
3.26	Electrical control and protective devices:		
3.26.1	Terminal slow downs?		

3.26.2	Final limit switches?		
3.26.3	For overhead space stop switches?		

3.26.4	Suitable top-of-car Inspection?		
3.26.5	For safety operated switch?		
3.27	Car frame safeties:		
3.27.1	To ensure car frame members are of proper size?		
3.27.2	Safety to suit new speed and loads (both car and counterweight)?		
3.27.3	Slide distance?		
3.27.4	Wedge clamp, condition of tail rope and pull out – tiller not permitted?		
3.27.5	Condition of 2:1 sheave and bearings?		
3.28	Counterweight:		
3.28.1	Existing overbalance?		
3.28.2	For space to add filler weights?		
3.28.3	Condition of 2:1 sheave and bearings?		
3.28.4	For safety running clearance? Condition of type “C” safety?		
3.28.5	Condition of counterweight guiding means?		
3.28.6	Condition of traveling counterweight buffer and guides?		
3.29	Suspension means:		
3.29.1	Suspension means data (number, size, etc.)?		
3.29.2	Suspension means fastenings: (properly made up)?		
3.29.3	Suspension means tags checked for required code tags?		
3.29.4	Condition of suspension means – replace?		
3.29.5	Condition of compensation means– replace?		
3.29.6	Condition of governor rope – replace? Does rope match governor rope data plate?		

3.29.7	Suspension means lubrication?		
3.29.8	Condition of traveling cables?		
3.30	Door operator:		
3.30.1	Existing operator to be reused?		
3.30.2	Suitable for new operation?		
3.30.3	Condition? Required repair to engine, linkage, engaging cam, oil or air dashpots, etc?		
3.30.4	Installation of complete new operator?		
3.30.5	Clutch assembly?		
4.0	OUTSIDE HOISTWAY		
4.1	Hoistway wall composition? Suitable for new equipment?		
4.2	Wall condition – repair, code?		
4.3	Asbestos abatement required?		
4.4	Entrances?		
4.5	Fixtures. Technical interface? ADA compliant?		
4.6	Access doors, per code?		
4.7	Channel jambs, head (freight elevators)?		
4.8	Smoke or heat detectors?		
4.9	Indicator panels, fire control station, etc.?		
5.0	PIT		
5.1	Pit ladders, lights and receptacles to suit ASME A17.1/CSA B44?		
5.2	Pit depth?		
5.3	Lower rail fastenings?		
5.4	General condition; walls, drainage, sump, etc.?		
5.5	Car guides and safety:		

5.5.1	Car guide system – roller versus sliding guides – safety running clearance must be considered?		
5.5.2	Guide shoes for wear – pivots, pins and rollers?		
5.5.3	Safety to suit new speed and loads (both car and counterweight)?		
5.5.4	Slide distance?		
5.5.5	Wedge clamp, condition of tail rope and pull out – tiller not permitted; fastening of lead sheaves?		
5.5.6	For safety running clearance?		
5.6	Electrical protective devices:		
5.6.1	Terminal slow downs?		
5.6.2	Final limit switches?		
5.6.3	For pit stop switches?		
5.6.4	For compensating sheave switches?		
5.6.5	For safety operated switch? (if under car)		
5.7	Car frame and platform:		
5.7.1	To ensure safety plank members are of proper size?		
5.7.2	For sound isolated platform? Replace pads?		
5.7.3	For ability to add load weighing?		
5.8	Buffers:		
5.8.1	Condition of buffers and supports? Code compliant?		
5.8.2	Terminal speed reducing – short stroke buffers?		
5.8.3	Adequate refuge space?		
5.9	Compensation:		
5.9.1	Condition of compensating sheave?		
5.9.2	Tie down operational?		
5.9.3	For change of existing compensation?		

