



	<p><b>SECURITY</b> – means the form of security provided by the <b>employer</b> or <b>contractor</b>, as stated in the <b>schedule</b>, from which the <b>contractor</b> or <b>employer</b> may recover expense or loss</p> <p>1.6 Any notice given may be delivered by hand, sent by prepaid registered post or telefax. Notice shall be presumed to have been duly given when:</p> <p>1.6.4 No clause</p> <p>3.2.1 A <b>construction guarantee</b> in terms of 14.0, where so elected in his tender</p> <p>3.7 Add at the end thereof:</p> <p>The <b>contractor</b> shall supply and keep a copy of the <b>JBCC</b> Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the <b>site</b>, to which the <b>employer</b>, <b>principal agent</b> and <b>agents</b> shall have access at all times.</p> <p>3.10 Replace the second reference to "<b>principal agent</b>" with the word "<b>employer</b>"</p> <p>4.3 No clause</p> <p>5.1.2 under clause 41- Include reference to 32.6.3; 34.3; 34.4 and 38.5.8 in terms of which the <b>employer</b> has retained its authority and has not given a mandate to the <b>principal agent</b> and in terms of which the <b>employer</b> shall sign all documents</p> <p>10.5 Add the following as 10.5</p> <p><b>Damage to the works</b></p> <p>(1) Without in any way limiting the <b>contractor's</b> obligations in terms of the contract, the <b>contractor</b> shall bear the full risk of damage to and/or destruction of the <b>works</b> by whatever cause during construction of the <b>works</b> and hereby indemnifies and holds harmless the <b>employer</b> against any such damage. The <b>contractor</b> shall take such precautions and security measures and other steps for the protection and security of the <b>works</b> as the <b>contractor</b> may deem necessary</p> <p>(2) The <b>contractor</b> shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the <b>works</b> and to rebuild, restore, replace and/or repair the <b>works</b></p> <p>(3) The <b>employer</b> shall carry the risk of damage to or destruction of the <b>works</b> and materials paid for by the <b>employer</b> that is the result of the excepted risks as set out in 10.6</p> <p>(4) Where the <b>employer</b> bears the risk in terms of this contract, the <b>contractor</b> shall, if requested to do so, reinstate any damage or destroyed portions of the <b>works</b> and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof</p> <p>10.6 Add the following as 10.6</p> <p><b>Injury to Persons or loss of or damage to Properties</b></p> <p>(a) The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the <b>works</b> unless due to any act or negligence of any person for whose actions the <b>employer</b> is legally liable</p> <p>(b) The <b>contractor</b> shall be liable for and hereby indemnifies the <b>employer</b> against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property or personal property or property contiguous to the <b>site</b>, whether belonging to or under the control of the <b>employer</b> or any other body or person, arising out of or in the course of or by reason of the execution of the <b>works</b> unless due to any act or negligence of any person for whose actions the <b>employer</b> is legally liable</p>
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- (c) The **contractor** shall upon receiving a **contract instruction** from the **principal agent** cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **employer** shall be entitled to cause it to be made good and to recover the cost thereof from the **contractor** or to deduct the same from amounts due to the **contractor**
- (d) The **contractor** shall be responsible for the protection and safety of such portions of the premises placed under his control by the **employer** for the purpose of executing the **works** until the issue of the **certificate of practical completion**
- (5) Where the execution of the **works** involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the **contractor**, shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the **works** has been completed
- (6) The **contractor** shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the **works**

10.7 Add the following as 10.7

#### **HIGH RISK INSURANCE**

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that might result in catastrophic ground movement evident by sinkhole or doline formation the following will apply:

##### **10.7.1 Damage to the works**

The **contractor** shall, from the **commencement date** of the **works** until the date of the **certificate of practical completion**, bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he may deem necessary

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**, at the **contractor's** own costs

##### **10.7.2 Injury to persons or loss of or damage to property**

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable, or immovable property or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic ground movement, as mentioned above, which occurred during the period of the contract

10.7.3 It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty one (21) **calendar**



	<p><b>days of the commencement date</b> but before commencement of the <b>works</b>, submit to the <b>employer</b> proof of such insurance policy, if requested to do so</p> <p>10.7.4 The <b>employer</b> shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the <b>contractor's</b> default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the <b>contractor</b> or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the <b>employer</b> and the <b>contractor</b> and for this purpose all these contracts shall be considered one indivisible whole</p> <p>14.0 Replace the entire clause 14.0 with the following:</p> <p><b>14.0 SECURITY</b></p> <p>14.1 In respect of contracts with a <b>contract sum</b> up to R1 million, the <b>security</b> to be provided by the <b>contractor</b> to the <b>employer</b> will be a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT)</p> <p>14.1.1 The payment reduction of the value certified in a <b>payment certificate</b> shall be <i>mutatis mutandi</i> in terms of 31.8(A)</p> <p>14.1.2 The <b>employer</b> shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the payment reduction <b>security</b> or portions thereof to the <b>contractor</b></p> <p>14.2 In respect of contracts with a <b>contract sum</b> above R1 million, the <b>contractor</b> shall have the right to select the <b>security</b> to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the <b>schedule</b>. Such <b>security</b> shall be provided to the <b>employer</b> within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>. Should the <b>contractor</b> fail to select the <b>security</b> to be provided or should the <b>contractor</b> fail to provide the <b>employer</b> with the selected <b>security</b> within twenty-one (21) <b>calendar days</b> from <b>commencement date</b>, the <b>security</b> in terms of 14.7 shall be deemed to have been selected.</p> <p>14.3 Where the <b>security</b> as a cash deposit of ten per cent (10%) of the <b>contract sum</b> (excluding VAT) has been selected:</p> <p>14.3.1 The <b>contractor</b> shall furnish the <b>employer</b> with a cash deposit equal in value to ten per cent (10%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b></p> <p>14.3.2 Within twenty-one (21) <b>calendar days</b> of the date of <b>practical completion</b> of the <b>works</b> the <b>employer</b> shall reduce the cash deposit to an amount equal to three per cent (3%) of the <b>contract value</b> (excluding VAT), and refund the balance to the <b>contractor</b></p> <p>14.3.3 Within twenty-one (21) <b>calendar days</b> of the date of <b>final completion</b> of the <b>works</b> the <b>employer</b> shall reduce the cash deposit to an amount equal to one per cent (1%) of the <b>contract value</b> (excluding VAT) and refund the balance to the <b>contractor</b></p> <p>14.3.4 On the date of payment of the amount in the final <b>payment certificate</b>, the <b>employer</b> shall refund the remainder of the cash deposit to the <b>contractor</b></p> <p>14.3.5 The <b>employer</b> shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the <b>employer</b> complies with the provisions of 33.4 in which event the <b>employer's</b> entitlement shall take precedence over his obligations to refund the cash deposit <b>security</b> or portions thereof to the <b>contractor</b></p>
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Tender no:

	<p>14.3.6 The parties expressly agree that neither the <b>employer</b> nor the <b>contractor</b> shall be entitled to cede the rights to the deposit to any third party</p> <p>14.4 Where <b>security</b> as a variable <b>construction guarantee</b> of ten per cent (10%) of the <b>contract sum</b> (excluding VAT) has been selected:</p> <p>14.4.1 The <b>contractor</b> shall furnish the <b>employer</b> with an acceptable variable <b>construction guarantee</b> equal in value to ten per cent (10%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b></p> <p>14.4.2 The variable <b>construction guarantee</b> shall reduce and expire in terms of the Variable <b>Construction Guarantee</b> form included in the invitation to tender</p> <p>14.4.3 The <b>employer</b> shall return the variable <b>construction guarantee</b> to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring</p> <p>14.4.4 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> shall issue a written demand in terms of the variable <b>construction guarantee</b></p> <p>14.5 Where <b>security</b> as a fixed <b>construction guarantee</b> of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p> <p>14.5.1 The <b>contractor</b> shall furnish a fixed <b>construction guarantee</b> to the <b>employer</b> equal in value to five per cent (5%) of the <b>contract sum</b> (excluding VAT)</p> <p>14.5.2 The fixed <b>construction guarantee</b> shall come into force on the date of issue and shall expire on the date of the last certificate of <b>practical completion</b></p> <p>14.5.3 The <b>employer</b> shall return the fixed <b>construction guarantee</b> to the <b>contractor</b> within fourteen (14) <b>calendar days</b> of it expiring</p> <p>14.5.4 The payment reduction of the value certified in a <b>payment certificate</b> shall be in terms of 31.8(A) and 34.8</p> <p>14.5.5 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> shall be entitled to issue a written demand in terms of the fixed <b>construction guarantee</b> or may recover from the payment reduction or may do both</p> <p>14.6 Where <b>security</b> as a cash deposit of five per cent (5%) of the <b>contract sum</b> (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p> <p>14.6.1 The <b>contractor</b> shall furnish the <b>employer</b> with a cash deposit equal in value to five per cent (5%) of the <b>contract sum</b> (excluding VAT) within twenty-one (21) <b>calendar days</b> from <b>commencement date</b></p> <p>14.6.2 Within twenty-one (21) <b>calendar days</b> of the date of <b>practical completion</b> of the <b>works</b> the <b>employer</b> shall refund the cash deposit in total to the <b>contractor</b></p> <p>14.6.3 The payment reduction of the value certified in a <b>payment certificate</b> shall be <i>mutatis mutandi</i> in terms of 31.8(A)</p> <p>14.6.4 Where the <b>employer</b> has a right of recovery against the <b>contractor</b> in terms of 33.0, the <b>employer</b> may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both</p> <p>14.7 Where <b>security</b> as a payment reduction of ten per cent (10%) of the value certified in the <b>payment certificate</b> (excluding VAT) has been selected:</p>
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- 14.7.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(B)
- 14.7.2 The **employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the **contractor**
- 14.8 Payments made by the guarantor to the **employer** in terms of the fixed or variable **construction guarantee** shall not prejudice the rights of the **employer** or **contractor** in terms of this **agreement**
- 14.9 Should the **contractor** fail to furnish the **security** in terms of 14.2 the **employer**, in his sole discretion, and without notification to the **contractor**, is entitled to change the **contractor's** selected form of **security** to that of a ten per cent (10%) payment reduction of the value certified in the **payment certificate** (excluding VAT), whereafter 14.7 shall be applicable
- 15.1.1 No clause
- 15.1.2 The **security** selected in terms of 14.0
- 15.1.4 Add 15.1.4 as follows:
- An acceptable health and safety plan, required in terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) **calendar days** of **commencement date**
- 15.2.1 Under 41: Amend to read as follows:
- "Give the **contractor** possession of the **site** within ten (10) **working days** of the **contractor** complying with the terms of 15.1.4
- 17.1.11 Delete the words "and the appointment of **nominated** and **selected subcontractors**"
- 20.1.3 No clause
- 21.0 No clause
- 26.1.2 Add # next to 26.1.2
- 29.2.5 No clause
- 31.5.2 Security adjustments in terms of 14.0 or 31.8
- 31.8 Amend as follows:
- 31.8(A) Where a **security** is selected in terms of 14.1; 14.5 or 14.6, the value of the **works** in terms of 31.4.1 and of the **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:
- 31.8(A).1 Ninety-five per cent (95%) of such value in interim **payment certificates** issued up to the date of **practical completion**
- 31.8(A).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **practical completion** and up to but excluding the date of **final completion**
- 31.8(A).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** in terms of 34.6
- 31.8(A).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In



