

AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

PROJECT NAME AND NUMBER: REPLACEMENT OF STANDBY DIESEL GENERATORS: 6544

TITLE OF PROJECT: PROCUREMENT OF PROFESSIONAL SERVICE PROVIDERS FOR THE REPLACEMENT OF STANDBY DIESEL GENERATORS OVER A PERIOD NOT EXCEEDING TWENTY-EIGHT (28) MONTHS AT AIRPORTS COMPANY SOUTH AFRICA'S O.R. TAMBO INTERNATIONAL AIRPORT

NEC 3: PROFESSIONAL SERVICES CONTRACT (PSC)

Between AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

Applicable at OR Tambo International Airport

(Registration Number: 1993/004149/30)

and **[**

(Registration Number: _____)

for **the provision of professional services for Electrical Engineering, Quantity Surveying, Construction Health and Safety Agent, and Civil/Structural Engineering for the replacement and upgrade of thirty-six (36) standby diesel generators at Airports Company South Africa - O.R. Tambo International Airport, for a period not exceeding twenty-eight (28) months.**

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Part C1: Agreements and Contract Data

C1.1: Form of Offer and Acceptance

OFFER

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the procurement of: **Professional Services for Electrical Engineering, Quantity Surveying, Construction Health and Safety Agent, and Civil/Structural Engineering services for the Replacement and Upgrades of 36 Standby Diesel Generators at O.R. Tambo International Airport, for a period not exceeding twenty-eight (28) months.**

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, 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 of the obligations and liabilities of the **Consultant** under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the conditions of contract identified in the Contract Data.

THE OFFERED TOTAL OF THE PRICES INCLUSIVE OF VAT IS:

(in words)

.....

Rands;

(in figures) R.....

% of the estimated construction value of R78 873 497.50 (including VAT) which is equal to.....

The fee is based on a percentage of the construction value based on agreed scope of work for which you are providing a professional service and will be fixed. The fee percentage is% THE OFFERED PRICES ARE AS STATED IN THE PRICING SCHEDULE

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 **Consultant** in the conditions of contract identified in the Contract Data.

Signature(s)

Name(s)

Capacity

**For the
Bidder:**

Name &
signature of
witness

(Insert name and address of
organisation)

Date

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 **Consultant** 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. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Unless the tenderer (now **Consultant**) within five (5) 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**Name &
signature of
witness*(Insert name and address of
organisation)*

Date

Schedule of Deviations

1 Subject

Details

2 Subject

Details

3 Subject

Details

By the duly authorised representatives signing this agreement, the Employer and the Tenderer agree to and accept the foregoing schedule of deviations as the deviations from and amendments to the documents listed in the Tender Data and addenda thereto as listed in the returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer and the Employer during this process of offer and acceptance.

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

For the Employer**For the Bidder**

Signature (s)

Name (s)

Capacity

Name and Address

**Airports Company South Africa
SOC Limited**

OR Tambo International Airport

Private Bag X1, Kempton Park, 1627

Name &
Signature of
witness

*(Insert name and address of
organisation)*

(Insert name and address of organisation)

Date

Part C1: Agreements and Contract Data

Part C1.2a Contract Data

Part one – Data provided by the *Employer*

The Conditions of contract are selected from the NEC3 Professional Services Contract, April 2013.

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

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for Main Option	
	Main Option	A: Priced contract with activity schedule
	Dispute resolution Option	W1: Dispute resolution procedure
	Secondary Options (incorporating amendments)	X7: Delay damages X10: Employer's Agent X11: Termination by the Employer X13: Performance bond X18: Limitation of liability Z: Additional conditions of contract
		of the NEC3 Professional Services Contract, April 2013

The *project stages* are:

Project stage		Key deliverable at end of stage as described in the Scope and accepted by the Employer
No	Description	
1	Planning, Studies, Investigations and Assessments	i) Facilitate collation of information; reports on technical and financial feasibility and related implications; list of consents and approval; schedule of required surveys, tests, analyses, site and other investigations; time frames for upcoming deliverables
2	Stage 1: Inception Services	i) Establish, in conjunction with the client and other consultants agreed services and scope of work. ii) Facilitate an integrated schedule of required consents and approvals. iii) Prepare, co-ordinate and monitor a project initiation programme. iv) Facilitate client approval of all Stage 1 documentation.
3	Stage 2: Concept and Viability (Preliminary Design) Services	i) Communicate the project brief to the other consultants. ii) Monitor the development of the concept and viability (preliminary design). iii) Manage and integrate the concept and viability documentation. iv) Agree format and procedures for cost control and reporting by the other consultants. v) Facilitate approval of the concept and viability by the client.
4	Stage 3: Detail Development Services	i) Prepare, co-ordinate, agree and monitor a detailed design and documentation programme. ii) Facilitate design reviews for compliance and cost control. iii) Facilitate timeous technical co-ordination. iv) Facilitate input required by health and safety consultant. v) Facilitate client approval of all Stage 3 documentation.
5	Stage 4: Documentation and Procurement Services	i) Prepare and agree the procurement programme. ii) Co-ordinate and monitor preparation of procurement documentation by the other consultants in accordance with the project procurement programme. iii) Manage procurement process and recommend contractors for approval by the client. iv) Agree the format and procedures for monitoring and control by the quantity surveyor of the cost of the works. v) Co-ordinate and assemble the contract

		documentation for signature.
6	Stage 5: Contract Administration and Inspection Services	<ul style="list-style-type: none"> i) Arrange site handover to the contractor. ii) Establish construction documentation issue process. iii) Agree and monitor issue and distribution of construction documentation. iv) Conduct and record regular site meetings. v) Monitor, review and approve the preparation of the construction programme by the contractor. vi) Regularly monitor performance of the contractor against the construction programme. vii) Establish procedures for monitoring scope and cost variations. viii) Monitor, review, approve and issue certificates. ix) Receive, review and adjudicate any contractual claims. x) Coordinate, monitor and issue practical completion and defects list and the certificate of practical completion. xi) Over-see and verify that the works comply with requirements of contract xii) Ensure that the designs are correctly interpreted. xiii) Ensure that appropriate construction techniques are being utilized.
7	Stage 6: Close-out Services	<ul style="list-style-type: none"> i) Co-ordinate and monitor rectification of defects. ii) Manage preparation of as-built drawings and documentation. iii) Manage procurement of outstanding statutory certificates. iv) Monitor, review and issue payment certificates. v) Manage agreement of final account(s) vi) Prepare and present the project close-out report.

10.1	The <i>Employer</i> is (Name)	Airports Company South Africa SOC Limited, O.R. Tambo International Airport									
	Address	Airports Company South Africa SOC Limited O.R. Tambo International Airport Private Bag X1, Kempton Park 1627									
	Telephone	+27 11 921 6911									
	Fax	+27 11 390 1012									
11.2(9)	The services are	the provision of professional Electrical Engineering, Quantity Surveying, Construction Health & Safety Agent, and Civil/Structural Engineering services for the replacement of standby diesel generators at O.R. Tambo International Airport									
11.2(10)		the following matters will be included in the Risk Register <ul style="list-style-type: none"> • Availability of as-built information • Access to site • Site constraints and constructability • Statutory requirements and approvals 									
11.2(11)	The Scope is in	the document called Part C3: Scope of Work									
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									
13.6	The period of retention is	5 years following Completion or earlier termination of a contract									
2	The Parties' main responsibilities										
20.1	The <i>Employer</i> provides access to the following persons, places and things										
	<table> <tr> <td>1</td><td>Access to</td><td>Access date</td></tr> <tr> <td>2</td><td>Any Information</td><td>Upon signing of the Contract by ACSA</td></tr> <tr> <td>3</td><td></td><td></td></tr> </table>	1	Access to	Access date	2	Any Information	Upon signing of the Contract by ACSA	3			
1	Access to	Access date									
2	Any Information	Upon signing of the Contract by ACSA									
3											
3	Time										
30.1	The <i>starting date</i> is	Upon signing of contract by ACSA.									
30.2	The <i>completion date</i> is	28 months from the <i>Starting Date</i>									

31.1	The <i>Consultant</i> submits a first (preliminary) programme with the tender by	the tender closing date
32.2	The <i>Consultant</i> submits revised programmes at intervals no longer than	Four (4) weeks
4	Quality	
40.2	The quality policy statement and quality plan are provided within 4 weeks of the Contract Date.	
41.2	The <i>defects date</i> is	52 weeks after Completion of the whole of the <i>services</i>
43.2	The <i>defects correction period</i> is	Two (2) weeks
5	Payment	
50.1	The <i>assessment interval</i> is	Every four (4) weeks, on the 25 th day of each successive month
51.1	The period within which payment is made is	Four to six (4-6) weeks after the receipt of the tax invoice
51.2	The <i>currency of this contract</i> is the	South African Rand
51.4	The <i>interest rate</i> is	The prime lending rate of the Nedbank Bank as determined from time to time
6	Compensation events	No data required for this section of the <i>conditions of contract</i> .
7	Rights to material	No data required for this section of the conditions of contract
8	Indemnity, insurance, and liability	
81.1	The <i>Consultant</i> provides the insurance stated in The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the <i>Consultant</i> arising out of and in the course of their employment in connection with this contract for any one event is:	The Insurance Clauses which is attached at the end of the Contract Data (Part C1.4). The insurances are in the joint names of the Parties and provide cover for events which are at the <i>Consultant</i> risk from the starting date until the Defects Certificate or a termination certificate has been issued. As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993
9	Termination	Refer to Secondary Clause X11
10	Data for Main Option Clauses	
A	Priced contract with activity schedule	Activity schedule is included Part C2 section of this contract

11 Data for Dispute Resolution Option W1

W1.1	The <i>Adjudicator</i> is	The person appointed jointly by the parties from the list of adjudicators contained below
W1.2	The <i>Adjudicator nominating body</i> is	The current Chairman of Johannesburg Advocate's Bar Council
W1.4	The <i>tribunal</i> is	Arbitration
W1.4	If the <i>tribunal</i> is arbitration, the arbitration procedure is	The <i>arbitration procedure</i> is set out in The Rules for the Conduct of Arbitrations 2013 Edition, 7th Edition, published by The Association of Arbitrators, (Southern Africa)
W1.4	The place where arbitration is to be held is	Johannesburg, South Africa.
W1.4	The person or organisation who will choose an arbitrator	The <i>Arbitrator</i> is the person selected by the Parties as and when a dispute arises in terms of the relevant Z Clause, from the Panel of Arbitrators provided under the relevant Z clause if the arbitration procedure does not state who selects an arbitrator. The Arbitrator nominating body is the Chairman of the Johannesburg Advocates Bar Council.

12 Data for Secondary Option Clauses

X7 Delay Damages

X7.1	Delay damages of the whole of the <i>services</i> are	Amount per week is 1% up to a maximum of 10% total value of the Professional fees
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X10 The *Employer's Agent*

X10.1	The <i>Employer's Agent</i> is	<p>Name: Sanele Mwelase</p> <p>Address: O.R. Tambo International Airport Private Bag X1 Kempton Park 1627</p> <p>The authority of the <i>Employer's Agent</i> is to act on behalf of the <i>Employer</i> with the authority set out in the Contract Data</p>
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X11 Termination by *Employer*

X11.1	The Employer may	Terminate the <i>Consultant's</i> obligation to Provide the services for a reason not stated in this contract by notifying the <i>Consultant</i>
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X13 Performance Bond

X16.1	The <i>performance bond percentage</i> is	10% of the total of the Prices.
X18	Limitation of Liability	
X18.1	The <i>Consultant's</i> liability to the <i>Employer</i> for indirect or consequential loss is limited to	Nil - Neither Party is liable to the other for any consequential or indirect loss, including but not limited to loss of profit, loss of income or loss of revenue
X18.2	For any one event, the <i>Consultant's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	The total of the Incurred Losses and/or Damage Caused to the Property
X18.3	The <i>Consultant's</i> total liability to the <i>Employer</i> for defects due to his design which are not listed on the Defects Certificate is limited to	The total of the Incurred Losses and/or Damage Caused to the Property
X18.4	The <i>Consultant's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to	<p>The <i>Consultant's</i> total direct liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than the excluded matters, is limited to total of the losses incurred and/or repairs to the damages caused and applies in contract, tort or delict and otherwise to the extent allowed under the law of the contract.</p> <p>The excluded matters are amounts payable by the <i>Consultant</i> as stated in this contract for</p> <ul style="list-style-type: none"> - Loss of or damage to the <i>Employer's</i> property, - Delay damages, - Defects liability, - Insurance liability to the extent of the <i>Consultant's</i> risks - loss of or damage to property (other than the <i>works</i>, Plant and Materials), - death of or injury to a person; - damage to third party property; and - infringement of an intellectual property right
X18.5	The <i>end of liability</i> date is	The date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation)
Z	ADDITIONAL CONDITIONS OF CONTRACT	
Z1	Estimation of fees It is specifically recorded that the fees charged by the consultant for services rendered in connection with and/or under this Contract shall be in terms of:	

Z2 Tax invoices

The *Consultant's* invoice.

Delete the first sentence of core clause 50.2 and replace with:

Invoices submitted by the Consultant to the Employer include

- the details stated in the Scope to show how the amount due has been assessed, and
- the details required by the Employer for a valid tax invoice.

Delete the first sentence of core clause 51.1 and replace with:

Each payment is made by the Employer within four (4) weeks of receiving the Consultant's invoice showing the details which this contract requires or, if a different period is stated in the Contract Data, within the period stated.

Z3 Communications and Notices

Z3.1 Add to the end of the first sentence in core Clause 13.1:

All notices, notifications, requests, demands or other communications shall be deemed to have reached the other Party –

- if delivered by hand, on the date of delivery;
- if posted by ordinary mail or registered post, on the 5th (fifth) calendar day following the date of such posting;

if transmitted by facsimile or any other electronic medium acceptable to both Parties, on the first Business Day following the date of transmission / publication / delivery.