5.9.4	Chain/rope?		
5.9.5	Tension frame/guides?		
5.9.6	Condition of selector drive pit sheave?		
5.10	Bottom run by:		
5.10.1	Car bottom run by? Can car fully compress the buffer without striking other equipment?		
5.10.2	Counterweight bottom run by? Can counterweight fully compress the buffer without striking other equipment?		
6.0	MISCELLANEOUS – ENGINEERING		
6.1	The applicable elevator, electrical building and accessibility codes that dictate compliance?		
6.2	Seismic requirements of applicable codes?		
6.3	Application of elevator to assure design is consistent with use?		
6.4	Inside car:		
6.4.1	Ensured existing operator will meet performance specification?		
6.4.2	For ability to add nudging?		
6.4.3	Reversal device – decision retain or replace?		
6.4.4	Fixtures – ADA compliant – technical interface?		
6.5	Machinery spaces, machine room, control spaces and control room:		
6.5.1	Power characteristics and requirements. Adequate for static drives? Any change in duty?		
6.5.2	Standby (emergency) power characteristics and requirements? Suitable for static drives?		
6.5.3	Properly sized disconnect, feeders, fuses or circuit breakers?		

6.5.4	Machine beam supports; new loads?		

6.5.5	Applicable code requirements?		
6.5.6	Basement machine support?		
6.6	History of the existing equipment:		
6.6.1	Repairs?		
6.6.2	Satisfactory periodic tests?		
6.6.3	Code violations?		
6.6.4	For available vs. required traction?		
6.6.5	Load per suspension means (rope)?		
6.6.6	Shaft loads?		
6.6.7	Increased weight? Examine shafts & load bearing elements?		
6.7	Motor characteristics to:		
6.7.1	Suit new drive?		
6.7.2	Will accel/decel profiles need to be reduced?		
6.7.3	For need to add forced cooling?		
6.7.4	Condition of existing blower?		
6.7.5	For ability to commutate necessary current?		
6.7.6	For availability of replacement parts?		
6.8	MG Set:		
6.8.1	Generator drive motor electrical characteristics, including voltage?		
6.7.2	To ensure that MG Drive Motor can produce specific accel/decel rates? Reduced profiles may be required?		
6.8.3	Generator response (may limit performance)?		
6.8.4	Generator commutation and output capacity, particularly when car size dictates an increase in capacity.		
6.9	Top of car:		
6.9.1	interlocks (suitable to be retained)?		
6.9.2	For hoistway access feature (if required)?		
6.9.3	Guide rail supports, joint design, clips, etc.?		

6.9.4	Sill angle or concrete support projection?		
6.9.5	Car crosshead data plate information?		
6.10	Outside hoistway:		
6.10.1	Entrances; checked alignment suitability of existing panels, vision panels?		
6.10.2	Fixtures technical interface? ADA compliant?		
6.11	Pit:		
6.11.1	Safety to suit new speed and loads (both car and counterweight)?		
6.11.2	Slide distance?		
6.11.3	Safety test record?		
6.11.4	Car structural safety factor?		
6.11.5	For change of existing compensation: tie down required?		
6.11.6	Chain to alternate means?		
6.11.7	Buffers – suitable for car speed? Load? Passed code test satisfactorily?		
6.11.8	Terminal speed reducing provided for short stroke buffers?		
6.12	Occupiable space below hoistway?		

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.

Annexes

Annex A	Occupational health and safety requirements
Annex B	Environmental terms and conditions to commence
Annex C	Technical Specifications- Regulation and Standards
Annex D	Asset Description
Annex E	Low Service damages

ANNEX A

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:

The Occupational Health & Safety (Act 85 of 1993) and its regulations and

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

AIRPORTS COMPANY
SOUTH AFRICA

Hereinafter referred to as “the Mandatary/ Principal Contractor”

AIRPORTS COMPANY
SOUTH AFRICA

MANDATORY'S MAIN SCOPE OF WORK

To be completed by the contractor

AIRPORTS COMPANY
SOUTH AFRICA

GENERAL INFORMATION FORMING PART OF THIS AGREEMENT

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.

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

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.

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

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.

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

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

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

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 Mandatary undertakes to comply with:

AIRPORTS COMPANY
SOUTH AFRICA

INSURANCE

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

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

Public Liability Insurance Cover as required by the Subcontract Agreement.

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

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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:

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.

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.

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.

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.

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.

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

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

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.

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

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.

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.

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.

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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.

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

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.

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.

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.

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.

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…….