	such an event the payment reduction shall remain at the adjustment level applicable to the final <b>payment certificate</b> .
31.8(B)	Where security is a payment reduction in term of 14.7 has been selected the value of the <b>works</b> in terms of 31.4.1 and <b>materials and goods</b> in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:
31.8(B).1	Ninety per cent (90%) of such value in interim <b>payment certificates</b> issued up to the date of <b>practical completion</b>
31.8(B).2	Ninety-seven per cent (97%) of such value in interim <b>payment certificates</b> issued on the date of <b>practical completion</b> and up to but excluding the date of <b>final completion</b>
31.8(B).3	Ninety-nine per cent (99%) of such value in interim <b>payment certificates</b> issued on the date of <b>final completion</b> and up to but excluding the final <b>payment certificate</b> in terms of 34.6
31.8(B).4	One hundred per cent (100%) of such value in the final <b>payment certificate</b> in terms of 34.6 except where the amount certified is in favour of the <b>employer</b> . In such an event the payment reduction shall remain at the adjustment level applicable to the final <b>payment certificate</b>
31.12	Delete the following: "Payment shall be subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due."
32.5.1 32.5.4 and 32.5.7	Add the following to the end of each of these clauses: "...due to no fault of the <b>contractor</b> "
34.1	Remove #
34.2	Add # next to 34.2
34.8	The <b>principal agent</b> shall certify one hundred per cent (100%) of the amount of the <b>final account</b> in the <b>final payment certificate</b>
34.13	Replace "seven (7) <b>calendar days</b> " with "twenty one (21) <b>calendar days</b> " and delete the words: "subject to the <b>employer</b> giving the <b>contractor</b> a tax invoice for the amount due"
36.1	Add the following clauses 36.1.3 to 36.1.5. under 36.1 to read as follows:
36.1.3	refuses or neglects to comply strictly with any of the conditions of contract
36.1.4	estate being sequestered; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa
36.1.5	in the judgment of the <b>employer</b> , has engaged in <b>corrupt</b> or <b>fraudulent practices</b> in competing for or in executing the contract
36.3	Remove reference to "No clause", and replace " <b>principal agent</b> " with " <b>employer</b> "
36.7 37.5 and 38.7	Add the following: "Notwithstanding any clause to the contrary, on cancellation of this <b>agreement</b> either by the <b>employer</b> or the <b>contractor</b> ; or for any reason whatsoever, the <b>contractor</b> shall on written instruction, discontinue with the <b>works</b> on a date stated and withdraw himself from the <b>site</b> . The <b>contractor</b> shall not be entitled to refuse to withdraw from the <b>works</b> on the grounds of any lien or right of retention or on the grounds of any other right whatsoever"
37.3.5 and 38.5.4	Replace "ninety (90)" with "one hundred and twenty (120)"



	<p>39.3.5 Add the following words at the end thereof: "within one hundred and twenty (120) <b>working days</b> of completion of such a report"</p> <p>40.2.2 under clause 41 – Replace "one (1) year" with "three (3) years"</p> <p>40.6 under clause 41 – Remove reference to no clause</p> <p>40.7.1 Change "(10)" to "(15)"</p> <p>Add the following to the end thereof:</p> <p>Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the <b>mediator</b> and related costs.</p>
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42.0	<b>Part 2: Contract Data provided by the Contractor:</b>
42.5	<b>CONTRACT DETAILS</b>
42.5.1	<p><b>Contractor:</b></p> <p>Postal address:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>Tel: _____ Fax: _____</p> <p>TAX / VAT Registration No: _____</p> <p>Physical address:</p> <p>_____</p> <p>_____</p> <p>_____</p>
42.5.2	<p>The accepted <b>contract sum</b> inclusive of <b>tax</b> is R _____</p> <p>Amount in words: _____</p>
42.5.3 [31.3]	<p>The latest day of the month for the issue of an interim <b>payment certificate</b>: _____</p>
42.5.4 [32.12]	<p>The preliminaries amounts shall be paid in terms of: <b>Alternative A</b> <input type="checkbox"/> <b>Alternative B</b> <input type="checkbox"/></p>
42.5.5 [32.12]	<p>The preliminaries amounts shall be adjusted in terms of: <b>Alternative A</b> <input type="checkbox"/> <b>Alternative B</b> <input type="checkbox"/></p>



Tender no:

42.5.7 [14]	<p><b>The security to be provided by the contractor:</b></p> <p>(a) in respect of contracts up to R1 million, the <b>contractor</b> will provide security in terms of 14.1</p> <p>(b) in respect of contracts above R1 million, the <b>contractor</b> will provide, as <b>security</b>, one of the following:</p> <p>(1) cash deposit of 10 % of the <b>contract sum</b> (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(2) variable <b>construction guarantee</b> of 10 % of the <b>contract sum</b> (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(3) payment reduction of 10% of the value certified in the <b>payment certificate</b> (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(4) cash deposit of 5% of the <b>contract sum</b> (excluding VAT) and a payment reduction of 5% of the value certified in the <b>payment certificate</b> (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(5) fixed <b>construction guarantee</b> of 5% of the <b>contract sum</b> (excluding VAT) and a payment reduction of 5% of the value certified in the <b>payment certificate</b> (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p><b>NB. Guarantees submitted must be issued by either an insurance company duly registered in terms of the Short-Term Insurance Act, 1998 (Act 35 of 1998) or by a bank duly registered in terms of the Banks Act, 1990 (Act 94 of 1990) on the pro-forma referred to above. No alterations or amendments of the wording of the pro-forma will be accepted.</b></p>
42.5.8 [29.7.2]	<p>The annual building holiday period after the commencement of the <b>construction period</b>:</p> <p>From: _____ to _____</p>
42.6 42.6.1	<p><b>DOCUMENTS</b></p> <p><b>Contract documents</b> marked and annexed hereto:</p> <p>Priced <b>bills of quantities</b>: Yes <input type="checkbox"/> No <input type="checkbox"/> Document marked as: _____</p> <p><b>Lump sum document</b>: : Yes <input type="checkbox"/> No <input type="checkbox"/> Document marked as: _____</p> <p><b>Guarantees</b>: Yes <input type="checkbox"/> No <input type="checkbox"/> Document marked as: _____</p> <p><b>Contract drawings</b>: Yes <input type="checkbox"/> No <input type="checkbox"/> Document marked as: _____</p> <p>Other documents: Yes <input type="checkbox"/> No <input type="checkbox"/> (Attach additional pages if more space is required)</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>





Tender no:

## APPENDIX A

### CALCULATION OF PENALTY

The following calculation of **penalty** will be based on the tendered amount of the awarded **contractor** and it shall be carried forward to item 42.2.7 of this **contract data** for **works** to be completed as a whole and item 42.2.8 for **works** to be completed in **sections**.

CONSTRUCTION PERIOD	RATE PER R100 OF ESTIMATE
1 month	27,5 cents
1,5 months	22 cents
2 months	16,5 cents
2,5 months	13,5 cents
3 months	11 cents
3,5 months	9,5 cents
4 months	8,5 cents
4,5 months	7,5 cents
5 months	6,25 cents
6 months	5,75 cents
7 months	4,75 cents
8 months	4 cents
9 months	3,75 cents
10 months	3,5 cents
11 months	3 cents
12 months	2,75 cents
14 months	2,5 cents
15 months	2,25 cents
16 months	2 cents
18 months	1,75 cents
20 months	1,5 cents
21 months	1,5 cents
24 months	1,25 cents
30 months	1 cent
36 months	1 cent
42 months	1 cent

#### PENALTY PER DAY ROUNDED OFF AS FOLLOWS:

R 0 – R 500	nearest R 5
R 501 – R 1 000	nearest R 10
R 1 001 – R 5 000	nearest R 50
R 5 001 and above	nearest R 100

#### EXAMPLE

Contract sum = R2 500 000 (excluding VAT)

Construction period = 12 months

$$R2\ 500\ 000 \times \frac{0.0275}{100}$$

= R687.50/Calendar day

Therefore rounded off to the nearest R10.00 = R690.00/Calendar day

***APPOINTMENT OF A CONTRACTOR FOR SECURITY UPGRADE AT  
KAGISO POLICE STATION IN GAUTENG PROVINCE***

***BID: 19/1/9/1/119TB(22)***

**PART C**

**CONTRACT**

**PART C.2**

**SCOPE OF WORK, SPECIFICATION AND PRICING DATA**



**SOUTH AFRICAN POLICE SERVICE**

**SECURITY UPGRADE: ARCHITECTURAL, CIVIL/STRUCTURAL,  
ELECTRICAL & MECHANICAL SCOPE OF WORKS**

**KAGISO POLICE STATION: GAUTENG**

**COMPILED BY: SAPS, FACILITY MANAGEMENT: PROGRAMME AND PROJECT  
MANAGEMENT, PRETORIA**

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## **1. DESCRIPTION OF SERVICES (INTENT)**

The proposed work to be provided at Eldorado Park Police Station consists of Architectural, Civil/Structural, Electrical and Mechanical Security upgrade. The work is to be completed as per drawings, annexures, and scope of work, specifications and some applicable legislative requirements.

The Contractor shall supply all labour, materials tools, equipment, workshop, supervision and other related items required to complete the project - as per the scope of work, specifications and attached drawings.

Contractors are advised to visit the site, verify the existing site conditions to verify measurements and any related project information. **Where a specific product or brand name has been used, a similar approved product carrying or exceeding same product specification is deemed to have been considered. A sample of such product to be presented to the architect / project manager for approval before it is procured.**

It is important to note that this facility will remain operational during execution of work, proper project execution plan must be done in consultation with the project manager to avert any project delays.

## **2. ARCHITECTURAL SCOPE OF WORKS**

- Supply and install burglar gates for identified doors.

**Refer to drawing sheet 4, 11/13.**

- Supply and install burglar proofing on identified windows.

**Refer to drawing sheet 8, 9, 10/13.**

- Supply and install burglar proofing on Shopfront doors and windows at CSC.

**Refer to drawing sheet 4, 10, 11/13.**

- Remove existing bulkhead and make provision for electrical works.

**Refer to electrical scope.**

- Supply and install air-conditioning system in CSC due to insufficient natural ventilation and to comply with Occupational Health and Safety Regulations Act.