Z4 Appointment of the Adjudicator

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

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

Panel of Adjudicators

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

Z4.1 Appointment of the Arbitrator

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

Panel of Arbitrators

Name	Location	Contact details (phone & e mail)
Adv. Ghandi Badela	Gauteng	+27 11 282 3700 gbandi@badela.co.za
Mr. Errol Tate Pr. Eng.	Durban	+27 11 262 4001 Errol.tate@mweb.co.za
Adv. Saleem Ebrahim	Gauteng	+27 11 535 1800 salimebrahim@mweb.co.za
Mr. Sebe Msutwana Pr. Eng.	Gauteng	+27 11 442 8555 sebe@civilprojects.co.za
Mr. Sam Amod	Gauteng	sam@samamod.com
Adv. Sias Ryneke SC	Gauteng	083 653 2281 ryneke@duma.nokwe.co.za
Mr. Emeka Ogbugo (Quantity Surveyor)	Pretoria	+27 12 349 2027 emeka@gosiame.co.za

Z5 Interpretation of the law

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.

Z6 Providing the Works: Delete core clause 20.1 and replace with the following:

The *Consultant* will supervise the works in accordance with the Works Information and warrants that the results of the Works done in accordance with the drawings and specifications, when complete, shall be fit for their intended purpose.

Z7 Extending the defects date: add the following as a new core clause 46:

Z7.1 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*.

Z7.2 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.

Z7.3 The *Project Manager* notifies the *Consultant* 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.

Z8 Termination

Z8.1	Add the following to core clause 91.1, at the second main bullet, fifth sub-bullet point, after the words “assets or”: “business rescue proceedings are initiated, or steps are taken to initiate business rescue proceedings”.
Z9	Cession, delegation and assignment
Z9.1	The <i>Consultant</i> shall not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> , which consent shall not be unreasonably withheld.
Z9.2	The <i>Employer</i> may, on written notice to the <i>Consultant</i> , cede and delegate its rights and obligations under this contract to any person or entity.
Z10	Ethics
Z10.1	The <i>Consultant</i> undertakes:
Z10.1.1	not to give or cause 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 <i>Employer</i> is subject, including but not limited to the Prevention and Combating of Corrupt Activities Act, 12 of 2004.
Z10.2	The <i>Consultant's</i> breach of this clause constitutes grounds for terminating the <i>Consultant's</i> obligation to Provide the Works or taking any other action as appropriate against the <i>Consultant</i> (including civil or criminal action). However, lawful inducements and rewards shall not constitute grounds for termination.
Z10.3	If the <i>Consultant</i> 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 <i>Employer</i> , the <i>Employer</i> 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 <i>Consultant</i> 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 <i>Project Manager</i> or the <i>Employer</i> , which consent shall not be unreasonably withheld.
Z11.2	If the <i>Consultant</i> is uncertain about whether any such information is confidential, it is to be regarded as such until otherwise notified by the <i>Project Manager</i> .
Z11.3	This undertaking shall not apply to –
Z11.3.1	Information disclosed to the employees of the <i>Consultant</i> for the purposes of the implementation of this agreement. The <i>Consultant</i> 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 <i>Consultant</i> is required by law to disclose, provided that the <i>Consultant</i> notifies the <i>Employer</i> prior to disclosure so as to enable the <i>Employer</i> to take the appropriate action to protect such information. The <i>Consultant</i> 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; and

Z11.3.3	Information which at the time of disclosure or thereafter, without default on the part of the <i>Consultant</i> , enters the public domain or to information which was already in the possession of the <i>Consultant</i> 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 <i>works</i> or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the <i>Project Manager</i> . All rights in and to all such images vests exclusively in the <i>Employer</i> .
Z11.5	The <i>Consultant</i> ensures that all his Sub-Consultants abide by the undertakings in this clause.
Z12.	<i>Employer's Step-in rights</i>
Z12.1	If the <i>Consultant</i> 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 <i>Project Manager</i> , the <i>Employer</i> , 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 sub-Consultant or supplier of the <i>Consultant</i>) to do so on his behalf. The reasonable costs of such remedial works shall be borne by the <i>Consultant</i> .
Z12.2	The <i>Consultant</i> co-operates with the <i>Employer</i> 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 <i>Consultant</i> under the contract or otherwise for and/or in connection with the <i>works</i>) and generally does all things required by the <i>Project Manager</i> to achieve this end.
Z13	Intellectual Property
Z13.1	Intellectual Property ("IP") rights means all rights in and to any patent, design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works.
Z13.2	IP rights remain vested in the originator and shall not be used for any reason whatsoever other than carrying out the <i>works</i> .
Z13.3	The <i>Consultant</i> gives the <i>Employer</i> an irrevocable, transferrable, non-exclusive, royalty free licence to use and copy all IP related to the <i>works</i> for the purposes of constructing, repairing, demolishing, operating and maintaining the works.
Z13.4	The <i>Consultant</i> shall indemnify and hold the <i>Employer</i> harmless against and from any claim alleging an infringement of IP rights (" the claim "), which arises out of or in relation to:
Z13.4.1	the <i>Consultant's</i> design, manufacture, construction or execution of the Works;
Z13.4.2	the use of the <i>Consultant's</i> Equipment, or
Z13.4.3	the proper use of the Works.
Z13.5	The <i>Employer</i> shall, at the request and cost of the <i>Consultant</i> , assist in contesting the claim and the <i>Consultant</i> may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it.
Z14	Dispute resolution: The following amendments are made to Option W1:
Z14.1	Under clause W1.3, in the fourth row of the first column of the adjudication table, the following words are added after the words "any other matter": "excluding disputes relating to termination of the contract".
Z14.2	The following clauses are added at the end of clause W1.3:

Z14.2.1	"The Adjudicator shall decide the dispute solely on the written submissions of the parties. No oral submissions shall be heard during adjudication."
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Z14.2.2	"Disputes relating to or arising from termination of the Contract shall not be determined by an adjudicator. Any such dispute shall be referred directly to arbitration."
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Z15	The Consultant shall be expected to annually present a compliant BEE Certificate. Failure to 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
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Part C1: Agreements and Contract Data

Part C1.2b Contract Data

Part two – Data provided by the *Consultant*

The Conditions of contract are selected from the NEC3 Professional Services Contract, April 2013.

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

Clause	Statement	Data
10.1	The <i>Consultant</i> is (Name): Address: Tel No.: Fax No.: Email:	
22.1	The <i>Consultant's</i> key person are: 1. Name: Job: Responsibilities: Qualifications: Experience: 2. Name: Job: Responsibilities: Qualifications: Experience:	
11.2(3)	The <i>completion date</i> for the whole of the <i>services</i> is as required by the Employer	
11.2(10)	The following matters (if any) will be included in the Risk Register <ul style="list-style-type: none"> • Availability of As-Built Information • Access to Site • Progress vs Programme • Cash Flow Management 	

11.2(13) The *staff rates* are as stated in the Pricing Data

25.2 The *Employer* provides access to the following persons, places and things

	access to	access date
1	All As-built Information & existing services	Upon signing of the Contract by ACSA
2	Relevant Engineering, Operational and Maintenance Personnel of ACSA	Upon signing of the Contract by ACSA

A Priced contract with activity schedule

11.2(14) The *activity schedule* is in the Pricing Data

11.2(18) The tendered total of the Prices is in the Form of Offer and Acceptance

The *percentage points for each stage* are as follows:

Project stage	Percentage points for each stage
Description	%
Inception Services	5%
Concept and Viability Services	15%
Design Development & Documentation and Procurement Services	30%
Contract Administration and Inspection Services	40%
Close-out Services	10%

PART C1: AGREEMENTS AND CONTRACT DATA

C1.3: OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

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

OBJECTIVES

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

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

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

The parties to this Agreement are:

Name of Organisation: AIRPORTS COMPANY SOUTH AFRICA O.R. TAMBO INTERNATIONAL AIRPORT
Physical Address: Airport Company South Africa O.R. Tambo International Airport Private Bag X1, Kempton Park 1627

Hereinafter referred to as “Client”

Name of organisation:
Physical Address:

Hereinafter referred to as “the Mandatory/ Principal Contractor”

MANDATORY’S MAIN SCOPE OF WORK

GENERAL INFORMATION FORMING PART OF THIS AGREEMENT

1. The Occupational Health & Safety Act comprises of SECTION 1-50 and all unrepealed REGULATIONS promulgated in terms of the former Machinery and Occupational Safety Act No.6 of 1983 as amended as well as other REGULATIONS which may be promulgated in terms of the Act and other relevant Acts pertaining to the job in hand.
2. "Mandatory" is defined as including as agent, a principal contractor or a contractor for work, but WITHOUT DEROGATING FROM HIS/HER STATUS IN HIS/HER RIGHT AS AN EMPLOYER or user of the plant
3. Section 37 of the Occupational Health & Safety Act potentially punishes Employers (PRINCIPAL CONTRACTOR) for unlawful acts or omissions of Mandatories (CONTRACTORS) save where a Written Agreement between the parties has been concluded containing arrangements and procedures to ensure compliance with the said Act BY THE MANDATARY.
4. All documents attached or refer to in the above Agreement form an integral part of the Agreement.
5. To perform in terms of this agreement Mandatories must be familiar and conversant with the relevant provisions of the Occupational Health & Safety Act 85 of 1993 (OHS Act) and applicable Regulations.
6. Mandatories who utilise the services of their own Mandatories (contractors) must conclude a similar Written Agreement with them.
7. Be advised that this Agreement places the onus on the Mandatory to contact the CLIENT in the event of inability to perform as per this Agreement.
8. This Agreement shall be binding for all work the Mandatory undertakes for the client.
9. All documentation according to the Safety checklist including a copy of the written Construction Manager appointment in terms of construction regulation 8, must be submitted 7 days before work commences.

THE UNDERTAKING

The Mandatory undertakes to comply with:

INSURANCE

1. The Mandatory warrants that all their employees and/or their contractor's employees if any are covered in terms of the COID Act, which shall remain in force whilst any such employees are present on the Client's premises. A letter is required prior commencing any work on site confirming that the Principal contractor or contractor is in good standing with the Compensation Fund or Licensed Insurer.
2. The Mandatory warrants that they are in possession of the following insurance cover, which cover shall remain in force whilst they and /or their employees are present on the Client's premises, or which shall remain in force for that duration of their contractual relationship with the Client, whichever period is the longest.
 - a. Public Liability Insurance Cover as required by the Subcontract Agreement.
 - b. Any other Insurance cover that will adequately make provision for any possible losses and/or claims arising from their and /or their Subcontractors and/or their respective employee's acts and/or omissions on the Client's premises.

COMPLIANCE WITH THE OCCUPATIONAL HEALTH & SAFETY ACT 85 OF 1993

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

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

2. The Mandatary shall be assigned the responsibility in terms of Section 16(1) of the OHSAct 85 of 1993, if the Mandatary assigns any duty in terms of Section 16(2), a copy of such written assignment shall immediately be forwarded to the Client.
3. The Mandatary shall ensure that he/she familiarise himself/herself with the requirements of the OHSAct 85 of 1993 and that s/he and his/her employees and any of his subcontractors comply with the requirements.
4. The Mandatary shall ensure that a baseline risk assessment is performed by a competent person before commencement of any work in the Client's premises. A baseline risk assessment document will include identification of hazards and risk, analysis and evaluation of the risks and hazards identified, a documented plan and safe work procedures to mitigate, reduce or control the risks identified, and a monitoring and review plan of the risks and hazards.
5. The Mandatary shall appoint competent persons who shall be trained on any Occupational Health & Safety aspect pertaining to them or to the work that is to be performed.
6. The Mandatary shall ensure that discipline regarding Occupational Health & Safety shall be strictly enforced.
7. Any personal protective equipment required shall be issued by the Mandatary to his/her employees and shall be worn at all times.
8. Written safe working practices/procedures and precautionary measures shall be made available and enforced and all employees shall be made conversant with the contents of these practises.
9. No unsafe equipment/machinery and/or articles shall be used by the Mandatary or contractor on the Client's premises.
10. All incidents/accidents referred to in OHSAct shall be reported by the Mandatary to the Provincial Director: Department of Labour as well as to the Client.
11. No user shall be made by the Mandatary and/or their employees and or their subcontractors of any of the Client's machinery/article/substance/plant/personal protective equipment without prior written approval.
12. The Mandatary shall ensure that work for which the issuing of permit is required shall not be performed prior to the obtaining of a duly completed approved permit.
13. The Mandatary shall ensure that no alcohol or any other intoxicating substance shall be allowed on the Client's premises. Anyone suspected to be under the influence of alcohol or any other intoxicating substance shall not be allowed on the premises. Anyone found on the premises suspected to be under the influence of alcohol or any other intoxicating substance shall be escorted off the said premises immediately.
14. Full participation by the Mandatary shall be given to the employees of the Client if and when they inquire into Occupational Health & Safety.

FURTHER UNDERTAKING

1. Only a duly authorised representative appointed in terms of Section 16.2 of the OHS Act is eligible to sign this agreement on behalf of the Mandatary. The signing power of this representative must be designated in writing by the Chief Executive Officer of the Mandatary. A copy of this letter must be made available to the Client.
2. The Mandatary confirms that he has been informed that he must report to the Client's management, in writing anything he/she deems to be unhealthy and /or unsafe. He has versed his employees in this regard.
3. The Mandatary warrants that he/she shall not endanger the health & safety of the Client's employees and other persons in any way whilst performing work on the Client's premises.
4. The Mandatary understands that no work may commence on the Client's premises until this procedure is duly completed, signed and received by the Client.
5. Non-compliance with any of the above clauses may lead to an immediate cancellation of the contract.

ACCEPTANCE BY MANDATARY

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



Ia duly authorised 16.2 Appointee acting for and on behalf of

.....(company name) undertake to ensure that the requirements and the provision of the OHSAct 85 of 1993 and its regulations are complied with.

Mandatory – WCA/ Federated Employers Mutual No.....

Expiry date

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

DATE

SIGNATURE ON BEHALF OF THE CLIENT
AIRPORT COMPANY SOUTH AFRICA

DATE

PART C1: AGREEMENTS AND CONTRACT DATA

C1.4: ACSA INSURANCE CLAUSES

INSURANCE CLAUSES FOR CAPEX PROJECTS

The insurance clauses in this document should be extracted and attached to tender documents and to contracts.

SECTION A: DEFINITIONS

Landside refers to:

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

Airside refers to:

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

SECTION B: INSURANCE CLAUSES

INSURANCE CLAUSES FOR AIRSIDE CONSTRUCTION CONTRACTS WHERE THE AWARDED CONTRACT VALUE DOES NOT EXCEED R150 MILLION, AND THE CONSTRUCTION PERIOD DOES NOT EXCEED 36 MONTHS, AND THE DEFECTS LIABILITY PERIOD DOES NOT EXCEED 24 MONTHS

Each Party shall be responsible for effecting and maintaining the relevant insurances as specified below and to the extent relevant to the Contract.