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Expiry date ……

_____ _____

SIGNATURE ON BEHALF OF MANDATARY **DATE**

(Warrant his authority to sign)

_____ _____

SIGNATURE ON BEHALF OF THE CLIENT **DATE**

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ANNEX B

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 Monthly reports on quantities – separated into general, hazardous, and recycled Maintained file of all Waste Manifest Documents and Certificates of Safe Disposal 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 C

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

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The Contractor is to provide details or specification of parts to be used for the Refurbishment of goods lifts

Annex D- Asset Description

Units No	ID Number	Asset Number	Type of Equipment	OEM	Government No	Installation Date	Controller Type	Number of stops	Location
TMB03	KSI-TC-RF01-RF01-EVA003	72NE9151	Lift/Elevators	Otis	06/L4546	11/2009	DNDT	4	Basement-south
TMB04	KSI-TC-RF01-RF01-EVA003	72NE9152	Lift/Elevators	Otis	06/L4546	11/2009	DNDT	4	Basement-south
TMB05	KSI-TC-FL00-RT07-EVA001	72NE9153	Lift/Elevators	Otis	06/L4548	11/2009	DNDT	2	Arrival to Basement-North
TMB25	KSI-TC-FL00-R102-EVA001	72NE9172	Lift/Elevators	Otis	06/L4614	11/2009	DNDT	2	Arrival to Basement - South

Annex E

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

NO.	CONTRAVENTION	PENALTY PER TRANSGRESSION
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 2nd repair (including the cost of making use of a 3rd party should ACSA wish to utilise a 3rd party for the subsequent repair)

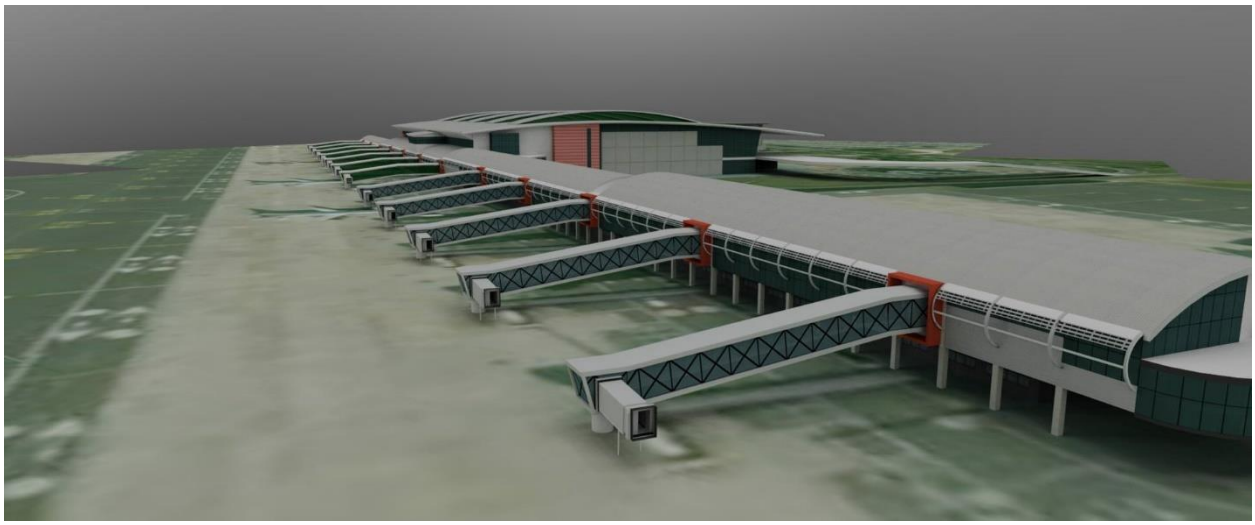
C4 Site Information

Description

The services are situated on the airside of King Shaka International Airport, the services taking place on the aprons within the boundary limits of King Shaka International Airport.

General Site Conditions

Temperature (Min - Max)	10.6ºF to 27.2ºF
Relative Humidity	85%
Wind	10km/h
Elevation	93 m ASL
Coordinates	29°37.0’031°6.5’E



Risk Register

Risk name	Responsibility	Mitigating factors	Risk Level
Injury to public due to flying object, dust and falling	Contractor	To ensure that the area is demarcated, horded and access to	Medium

		construction site restricted	
Noise Level	Contractor	To ensure that all high noisy activities are done after last flight	High
Fire due to hot works	Employer and the Contractor	Hot works permit must be issued prior to all hot works	Medium to low
Falling and slipping	Contractor	housekeeping	Medium to low
Working on height	Contractor	Training	Low
Confine space	Contractor	Training	Low
Carrying of heavy material	Contractor	Training and correct use of equipment	Low
Electrocution	Contractor	Isolation and training	Low

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