**Refer to mechanical scope.**

### **2.1 PEDESTRIAN ACCESS GATE (x1)**

-The total brick wall length is approximately 280m around the perimeter of the site. See sheet 1/13 for dimensions of site. (Dimensions to be confirmed before any construction can take Place)

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- Supply and install 600mm high galvanized high tensile steel flat wrap razor wire on top of the perimeter on the brick wall.
- The main entrance gate on the main road used for SAPS vehicles is to be fitted with the following gate motors to manage the access to the SAPS employees:
- Sliding gate motor (no new gate) shall be an Industrial type motor to withstand weight of a 1000kg gate daily operation of 750 opening and closing cycles with battery backup.
- Supply and install an Isolator box with sliding panel to be built into wall for all connect to and from the gate motor. The wall shall also provide security to the motor to prevent any tampering.
- Allow for conduit and electrical cabling for power to gate motors. Existing road surfaces to be opened where necessary to install conduits and be repaired/ closed.
- The station commander to be supplied with remote controls for the sliding gates, number of remotes to be determined by the amount of members. Allow 10 for each gate motor.
- The existing vehicle access gates to be fixed to operate correctly, the track of the two (2) sliding gates to be repaired as per detail of sliding gate to handle the size of the existing gate.
- The gates are to properly function and be able to properly close.
- Supply and install an electronic magnetic locking system controlled from CSC with the option of a manual heavy duty padlock lock in case of emergencies. Gate to be fitted with self-closing mechanism for optimal security.

### **2.3 COMMUNITY SERVICE CENTRE (CSC) – (REFER TO DRAWING SHEET 3&4/13).**

- The CSC counters to be supplied and installed with bullet resistance glass in compliance with SANS 1263: 2013 Part 3 class RC to have a ballistic capacity against a 7.2mm x 51mm caliber gun (Level 3). Supply and install each counter with 75mm diameter communication opening at 1200mm high from floor level (approximately 600mm above counter, refer to sheet 6/13) and 900mm from floor level at paraplegic/ sitting counters (approximately 400mm above counter, refer to sheet 6/13).
- The panels to be supplied by an approved supplier with natural anodized aluminum frame. Window to be installed on top of countertop as per manufacturer's specification.

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- Bullet resistance glass panels to be as follow:
- A: 1000mm (W) x 810mm (H) X 6 Quantities
- B: 1000mm (W) x 1270mm (H) X 1 Quantities
- Supplier to confirm method of installation with correct on site measurements prior to manufacturing and installation of any materials.
- Supply and install suspended ceiling, matching existing after the installing the bulletproof anchors. A SAPS Electrical engineer to advice on the electrical interventions and specification.
- Supply and install burglar gate to entrance/exit to CSC counter and to offices consisting of an electronic magnetic locking system controlled from the CSC to the offices with the option of a manual heavy duty padlock lock in case of emergencies. Gate to be fitted with self-closing mechanism for optimal security.
- Supply and install ultra-trellis security gates or security doors with double slamlock or similar, at both CSC shopfront entrances. Gates should to be fitted over entire shopfronts and to consist of 2 separate locks (slam and deadlock combination) with tamper resistance, bolt cutter resistance and colour to match existing doors.
- The existing perimeter lights at the station must be serviced to function and as per the Electrical engineers recommendation. Refer to electrical scope of works.

#### **2.4 GRENADE SCREENS (REFER TO DRAWING SHEET 7.8/13).**

- All street facing windows at the police station to be fitted with high quality grenade screen. The grenade screen to be installed to the outside of the windows. All sides of the grenade screen to be 100mm wider than the window opening except the top to be 200mm higher than the window opening. The burglar proofing to consist of the following:
- 25mm x 25mm x 25mm Mild steel angle frames as per drawing sheet 8/13
- Frame to be fitted with galvanized welded wire mesh.
- Wire mesh to be 2.5mm thick welded wires with an aperture size of 25mm x 50mm.
- Mesh to be fixed to frame by clamping the mesh between the inside of mild steel angle frame with a 3mm x 16mm mild steel flat bar. The mild steel flat bar to be fixed to main frame with 3mm stainless steel bolt and nut. See detail.

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- Frame to be fixed to wall with 125mm x 100mm x 5mm mild steel base plate with 10mmdia. Hole for M10 bolt, base plate to be welded to frame and all bolts to be tack welded for security.
- Provide a vertically fixed base plate minimum every 900mm and horizontally minimum every 600mm.
- Frame to be supported with two back to back 3mm x 30mm mild steel flat bars horizontally every 900mm of additional height. Wire mesh to be fitted between flat bar as per drawing detail.

The grenade screen must comply with the SANS 10400 regulations..All exposed metal at inland areas must receive treatment against rust, primer coat and final coats to prior to installation. Exposed metal at coastal and high humidity areas must receive hot dip galvanized treatment, primer coat and final coat/s prior to installation.

## **2.5 SECURITY DOOR (SEE DRAWING SHEET 11/13)**

### **EXTERNAL DOORS**

- All external doors (Except CSC entrance door) leading to and from SAPS buildings should be high quality solid timber doors.
- Provide that all doors be fitted with a minimum 5 lever, double cylinder lockset for manual locking abilities.
- Door to be fitted with self-closer and magnetic locking system
- All hinges to be concealed, not to be exposed for tampering.
- All fire and emergency exit doors to comply the fire regulations in SANS 10400, Part T and clearly marked with fire signage.
- Provide that all external doors (Except CSC door) be fitted with high quality security gates to match the burglar bar design. Gates only to be provided at doors that are not a fire exit or in a fire route. Gates to comply with SANS 10400, Part T.

## **2.6 BURGLAR PROOFING (REFER TO DRAWING SHEET 4.9.10/13)**

- Burglar proofing shall comply with the requirements of the central standardization committee specification for burglar proofing for steel frames CRS338.
- Except where specified as decorative burglar proofing, windows where so described, shall be burglar proofed a screen formed of 20mm x 5mm thick mild steel flat sections at not exceeding 250mm centres horizontal and 225mm centres vertically, unless otherwise

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specified, and the bars shall be riveted and welded at all intersections as well as the window frames.

- Unless otherwise specified the ventilators as well as the fixed sections of the windows shall be fitted with burglar proofing.
- Decorative type burglar proofing screens shall be constructed of 6mm or 8mm diameter mild steel rods as specified, cut and bent to the required shape and welded together and riveted or welded to the frame.

### **FACTORY PRIMER**

- Steel windows, doors and fanlight shall be cleaned and primed as prescribed for pressed steel door frame.
- Gauze screens to windows which are facing the road.
- Gauze screens for windows, where specified shall be manufactured with press metal frame, filled in with approved copper, bronze gauze or fiberglass screening with mesh opening of 1,0mm x 1mm and shall comply with the requirement of the central standardization committee for insect gauze for of metal and glass fiber, CKS210.
- The screens to outward opening ventilators shall be attached to the inside of windows with studs or clips in such a way as to be readily removable, and shall have sliding portions to gain access to the window fasteners, etc. the screens to top hung ventilators may be hinged for access to the fasteners.
- The frames of the screens to inward opening windows shall be of heavier gauge metal than those to outward opening windows, or shall be rolled mild steel sections and fixed on the outside face of the window with screens and nuts or by other approved means.
- The screens to pivot hung ventilators shall be in two portions, one internally and one externally, with gaps between screens and ventilators closed with approved rubber flashings fixed in such a way as to be easily renewable.
- The frames of screens to windows fitted louvres or other projecting attachment shall be of such width as will allow the necessary clearance and the attachments.
- The screens are to be finished with enamel paint approved colour, sprayed and baked on.

### **3. CIVIL/STRUCTURAL SCOPE OF WORKS**

The proposed upgrade entails the construction of bullet resistant glass to the community service centre (CSC) and perimeter fence. The bullet resistance glass should comply with relevant standards such as SANS 1263:2013 Part 3 Class RC, Occupational Health and Safety Act, SANS 10400 Part K and the National Building and Construction Regulations.

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## THE CONSTRUCTION OF THE PROPOSED SECURITY UPGRADES ON POLICE STATION WORKS INCLUDES:

- Supply and install bullet resistance glass in compliance with SANS1263:2013 Part 3 Class RC to provide a ballistic capacity, complete with various components such as steel post, plates, brackets, bolts and nuts.
- Construction of new concrete filled cavity masonry wall to give maximum support to the bullet resistant glass.
- Construction of adequate foundation to support the loads exerted by the bullet resistant glass, masonry wall as well additional components required to support the glass.
- Replacement of existing perimeter fence with a new fence.

### 3.1 EXTENT OF THE WORKS

#### GENERAL

- SAPS to provide alternative accommodation, temporary CSC facilities.
- Undertake the relevant and necessary risk assessment.
- Cordons off/barricade work area in a safe and effective manner.
- Identify any existing services or equipment at risk of damage due to the construction activities and protect in a safe and effective manner.
- Clear site of any obstructions impeding the intended construction.

### 3.2 DEMOLISH/REMOVE STRUCTURAL ELEMENTS IN CSC

- Remove and store all furniture's or movables assets to a safer place for later reuse (Arrangement to be made with the project manager).
- Remove all existing barriers at the CSC counter.
- Remove suspended ceiling portion with lighting to accommodate the new bullet resistant glass.
- Remove existing granite counter top, under counter cupboards, etc. to make provision for the new works.
- Demolish existing 220mm masonry wall.
- Demolish the dividing masonry wall up to the counter level at the existing cubicles.
- Remove/Clear existing floor tiles to make provision for the new foundation.
- Break existing slab to accommodate the new reinforced concrete foundation.
- Remove and dispose of the rubble from the CSC area to the nearby dumping area.

**3.3 CONSTRUCTION OF NEW PROPOSED CSC AREA**

- Provide/Set out levels for concrete foundation to Engineer requirements.
- Excavate the foundation for the new concrete cavity masonry walls to required levels as per Engineers drawings
- Cast reinforced concrete foundation for masonry cavity wall.
- Construct 1200 mm high masonry concrete cavity wall with 25MPa concrete strength to support the countertop and bullet resistant glass and fill the cavity with concrete as height progresses according to the drawings.
- For position of existing 3 x cubicles: Construct a proposed new face brick wall from top of counter to the underside of existing concrete ceiling.  
Install 150 x 150mm steel columns/post, 1m apart to provide support for the bullet resistant glazing panels. The bottom of the freestanding steel support structure shall be fixed to the floor foundation.
- Install 800mm x 50mm thick, granite service counter on the top of the cavity wall with document transfer tray/draws built into new counter.
- Supply and Install new proposed bullet resistant glass barrier on top of the granite countertop between the steel support structure to underside of existing concrete ceiling in panels, 1m apart as per supplier specification.
- Install a bullet resistant steel plate above the glass barriers and anchored to the steel support structure.
- Provide new position of fixed sitting chairs bolted to floor level.
- Place new floor tiles to match existing.

**4. ELECTRICAL SCOPE OF WORKS**

The works comprises of supply, installation and commissioning of 2 (two) LED Floodlights, mounted on the back of the wall of the Main Building, 14m high and LED Ceiling Mounted Panel Lights in the CSC at Eldorado Police Station.

The Contractor will provide all equipment, labour, material, and transportation to supply, installation and commissioning of LED Floodlights and LED Ceiling Mounted Panel Lights including all components and sundries, tests, etc. required to bring the installations to the working order intended, compliance and guarantee at Eldorado Police Station.

The Contractor shall ensure that he/she is conversant with the technical specification and applicable standards.