1. Insurance Effected By The Employer (Principle Controlled Insurance ("PCI"))

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

a) Contract Works/Contractors Public Liability/ Removal Of Lateral Support Liability Section 1 Of The Policy – Contract Works

Contract Works Insurance for the full value of the Works to provide cover against accidental physical loss of or damage to the Works, Temporary Works and materials intended for incorporation in the Works all being the subject matter of this Contract including to the extent provided for in the policy whilst in transit or temporarily stored at any premises en route to or from the Site (other than where this is a continuation of Marine Transit) within the territorial limits of the policy.

This insurance may specifically exclude any cost necessary to replace or rectify any of the property insured, which is in a defective condition due to defect in design, plan specification, material or workmanship.

This insurance contains the following limitations and warranties ;

Open Trench Limitation

In respect of loss or damage to open trenches and pipes, conduits or cables laid therein, caused directly or indirectly by rain, inundation or flood, Insurers liability shall be limited in respect of the aggregate length of open trenches at any one time to 2,500 meters.

Exposed Layer Works (applicable to works involving paving, roadways, bulk earthworks and runways and taxiways)

In respect of loss or damage to Exposed Layer Works relating to paving, roadways and runways (including taxiways)

caused directly or indirectly by rain, inundation or flood, Insurers liability shall be limited in respect of the aggregate length of Exposed Layer Works at any one time to 2,500 meters.

Section II of the Policy – Contractors Public Liability

Public Liability Insurance which provides indemnity against legal liability in the event of accidental death of or injury to persons and/or loss of or damage to property (other than the Works the subject matter of this Contract) arising from the execution of the Contract with a limit of indemnity of **R100,000,000** in respect of any one occurrence or series of occurrences consequent on or attributable to one source or original cause.

Section III of the Policy – Removal Of Lateral Support Liability

Removal Of Lateral Support Liability which provides indemnity against legal liability in the event of accidental death of or injury to persons and/or loss of or damage to property (other than the Works the subject matter of this Contract) arising out of or in connection with shock or vibration or the removal or weakening of or interference with support to property in the vicinity of the Contract Site and arising out of or in connection with the Insured Contract (but not in respect of tunneling works) and occurring during the Period of Insurance.

The Limit of Indemnity being limited to R50,000,000 attributable to one source or original cause

b. Contract Works SASRIA – Providing physical loss of or damage to the Works, Temporary Works and materials intended for incorporation in the Works as covered by the underlying Contract Works policy as noted in (a) above due to perils as covered in terms of the SASRIA Contract Works wording as issued by SASRIA SOC.

The Contract Works SASRIA cover excludes consequential or indirect loss or damage of any kind or description whatsoever.

The SASRIA Contract Works policy is limited to **R500,000,000 (Incl VAT)** in the aggregate during the policy period of insurance.

The Contract Works SASRIA policy wording can be obtained from the SASRIA website <http://www.sasria.co.za/> which notes the covers and policy exclusions.

- c) **Aviation Liability Insurance** which provides indemnity against legal liability in the event of accidental death of or injury to persons and/or loss of or damage to property (other than the Works the subject matter of this Contract) arising from the execution of the Contract with a limit of indemnity of **R2,000,000,000** in respect of any one occurrence or series of occurrences consequent on or to one source or original cause.

This insurance is in respect of liability relating to aircrafts.

- d) **Design & Construct Professional Indemnity Insurance** which provides indemnity against legal liability to pay compensation as a result of any actual or alleged negligent act, error or omission in the performance of the Professional Duties of the insured and arising from the execution of this project. The limit of indemnity under this insurance shall be ***R25,000,000 in the aggregate during the annual policy period of insurance that ACSA effect such cover during the policy period from 1 April to 31 March during each policy period of insurance.**

****The limits of indemnity applies to all ACSA contracts as a whole and does not apply specifically to this contract. The aggregate limit could be exhausted by claims under other ACSA contracts and there is no guarantee that this insurance cover will provide sufficient cover to this specific contract should the aggregate limit be exhausted.***

The Policy only covers the rectification of the works and excludes all consequential losses.

Professional Duties do not include:

- a) Labour and construction work which would normally be the responsibility of the building or engineering contractor.
 - b) Supervision of the construction works usually undertaken by a building or engineering contractor.
- 1.2 The **Contractor** shall familiarise itself fully with the details of such insurance effected by the Employer. The Contractor shall comply to all the terms and conditions of the Employer arranged policies and the Contractor shall be deemed to be fully aware of all the conditions, limits, limitations, exclusions/exceptions and deductibles that are contained in the Employer arranged policies. Copies of the Employer arranged policies are obtainable on request from the Employer and if the Contractor is of the opinion that additional insurance is required, such shall be for the Contractors account.
- 1.3 The Employer shall pay the premium in connection with the insurances effected by the Employer. The Employer is entitled to all return premiums, dividends, discounts, or adjustments in connection with the insurances effected by the Employer.
- 1.4 The Contractor shall not include any premium charges for this insurance except to the extent, which he may deem necessary in his own interests to effect supplementary insurance to the insurance effected by the Employer. The Employer reserves the right to call for full information regarding insurance costs included by the Contractor.

In the event that the Contractor purchases any insurances in addition to those indicated above, the premium and taxes, duties, etc. shall be borne entirely by the contractor.

- 1.5 Any further clarification of the scope of cover provided by the Policies arranged by the Employer should be obtained from the Employer.

1.6 The Contractor and/or any other party who obtains indemnity under the policies effected under 1.1 shall become liable for the deductibles (first amount payable) which are applicable in respect of each and every occurrence or series of occurrences attributable to one source or cause giving rise to loss or damage or indemnifiable liability. The deductibles applicable to the policies effected under 1.1 are as follows:

a) **Contract Works/Contractors Public Liability/ Removal Of Lateral Support Liability**

Unless stated otherwise in the Policy Extensions the Deductibles shall be as follows which will apply in respect of each and every occurrence or series of occurrences arising out of or in connection with any one event giving rise to loss or damage:

Section 1 Of The Policy – Contract Works

In respect of all loss or damage **R150,000** but increased to **R250,000** in respect of loss or damage arising out of or in connection with testing and commissioning.

Section 2 Of The Policy – Contractors Public Liability

R75,000 each and every claim in respect of Property Damage.

Section 3 Of The Policy – Removal Of Lateral Support Liability

R75,000 each and every claim.

b) **Contract Works SASRIA**

In respect of theft as a result of the SASRIA perils insured - **R25,000** each and every occurrence .

c) **Aviation Liability Insurance;**

In respect of each and every loss or damage or injury – **R300 000**.

d) Design & Construct Professional Indemnity Insurance

- a) In respect of contracts under R50 million at award – **R5,000,000**.
- b) **In respect of contracts over R50 million at award – R10,000,000**

1.7 In the event of any occurrence which is likely to give rise to a claim under the insurance arranged by the Employer, the Contractor shall:

- a) In addition to any statutory requirement or other requirements contained in the Contract immediately notify the Employer and the Employer's Insurance Brokers by telephone, mobile phone or email giving the circumstances, nature and an estimate of the loss or damage or liability. The Contractor must also complete the Claim Advice Form (Appendix "A").

The following persons/insurers must be advised immediately on the occurrence of a claim on site or even a possibility of a claim arising due to an incident occurring on site:

Airports Company South Africa:

Nokulunga Masiza

Tel: +27 (0)11 723 1400

M: +27 (0)79 512 0532

Nokulunga.Masiza@airports.co.za

Buhle Mnguni

D: +27 (0)11 723 1400

M: +27 (0)74 535 9075

Buhle.Mnguni@airports.co.za

- b) Preserve damage and make it available for inspection by a representative of the Insurers.
- c) Wherever possible, photographs of damage should be taken.
- d) Inform the police authorities promptly in the event of loss or damage by theft, burglary or any malicious persons(s) for the purpose of recovering any property so lost, discovering the guilty person or persons, and having him, her or them duly prosecuted.
- e) Advise the Insurers of any other insurance(s) which may cover the same loss, damage or injury, or any part thereof.
- f) Give to the Insurers every assistance to enable the Insurers to settle or resist any claim against the Insured, or institute any proceedings;
- g) On completion the Claims Advice Form, the form must be sent to the Employers Insurance Brokers for further action (the original may be emailed to the Employers Insurance Broker). (Please do not remove the Claims Advice Form out of this document. Rather photocopy the form and send the copy to the Employers Insurance Brokers).
- h) The Employer and the employers Insurance brokers / Insurers or their appointed loss adjusters shall have the right to make all and any enquiry's on the Site of the Works or elsewhere as to the cause and results of any such occurrence and the Contractor shall co- operate in carrying out such enquiry's.
- i) The Contractor, Project Managers and Consultants must allow free access to Insurers' assessors for the purpose of investigating and assessing the loss or damage.
- j) **The Contractor must not proceed with the making good any off the loss without the prior authorisation of the Insurers.**

- k) The Contractor must keep separate records of the costs involved in making good any loss or damage and these records should be available at all times for inspection by Insurers. Such records should include inter alia the entire cost of labour, materials, transport and equipment.
- l) Where required by the Employer, negotiate the settlement of claims with the Insurer or their appointed loss adjusters through the Employer's Insurance Brokers and shall obtain the Employer's approval of such settlement.
- m) Once the amount of a claim is agreed by the Insurers and the Contractor, an "Agreement of Loss" form must be signed by the Contractor and if required this shall be counter signed by the Employer or the Project Managers.
- n) The proceeds of such claim will, if required by the Employer, be paid net of any Deductible applicable under the policy by the Insurers to the Employer who on receipt thereof will arrange for payment to be made in terms of the Conditions of Contract. In the event that it is agreed by the Employer that such claims payment be made directly to the Contractor, the Contractor shall arrange for the Employer to endorse the "Agreement of Loss" to this effect.

2. Insurance Effected by the Contractor.

In addition to Clause 1.1 in respect of the insurances effected by the Employer the following Insurances to be effected by the Contractor :

- 2.1 Without limiting the Contractor's obligations, responsibilities and liabilities, the Contractor and Sub-contractor shall maintain at the Contractor's and Subcontractor's expense and where applicable provide as a minimum the following insurances:
 - a) **Insurance of Construction Plant and Equipment** (including tools offices and other temporary structures and contents) and other things (except those intended for incorporation into the Works) brought onto the site for a sum sufficient to provide for their replacement.

The Employer shall be named as additional insured and a waiver of subrogation shall be provided to the Employer.

b) Contractor's Common Law Liability/ Worker's Compensation Insurance

The Contractor shall take out and maintain employer's liability insurance with a limit of indemnity of not less than **R20,000,000** and/or workmen's compensation insurance covering personal injury to or death of the employees of the Contractor engaged in connection with the Works to the minimum value required by applicable law.

The Contractor shall procure that its Subcontractors take out and maintain similar insurance in respect of its Subcontractor's personnel performing the Works.

In the event that a claim is made against the Employer in connection with such insurance, the Contractor shall indemnify and hold harmless the Employer against any such claim. The Employer shall be named as additional insured and a waiver of subrogation shall be provided to the Employer.

- c) Motor Vehicle Liability Insurance** comprising (as a minimum) "Balance of Third Party" Risks including Passenger Liability indemnity with a limit of indemnity of not less than **R5 000 000** for all owned, non-owned, leased and hired vehicles.

d) Insurance For Buy-Down Cover Of Employer's Deductibles

Should the Contractor believe that the Employer effected Contract Works, Public Liability and Design & Construct Professional Indemnity deductibles as noted in Clause 1.6 (a),(c) and (d) be considered to be unacceptable to the Contractor, then the Contractor must obtain Buy Down cover for these deductibles to a deductible considered by the Contractor as being acceptable in respect of the works being undertaken.

- e)** Where the Contract involves manufacturing and/or fabrication of the Works or parts thereof at premises other than at the Contract Site the Contractor shall satisfy the Employer that all materials and equipment for incorporation in the Works are adequately insured during manufacture and/or fabrication. In the event of the Employer having an insurable interest in such Works during manufacture or fabrication then such interest shall be noted by endorsement to the relevant Policies of Insurance.

Such insurance shall name Employer as an additional insured, and shall be primary to any insurance maintained by the Employer.

- f) **Public Liability** insurances in excess of the Employers Public Liability insurances as stated under clause 1.1(a).
- g) **Aviation Liability** insurances in excess of the Employers Aviation Liability insurances as stated under clause 1.1(c).
- h) **Contractor's Professional Indemnity Insurance** in excess of the Employers Design & Construct Professional Indemnity insurances as stated under clause 1.1(d) and if applicable to cover the deductible that applies to the Employer effected insurance.
- i) **Marine Cargo Insurance (If Applicable)**

Cover: Imports of cargo, equipment, goods, plant, machinery and materials ("**Insured Property**") to the site where the Permanent Works will be constructed.

Sum Insured: Not less than the value of the largest single cargo shipment, conveyance or the value in storage, whichever is the greater (CIF plus 10%).

Marine / Air Cargo Insurance covering the Insured Property against all risks of physical loss or damage while in transit by land, sea or air from country of origin anywhere in the world to the site where the Permanent Works will be constructed including loading, or vice versa, from the commencement of the time the insured items are loaded prior leaving the warehouse or factory for shipment to the said site.

The insured parties are the Employer, the Contractor and its Subcontractors, and all their personnel involved in the execution of any Works on the construction site.

j) **Miscellaneous Insurance**

Other insurance as is customary, desirable or necessary to comply with applicable Laws in the Country.

- 2.2 The insurances to be provided by the Contractor and his Sub-contractor shall be effected with Insurers and on terms approved by the Employer (which approval shall not be unreasonably withheld) and shall be maintained in force for the duration required (including any period of maintenance/defects liability period). The Contractor shall within twenty eight (28) days of commencement of the contract produce to the Employer the relevant Policy or Policies of Insurance.

- 2.3 In the event that the Contractor or his Sub-contractor receives any notice of cancellation or restrictive modification to the insurance provided to them they shall immediately notify the Employer in writing of such cancellation or restriction and shall advise what action the Contractor or his Sub-contractor will take to remedy such action.

If the Contractor fails to effect and keep in force the insurances referred to then the Employer may effect and keep in force any such insurances and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount paid by the Employer from any monies due or which may become due to the Contractor or recover same as a debt from the Contractor.