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#### 4.1. REGULATIONS, STANDARDS AND REFERENCES

The Area lighting installation shall comply with the following specifications:

- SANS 10142-1: The wiring of premises.
- SANS 10389-2: Exterior Security Lighting
- SANS 475: Luminaires for interior Lighting, Street lighting and Floodlighting
- SANS 121: Hot-dip galvanized coatings on fabricated iron and steel articles
- SANS 1777: Photoelectric lighting control unit for lighting
- SANS 10222-1-5-2: Electrical Security Installation
- SANS 1277: Street lighting luminaires
- SANS 60598-2-5: Floodlights.
- SANS 60947-2: Low voltage switchgear and control gear. Part 2: circuit breakers.
- SANS 10198: The selection, handing and installation of electric power cables rating not exceeding 33KV
- SANS 1799: Watt-hour meters – AC electronic meter for active energy
- SANS 1186-1: Symbolic safety signs part 1 Standard signs and general requirements
- SANS 791: Unplasticized poly (vinyl chloride)(PVC-U) Sewer and drain pipes and pipe fittings
- SANS 1507: Electric cables with extruded solid dielectric insulation for fixed Installation
- SANS 1029: Miniature substations for rated ac voltages up to and including 24Kv
- SANS 10225: The design and construction of lighting masts
- SANS 62031: LED modules for general lighting – Safety Specifications
- SANS 60598: Luminaires – Part 1: General requirements and tests
- SANS 10400: The application of the National Building Regulations.
- South African Occupational Health and Safety Act (Act 85 of 1993).

#### 4.2. EXECUTION OF WORKS

The Contractor shall submit to the SAPS Electrical Engineer a detailed programme of the Works within 14 days from the acceptance of this tender showing the intended method, stages and order of work execution in coordination with the building construction programme, together with the duration he/she estimated for each and every stage of the Works. The programme shall include at least the following:-

- Dates for the placement of orders for equipment and materials.
- Dates of commencement and completion of every stage of the Works in line with the building construction programme.
- Dates of completion, testing and commissioning.

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### 4.3. TECHNICAL SPECIFICATIONS

#### A. LED FLOODLIGHT SPECIFICATION GENERAL SPECIFICATIONS

Product Description	The luminaire consists of an LED engine, power supply and spigot compartment. This allows the easy installation of the LED engine by means of a hinging action onto a spigot base casting, with incorporated leveling device. It is secured by stainless steel latches and an access screw. The LED engine, consisting of the LED light source and the power supply, can be easily replaced or upgraded (FutureProof). Both compartments are rated IP 66. Electronic temperature monitoring prevents overheating of LEDs and power supply, positioned directly next to LEDs. The power supply is automatically disengaged when opening the luminaire. The luminaire housing is manufactured of marine grade aluminium. It is designed for LED light sources between 55W and 265W.
Main applications	<ul style="list-style-type: none"> <li>- Façade lighting</li> <li>- Area lighting</li> <li>- Security lighting</li> <li>- General floodlighting</li> </ul>
Recommended mounting height	MIDI – up to 15m MAXI – up to 30m

#### PHOTOMETRY

Light source	LED
LED	2mm2 LED
Light color	4000K (Neutral White 740) Optional: 3000K (Warm white 730) 5700K (Cool white 757)
Color rendering (Ra)	≥70 (Neutral White 740)

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Lumen package	9226lm
55W	11071lm
65W	12555lm
78W	14761lm
84W	15066lm
93W	16814lm
111W	17622lm
111W	20088lm
122W	20177lm
131W	23496lm
147W	25110lm
151W	30132lm
179W	35154lm
209W	33629lm
217W	41117lm
254W	40355lm
257W	40176lm
239W	43584lm
265W	
Optics	5304 5304-W 5355 5356 5357 5357-W 5358 5359 5366
Photometry:	<div> <div>LENSO FLEX*4</div> <div>5304 optic</div> </div> <div> <div>LENSO FLEX*4</div> <div>5304-W optic</div> </div> <div> <div>LENSO FLEX*4</div> <div>5355 optic</div> </div> <div> <div>LENSO FLEX*4</div> <div>5356 optic</div> </div>

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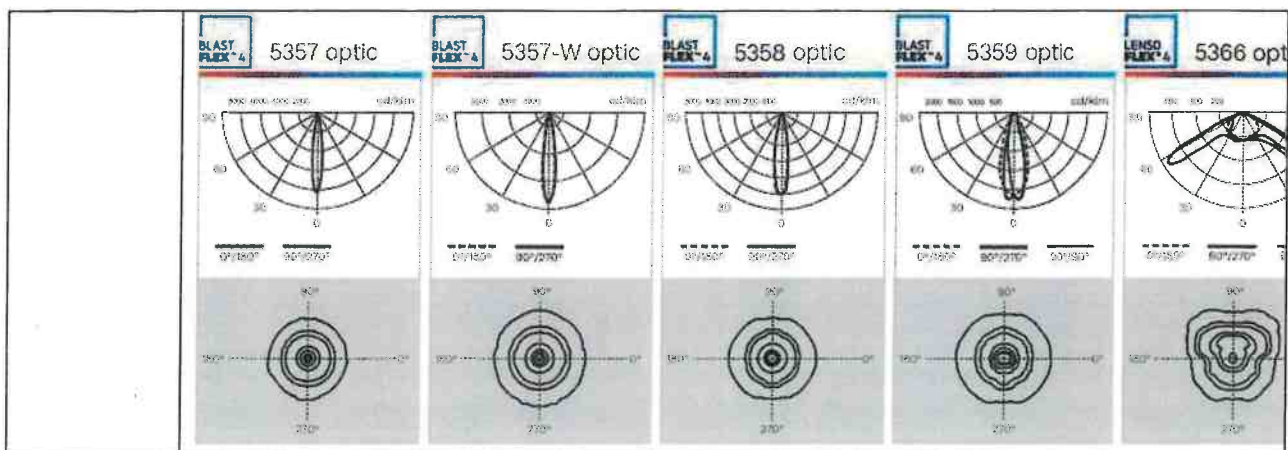
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# KAGISO SAPS SECURITY UPGRADE: GAUTENG PROVINCE



Overview - MIDI					Lifetime Residual Flux @ Tq 25°C
Number of LED's	Neutral White (4000K)	50 LED's	60 LED's	80 LED's	@100.000h
LED Current: 350mA**	Nominal Flux (lm)*	9226	11071	14761	95%
	Power Consumption (W)	55	65	84	
LED Current: 500mA**	Nominal Flux (lm)*	12555	12555	20088	
	Power Consumption (W)	78	93	122	
LED Current: 600mA**	Nominal Flux (lm)*	-	17622	23496	
	Power Consumption (W)	-	111	147	
LED Current: 700mA**	Nominal Flux (lm)*	16814	20177	-	
	Power Consumption (W)	111	131	-	

Overview - MAXI						Lifetime Residual Flux @ Tq 25°C
Number of LED's	Neutral White (4000K)	100 LED's	120 LED's	140 LED's	160 LED's	95%
	Nominal Flux (lm)*	25110	30132			

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# KAGISO SAPS SECURITY UPGRADE: GAUTENG PROVINCE

LED Current: 500mA**	Power Consumption (W)					
LED Current: 550mA**						
LED Current: 600mA**						
LED Current: 700mA**						

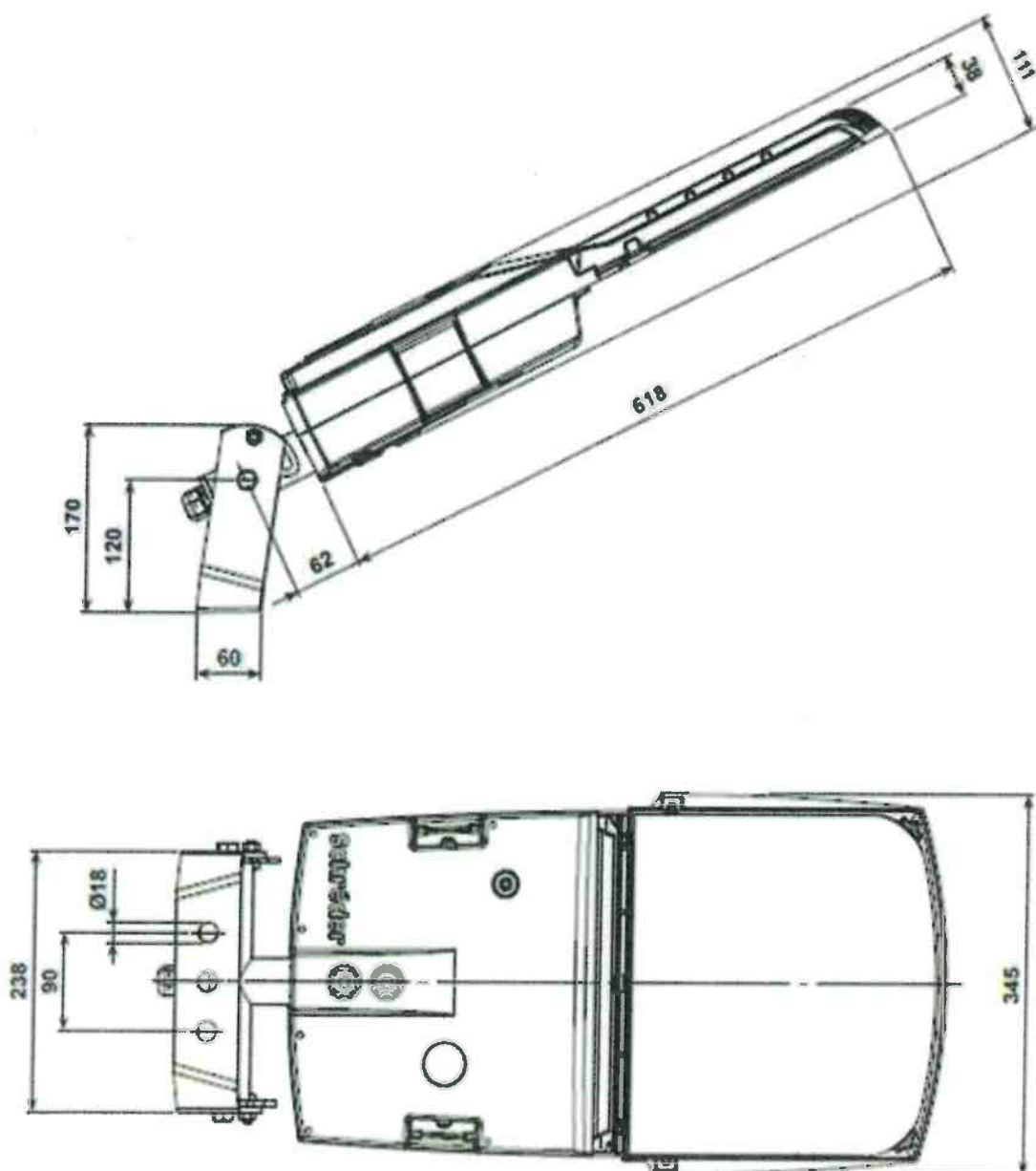
## MECHANICS

Electronic control Gear	Constant Current Driver IP 66
Materials and finishing	Housing – Aluminium Protector – High-impact clear glass (IK 09) or polycarbonate (IK 10)
Coating	RAL colours on request
Installation	Side-entry mounting stirrup
Fixing	3 x ø18 Fixing holes
Weight (with gear)	MAXI – 16.5kg MIDI – 10.5kg
Access	Yes
Aerodynamic resistance (CxS):	MAXI – 0.18m2 MIDI – 0.11m2