2.4 Sub-Contractors.

The Contractor shall:

- a) ensure that all potential and appointed Sub-contractors are aware of the whole contents of these Insurance Clauses, and
- b) enforce the compliance by sub contract agreement between the Contractor and Sub- Contractor and where applicable that the Sub Contractor effect similar insurance relating to the insurances required to be effected by the Contractor under Clause 2 (Contractor effected insurances).

PART C2 PRICING DATA

C2.1 Pricing Instructions

Preamble

1. The Conditions of Contract, the Scope and any other documents mentioned or referred to are to be read in conjunction with the Price Schedule.
2. The fee for services rendered will be the standard fees and stages as per the ECSA Guideline Scope of Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 2000, (Act No. 46 of 2000) as amended in Government Gazette No. 44333, 26 March 2021.
3. The Price Schedule covers the items that will be re-measurable. Costs not covered by the items may be included in the most appropriate items listed. However, Tenderers have the liberty to insert items, quantities and rates of his / her own choosing in the said schedule as a separate line item.
4. The Price Schedule as completed by the Tenderer shall be inclusive prices and shall cover, "inter alia," all general risks, liabilities, obligations, profit, expenses, costs, bonuses, etc. that will be required to successfully complete this contract as set forth or as implied in the documents on which this Tender is based.
5. Costs for all methods of communication are included in the fee and/or rates.
6. Special printing requirements are included in the fee and/or rates.
7. Provision of standard computer hardware and software are included in the fee and/or rates.
8. Incidental disbursement costs (travel, accommodation, car hire, per diem, etc.) are included in the fee and/or rates. (The key persons attend an average of four meetings, site inspections, etc. with the Employer and/or Others in Gauteng per month for the duration of the contract)
9. No alterations to the original text shall be allowed. If any alterations are made, it shall be ignored, and the original wording will be adhered to.
10. Variations in the Scope and extent of the Services shall be allowed to meet the Employer's requirements and shall be measured and priced at the rates entered in the Price Schedule where appropriate and shall form an addition to or deduction from the total of the Accepted Contract Price. Any items or variations for which rates have not been included in the Price Schedule shall be agreed and priced as non-scheduled items.
11. All quantities are provisional and shall be expended as directed by the Employer's Agent and any balance remaining shall be deducted from the amount of the contract sum.
12. The Consultant shall not be entitled to any claim in instances where quantities are partially or in total removed from the contract.
13. The percentage fees will be disbursed in stages upon completion of all activities within the stage.

C2.2 Price Schedule

1. Cost of Works

The estimated cost of works excluding VAT and including contingencies is:

Estimated Cost of the Works	R68 585 650.00
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2. Remuneration for Professional Services

Remuneration for professional services will be based on **Priced Contract with Activity Schedule** as outlined in the document below.

The pricing structure for the professional services fees are as per below activity schedule.

ITEM	DESCRIPTION	PRICE
1	Principal Electrical Engineer	
1.1	Stage 1: Inception	R
1.2	Stage 2: Concept Viability (Preliminary Design)	R
1.3	Stage 3: Design Development (Detail Design)	R
1.4	Stage 4: Documentation and Procurement	R
1.5	Stage 5: Contract Administration and Inspection	R
1.6	Stage 6: Close-out	R
1.7	Subtotal 1	R
2	Civil/Structural Engineer	
2.1	Provision of civil and structural engineering services, including site assessments, foundation design for generator installations, structural modifications, review of temporary works, and supervision of civil/structural activities to ensure compliance with design specifications, safety standards, and project requirements. Services include preparation of design documentation, coordination with other professionals, and contributions to close-out activities.	R
2.2	Subtotal 2	R
3	Construction Health and Safety Agent	
3.1	Stage 1: Project Initiation and Briefing	R
3.2	Stage 2: Concept and Feasibility	R
3.3	Stage 3: Design Development	R
3.4	Stage 4: Tender Documentation and Procurement	R
3.5	Stage 5: Construction Documentation and Management	R
3.6	Stage 6: Project Close-Out	R

3.7	Subtotal 3	R
4	Quantity Surveyor	
4.1	Stage 1: Inception	R
4.2	Stage 2: Concept and Viability	R
4.3	Stage 3: Design Development	R
4.4	Stage 4: Documentation and Procurement	R
4.5	Stage 5: Construction	R
4.6	Stage 6: Close-Out	R
4.7	Subtotal 4	R
5	Subtotal 5 (Sum subtotal 1-4)	R
6	Miscellaneous	
6.1	Disbursements	R
7	Subtotal 6 (Sum subtotal 5 and Disbursements)	R
8	Value-Added Tax 15% (VAT)	R
9	TOTAL (export to form of offer C1.1)	R

Part C3: SCOPE OF WORK

C3.1 Employer's Scope of Services

1. Introduction

Airports Company South Africa (ACSA) has identified the need to replace the existing standby diesel generators at O.R. Tambo International Airport. These generators provide critical backup power to ensure uninterrupted airport operations during power outages or emergencies. The replacement project involves upgrading the current standby diesel generator systems to enhance reliability, efficiency, and compliance with the latest safety and environmental standards. This initiative is essential to maintain continuous power supply for vital airport infrastructure and support the safety and comfort of passengers and staff.

2. Background

The existing standby diesel generators at O.R. Tambo International Airport are critical components of the airport's power infrastructure, providing emergency backup power during outages or disruptions to the main electrical supply. These generators ensure the continuous operation of essential systems and safety equipment throughout the airport.

Currently, the standby diesel generator units have reached the end of their operational life and no longer meet the reliability, efficiency, and environmental standards required for modern airport operations. The generators are installed in key locations to support various airport functions, and their performance directly impacts the airport's ability to maintain uninterrupted power supply in emergency situations.

The replacement project involves installing new standby diesel generators that comply with the latest industry standards and regulations, offering improved fuel efficiency, reduced emissions, and enhanced operational reliability. This upgrade will support the airport's commitment to safety, sustainability, and operational excellence.

3. Objectives

The objective of this project is to replace the existing standby diesel generators at O.R. Tambo International Airport to ensure reliable and continuous backup power supply. The replacement must meet the airport's operational requirements, as well as the needs of end-users and other stakeholders, by enhancing system reliability, efficiency, and compliance with current safety and environmental standards.

4. Scope of Work

The scope of work involves the design, procurement, and replacement of the standby diesel generators at O.R. Tambo International Airport. The scope can be classified under the following sub-headings:

4.1 Electrical Engineering Activities

Electrical engineering activities shall include, but not be limited to, the following:

- Developing detailed electrical designs, technical specifications, and drawings for the standby diesel generators and associated control systems.
- Providing designs and technical specifications for generator control, protection, and integration with existing power infrastructure and SCADA systems.
- Supervising installation, testing, and commissioning of electrical equipment.
- Managing electrical engineering deliverables, schedules, risks, and quality control to ensure timely and compliant execution.
- Liaising with stakeholders to minimize disruptions during electrical works.
- Approving and signing off as-built electrical and instrumentation schematic drawings.

4.2 Civil & Structural Engineering Activities

Civil and structural engineering activities shall include, but not limited to the following;

- Developing civil and structural engineering designs, technical specifications, and drawings for generator foundations, enclosures, and supports.
- Conducting geotechnical investigations and site surveys.
- Supervising civil and structural construction works on site.
- Managing civil/structural engineering deliverables, timelines, risks, and quality requirements.
- Coordinating with airport operations to minimize disruptions.
- Approving and signing off as-built civil and structural drawings.

4.3 Construction Health and Safety Agent Activities

Construction Health and Safety Agent activities shall include, but not limited to the following;

- Developing and implementing health and safety plans in compliance with the OHS Act and construction regulations.
- Conducting risk assessments and site inspections.
- Monitoring contractor compliance with health and safety requirements.
- Managing incident reporting, corrective actions, and safety close-out documentation.
- Integrating health and safety management within all project stages and disciplines.

4.4 Quantity Surveyor Activities

Quantity surveying activities shall include, but not limited to the following;

- Preparing initial and detailed cost estimates aligned with design stages.
- Managing tender documentation, evaluation, and contract administration.
- Monitoring project costs, issuing payment certificates, and controlling budgets.
- Preparing final accounts and assisting with contract close-out.
- Coordinating procurement and financial management activities to support project delivery.

4.5 Design Development

- Developing all necessary designs and drawings required to complete the project.
- Ensuring designs and drawings comply with applicable legislation and local and international codes and standards such as the OHS Act, SANS, and others.
- Ensuring timely submission of designs and drawings to relevant authorities for approvals and permissions, including managing any negotiations.

4.6 Other Requirements

- Ensuring minimal disruptions to airport operations in a live operational environment.
- Implementing a staged approach to construction to maintain continuous airport operations.
- Minimizing waiting periods between construction activities to avoid delays and cost overruns.
- Planning carefully to control costs and limit operational disruptions.
- Scheduling certain construction activities after hours or on weekends as necessary.
- Implementing proper isolation and safe working procedures within the airport environment.

5. Required Supporting Personnel

The following supporting personnel are mandatory for this project and must meet the specified qualifications:

i. Civil/Structural Engineer

- a) The Civil/Structural Engineer must be professionally registered with ECSA as a Professional Civil Engineer or Professional Civil Engineering Technologist.
- b) The Civil/Structural Engineer must provide a portfolio of evidence for 3 or more projects whose values are \geq R5 million each excluding VAT.

ii. Quantity Surveyor

- a) The Quantity Surveyor must be registered with SACQSP as a Professional Quantity Surveyor.
- b) The Quantity Surveyor must provide a portfolio of evidence for 3 or more projects whose values are \geq R5 million each excluding VAT.

6. Deliverables

The following are the major deliverables of the project:

- Design development of the replacement standby diesel generator systems in accordance with Airports Company South Africa (ACSA) requirements, statutory regulations, and applicable local and international standards and codes.
- Procurement and delivery of all materials, equipment, and plant necessary to complete the project, managed in compliance with approved tender processes and timeline controls.
- Fabrication, manufacture, installation, and construction of the new standby diesel generator systems, ensuring adherence to design specifications and quality standards.
- Testing, commissioning, and rectification of all deviations and non-conformances identified during inspections, documented in a punch list for resolution prior to handover.
- Formal project and equipment handover to the employer, including all relevant documentation and certifications.
- Training of operations and maintenance staff on the new systems and issuance of comprehensive operations and maintenance manuals to support ongoing reliability and performance.

C3.2 Detailed Scope of Services

1. Scope

- 1.1 The Scope of Services comprises the normal services listed in clause 3.2 of the ECSA Guideline Scope of Services and Tariff of Fees for Persons Registered in terms of the Engineering Profession Act, 2000 (Act No. 46 of 2000), as amended in Government Gazette No. 44333, 26 March 2021.
- 1.2 The services shall incorporate the following:
 - Stages 1 to 7 of the *Framework for Infrastructure Delivery and Procurement Management* infrastructure delivery processes and gateway reviews.
 - Compliance with C3.3.1 to C3.3.4.
 - Liaison with all stakeholders at Airports Company South Africa (ACSA) regarding the project's impact on airport operations.
- 1.3 The details of your duties for the above items of work shall include but not be limited to the following:
 - 1.3.1 Timeous submission of all necessary plans and drawings to the relevant Authorities and expediting the necessary approvals and permission to proceed, including any negotiations in this regard.
 - 1.3.2 Ensuring that the designs comply with Annexure C and good engineering and construction practices.
 - 1.3.3 Ensuring that the Contractors' and Subcontractors' technical proposals and drawings conform to the design and specification requirements.

- 1.3.4 Providing all necessary contract administration to diligently and timeously monitor the various Contractors / Subcontractors in the execution of the contract works and taking necessary action in the event of problems.
- Contract administration shall include the following: -*
- 1.3.4.1 Immediate clarification of any queries on working drawings.
 - 1.3.4.2 Provision of details to supplement drawings produced in your office.
 - 1.3.4.3 Progressive quality checks as and when work is executed.
 - 1.3.4.4 Liaison with representatives of Others to ensure co-ordination of all services and generally ensuring that the contract is not delayed due to-lack of design information.
 - 1.3.4.5 Witnessing, supervising and approving testing carried out at the fabricator's facilities and on site, as appropriate.
 - 1.3.4.6 Drawing up of comprehensive defects lists prior to and after beneficial occupation by the Employer and expediting completion of such defects lists.
 - 1.3.4.7 Attending or holding regular meetings with the Contractors / Sub-contractors in connection with your scope of work in order to ensure that the work is procured, manufactured and constructed in accordance with design and programme requirements.
 - 1.3.4.8 Prepare monthly valuations. Compilation and settlement of final accounts and claims.
 - 1.3.4.9 Attending monthly review meetings with the Employer.
 - 1.3.4.10 Provision of regular updated cost information reports.
- 1.3.5 Liaising with Others on design, time control and budgetary aspects of the project and reporting on progress and selection of the various materials and components on the project.
- 1.3.6 Visiting the works of relevant Contractors and Suppliers to ensure satisfactory quality control and correct utilization of materials in the fabrication process.
- 1.3.7 Reviewing the Contractor's programme in terms of information required from the subcontractors under his control.

C3.3.1 General Matters & Requirements

1. Providing the Services

The Consultant ensures that the Services are fit for the purposes intended and are engineered, procured and managed in accordance with this contract and Good Engineering and safety practices.

The Consultant exercises due skill, care and diligence in providing the Services. The standard of skill, care and diligence required is that of a Consultant seeking in good faith to perform his contractual obligations and in so doing and in the general conduct of his undertakings observing and/or exercising the degree of skill, care, diligence, prudence and foresight which would reasonably and ordinarily be exercised by a skilled and experienced international Consultant in relation to his practices, methods, techniques, specifications and/or standards (whether in respect of design, engineering, construction, performance, safety, workmanship, equipment, components or otherwise) engaged in the same type of undertaking under the same or similar circumstances and conditions to the Services.

The Consultant uses a sufficient number of appropriately qualified professionals and other individuals who are suitably skilled, competent and experienced in their respective professions or occupations and provides all necessary supervision to plan, arrange, direct, manage and inspect the Services and generally for the satisfactory and safe execution of the Services. Without limitation, supervision is carried out by a sufficient number of appropriately qualified persons who are suitably skilled, competent and experienced in the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents).