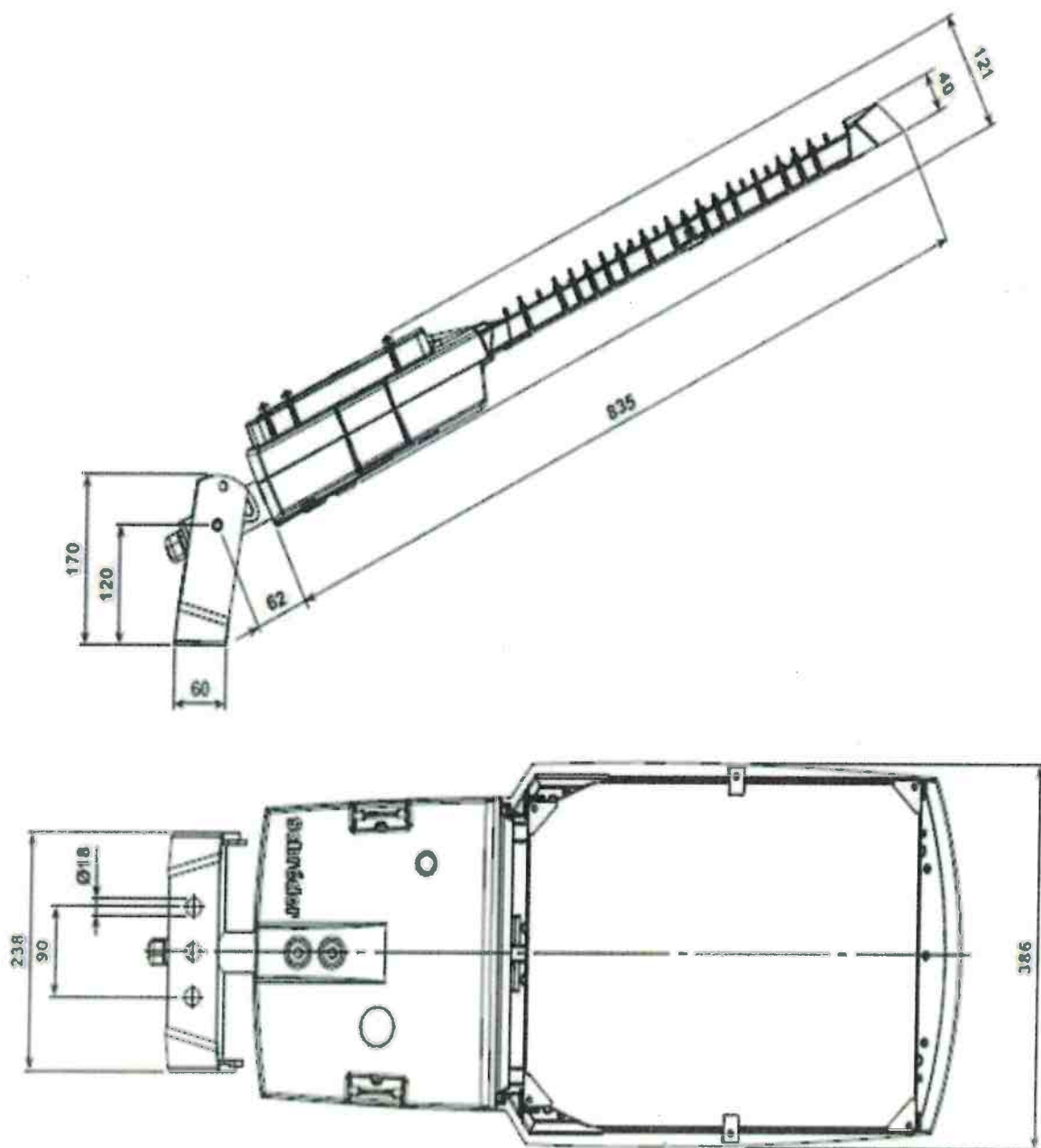
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**MAXI:****ELECTRICAL CHARACTERISTICS**

Line Voltage	230VAC
Mains voltage Tolerance (AC)	198-264V
Line frequency	50Hz
Electrical Safety Class (IEC)	Class I or II
Surge protection	Yes - 10kV/10kA
Lighting control	Optional:

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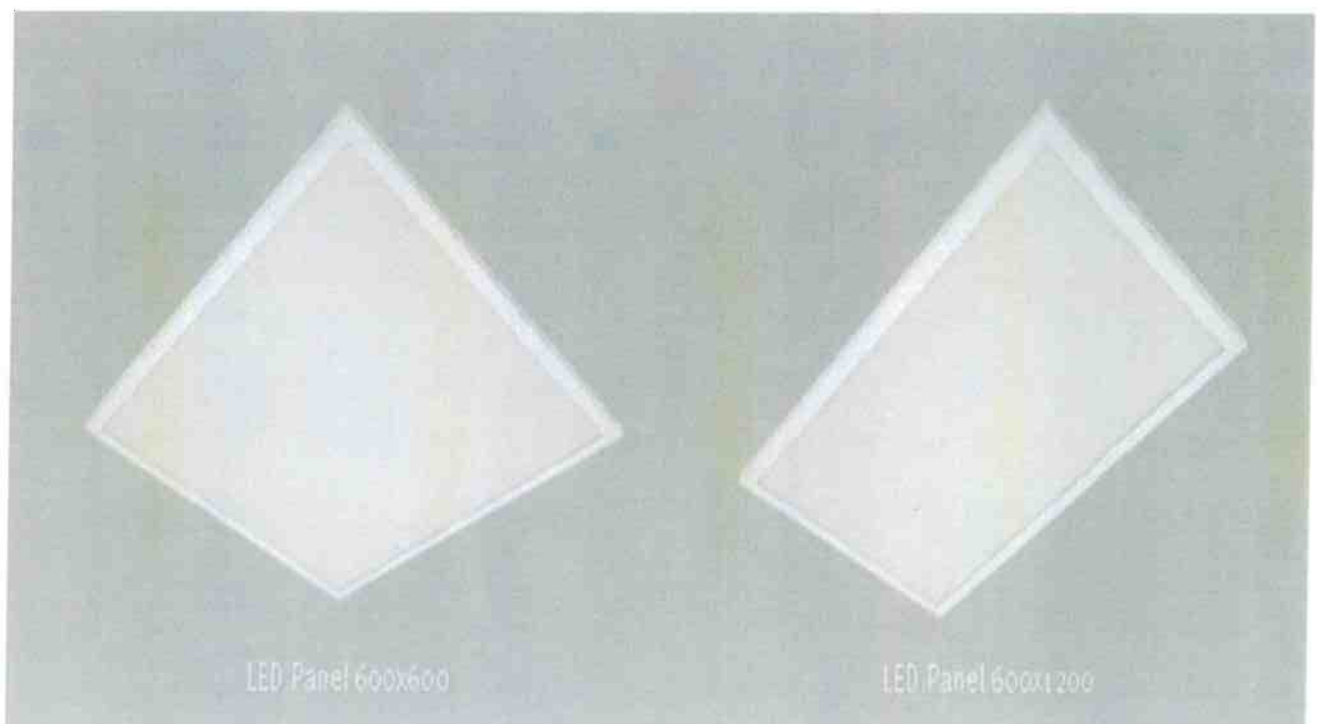
	<ul style="list-style-type: none"> <li>- Back lighting control</li> <li>- Integrated daylight switch</li> <li>- Compatible with standard daylight switch</li> </ul>
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**POWER SUPPLY**

Power Factor	≥0.95
Removable	Yes
Thermal Safety	Yes

**ENVIRONMENT**

Storage temperature	-40°C up to +60°C
Operating temperature (Ta)	-35°C up to +50°C
Enclosure Tightness	IP 66
Enclosure Mechanical Withstand Impact	IK 09
Enclosure Mechanical Withstand Vibrations	Modified IEC 60068-2-6

**B. CEILING MOUNTED LED PANEL SPECIFICATION**

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**SPECIFICATION FOR INDOOR CEILING MOUNTED LED PANEL**

The luminaire shall be designed for energy-efficient lighting solutions for maximum visual comfort and optimum light distribution in multi-use indoor environments.

The luminaire shall consist of a polycarbonate and aluminum body and an opal diffuser. A flicker free non-dimming driver is standard equipped.

It is available in 600 mm x 600 mm and 1200 mm x 600mm. It is designed for exposed grid suspended ceilings with an optional surface mount frame, constructed from powder coated mild steel.

The luminaire shall bear the SANS 60598-2-1 safety mark and shall have an ingress protection of IP20 in compliance with SANS 60598-2-1, certified by an SABS test report.

Use of high efficiency LED's >100 lumens per watt and CRI >80.

The standard LED's colour temperature provided shall be neutral white (4000K).

The LED PANEL LUMINAIRE shall operate LED light source of up to 48W, in ambient temperatures between -10 °C up to 40°C, without reducing the LED lifetime of 30 000hrs, at a lumen depreciation of not more than 30% (L70).

The driver shall operate at a power factor of > 0,90 and the total harmonic distortion levels are < 20% and do not cause interference on the electrical network.

For ease of installations, a quick wiring connection must be provided.

**4.3. LOW VOLTAGE DISTRIBUTION CABLES**

Low voltage distribution cables to be supplied and installed to comply with SANS1507 Specification for low voltage insulated wire, power and multi-core control cables.

The following estimated cable length is to be installed from the Main DB situated in the passage inside the Main Building to the Floodlights and LED Ceiling Panel Lights:

**LV DISTRIBUTOR CABLE LENGTH ESTIMATE**

Description	Cable length
Flat Twin 2.5mm <sup>2</sup> x 2core \$ Earth BLK Cu PVC 300/500	150m

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**NB:** The contractor shall check cable length on site and shall order the cable accordingly to ensure that no joints have to be made and that there are no cable off-cuts after the installation of the cables

#### **4.4. LOW VOLTAGE TERMINATIONS**

All low voltage terminations to be supplied and installed, and shall comply with SANS 10198 specification for LV accessories.

#### **4.5. TESTING AND COMMISSIONING**

- All installed equipment shall be commissioned and tested as per the manufacturer's recommendations. The results of all tests must be recorded and submitted to SAPS electrical engineer for approval.
- Routine factory tests reports shall accompany all equipment supplied and shall be given to the SAPS Electrical Engineer, prior to the equipment being installed and commissioned.
- Prior to handover, on site final test reports as listed in SANS 1029, SANS 10198 and SANS 10142 for all equipment shall be given to the relevant SAPS electrical engineer.
- Contractor to provide COC to SAPS electrical engineer prior to energizing of equipment.

#### **4.6. PREAMBLES TO SCHEDULE OF QUANTITIES**

**General** – The Schedules of Quantities define the scope of the Engineering Works in terms of the measurement and payment parameters specified. The quantities stated on the schedules of quantities are provisional and are subject to re-measurement upon completion. Bidders shall quote for all equipment and all accessories specified within this document.