The Consultant represents that he is and ensures that he is at all times fully experienced, properly qualified, registered, licensed, equipped, organized and financed to perform the Services in terms of this contract.

Except to the extent otherwise expressly stated in this contract:

- 1.1 the Consultant is considered to have satisfied himself, prior to the Contract Date, as to the completeness and sufficiency of all information and drawings provided to him as at the Contract Date.
- 1.2 the Consultant is considered to have satisfied himself as to the precise nature and exact location of the Services, the type of Equipment and facilities and other items and matters required to Provide the Services (and the Consultants failure to so satisfy himself with all such data and information does not relieve his responsibility for properly estimating the difficulty or cost to successfully Provide the Services and he is not by reason thereof entitled to any extension of the Completion Date, adjustment to the Prices or other compensation); and
- 1.3 the Employer is not responsible for the failure of the Consultant to understand the precise nature of his undertaking under this contract or for any erroneous interpretation concerning the conditions affecting his performance, it being recognized that the Employer provided the Consultant sufficient opportunity to ask the Employer for clarification of the terms and conditions of this contract prior to submission of his tender to Provide the Services.

2. Compliance with Laws

The Consultant keeps himself fully informed of and complies with all laws which apply to the Works and/or Services and/or to Providing the Works and/or Services (including laws which apply to persons employed to Provide the Services and/or Works). "Laws" includes all national and provincial legislation, statutes ordinances and other laws and regulations and by-laws, orders and decrees of government or other legally constituted public authority and the common law.

3. Compliance with Codes & Standards

The Services comply with the codes and standards stated in the Scope. To the extent not stated, the Services comply with internationally recognised codes and standards which are accepted by the Employer.

In case of conflict between national, international codes, standards or guidelines and/or the requirements specified in this Scope, and unless otherwise instructed by the Employer, the more onerous one takes precedence; provided always that the Services comply as a minimum and in any event, with applicable law and mandatory South African national codes, standards and guidelines.

4. Services of the Employer and Others

The Services are part of a project at O.R. Tambo International Airport. During design or the project works there are interfaces with Other's for which appropriate levels of planning and liaison will be required. These interfaces include design, construction and programme activities.

Whenever work being done by Others on the project is dependent on or adjacent or related to the Services, the interface and sequence of such works and the Services is such that the least interference reasonably possible will result to the Consultant and to Others and such sequence is determined by the Employer.

The Consultant is considered to have allowed for reasonably anticipated delays and interference to the Services for these interfaces. Cooperation is required between the Consultants and Others to ensure the completion of the Services and other project works within the programme for the project as a whole.

At the earliest possible date, detailed programmes prepared for all other project works having interfaces with the Services are discussed by the Employer with the Consultant in order that the phasing, duration, use of working areas, attendance work etc. can be drawn into overall programmes for the project works.

Co-ordination meetings are held as required by the Consultant with such other Consultants and/or Contractors to monitor progress and co-ordinate the installation operations.

5. Consultant's Organisation

Unless included in this contract, the Consultant submits to the Employer, within four weeks of the starting date, a chart showing the organization for Providing the Services. The chart includes the identities of the key personnel to be employed. The Consultant also includes the curricula vitae of the key personnel.

The Consultant promptly informs the Employer in writing of any revision or alteration of such organization chart. The appointment or replacement of key personnel is subject to core clause 22.1 of this contract.

6. Personnel

The Employer may, having stated his reasons, instruct the Consultant to remove any person engaged by the Consultant or any Subcontractor (whether or not an employee). The Consultant then arranges that, after one day, that person has no further connection with the work included in this contract.

The Consultant takes all necessary precautions to prevent any unlawful, riotous or disorderly conduct or behaviour by or among his and his Subcontractors employees, agents or invitees or any other person for whom the Consultant is responsible whether under this contract or in law.

The Consultant, in the execution of the Services, maximises the use of local persons, - Local persons are persons ordinarily resident within a 50 km radius of the Site.

7. Order of Services

In those parts of the Services where interference is likely to occur between items being provided under this Contract and items provided by the Employer or by Others, work shall not be commenced until the Employer has given his acceptance.

8. Methods of Working

The Consultant may execute the contract in accordance with his own standard work execution plans and procedures to the extent that they do not conflict with the provisions of this contract.

The Consultants methods of work are at all times such that the Employer can be reasonably satisfied that the results will be acceptable and achieved without undue risk.

Notwithstanding any omission from the Scope, the Services are performed and completed in a proper and workman like manner, by professionals skilled in their respective professions.

9. Method and Resources Statements

The Consultant, whenever required by the Employer, submits details of the resources, arrangements and methods which the Consultant proposes to adopt for providing the Services.

No significant alteration to these resources, arrangements and/or methods is made unless it is first accepted by the Employer.

10. Change Control

The Consultant does not change or substitute a design which is required by this contract or has previously been accepted by the Employer unless the Employer has accepted the change or substitution. The Employer is under no obligation to accept the change or substitution and no claim will be considered if the change or substitution is not accepted.

11. Notice Boards

The Consultant is permitted to display two notice boards advertising this contract on or near the Site or access points to the project area. The notices are of a form and in a position accepted by the Employer and include details of other parties involved (including the Employer) as well as the Contractor. No advertisement shall be displayed without the approval of the Employer.

12. Invoicing and Payment

The Consultant submits claims to the Employer's Representative by the 21st of the month with supporting documentation (detailed time sheets that show the time spent on activities in the programme, detailed site diaries, inspection records, etc.) to substantiate the claim.

The Employer's Representative issues a payment certificate for the amount which he assesses by the 25th.

The Consultant thereafter submits the invoice with payment certificate attached to Invoices.Acsa@airports.co.za by the 30th of the month. Invoices received after the 30th will be processed for the following month, i.e. 45 — 60 day payment.

The Consultant ensures that the following are shown the claim and invoice:

- Employer's purchase order number;
- the contract number and title; and
- the total amount claimed excluding VAT, the VAT and the invoiced amount including VAT.

C3.3.2 Quality Control & Assurance

The Consultant has a well-organized quality control and assurance system based on ISO 9000 Series (or equivalent acceptable to the Employer) to assure that Services, including subcontracted Services, comply with the Scope.

Within the period stated in the Contact Data, the Consultant submits his complete quality control and assurance system (with all quality control and assurance procedures and manuals) for review and acceptance by the Employer. The manual includes pro-forma checklists for all requirements of the Consultants quality control and assurance program and those called for in the Scope.

Acceptance by the Employer of the Consultants quality assurance programme, quality plans and/or inspection and/or test plans, or of those- of his Subcontractors will not relieve the Consultant of his obligation to provide services which meet the requirements of the Contract.

C3.3.3 Drawings & Documents

1. Comments on Consultant's Drawings and Other Documents

The Consultant takes due account of any comments made by the Employer and/or Others on the Consultants drawings or other documents. Unless otherwise expressly provided for in this contract, however, none of the Employer and/or Others is bound to comment on the Consultants drawings or other documents.

None of the Employer and/or Others is bound to check the Consultants drawings or other documents for any errors, omissions, ambiguities or discrepancies or compliance with the requirements of this contract. The Employer's and/or Others acceptance, receipt of, or review of, or comment on the Consultants drawings or other documents or other matter does not relieve the Consultant from responsibility for the Consultants errors or omissions.

2. Drawing Requirements

All drawings bear accepted contract references using a project title block which is accepted by the Employer. Detailed revision blocks and drawing numbers are suffixed accordingly. All drawings, particularly layout drawings, submitted for acceptance are to a scale acceptable to the Employer. All drawings are made to scale and fully detailed and dimensioned. All dimensions marked on the drawings are to be considered correct, although measurements by scale may differ therefrom. The material from which each part is to be made shall be indicated.

The drawings include tolerances for manufacture and installation. The tolerances are suitable and of sufficient accuracy to provide safe and trouble free construction and operation over the life of the component.

All copies of drawings submitted to the Employer are provided in the form of 4 prints on white paper with black lines. The drawing size is A3 unless the use of another size is unavoidable. All native electronic format documents are also provided.

All drawings are dimensioned in metric units unless the use of another unit is required and/or recommended, e.g. imperial sizes for flange holes, studs, etc. Where applicable, drawings show a graphic scale key plan and north arrow. Dates on drawings are reflected in the following format: dd/mm/ccyy. Revisions are designated RO, RI, R2, R3, etc., commencing with the first issue. All revisions are clearly described in the revision column bearing the revision number.

All drawings additionally comply with the latest revision of the ACSA Cad Specification and Good Practice Guideline.

3. Document Tracking System

The Consultant establishes a document tracking system to record the dates for the supply and receipt of all drawings, calculations, correspondence and requests for information to/from the Employer and/or Others.

4. Submission Schedule

The Consultant submits to the Employer a schedule, within 4 weeks of the starting date and monthly thereafter, of all documents for acceptance. This schedule provides individual titles of drawings and calculations, and their proposed submittal dates, for requested in the Scope and as necessary for the review by the Employer means of compliance by the Consultant with all aspects of the requirements of this contract.

The scheduled date of first submittal, time allowed for acceptance and expected date of issue after acceptance is shown for each document.

5. Document Submissions

The Consultant submits his drawings, designs and calculations for acceptance prior to the start of procurement, as required by the Employer. All such material becomes the property of the Employer.

All correspondence and submissions are prominently identified as relating to the Services and are submitted under the cover of appropriate letters or transmittal notes in accordance with the correspondence procedures which will be advised by the Employer after the signing of the Contract. All documentation supplied by the Consultant to the Employer and/or Others in hard copy is also supplied in electronic format. Unless otherwise specified this is MicroStation or AutoCAD format for drawings and MS Office for all other documents.

The Employer has the right at all times to inspect the Consultant or Subcontractors drawings of any portion of the Services.

The Consultant submits his drawings and other documents to the Employer and/or Others for acceptance in sufficient time to permit modifications to be made and for the document to be resubmitted for acceptance to the Employer without delaying the initial deliveries or the completion of the Services.

Drawings and samples that have been accepted are not departed from in any way whatsoever except as may be provided in the Contract.

If the Consultant requires early acceptance of any documents in order to avoid delay in the completion of the Services, he advises the Employer and/or Others to such effect when submitting the documents.

6. Time Required for Acceptance of Designs & Calculations by the Employer

Not later than one month after receipt, the Employer returns one copy of the document marked "Accepted", "Accepted as Noted" or "Not Accepted", as may be appropriate.

The notations "Accepted" and "Accepted as Noted" authorize the Consultant to proceed with the procurement of the part of the Services and/or Works covered by such documents subject to the corrections, if any, indicated thereon. Where documents, prints or drawings have been "Not Accepted" the Consultant makes the necessary revisions on the document and submits further copies for acceptance in the same procedure as for the original submission of drawings. Every revision is shown by number, date and subject in the revision block on the drawing.

7. Format for Retention

The Consultant retains original documents.

C3.3.4 Programme, Progress Reporting & Meetings

1. Programme

1.1 General Requirements

The programme is submitted in Microsoft Project. The level of detail required is sufficient to enable detailed resource planning, unless otherwise accepted or directed by the Employer.

The programme includes 100% of the work defined by the Contract and captures all deliverables - internal, external, and interim - in terms of the work to be completed, including project management and the work of Others.

The Consultant allows for public holidays and weekends (as non-working days) in his programme and allows 4 weeks of float for each 12 month period. The programme will take cognisance of the legal requirements relating to working hours. The Consultant allows 1 week buffers strategically to facilitate project contingency to mitigate delays in project completion and/or delays to Others and/or delays to the Consultant.

Activities are scaled in week units except for operational disruptions or similar detailed programmes for which activities are specified in days. Activities for which multiple shift working is intended are clearly defined.

Method and resources statements are submitted for critical items to demonstrate that the period allocated fits the overall programme and that the Consultants resources are consistent with the time allowed.

1.2 Other Information to be Shown on the Programme

The other information to be shown on the programme (in addition to the requirements of core clause 31, as applicable), is:

1.2.1 Dates for issue and acceptance of drawings;

1.2.2 Dates for submission of all documents to internal and external stakeholders;

2. Reporting

2.1 Monthly Progress Reports

The Consultant submits monthly progress reports to the Employer. Each report covers a period of a calendar month save that the first report covers the period up to the end of the first calendar month following the starting date. Reports are submitted within one week of the end of every calendar month.

Each report includes:

2.1.1 an executive summary,

2.1.2 charts and detailed descriptions of the status of the Services in narrative format including each stage of design, drawings and other documents, procurement, manufacture; delivery to Site, construction, erection, commissioning and testing and are related to key dates identified in the Accepted Programme,

2.1.3 for the procurement, manufacture and/or fabrication of each main item of Plant & Equipment and/or Works, the name of the Contractor, Contractor's location, percentage progress and the actual or expected dates of commencement of manufacture, inspections, pre-delivery tests and delivery to Site;

2.1.4 4 week look-ahead schedule;

- 2.1.5 comparisons of actual and planned progress;
- 2.1.6 colour photographs in digital format showing progress of the Services in the course of manufacture and on the Site, with each set comprising at least 20 colour photographs, individually marked with the date taken, a description of the subject and the direction of view;
- 2.1.7 details of actual and planned resources;
- 2.1.8 updated cash flow showing actuals for the period being reported on and a revised forecast;
- 2.1.9 details of number of each class of the Consultants and each Contractor's and/or Subcontractor's personnel and of each type of the Equipment at the Site for the relevant period;
- 2.1.10 a report on quality including a schedule identifying all quality control and assurance documents, test results and certificates issued during the reporting period;
- 2.1.11 a list of proposed changes to the Scope and the status thereof;
- 2.1.12 a list of instructions from the Employer changing the Scope during the reporting period, detailing their reference numbers;
- 2.1.13 a list of instructions received by the Consultant (other than instructions from the Employer changing the Scope) during the reporting period listing the date of receipt and the nature of the instruction;
- 2.1.14 an updated risk register;
- 2.1.15 a list of all notified compensation events detailing their reference numbers, the date on which the underlying cause, circumstance or event arose and when it first came to attention of the Consultant, the compensation claimed by the Consultant and/or Contractor, the date on which notice and the details thereof were given to the Employer and the status thereof;
- 2.1.16 details and assessment of all areas of concern including details of all notified early warnings and details and assessment of other events and circumstances which may have an adverse cost impact and/or cause delays and details of the corrective or other measures being adopted, or to be adopted to mitigate or overcome such cost impact and/or delay;
- 2.1.17 a current register of drawings and other documents submitted to the Employer or Contractor during the reporting period and the prior reporting period, detailing the date of issue to the Employer or Contractor and, if applicable, the date by which the Employers acceptance is required;
- 2.1.18 a current list of all drawings and documents issued to the Consultant (including the applicable revision) detailing the date of issue and transmittal thereof;
- 2.1.19 a report on health & safety and environmental matters;
- 2.1.20 a report on industrial relations relevant to the Services including industrial relations at the Site and at places of manufacture;
- 2.1.21 details of the financial status of this contract (by way of updated S curves and spread sheets) including status report on payments made and outstanding applications for payment; and
- 2.2.22 such other matters and information (including schedules and charts) as the Employer may require being included in the progress report from time to time.

An electronic copy and 4 hard copies of each progress report are submitted to the Employers Representative on the first Wednesday of each month.

2.2 Additional Weekly and Daily Reports

Following mobilization at the Site the Consultant, in addition, submits to the Employer (in electronic copy and 4 hard copies):

- 2.2.1 weekly reports detailing projected activities for at least 2 weeks ahead of those being reported on and summarising Site activities, indicating numbers of each class of the Consultants and each Contractors personnel on Site (foreign and local), each type of Equipment on the Site, the Plant and Materials on the Site and recording any areas of concern and details of corrective action being taken;
- 2.2.2 daily activity reports summarizing the main activities to be undertaken each day, noting any special activities that require witnessing, together with full particulars and details of obstructions, modified or

additional work, incidents, health and safety matters and the number of the Consultants and each Contractors personnel employed in each of the several portions of the work in progress.

2.3 Reports on Disputed Work

For work in respect of which the entitlement of the Consultant and/or Contractor is disputed or of an uncertain nature, the Employer may require the Consultant to submit work detail sheets, for the approval of the Employer, as a record of work done. The sheets are "For record purposes only" and do not give rise to or evidence any compensation event.

2.4 Additional Reports

The Employer is entitled to request the Consultant to provide additional reports when in his opinion they are warranted to monitor the progress of the Works.

3. Meetings

The Consultant attends regular formal meetings as required by the Employer. Meetings may involve Others so that the progress of the Services and/or Works on Site and other works may be reviewed. Such meetings may be held fortnightly or at other intervals as required by the Employer.

The Consultant records these meetings and issues detailed minutes within 1 week.

The Consultant also attends informal weekly meetings on Site as required by the Employer and/or the Contractor.

The Consultant's key persons attend all meetings. There is an average of four meetings per month.

Part C4: Site Information

1. Description of the Site and its surroundings

1.1 General description

The standby diesel generators are situated across several critical zones within O.R. Tambo International Airport, including the terminal area, airside, and cargo precincts. These generators provide essential backup power to support key airport operations and infrastructure, ensuring continuous functionality during power outages. For detailed technical information, refer to **Appendix B for Alternator and Engine Specifications**, and **Appendix C for Existing Bulk Tanks and Day Tanks with Generator Sizes**.

- The terminal area hosts standby generators supporting passenger facilities and operational systems.
- The airside generators serve critical airfield and apron systems, ensuring uninterrupted power supply during outages.
- The cargo area generators support logistics and freight handling operations.

The site environment is highly secure and operationally sensitive, requiring strict adherence to airport safety, security, and operational protocols during all project activities.

Key site data

- The site is located within restricted areas of O.R. Tambo International Airport, including terminal, airside, and cargo zones.
- These areas are designated National Key Points, subject to stringent access control and security measures.
- The Consultant must comply fully with all airport rules and regulations relating to health, safety, environment, security, fire, and access control.

1.2 Access

- The Consultant shall liaise with Airports Company South Africa (ACSA) Security Staff to obtain all necessary access permits for personnel and vehicles working at the airport.
- All personnel and vehicles entering or leaving the site will be subjected to routine security searches.
- The Consultant must obtain a “gate permit” from the Project Manager before any materials or equipment are brought onto or removed from the airside.
- The Consultant shall include all costs related to access permits in their rates; no additional payment or claims will be entertained for access difficulties.

1.3 Permits

- The Consultant shall familiarize himself with ACSA’s safety and security requirements relating to permits to prevent any unnecessary work delay.
- This shall include the permit application process.
- The Consultant shall have no claim against ACSA in the event that a permit request is refused.
- The following table is not all inclusive, but is provided for illustration purposes:

Permit	Required by/for	Department
AVOP – Airside Vehicle Operator permit	All drivers of vehicles on airside	ACSA Safety
Airside Vehicle Permit	All vehicles that enter airside	ACSA Safety
Basement Parking Permit	All vehicles allowed to enter the delivery basement	ACSA Parking

Personal Permit	All persons employed on the airport	ACSA Security
Cell Phone Permit	All persons taking cell phones to airside	ACSA Security
Tools & Laptop Permit	All persons taking tools and laptop to airside	ACSA Security
Camera Permit	All persons taking camera equipment to airside	ACSA Security
Hot Works Permit	All welding and/metal cutting work on the airside	ACSA Safety
Airside Projects/Works Permit	For all projects on the airside	ACSA Airport Operations / Safety
Low/Medium Voltage Permit to Work	For all work on substations, distribution boards and cables	ACSA Electrical Maintenance

- Proof of having attended the Airside Induction Training course is required for all personal permit applications.
- Fees are levied for these courses. Fees are further levied for all permit renewals and refresher courses where applicable.
- No work shall be done without a written permission in the form of a permit/works order.

1.4 Cell phones and two-way radios

- Use of cell phones are not permitted unless the user is in possession of an appropriate Airport permit for the device.
- Cell phone permit issuing authority lies with the ACSA Security department.
- The Consultant will not be allowed to use two-way radios at the Airport unless these radios are of the type, model and frequency range as approved by the ACSA IT department.
- Approved radios may be arranged via said department – payment will be for the account of the Consultant.

1.5 Hidden and other services within site

- There may be underground water and sewer pipes within the project site.
- Various cables, including electrical and communication cables, run through existing trenches and must be treated as live and energized at all times.
- Extreme caution must be exercised during excavation and construction activities to avoid damage to these services.
- The Consultant and Contractor shall verify the location and status of all underground services prior to commencement of any works and coordinate with relevant authorities and utility owners as necessary.
- Any damage to existing services must be reported immediately and rectified in accordance with airport and statutory requirements.

Part C5: Annexures

Annex A: Compliance with Codes & Standards

The Designs comply with the latest edition codes and SANS and International standards stated below and/or in the Scope and Good Engineering and Construction Practices'. To the extent not stated, the Designs comply with internationally recognised codes and standards which are accepted by the Employer.

In case of conflict between national, international codes, standards or guidelines and/or the requirements specified in this Scope, and unless otherwise instructed by the Employer, the more onerous one takes precedence; provided always that the Works comply as a minimum and in any event, with applicable law and mandatory South African national codes, standards and guidelines.

The minimum ACSA requirements are:

- (a) the requirements of the Occupational Health and Safety Act No. 85 of 1993 and Construction Regulations 2003;
- (b) Legislation By-Laws and Regulations applicable to the area within which the project falls;
- (c) the code of practice for the Application of the National Buildings Regulations, (SANS 10400);
- (d) JIG Guidelines for Aviation Fuel Quality Control and Operating Procedures;
- (e) the ATEX directives; (The Regulations apply to al/ equipment intended for use in explosive atmospheres, whether electrical or mechanical, and also to protective systems)
- (f) the requirements of the IEC 61508 and IEC 6151 1 standards for functional safety of electrical/electronic/programmable electronic safety-related systems; (SIL3 Certification)
- (g) the recommendations API / EI Aviation Fuel Handling Equipment Standards and Recommended Practices (15xx) and all standards referenced or contained in their Annexures; (unless there are more onerous requirements stated elsewhere)
- (h) the recommendations of OIML;
- (i) the requirements of SANS 10089 parts 1 and 2;
- (j) the requirements of SANS 347;
- (k) the requirements of API and ASME standards for valves, flanges, gaskets, tanks, vessels, welding, pumps, piping and other appurtenances, e.g. API 6D, 6FA, 610, 2000, 650, 651, 652, 653, etc. and ASME B16.xx, Vii, 831 .3, 831 .4, etc.;
- (l) the requirements and recommendations of the NFPA standards and codes for fire protection and fire safety, e.g. NFPA 10, 11, 13, 15, 16, 20, 22, 24, 30, etc.;
- (m) the requirements of the COLTO Standards, SANS 1921 and SANS 2001 for roads and civil engineering;
- (n) the recommendations of the UK Health and Safety Executive (HSE) Control of Major Hazardous Installations Regulations (COMAH Regulations);
- (o) the recommendations of the UK Environmental Agency in their Pollution Prevention Guidelines (PPG).

The recommendations contained within or made by international and national standards are viewed as the benchmark for *Good Engineering and Construction Practices*¹ and are complied with unless it can be demonstrated that it is not practicable.

¹ Good Engineering and Construction Practices are the relevant practices, standards, recommendations, methods, procedures and acts used internationally by skilled contractors engaged in the design, engineering, construction, testing and commissioning of work similar in nature and extent to the Works that, at a particular time, with the exercise of reasonable judgment, care, attention in light of the facts known or that reasonably should have been known to the party making a decision at the time a decision is or should be made, would be expected to accomplish the desired result in a manner consistent with Laws, reliability, safety, environmental protection, economy and expedition. With respect to the plant and the Works, Good Engineering and Construction Practices include taking reasonable steps to ensure that:

- (i) Adequate materials, resources and supplies are available to undertake the Works under normal conditions;
- (ii) Sufficient engineering, design, construction and safety personnel are available and are adequately experienced and trained to design, construct and test the Works properly, efficiently and within applicable Laws, manufacturer's guidelines and specifications and API and EI standards and recommendations;
- (iii) Appropriate monitoring and testing is done during the design, manufacturing, erection and commissioning to ensure that the Works are constructed to the required standards, tolerances and specifications and that equipment is functioning as designed and to provide assurance that it will function properly under normal conditions;
- (iv) Appropriate protective devices and design features are provided to ensure that safe, reliable, long-term operation of the plant can be achieved, if operated and maintained in accordance with the Operation and Maintenance Manual;

Annex B: POPIA

CONFIDENTIALITY AND DATA PROTECTION

Save as provided in this clause (*Confidentiality and Data Protection*), each Party shall, and shall procure that its Affiliate and their respective officers, directors, employees, agents, auditors and advisors shall, treat as confidential all information relating to the other Party or its Affiliates thereof or relating to their respective businesses that is of a confidential nature and which is obtained by that Party in terms of, or arising from the implementation of this Agreement, which may become known to it by virtue of being a Party, and shall not reveal, disclose or authorise the disclosure of any such information to any third party or use such information for its own purpose or for any purposes other than those related to the implementation of this Agreement.

The obligations of confidentiality in this clause shall not apply in respect of the disclosure or use of such information in the following circumstances:

in respect of any information which is previously known by such Party (other than as a result of any breach or default by any Party or other person of any agreement by which such Confidential Information was obtained by such Party);

in respect of any information which is in the public domain (other than as a result of any breach or default by either Party);

any disclosure to either Party's professional advisors, executive staff, board of directors or similar governing body who (i) such Party believes have a need to know such information, and (ii) are notified of the confidential nature of such information and are bound by a general duty of confidentiality in respect thereof materially similar to that set out herein;

any disclosure required by law or by any court of competent jurisdiction or by any regulatory authority or by the rules or regulations of any stock exchange;

any disclosure made by a Party made in accordance with that Party's pursuit of any legal remedy;

any disclosure by a Party to its shareholders or members pursuant to any reporting obligations that Party may have to its shareholders or members, provided that each such shareholder or member is notified of the confidential nature of such information and is bound by a general duty of confidentiality in respect thereof materially similar to that set out herein;

In the event that a Party is required to disclose confidential information as contemplated in this clause, such Party will:

advise any Party/ies in respect of whom such information relates (the "**Relevant Party/ies**") in writing prior to disclosure, if possible;

take such steps to limit the disclosure to the minimum extent required to satisfy such requirement and to the extent that it lawfully and reasonably can;

afford the Relevant Party/ies a reasonable opportunity, if possible, to intervene in the proceedings;

comply with the Relevant Party/ies' reasonable requests as to the manner and terms of such disclosure; and

notify the Relevant Party/ies of the recipient of, and the form and extent of, any such disclosure or announcement immediately after it was made.

Either Party may, by notice in writing, be entitled to demand the prompt return of the whole or any part of any confidential information supplied by it to the other Party, and each Party hereby undertakes to comply promptly with any such demand.

In line with the provisions of Protection of Personal Information Act, No 4 of 2013 (POPIA), particularly section 20 and 21, the service provider (referred to as Operator in POPIA) shall observe the following principles when processing personal information on behalf of the Company (referred to as Responsible Party in POPIA):

the Service Provider shall only act on the Company's documented instructions, unless required by law to act without such instructions;

the Service Provider shall ensure that its representatives processing the information are subject to a duty of confidence;

the Service Provider shall take appropriate measures to ensure the security of processing. The Service Provider shall ensure and hereby warrants that they have minimum IT and or physical security safeguard to protect personal information;

the Service Provider shall notify the Company immediately where there are reasonable grounds to believe that the personal information of a data subject has been accessed or acquired by any unauthorised person;

the Service Provider shall only engage a sub-operator with the Company's prior authorisation and under a written contract;

the Service Provider shall take appropriate measures to help the Company respond to requests from data subjects to exercise their rights;

taking into account the nature of processing and the information available, the Service Provider shall assist the Company in meeting its POPIA obligations in relation to the security of processing, the notification of personal information breaches and data protection impact assessments;

the Service Provider shall delete or return all personal information to the Company (at the Company's choice) at the end of the contract, and the service provider shall also delete existing personal information unless the law requires its storage; and

the Service Provider shall submit to audits and inspections. The Service Provider shall also give the Company whatever information it needs to ensure that the Parties meet their Section 20(1) obligations.

Appendix A

CONTRACTORS CLAIMS ADVICE FORM - FOR ACSA INSURED CONTRACTS UNDER THE ANNUAL POLICY

Send to : Airports Company South Africa

E-Mail The Following People :

Nokulunga.Masiza@airports.co.za

Buhle.Mnguni@airports.co.za

*
.....
.....
.....
.....
.....