## 5. MECHANICAL SCOPE OF WORKS.

### SPECIFICATION MECHANICAL ENGINEERING WORKS FOR SECURITY UPGRADE SOUTH AFRICAN POLICE SERVICE: KAGISO SAPS

#### 5.1. INTENT

This specification calls for the replacement of an existing Air-conditioning unit and the commissioning thereof at Kagiso Saps Gauteng occupied by the South African Police Station (SAPS)

Bidders shall be responsible for the replacement of an existing Air-conditioning unit and the commissioning of the installation. All equipment within this document shall have a minimum guarantee period of one year (12 months) on all components and workmanship. The successful contractor will be responsible for the replacement of an existing Air-conditioning unit and the commissioning by installing of a ceiling ducted **inverter split unit for CSC at Kagiso SAPS Gauteng** (compliance to the Occupational Health and Safety Act 181 of 1993).

This part contains the engineering specification and schedule of quantities for the Engineering Work which shall be read in conjunction with the balance of the contract document, including the conditions of the contract

#### 5.2. DETAILS REQUIREMENTS

This particular specification must be read with and shall form part of the Technical Specification contained in this document. Bidders may submit quotes for standard equipment which comply as closely as possible with the specification. Any deviation from the specification must be fully defined. All connections, installations, and terminations of the required cabling and switch gear will form part of this contract. Full particulars, technical specifications, performance curve, and illustration of the equipment offered must be handed in together.

All equipment shall be intergraded with existing infrastructure and therefore additional care should be taken to protect all equipment in terms of excessive voltage spikes, over-current protection, and voltage drops.

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**5.3. GENERAL REQUIREMENTS AND SPECIFICATION**

5.3.1	This requirement is for the Replacement of an existing unit with a new including commissioning thereof.
5.3.2	The Contractor shall fully acquaint themselves with the nature of the work to be carried out, the locality of the facility, and any possible hindrances in the execution of the installations, services, and maintenance, and to allow for all of these factors in their prices, as any later claim bases on unforeseen events or knowledge will not be entertained. (as specified in this document)
5.3.3	Operation and Maintenance Manuals – The contractor shall hand over, at the completion of the works one (1) original and two copies of the necessary operating and maintenance manuals, required for all equipment supplied and installed by him or her as part of the works. A complete description of all operating procedures and safety measures shall be included in the manual.
5.3.4	Electrical Connections – Electrical connections to the distribution panel form part of this contract. Wiring must be designed and installed as prescribed by SANS 1042 wiring of buildings. Specified in this document)
5.3.5	The work throughout shall be executed to the highest standards and to the entire satisfaction of the Representative/Agent who shall interpret the meaning of the Contract Document and shall have the authority to reject any work and materials, which, in his judgment, are not in full accordance therewith. <u>All condemned material and workmanship shall be replaced or rectified as directed and approved by the Chief Mechanical Engineer: Programme and Projects Management, Facility: Pretoria.</u> All work shall be executed in a first-class manner by a qualified tradesman. The Contractor shall warrant that the materials and workmanship shall be of the highest grade, that the equipment shall be installed in a practical and first-class manner in accordance with the best practices and ready and complete for full operation.
5.3.6	Equipment and material installed shall be new and unused.
5.3.7	All installations shall comply with the National Building Regulation SANS 10400 on energy efficiency Part XA; read in conjunction with SANS 204.
5.3.8	All equipment shall have efficiencies in accordance with table B.1 (ASHRAE 90.1)
5.3.9	Each air-conditioning system shall be provided with at least one automatic control device for the regulation of temperature. Preferably wall mounted
5.3.10	If the air-conditioning system is equipped with a means for adding or removing moisture to specific humidity levels, a humidistat shall be capable of preventing the use of energy to increase relative humidity above 30% during humidification or to decrease relative humidity below 60% during dehumidification.
5.3.11	The air-conditioning system shall make use of a variable speed compressor that will enable the room temperature to be kept at a set temperature without frequent switching of the compressor on and off.
5.3.12	The air-con system will make use of R410A gas.
5.3.13	All equipment shall be energy rated and have a stand-by energy reduction mode, not in use.
5.3.14	The system will have the following, but not limited, basic operation modes:

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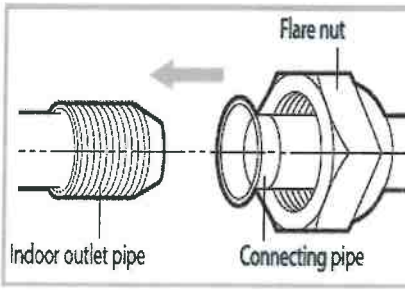
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cm

	<p><b>Auto:</b> In Auto mode, the air conditioner will automatically set the temperature and fan speed depending on the room temperature detected by the room temperature.</p> <p><b>Cool:</b> In Cool mode, the air conditioner will cool the room, by adjusting the temperature and the fan speed.</p> <p><b>Dry:</b> The air conditioner will in dry mode acts like a dehumidifier by removing moisture from the indoor air.</p> <p><b>Fan:</b> Fan mode will ventilate the room.</p> <p><b>Heat:</b> This mode will enable heating as well as cooling.</p>
5.3.15	The unit will be fitted with an auto-clean function in order to limit the growth of mold by eliminating the moisture at inside of the indoor unit.
5.3.16	<p>The indoor unit shall be installed;</p> <ul style="list-style-type: none"> <li>- Where airflow is not blocked</li> <li>- Where cool air can be distributed throughout the room</li> <li>- Install the refrigerant piping length and the height difference of both indoor and outdoor units as indicated in the installation diagram</li> <li>- To a wall that prevents vibration and is strong enough to hold the product's weight</li> <li>- Out of the direct sunlight</li> <li>- At such a location where the air filter can be replaced easily</li> </ul>
5.3.17	<p>The outdoor unit shall be installed;</p> <ul style="list-style-type: none"> <li>- Where it is not exposed to strong wind</li> <li>- At a well-ventilated and dustless location</li> <li>- Out of the direct sunlight and rain</li> <li>- Solid wall or support that prevents vibration and is strong enough to hold the product's weight</li> <li>- Where there is no risk of flammable gas leakage</li> </ul>
5.3.18	Connect indoor and outdoor units with copper pipes by means of flare connections. Use insulated seamless refrigeration grade pipe only, (Cu DHP type according to ISO1337), degreased and deoxidized, suitable for operating pressures of at least 4200 kPa and for burst pressure of at least 20700 kPa. Under no circumstances must sanitary-type copper pipe be used. Smooth the cut edges.
5.3.19	Reasonable care should be taken during installation, maintenance, and repair to prevent the venting of R410A gas into the atmosphere: it is a fluorinated greenhouse gas, covered by Kyoto Protocol. The indoor and outdoor units will be connected by means of a flare nut and will be tongue wrenched as indicated below. The joint must be assessable and serviceable.

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	<table><tr><th>Outer Diameter</th><th>Torque (kgf·cm)</th></tr><tr><td>ø6.35 mm</td><td>140~170</td></tr><tr><td>ø9.52 mm</td><td>250~280</td></tr><tr><td>ø12.70 mm</td><td>380~420</td></tr><tr><td>ø15.88 mm</td><td>440~480</td></tr><tr><td>ø19.05 mm</td><td>990~1210</td></tr><tr><td>ø22.23 mm</td><td>990~1210</td></tr></table>	Outer Diameter	Torque (kgf·cm)	ø6.35 mm	140~170	ø9.52 mm	250~280	ø12.70 mm	380~420	ø15.88 mm	440~480	ø19.05 mm	990~1210	ø22.23 mm	990~1210
Outer Diameter	Torque (kgf·cm)														
ø6.35 mm	140~170														
ø9.52 mm	250~280														
ø12.70 mm	380~420														
ø15.88 mm	440~480														
ø19.05 mm	990~1210														
ø22.23 mm	990~1210														
5.3.20	When all conductors of an AC installation are carrying their design load, the difference in voltage between the point of supply and any point of outlet or terminals of fixed appliances should not exceed 5% of the standard or declared voltage. The voltage drop for single-phase circuits should not exceed 11, 5 V (5% of 230 V).														

#### 5.4. SITE CONDITIONS AND LOCATION

The scope of works is for the replacement of an existing Air-conditioning unit and the commissioning thereof at Kagiso Saps Gauteng occupied by the South African Police Station (SAPS). Climate conditions can be obtained from the relevant sources.

Kagiso Saps	UNIT	CAPACITY (KW)	SIZE (BTU/hr.)	QAUNTIT Y
Community Service Centre	Supply, install and commission 96 000 BTU air conditioner, Ceiling ducted type Split inverter Air-conditioning unit with heating and cooling: for the CSC in the main building	31.56 kw	150 000BTU/Hr	01

**The Bidder must verify the above mentioned details. It is the responsibility of the Bidder to evaluate electrical conditions at the mentioned station, for the purpose of pricing.**

#### 5.6. STANDARD SPECIFICATION AND REGULATIONS

The entire installation shall be carried out to the satisfaction of the Chief Engineer, SAPS, Facility, Programme and Project Management and shall be carried out in accordance with the following Standard Specifications and Regulations.

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- All electrical work is to be carried out in accordance with SANS code of Practice for Wiring Premises, SANS 10142, and the SANS Code of Practice for Identification Color Marking, SANS 10140.
- All low voltage switchgear and control gear assemblies are to comply with SANS 60947.
- Electrical Installation Ducting and Trucking Systems on walls and ceiling to conform to SANS 61084 Part 1 to 2.
- Electrical Installation Conduit Fittings to conform to SANS 61035 Part 1 to 2.4.
- Electrical Earth Leakage Protection units to conform to SANS 767 Part 1 to 2.
- Occupational Health and Safety Act No. 85 of 1993 as amended.
- All building works shall be in accordance with the Standard Preambles to All Trades.

## 5.7. SCOPE OF SPECIFICATION

### 5.7.1 SCOPE OF WORK

#### General Service

The following is a minimum requirement for Replacing and installing. Some items are only applicable to particular units.

#### Replace complete unit (if required)

The following is a minimum requirement for unit replacement.

- Disconnect existing unit electrically.
- Disconnect existing unit mechanically.
- Remove existing unit from wall / window including louver if necessary.
- Remove brickwork if required to fit new unit with holes for pipe work.
- Replace with new unit.
- Make good existing brickwork (and plaster) to the existing standard.
- Replace architraves inside and outside with external aluminum angle suitably sealed.
- Supply and fit all external louvers.
- Supply all supporting and pipe brackets.
- Connect and make good all piping.
- Connect and supply drainage to site drainage system.
- Connect and make electrical connections, including correct and safe connections into the main office supply.
- Exposed cabling to be installed in plastic duct with cover.
- Fitting and connection of all unit controls.
- Gassing up of units.
- Insulation of connection pipe work.
- Checking operation of complete system.

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### **Additional Technical Specification**

- The contractor is to confirm the type of gas used.
- Supply voltage: Electrical 230V 50Hz.
- Cooling and heating is required on all new units.
- All new units shall be suitable for operation without the use of a remote control.
- All new units and units that are serviced must be painted with Hydrax anti-corrosive protection paint.

### **INSPECTION AND TESTING**

On delivery to the site or storage area, the equipment shall be inspected by the SAPS and the contractor.