* (Please provide name of contracting company, site address, telephone numbers and e-mail address).

RE :ACSA CONTRACTORS : CAR/PL/PI : CLAIM

Date of loss : _____

Reported to site agent by : _____ Date : _____

Reported to Insurance Broker by : _____ Date : _____

Locality of Incident _____

How did the loss occur (cause) ? _____

Details and nature of loss or damage to Contract Works _____

Details of other property damaged _____

Names and address of witnesses _____

Estimated cost of repairs (Separate records of all costs must be kept) R _____

Person whom assessor should contact _____

Telephone/Mobile Numbers Of Contact Person _____

Email Address of Contact Person _____

Appendix B: Alternator and Engine Specifications

PRECINT	SUBSTATION NO. & SIZE	ENGINE TYPE & MODEL	ALTERNATOR TYPE & MODEL	GENERATOR CONTROL	BULK TANK SIZE (LITERS)
TERMINAL	SUB 1 2 x 800kVA	GEN 1: PERKINS 3000 SERIES Customer part no.:101-051 Engine no.: SGD120230U4310C Designation: 3012-TAG3A CFL no.:974310 Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	STAMFORD AC GENERATOR GEN 1Manufactured month/year:10/98 GEN 2Manufactured month/year:01/01 Type: HC1634G1 AVR:MX321 PF:0,8 GEN 1 Volts:380 GEN 2 Volts:400 GEN 1 Ratings: STANDBY GEN 2 Ratings: N/A	CIRCON	2x 9000L With fuel level and water level sensor
		GEN 2: PERKINS 3000 SERIES Engine no.: SGD120000U4405G Designation: 3012-TAG3A Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	Excitation volts:58 GEN 1 Serial no.:0130130 GEN 2 Serial no.:084767-5 RPM:1500 Amps: 1166 Ambient temp: 27 °C Amps:3,30 Frequency:50Hz Phase: 3 Stator WDG:12 Stator CON: STAR Enclosure: IP22 Insulation class: H		
	SUB 2 1x 800kVA	PERKINS 3000 SERIES Engine no.: SGD120000U3415H Designation: 3012-TAG3A Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	STAMFORD AC GENERATOR Manufactured month/year:01/01 Type: HC64G1 AVR:MX321 PF:0,8 Volts:380 Ratings: STANDBY Excitation volts:58 Serial no.:141959-1 RPM:1500	DEEP SEA Model: 8610	14000L With fuel level and water level sensor



			Amps: 1166 Ambient temp: 27 °C Amps:3,30 Frequency:50Hz Phase: 3 Stator WDG:12 Stator CON: STAR Enclosure: IP22 Insulation class: H		
SUB 5 3x 800kVA	GEN 1: PERKINS 3000 SERIES Customer part no.:101-051 Engine no.: SGD120230U5369B Designation: 3012-TAG3A CFL no.:965369 Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	STAMFORD AC GENERATOR Manufactured month/year:07/98 Type: HC134G1 AVR:MX321 PF:0,8 Volts:380 Ratings: STANDBY Excitation volts:58 Serial no.:74569-4 RPM:1500 Amps: 1166 Ambient temp: 27 °C Amps:3,30 Frequency:50Hz Phase: 3 Stator WDG:12 Stator CON: STAR Enclosure: IP22 Insulation class: H	DEEP SEA Synchronizing controller Model: DSE 8610	2x 9100L With fuel level and water level sensor	



		GEN 2: PERKINS 3000 SERIES Customer part no.:101-051 Engine no.: SGD120230U5366B Designation: 3012-TAG3A CFL no.:965366 Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	STAMFORD AC GENERATOR Manufactured month/year:07/98 Type: HC1634G1 AVR:MX321 PF:0,8 Volts:380 Ratings: STANDBY Excitation volts:58 Serial no.:74569-4 RPM:1500 Amps: 1166 Ambient temp: 27 °C Amps:3,30 Frequency:50Hz Phase: 3 Stator WDG:12 Stator CON: STAR Enclosure: IP22 Insulation class: H	
		GEN 3: PERKINS 3000 SERIES Customer part no.:101-051 Engine no.: SGD120230U5367B Designation: 3012-TAG3A CFL no.:965367 Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	STAMFORD AC GENERATOR Manufactured month/year:07/98 Type: HC1634G1 AVR:MX321 PF:0,8 Volts:380 Ratings: STANDBY Excitation volts:58 Serial no.:74569-1 RPM:1500 Amps:1166 Ambient temp:27 °C Amps:3,30 Hz:50 Phase: 3 Stator WDG:12 Stator CON: STAR	



		Enclosure: IP22 Insulation class: H		
SUB 8 1x 800kVA	PERKINS 3000 SERIES Engine no.: SGD120230U0136D Designation: 3012 TAG3A CFL no.:980136 Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	STANDBY GENERATOR X5456 800kVA 400V	CIRCON	4500L With fuel level and water level sensor
SUB 9 1x 880kVA	GEN 1: PERKINS 3000 SERIES Engine no.: SGD120285U0588H Designation: 3012 TAG3A Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 ° GEN 2: PERKINS 3000 SERIES Engine no.: SGD120285U0586H Designation: 3012- TAG3A Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 ° GEN 3: PERKINS 3000 SERIES Engine no.: SGD120285U0491H Designation: 3012- TAG3A Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	GEN 1-3, LEROY SOMER: LSA:49,1L9 C 6/4 GEN 1 N°:118050/2 GEN 2 N°:117837/2 GEN 3 N°:117837/1 RPM:1500 PF:0,8 Regulator/AVR: R448/D AREP Altit.: < 1000m Rlt AR/N.D. E bearing:6320 UO C Grease.: Esso UNIREX N3 En charge/ full load:38,40V/3,28A a vide/ at no load:0,92A Date GEN 1: 01/10 Date GEN 2: 01/10 Date GEN 3: 01/09 Frequency:50Hz Protection: IP21 Class: H A.V.R: R448/D AREP Weight :1845 kg Tension Voltage:400V Phase:3 Conn: D Base:704kW 40 °C:1270A secours:920 kVA std by:736kW 27 °C:1327A	DEEP SEA	2X9000L With fuel level and water level sensor
SUB 10 1x 880kVA	PERKINS 3000 SERIES	LEROY SOMER: LSA:49,1L9 C 6/4	CIRCON	9000L



		Engine no.: SGD120285U1627J Designation: 3012-TAG3A Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:15 °	N°:131618/1 RPM:1500 PF:0,8 Regulator/AVR: R448/D AREP Altit.: < 1000m Rlt AR/N.D. E bearing:6320 UO C Grease.: Esso UNIREX N3 En charge/ full load:33,30V/3,19A a vide/ at no load:0,92A Date: 02/18 Frequency:50Hz Protection: IP23 Class: H A.V.R: R448/D AREP Weight :1845 kg Tension Voltage:400V Phase:3 Conn: D Base:704kW 40 °C:1270A secours:920 kVA std by:736kW 27 °C:1327A		With fuel level and water level sensor
	SUB 11 1x 800kVA	PERKINS Engine no.: DGD062001U8232M Designation: 4006-23-TAG3A r/min: 1500RPM bhp/kW _b : 910/679 SPILL/IGN. TIMING :17.5 °	STAMFORD PE9 2NB UL file no.:0BJY2, E193471 Frame/core: HC. 64G WDG: 12 Machine ID: A06D553630 Serial no:0209097/001	DEEP SEA Model: 5510	2x9000L
		PERKINS Engine no.: DGD062001U2566N Designation: 4006-23-TAG3A 1500RPM Engine rating: 6794 BKW 17.5 °	STAMFORD PE9 2NB UL file no.:0BJY2, E193471 Frame/core: HC. 64G WDG: 12 Machine ID: A06D552595 Serial no:0209097/002	DEEP SEA Model: 5510	
	SUB 12 1x 1600kVA	PERKINS Engine no.: DGB162286U6752N Designation: 4016TAG2A 1500RPM	STAMFORD PE9 2NB UL file no.:0BJY2, E193471 Frame/core: PI734D1	DEEP SEA Model: 5510	14000L With fuel level and water



		Engine rating:1754 BKW 16 ⁰	Machine ID: A07C754008 Serial no:0225559/001 Frequency: 50Hz RPM: 1500 Volts:400/231 Amps base rate: 2381.6 PF:0.8 Ex. Volts: 60 Ex. Amps: 3.10 Ambient temp: 40°C Enclosure: IP23 Insulation class: H: UL1446 Stator WDG.: 12 Stator conne: STAR AVR:MX321		level sensor
	SUB 13 2x 1600kVA	GEN 1: PERKINS Engine no.: DGB162286U0956P Designation: 4016TAG2A 1500RPM Engine rating:1697 BKW 16 ⁰	STAMFORD PE9 2NB UL file no.:0BJY2, E193471 Frame/core: PI734D1 WDG:12 Machine ID: A07C754960 Serial no:0225559/002	DEEP SEA Model: 5510	2x14000L With fuel level and water level sensor
		GEN 2: PERKINS Engine no.: DGB162286U1099P Designation: 4016TAG2A 1500RPM Engine rating:1697 BKW 16 ⁰	STAMFORD PE9 2NB UL file no.:0BJY2, E195471 Frame/core: PI734D1 WDG:12 Machine ID: A07C760327 Serial no:0225559/003	DEEP SEA Model: 5510	
	SUB 14 1x 800kVA	PERKINS Engine no.: DGD062001U2568N Designation: 4006- 23TAG3A 1500RPM Engine rating:679 BKW 17.5 ⁰	STAMFORD PE9 2NB UL file no.:0BJY2, E193471 Frame/core: HC.64G WDG:12 Machine ID: A06D555988 Serial no:0209097/003	LOVATO	9000L With fuel level and water level sensor
	SUB 15 1x 550kVA	PERKINS Engine no.: MGB063008 U117P Designation: 2506AE15TAG2 1500RPM Engine rating:434 BKW	STAMFORD Manufactured month/year:01/08 Type: HC.1534D1 AVR:MX321 PF:0,8 Volts:400/231 Ratings: CONT.	LOVATO RGK60	16000L With fuel level and water level sensor



			Excitation volts:43 Serial no.:0242119/1 RPM:1500 Amps:793.9 Ambient temp:40 °C Amps:2,50 Hz:50 Phase: 3 Stator WDG:311 Stator CON: S. STAR Enclosure: IP23 Insulation class: H		
	SKY TOPS ENGINE 1x 65kVA	JOHN DEERE Engine serial no.: CD4039T357477 Application data: 4039TF003	LEROY SOMER: LSA:441SI N°:80660.04 Frequency:50Hz PF:0,8 Voltage: 380V Phase:3 Insulation class: H Ex. cont. duty:22V, 3.0A at no load:0,8A Weight.: 275kg Regulator: R438 Date: 11/97 Frequency:50Hz Protection: IP21 Ambient temp: 40°C	UNKNOWN	100L
AIRSIDE	15/33 1x 800kVA	CATERPILLAR Engine serial no.: 81Z25690 Engine model.: 3412 Modification no.: SEE ORDER AR no.: 1W-9604 Perf spec.: OT-6334 Max alt: 2450M Full load static fuel: 4.41mm Full torque static fuel: 4.46mm Rated: 601HP 448.0kW at 1500RPM Fuel timing: 30.0BTC Bare engine high idle RPM: 1534	LEROY SOMER: LSA:47.1L10C 6/4 N°:120015/2 RPM:1500 PF:0,8 Regulator/AVR: R448 LS/C AREP Altit.: < 1000m Rlt AR/N.D. E bearing:6315 2RC Grease.: Esso UNIREX N3 en charge/ full load:34.0V/3,33A a vide/ at no load:0,91A Date: 01/20 Frequency:50Hz Protection: IP21 Class: H Weight :1110 kg	CIRCON	9000L With fuel level and water level sensor



		Tension Voltage:400V Phase:3 Conn: D Base:400kW 40 °C:721A secours:540 kVA std by:432kW 27 °C:779A		
03L 1x800kVA	CATERPILLAR Engine serial no.: 81Z25541 Engine model.: 3412 Modification no.: SEE ORDER AR no.: 1W-9604 Perf spec.: OT-6334 Max alt: 2450M Full load static fuel: 4.41mm Full torque static fuel: 4.46mm Rated: 601HP 448.0kW at 1500RPM Fuel timing: 30.0BTC Bare engine high idle RPM: 1534	LEROY SOMER: LSA:47.1L10C 6/4 N°:120015/1 RPM:1500 PF:0,8 Regulator/AVR: R448 LS/C AREP Altit.: < 1000m Rlt AR/N.D. E bearing:6315 2RS Grease.: Esso UNIREX N3 en charge/ full load:34.0V/3,33A a vide/ at no load:0,91A Date: 01/20 Frequency:50Hz Protection: IP21 Class: H Weight :1110 kg Tension Voltage:400V Phase:3 Conn: D Base:400kW 40 °C:721A secours:540 kVA std by:432kW 27 °C:779A	CIRCON	9000L With fuel level and water level sensor
21R 1x 400kVA	PERKINS 2300 SERIES Engine no.: FGB061411 U9579P Designation: 2306A- E14TAG2 1500RPM Engine rating:344 BKW	OLYMPIAN CATERPILLAR Model: GEP400-1 Serial no: OLY00000A23100141 Year of manu.:2008 Rated power- STANDBY: 400kW, 0.8 Rated voltage: 400/230 Phase: 3 Rated frequency: 50 Hz Rated current: 577A Rated R.P.M: 1500	CIRCON	9000L With fuel level and water level sensor



		<p>Maximum altitude: 152.4m Maximum ambient temp: 27°C Sales order reference: 265274/10 Alternator conn.: S. STAR Rating ISO 8528-3: PR 500H TLO.875 Alternator enclosure: IP 23 Insulation class: H Ex. Voltage: 40V Ex. Current: 2A AVR: R448C SOMER LEROY AC SYNCHRONOUS GENERATOR Serial N°.220564/03 Frame/core: LL 61148 WDG:6/4</p>		
<p>NEW/L BAND 1x 200kVA</p>	<p>SCADIA Type.: D 9 92 Variant: A 23 D Engine no.: 8502203 Valve clearance cold engine Inlet:045mm Exhaust:0.8mm Pump timing: 17° before T.D.C</p>	<p>LEROY SOMER: LSA:45.2M5 C 6/4 N°:120033/1 RPM:1500 PF:0,8 Regulator/AVR: R448 LS/C AREP Altit.: < 1000m Rlt AR/N.D. E bearing:6315 2RS Grease.: Esso UNIREX N3 en charge/ full load:31.7V/3,62A a vide/ at no load:1.0A Date: 01/20 Frequency:50Hz Protection: IP23 Class: H Weight :585 kg Tension Voltage:400V Phase:3 Conn: D Base:160kW 40 °C:288A secours:223 kVA</p>	<p>CIRCON</p>	<p>4500L With fuel level and water level sensor</p>



		std by:178kW 27 °C:321A		
03R 1x 500kVA	CATERPILLAR Engine serial no.: 81Z25675 Engine model.: 3412 Modification no.: SEE ORDER AR no.: 1W-9604 Perf spec.: OT-6334 Max alt: 2450M Full load static fuel: 4.41mm Full torque static fuel: 4.46mm Rated: 601HP 448.0kW at 1500RPM Fuel timing: 30.0BTC Bare engine high idle RPM: 1534	LEROY SOMER: LSA:407L AREP NO.:140651-01 Frequency:50 Duty V: 400V A: 3,9A PF:0,8 Excitation cont. duty:32V, 3.14A Weight:1110kg IP:21 Winding:1 leads:12 Amb:40 °C Date: 04/03 Hz:50 RPM: 1500rpm Ins. class: H Regulator/AVR: R448 Phase:3 Conn: D NDE BRG:6315.2RS	CIRCON	9000L With fuel level and water level sensor
21L 1x 500kVA	CATERPILLAR Engine serial no.: 81Z25690 Engine model.: 3412 Modification no.: SEE ORDER AR no.: 1W-9604 Perf spec.: OT-6334 Max alt: 2450M Full load static fuel: 4.41mm Full torque static fuel: 4.46mm Rated: 601HP 448.0kW at 1500RPM Fuel timing: 30.0BTC Bare engine high idle RPM: 1534	LEROY SOMER: LSA:471L AREP NO.:135982-4 Frequency:50 Duty V: 400V A: 3,9A PF:0,8 Excitation cont. duty:32V, 3.2A Weight:1110kg IP:21 Winding:1 leads:12 Amb:40 °C Date: 04/03 Hz:50 RPM: 1500rpm Ins. class: H Regulator/AVR: R448 Phase:3 Conn: D NDE BRG:6315.2RS	CIRCON	9000L With fuel level and water level sensor
NEW OPS 1x 500kVA	PERKINS 1300 SERIES Year:2003 Displacement: 531 in ³ cylindree:8,7L	LEROY SOMER: LSA:462L6 AREP NO.:139176-1 Frequency:50	CIRCON	22000L With fuel level and water



	Model: GCB330 Adv. BPH@RPM: 330@1500rpm Engine family: DTA 530E Serial no.: WS4418N1434413	Duty V: 400V Duty A: 360A A: 3,9A PF:0,8 Excitation cont. duty:34V Weight:710kg IP:21 Winding:1 leads:12 Amb:40 °C Date: 06/03 Hz:50 RPM: 1500rpm Ins. class: H Regulator/AVR: R448 Phase:3 Conn: D NDE BRG:6315.2RS		level sensor
SUPER SOUTH GATE (ENTRY) 1x 150kVA	PERKINS 1300 SERIES Year:2003 Displacement: 531 in³ cylindree:8,7L Emission family: 2NVXL0530ANC Model: GCB250 Adv. BPH@RPM: 2500@1500rpm Serial no.: WS4414N1391669	LEROY SOMER: LSA:422L11 AREP NO.:144217-2 Fequency:50 Duty V: 400V Duty A: 216A PF:0,8 Excitation cont. duty:16V, 3.4A Weight:560kg IP:21 Winding:1 leads:12 Amb:40 °C Date: 07/03 Hz:50 RPM: 1500rpm Ins. class: H Regulator/AVR: R448 Phase:3 Conn: D NDE BRG:6309.2RS	CIRCON	4500L
FUEL FARM 1x 2000kVA	PERKINS Engine no.: DGDM6003 U21437U Designation: 4012- 46TAG3A 1500RPM Engine rating:1436 BKW 18 ⁰	LEROY SOMER: BRUSHLESS SYNCHRONOUS GEN Type: LSC 74L Duty rating:1600kW Stator conn.: Star Regulator/AVR: R448/D AREP N.D.E bearing: 6226	DEEP SEA DSE 7410	9000L With fuel level and water level sensor



		SAE flange:00/21 AVR.: R449 Nr.: L74-479 Voltage:400V Current: 2887A PF: 0,8 Phase: 3 Ambient: 40 °C Thermal class: H V excitation: 40V A excitation: 4,3A RPM :1 500rpm Frequency:50Hz Enclosure: IP 23 Weight: 4000kg		
SUPER SOUTH GATE (LONG TERM PARKING) 1x 105kVA	DEUTZ Engine: BF6L 914 Motor no.: 08812464 97kW 1500RPM Angle: 20 +/-0.5 5263 RPM DIN/ISO 3046 IFN Serial no.:100209	MARELLI GENERATOR AC GENERATOR Type: MJB 225 MA 4 Code: MJB2232L63317 Serial no.: MV24929 06'08 Weight:420kg Phase:3 IP:23 Ins class: H PF: 0,8 V: 400 Star, 231 Delta A: 152 Star, 262 Delta Frequency:50 RPM: 1500rpm Ambient Temp: 40 °C Vex.:30 Aex.:2,4 change in Tcl.:H Year of manu.: 2008 Purchase date: 08/08	DEUTZ GC- 1F	200L
MOBILE GEN. 1x 500kVA	CATERPILLAR Engine serial no.: 81Z25540 Engine model.: 3412 Modification no.: SEE ORDER AR no.: 1W-9604 Perf spec.: OT-6334 Max alt: 2450M Full load static fuel: 4.41mm Full torque static fuel: 4.46mm	LEROY SOMER: LSA:471L10 C 6/4 Date: 01/20 N°:120015/3 Frequency:50Hz RPM:1500 Protection: IP21 PF:0,8 Regulator/AVR: 448 LS/C AREP Altit.: < 1000m Weight :1110 kg Rlt AR/N.D. E bearing:6316 2RS	CIRCON	1000L



	Rated: 601HP 448.0kW at 1500RPM Fuel timing: 30.0BTC Bare engine high idle RPM: 1534	Grease.: Esso UNIREX N3 Ex. Values: 400V 40°C en charge/ full load:34.0V/3.33A a vide/ at no load:0.91A Tension Voltage:400 Phase:3 Conn: D Base:400kW 40 °C:721A Secours:540 kVA std by:432kW 27 °C:770A		
SAPS GATE 1x 13.8kVA	PERKINS Type.: HL51102U Serial no.: 513432K	OLYMPIAN CATERPILLAR Model: GEP13.5-2 Serial no: OLY00000VPXT00550 Year of manu.:2003 Rated power- STANDBY: 11kW, 0.8 Rated voltage: 400/230 Phase: 3 Rated frequency: 50 Hz Rated current: 19.9A Rated R.P.M: 1500 Maximum altitude: 152.4m Maximum ambient temp: 25°C Sales order reference: 102838/001C Alternator conn.: S. STAR Rating ISO 8528-3: BR Alternator enclosure: IP 23 Insulation class: H Ex. Voltage: 40V Ex. Current: 2A AVR: R230/A		50L
VICTOR 3 1x 40kVA	UNKNOWN Engine serial no.: CD3029B036898 Application data: 3029DF120	LEROY SOMER: LSA:43.2S15J 6/4 Date: 07/09 Nº:205478/40 Frequency:50Hz RPM:1500 Protection: IP23	MICS NEXYS	100L



			PF:0,8 Regulator/AVR: R230 0U R250R250 Altit.: < 1000m Weight :210 kg Rlt AR/N.D. E bearing:6367 ZRS Grease.: Esso UNIREX N3 Ex. Values: 400V 40°C en charge/ full load:26.60V/1.44A a vide/ at no load:0,46A Tension Voltage:400 Phase:3 Conn: STAR Base:32kW 40 °C:57.7A Secours:47 kVA std by:37.6 27 °C:67.8A		
CARGO	GOLF APRON 1x 165kVA	OLYMPIAN Model: GEP165 Serial no: OLY00000KRTG07127 Year of manu.:2008 Rated power- STANDBY: 132kW, 0.8 Rated voltage: 400/230 Phase: 3 Rated frequency: 50 Hz Rated current: 238A Rated R.P.M: 1500 Maximum altitude: 152.4m Maximum ambient temp: 27°C ENGINE FAMILY: PERKINS Engine displacement :5.986 Model year:2008 Engine type:2614/1500	LEROY SOMER Frame/core: LL 3014H WDG:6/4 Serial no:225064/37 Sales order reference: 285193/10 Alternator conn.: S. STAR Rating ISO 8528-3: PR 500H TLO.875 Alternator enclosure: IP 23 Insulation class: H Ex. Voltage: 47V Ex. Current: 2A AVR: R250	OLYMPIAN	200L
	SUB 1 1x 800kVA	PERKINS 3000 SERIES Engine no.: SGE080012U2443P	STAMFORD Manufactured month/year:11/99	CIRCON	14000L With fuel level and



		Designation: 3008-TAG4 Valve clearance cold in.:0,2mm Valve clearance cold Exh.:0,5mm Injection timing:18 °	Type: HC.1544C1 AVR: SX440 PF:0,8 Volts:400/230 Excitation volts:43 Serial no.:0115746701 RPM:1500 Amps:793.9 Amps:2,50 Hz:50 Phase: 3 Stator WDG:311 Stator CON: S. STAR Enclosure: IP22 Insulation class: H		water level sensor
SAFAIR 1x 13.8kVA	PERKINS Type.: HL35100U Serial no.: 516055L	LEROY SOMER Frame/core: LL 1014H WDG:6/44 Serial no:162665/05 Sales order reference: 285193/10 Alternator conn.: S. STAR Rating ISO 8528-3: PR 500H TLO.875 Alternator enclosure: IP 23 Insulation class: H Ex. Voltage: 47V Ex. Current: 2A AVR: R250	UNKNOWN	100L	
PERISHEABLE CARGO TRIANGLE 1x 13.8kVA	OLYMPIAN Model: GEP13.5-2 Serial no: OLY00000HPXT00908 Year of manu.:2003 Rated power-STANDBY: 11kW, 0.8 Rated voltage: 400/230 Phase: 3 Rated frequency: 50 Hz Rated current: 19.9A Rated R.P.M: 1500 Maximum altitude: 152.4m Maximum ambient temp: 27°C	LEROY SOMER Frame/core: LL 1014H WDG:6/44 Serial no:162665/05 Sales order reference: 108428/10 Alternator conn.: S. STAR Rating ISO 8528-3: BR Alternator enclosure: IP 23 Insulation class: H Ex. Voltage: 40V Ex. Current: 2A AVR: R230/A	MICS NEXYS	100L	

		Mass: 402 kg ENGINE FAMILY: UNKNOWN Engine serial no.: CD3029B034293 Application data: 3029DF120			
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Appendix C: EXISTING BULK TANKS AND DAY TANKS WITH GENERATOR SIZES

Bulk tanks:

Item	SUBSTATION/ REMOTE AREAS	BULK TANK SIZES	QTY	DAY TANKS SIZES	QTY	GENERATOR SIZES	QTY	BACKUP
1	15/33 Sub Underground	(9000L)	1	(1000L)	1	500kVA	1	ROTARY UPSs
2	03L Sub Underground	(9000L)	1	(1000L)	1	500kVA	1	ROTARY UPSs
3	21R Sub Underground	(9000L)	1	(1000L)	1	500kVA	1	ROTARY UPSs
4	NEW/LBAND Underground	(4500L)	1	(1000L)	1	500kVA	1	-
5	03R Sub Underground	(9000L)	1	(1000L)	1	500kVA	1	ROTARY UPSs
6	21L Sub Underground	(9000L)	1	(1000L)	1	500kVA	1	ROTARY UPSs
7	NEW OPS Sub Underground	(22000L)	1	(1000L)	1	500kVA	1	-
8	SUPER SOUTH GATE – underground and base tank	(4500L)	1	(1000L)-base tank	1	150kVA	1	-
9	Fuel Farm Sub Above	(9000L)	1	(1000L)	1	2000kVA	1	-
10	Terminal sub1 Gen1 Above Ground	(9000L)	2	(1000L)	2	800kVA	2	GENERATORS IN SUBSTATION 5
11	Terminal sub2 Gen1 Underground	(9000L)	1	(1000L)	1	800kVA	1	GENERATORS IN SUBSTATION 5
12	Terminal sub5 Underground	(9000L)	2	(1000L)	3	800kVA	3	-
13	Terminal sub8 Underground	(4500L)	1	(1000L)	1	880kVA	1	-
14	Terminal Sub9 Underground	(9000L)	2	(1000L)	3	880kVA	3	-
15	Terminal sub10 Underground	(9000L)	1	(1000L)	1	880kVA	1	GENERATORS IN SUBSTATION 9
16	Terminal PIER Sub11 Underground	(9000L)	2	(1000L)	2	800kVA	2	-
17	Terminal PIER Sub 14 Underground	(9000L)	1	(1000L)	1	800kVA	1	GENERATORS IN SUBSTATION 11
18	Terminal PIER Sub 15 Underground	(16000L)	1	(1000L)	1	550kVA	1	UPSs
19	TERMINAL CBD SUB 12 Underground	(14000L)	1	(1000L)	1	1600kVA	1	GENERATORS IN SUBSTATION 13
20	TERMINAL CBD SUB 13 Underground	(14000L)	2	(1000L)	2	1600kVA	2	-
21	Sky top- base tank	(50L)	1	(1000L)	N/A	13.5kVA	1	-
22	Aviation park- above ground (newly installed)	(22000L)	1	(1000L)	2	1600kVA	2	UPS
23	Safair-base tank	(50L)	1	N/A	N/A	50kVA	1	-
24	PCT- base tank	(50L)	1	N/A	N/A	13.5kVA	1	-
25	Golf-base tank	(150)	1	N/A	N/A	150kVA	1	-
26	Victor 3- base tank	(50L)	1	N/A	N/A	13.5kVA	1	-
27	SAPS-base tank	(50L)	1	N/A	N/A	13.5kVA	1	-
28	Long term parking- base tank	(150L)	1	N/A	N/A	50kVA	1	-