Damage or defects of any kind shall be repaired by the supplier of such items to the satisfaction of the SAPS. Where damage is such that in the opinion of the SAPS satisfactory repairs are not practicable, the damaged item shall be repaired at no cost to the SAPS, who shall not accept any responsibility for any loss or damage that may be suffered as a result of delays in obtaining the necessary replacements.

### **TESTING AND COMMISSIONING AFTER INSTALLATION**

On completion of installation of the equipment the contractor will be required to make appropriate arrangements for testing in the presence of the SAPS in order to demonstrate compliance with the requirements of the specification. All equipment necessary for the test will be supplied by the contractor.

The test report will form part of a data book.

### **TESTING REQUIREMENTS**

Check for rattles, vibration and suspect installation work, insulation, etc.

(a) Does unit cool and heat?

(b) Allow unit to operate for 10 minutes before testing – take all cool measurements.

Measure ambient temperature in the shade (preferably at 12 noon)

On cool - measure temperature drop across unit i.e.

- Supply air – measure right next to thermostat
- Return air – measure right next to grill

Take 4 readings

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- Supply air and return air on minimum cooling
- Supply air and return air on maximum cooling

On heat - measure temperature drop across unit

Take 4 readings

- Supply air and return air on minimum heating
- Supply air and return air on maximum heating

Allow units to operate day and night for a least a week to check if any faults develop.

### **5.7.2. Vehicle gate Motor Installation.**

The motor gate should have the following and not limited functions

#### **CONTROLLER FEATURES**

##### **Hardware features**

- Fully-sealed plastic housing for controller to prevent ingress of dirt and insects
- Easy setup of controller using LCD user interface
- Removable connectors on controller for easy maintenance
- Watchdog IC ensures full and safe operation of controller
- Optional Backup Memory Module allows backing up of all the information that has been set up in the
- safety beam inputs with beam circuit functional test<sup>1</sup>
- High-security cleared-beam Auto close in conjunction with safety beam (PIRAC) <sup>1</sup>
- Break-in and Ambush Alarm (patent pending) with configurable outputs via on-board buzzer, Pillar Light relay, etc. <sup>1</sup>
- Multiple Modes of Operation: Standard Mode, Condominium Mode (multi-user), Reversing Mode, PLC 2, and Deadman

##### **Control Mode.**

- Automatic closing with adjustable time, pushbutton override, and selectable according to gate position
- Remote Gate Status Indicator (gate position, power failure, low battery, multiple collision detection, and Pillar Light status indication)
- Pedestrian opening (adjustable opening and Auto close time)
- Free-exit facility

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- Emergency Stop functionality
- Courtesy / Pillar Light Timer with adjustable time
- Fully-configurable pre-delays with multi-modal pre-flash
- Multiple Operating Profiles to suit region of installation– select within South Africa
- Full configuration of gate operating parameters, including independent gate opening and closing speeds, ramp-up and ramp-down distances and crawl speed
- Positive Close Mode (e.g. ensure activation of electric fence contact switch)
- On-board multichannel code-hopping receiver with the ability to:
  - learn transmitter buttons to specific functions (e.g. Gate trigger,
  - Pedestrian opening, Free-exit, Pillar Light Control, Holiday Lockout)
  - selectively delete specific transmitters that have been lost or stolen
  - automatically learn transmitters into the system (Auto learn)
  - automatically delete transmitters that are no longer in use (Delete-Not-Present)
- Integrated Chrono Guard with Real Time Clock and Calendar timer offering multichannel time-activated and time-barring functionality
- Auxiliary output can be configured via the Chrono Guard timer to provide timer functionality to external devices, such as security lights, entrance fountains, etc

### **Multiple operating features**

In Lockout Mode Once enabled gate should become totally immobilized

### **Easy access for simple installations**

The unit should be easy to install having an incorporated jacking system to enable leveling to be effortless with mounting points slotted allowing large adjustments to align the machine with the gate.

### **Intelligent automatic setup**

Motor should be able to Auto-Set-up once installed with the use of an LCD controller to follow an easy-to-use Q and A system that makes setting up things like gate End-of-travel Limits.

The motor should be of an industrial type which is able to pull a 1000 kg gate up 750 plus cycles in a day.

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Minimum Technical Specifications	
Input voltage	1 220V AC +/-10% @ 50Hz
Motor voltage	24V DC
Motor power supply	Battery-driven (standard capacity - 2 x 7Ah)
Battery charger	1.8A @ 27.4V +/- 1%
Current consumption (mains supply)	250mA
Current consumption	(motor rated / peak load) 6/15A TO 8/15A
Current consumption (mains supply) Idle load	80mA
Operator push force	
Starting	40kgf 20kgf
Rated	30kgf 15kgf
Gate mass – maximum	1000kg 240kg
Gate length -	maximum 100m 50m
Gate speed - m/min <sup>3/4</sup>	22 - 26m/min - 51m/min
Gate speed - mm/sec <sup>3/4</sup>	367 - 433mm/sec 717 - 850mm/sec
Drive Pinion	17T Module 4 20T Module 4
Maximum daily cycle	5 750 cycles/day
Design life	250 000 cycles
Operations in standby with standard battery 6,7	
Half day	120 cycles
Full day	100 cycles
Collision sensing	Electronic
Operating temperature	-15°C to +50°C
Degree of protection	IP54
Controller incorporated	yes
Onboard receiver	yes
Manual override	Lockable lever with key release
Receiver frequency	433.92MHz
Receiver code storage capacity	500 transmitter buttons
Mass of unit packed	13kg
Packaging dimensions	
Length:	355mm
Width:	288mm

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## 5.8. QUALITY SPECIFICATIONS FOR MATERIALS AND EQUIPMENT OF ELECTRICAL INSTALLATIONS

The latest edition, including all amendments up to date of tender of the following specifications, publication and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof.

General	Distribution and meter boards	LV cables and conductors	Small power installation	
			Power outlets	Conduits, power skirting, cable trays and ducting
SABS 0142	SABS 152	SABS 0150	SABS 152	SABS 763
SABS 0160	SABS 156	SABS 0198	SABS 163	SABS 764
SABS 0400	SABS 171	SABS 1411	SABS 164	SABS 950
SABS 1222	SABS 172	SABS 1507	SABS 1084	SABS 1065
	SABS 173		SABS 1239	SABS 1085
	SABS 763			SABS 1197
	SABS 1092			
	SABS 1180			

## 5.9 PREAMBLES TO SCHEDULE OF QUANTITIES

### Price Schedule

**General** – The Schedules of Quantities define the scope of the Engineering Works in terms of the measurement and payment parameters specified. The Schedules shall be read in conjunction with the General Conditions of Contract, the Special Conditions, and the Conditions of Tender; the quantities stated on the schedules are provisional and are subject to re-measurement upon completion. Quantities cannot be guaranteed. Bidders shall quote for all equipment and all accessories specified within this document. The procurement of this equipment shall take place as and when needed, spread over the one year period. Servicing and maintenance of all newly installed equipment and components and guaranteeing free of defects for the full maintenance period of one years, will form part of this contract.

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**Descriptions & Measured Items** – The Schedule of Quantities consists of Descriptions followed by measured items (Item lines) which specify the items of differing dimensions, ratings, etc. which comply with the overall requirements of such Description. The measured items may add, subtract or in any other way vary the Description. Below each item line the measured quantities applicable to each of the applicable sections of the Works appears under the relevant column heading, the total of which is shown under the Quantity column. The terms used and Schedule layout are defined in the *Schedule of Quantities* Legend which is presented at this Preamble. The Schedule of Quantities is based upon the Standard system of measurement modified as necessary. **Fixed Rates** – Rates shall be fixed for the duration of the contract. **All inclusive** – The Descriptions and item lines are of necessity abbreviated summaries of the specifications and unless otherwise stated or elsewhere measured, shall include all necessary components and accessories required or necessary for the correct functioning or performance of the item when incorporated into the Engineering Works. The rates and prices shall accommodate the nature of the Engineering Work and any restrictions which apply to the Works Environment and the Site of the Works, shall include all the costs and expenses that may be required in and for the construction of the Works described and shall include the cost of all general obligations, risks and liabilities stated or implied in the contract documents.

**SUCH RATES AND PRICES SHALL, HOWEVER, EXCLUDE VALUE ADDED TAX (VAT), WHICH SHALL BE APPLIED ONLY WHERE SPECIFIED.**

**Quantities net** – The quantities set out in the Schedule are intended for measurement and payment purposes only. Material and equipment orders shall not be based upon such quantities but upon the Contractor's own assessment. Job cards will be signed off and certified by the Station Commander or representative. The schedule of quantities is for budget and Bid Evaluation purposes and is subject to amendment, based on site conditions.

**Quantities Provisional** – The quantities set out in the schedules are measured provisionally and will be subject to re-measurement on completion. Job cards will be signed off and certified by the Station Commander or Supply Chain Management representative at the Station.

#### 5.10. SCHEDULES OF QUANTITIES

Items	Description	Unit	Qty.	Rate	Amount
<b>NOTE: The schedule of quantities is provisional and budget purposes. Supply and Install the following systems including all components, ducting and sundries, inclusive of all electrical switchgear required to bringing the system to the desired optimum working</b>					

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**condition and applicable Testing and commissioning & maintenance agreement for the warranty period.**

1	Replace the Existing Ceiling ducted type Split inverter Air-conditioning unit with heating and cooling: for the CSC in the main building with a new 150 000 BTU air conditioner, Ceiling ducted type Split inverter Air-conditioning unit (incl. components, ducting sundries, tests required to bring the unit into proper working condition complete with condensate piping, controls, outdoor and indoor with the labour, transport, etc.) Inclusive of electrical switchgear associated with the Air-conditioning system and training of the end user. And the commissioning thereof and a certificates of conformity of the system.	No	01		
2.	Supply, install and commission a Gate motor system to be able to pull 1000kg gate inclusive of accessories rails, electrical switchgear, anti-theft devices, and a 12 months maintenance guarantee including labour, transport, etc.	No	01		
3	Testing and certification: Certification of Compliance (COC), with regards to all electrical reticulation, connections, wiring, equipment & commissioning of all the Mechanical Works associated with this Schedule of Quantities.	No	01		

**6. SITE CLEANLINESS**

- The Contractor shall clear away all debris and excess materials accumulated at the site and dispose of it away from the station premises, maintaining a neat site condition. On completion of the project, the contractor shall leave the site in a broom clean condition.
- After completion of construction activities, the contractor shall remove all his/her equipment and site facilities from the site and leave the site in a tidy condition. The cost thereof must be included for in the P & G's.

**7. WORKMANSHIP**

Workers working on site shall be skilled in their job and have related job experience.

**8. MATERIAL AND EQUIPMENT DATA SHEET**

The contractor shall submit all material and equipment data sheets for employer to accept before any works may commence.

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## 9. SAFETY

The contractor is responsible and shall continue to manage and implement safety and health measures throughout the project.

- The employer's representative and the Safety Officer representing the employer the right to suspend work when and where the contractor's health and safety program is considered to be operating in a non-compliant manner.
- The contractor shall supply all the Personal Protective Equipment (PPE) for the workers as per the site requirement and the OHS Act. The work will be stopped in case the proper protection equipment is not found with the workers and the time lapse shall be at the contractor's expense.
- Contractor will not leave the work site in an unsafe condition or any other condition that might cause harm or injury to personnel, damage to existing work, structures or equipment.
- Contractor will use all the safety gadgets, e.g. hard hats, cotton gloves, overalls and goggles to avoid accidents
- Any equipment or work considered dangerous shall be immediately discontinued.

## 10. WARRANTY

The contractor shall guarantee that all work performed will be free from all defects in workmanship and materials and that all installations will have the capacities and characteristics specified.

## 11. LEGISLATION AND APPROVALS

- It is recommended that the additions must be presented and discussed with the local authority (municipality) of the area to determine the legal requirements and approvals.
- Please note that the project can be subject to municipal plan submission and approvals for the additions to the site.
- The soil conditions are unknown as test holes will need to be done by a civil engineer in order to determine the condition. The design of the foundation will be in accordance with the outcome of the soil test.
- The contractor shall be responsible to provide the client (SAPS) with a Certificate of Compliance (COC) issued upon final completion.
- All building work to comply with the National Building Regulations and SANS10400 (2011).
- The Contractor shall be responsible to appoint his/ her own Professional Registered Occupational Health and Safety Officer to provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and

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machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety and to provide for matters connected therewith.

## ATTACHED DRAWINGS.

LIST OF DRAWINGS	SHEET 1/13
SITE PLAN	SHEET 2//13
DEMOLISH WORKS	SHEET 3/13
CSC PROPOSED NEW	SHEET 4//13
SECTIONAL ELEVATION A-A & SECTION A-A	SHEET 5//13
SECTION B-B & SECTION C-C	SHEET 6/13
GRENADIE DETAILS	SHEET 7&8/13
WINDOW SCHEDULE (BURGLAR) & CSC SEAT DETAIL	SHEET 9&10/13
DOOR SCHEDULE	SHEET 11/13
CSC TILLING PLAN	SHEET 12/13
SHELVING DETAIL SHEET 13/13	SHEET 13/13

## NB:

- ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF WORK.
- THIS DOCUMENT TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DRAWINGS "SITE PLAN & DETAILS", BOQ AND CONTRACTOR'S APPOINTMENT DOCUMENT.
- ARCHITECTURAL DRAWING SUPERSEDES ANY DISCREPANCY FROM SCOPE OF WORK OR BOQ.

## 12. DEFINITIONS AND ABBREVIATIONS

The above work to comply and refer back to the below mentioned professional/ disciplines:

- **Occupational Health and Safety Officer:** Professional registered Occupational Health and Safety Officer, registered in terms of the Occupational Health and Safety Act (Act 85 of 1993) and as amended (Act 181 of 1993).

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Item No		Unit	Quantity	Rate	Amount
	<b><u>SECTION NO. 1 - BUILDING WORKS</u></b>				
	<b><u>ALTERATIONS</u></b>				
	<b><u>NOTE:</u></b> Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill				
	<b><u>SUPPLEMENTARY PREAMBLES</u></b>				
	<b><u>REMOVAL OF EXISTING WORK</u></b>				
	<b><u>Taking out and removing joinery fittings, counter tops etc.</u></b>				
1	Granite counter top 14 408mm (L) x 800mm (W) fixed to brickwork	No	1		
	<b><u>Breaking down and removing brickwork etc (making good elsewhere)</u></b>				
2	Half brick wall	m <sup>2</sup>	61		
3	Cut toothings and bond new brickwork to existing	m	8		
	<b><u>Taking down and removing roofs, floors, panelling, ceilings, partitions. Etc</u></b>				
4	Ceilings in vertical bulkheads approximately 500mm high, suspended not exceeding 1m below concrete soffit	m	10		
	<b><u>Hacking up/off and removing existing (ceramic/porcelain) floor tiles and wall finishes including removing mortar bed or becking and preparing concrete or brick surfaces for new screed, plaster or tile finishes</u></b>				
5	300mm x 300mm tiles to floors	m <sup>2</sup>	112		
	<b><u>MAKING GOOD OF FINISHES ETC</u></b>				
	<b><u>Making good face brickwork</u></b>				
6	Making good to faces of walls where cross wall removed	m	5		
	<b><u>Making good internal cement plaster</u></b>				
7	Concrete ceilings in patches where approximately 850mm wide rectangular bulkhead removed	m	14		
	Carried to collection summary				R
	Section No. 1				
	Bill No.1				
	Alterations				

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Item No		Unit	Quantity
	<b><u>SECTION NO. 1 -BUILDING WORKS</u></b>		
	<b><u>BILL NO.4</u></b>		
	<b><u>CARPENTRY AND JOINERY</u></b>		
	<b><u>NOTE:</u></b> Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill		
	<b><u>FITTINGS</u></b>		
	<b><u>50mm Thick built in "Rustenberg" granite counter or similar approved flat or eased and polished on all exposed edges and surfaces with a 435mm (L) x 345mm(W) x 20mm(D) rectangular cut transaction tray (documents transfer trav) built into new conter including all fixing brackets, screws, jointing, silicone sealing around edges etc. all in accordance with the manufactures specification.</u></b>		
1	Countertop, 800mm wide provided in single lengths (1000mm) fixed in position as indicated on the drawings .	m	6
	<b><u>Shelves, etc</u></b>		
2	350 x 22mm thick supawood top finished and varnished with polyurethane varnish fixed/screwd from to steel bracket with 20mm self tapping countersunk wood screwsfrom the underside (steel shelf support/bracket elsewhere)	m	11
	<b><u>Fixed seating, chaires, etc.</u></b>		
3	Fixed chairs bolted to the floor as per specification	No	14
	Carried to collection summary		
	Section No. 1 Bill No.4 Carpentry and joinery		R

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Item No	SECTION NO. 1 -BUILDING WORKS	Unit	Quantity	Rate	Amount
	<b>BILL NO.5</b>				
	<b>METALWORK</b>				
	<b>NOTE:</b> Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill				
	<b>STEEL DOOR FRAMES, DOORS, WINDOWS, ETC</b>				
	<b>Burglar bars, etc.</b>				
1	Burglar bars overall size 2500 x 1700mm high (W1) fitted on the interior reveal with frame formed out of 30 x 8mm galvanized flat bars fixed to wall by M8 bolt on every 300mm of height and fitted with with 30 x 8mm galvanized horizontal flat bars spaced at approximately 425mm c/c and 16mm vertical solid bars spaced at approximately 141mm c/c welded together and to the frame.	No	1		
2	Burglar bars overall size 5000 x 1700mm high (W2) fitted on the interior reveal with frame formed out of 30 x 8mm galvanized flat bars fixed to wall by M8 bolt on every 300mm of height and fitted with with 30 x 8mm galvanized horizontal flat bars spaced at approximately 425mm c/c and 16mm vertical solid bars spaced at approximately 141mm c/c welded together and to the frame.	No	1		
3	Burglar bars overall size 1005 x 1700mm high (W3) fitted on the interior reveal with frame formed out of 30 x 8mm galvanized flat bars fixed to wall by M8 bolt on every 300mm of height and fitted with with 30 x 8mm galvanized horizontal flat bars spaced at approximately 425mm c/c and 16mm vertical solid bars spaced at approximately 141mm c/c welded together and to the frame.	No	3		
4	Burglar bars overall size 1800 x 1700mm high (W11) fitted on the interior reveal with frame formed out of 30 x 8mm galvanized flat bars fixed to wall by M8 bolt on every 300mm of height and fitted with with 30 x 8mm galvanized horizontal flat bars spaced at approximately 425mm c/c and 16mm vertical solid bars spaced at approximately 141mm c/c welded together and to the frame.	No	4		
5	Burglar bars overall size 1550 x 2180mm high (W12) fitted on the interior reveal with frame formed out of 30 x 8mm galvanized flat bars fixed to wall by M8 bolt on every 300mm of height and fitted with with 30 x 8mm galvanized horizontal flat bars spaced at approximately 425mm c/c and 16mm vertical solid bars spaced at approximately 141mm c/c welded together and to the frame.	No	4		
6	Burglar bars overall size 2745 x 2465mm high (W13) fitted on the interior reveal with frame formed out of 30 x 8mm galvanized flat bars fixed to wall by M8 bolt on every 300mm of height and fitted with with 30 x 8mm galvanized horizontal flat bars spaced at approximately 425mm c/c and 16mm vertical solid bars spaced at approximately 141mm c/c welded together and to the frame.	No	2		
	Carried to forward				
	Section No. 1				
	Bill No.5				
	Metalwork				
	Metalwork				

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		Brought forward			
<b>Grenade screens, etc</b>					
7	Grenade screens suitable for window size 2150 x 2355mm high (W4), constructed of 3 x 25 x 25mm mild steel main angle frame 100mm bigger all round including 125 x 100 x 5mm mild steel base plates fixed to main frame and wall with M10 masonry anchor bolt including a fixing plate of 900mm high, galvanised welded mesh of 25 x 50mm aperture size of 2.5mm wire thickness, 30 x 3mm mild steel flat support bar fitted at every 600mm of the horizontal length back to back with a 3mm diameter stainless steel bolt and nut	No	34		
8	Grenade screens suitable for window size 1550 x 1755mm (W5) high, constructed of 3 x 25 x 25mm mild steel main angle frame 100mm bigger all round including 125 x 100 x 5mm mild steel base plates fixed to main frame and wall with M10 masonry anchor bolt including a fixing plate of 900mm high, galvanised welded mesh of 25 x 50mm aperture size of 2.5mm wire thickness, 30 x 3mm mild steel flat support bar fitted at every 600mm of the horizontal length back to back with a 3mm diameter stainless steel bolt and nut	No	1		
9	Grenade screens suitable for window size 950 x 1555 (W6) mm high, constructed of 3 x 25 x 25mm mild steel main angle frame 100mm bigger all round including 125 x 100 x 5mm mild steel base plates fixed to main frame and wall with M10 masonry anchor bolt including a fixing plate of 900mm high, galvanised welded mesh of 25 x 50mm aperture size of 2.5mm wire thickness, 30 x 3mm mild steel flat support bar fitted at every 600mm of the horizontal length back to back with a 3mm diameter stainless steel bolt and nut	No	9		
10	Grenade screens suitable for window size 1550 x 2405mm high (W7), constructed of 3 x 25 x 25mm mild steel main angle frame 100mm bigger all round including 125 x 100 x 5mm mild steel base plates fixed to main frame and wall with M10 masonry anchor bolt including a fixing plate of 900mm high, galvanised welded mesh of 25 x 50mm aperture size of 2.5mm wire thickness, 30 x 3mm mild steel flat support bar fitted at every 600mm of the horizontal length back to back with a 3mm diameter stainless steel bolt and nut	No	1		
11	Grenade screens suitable for window size 692 x 2326 (W10) mm high, constructed of 3 x 25 x 25mm mild steel main angle frame 100mm bigger all round including 125 x 100 x 5mm mild steel base plates fixed to main frame and wall with M10 masonry anchor bolt including a fixing plate of 900mm high, galvanised welded mesh of 25 x 50mm aperture size of 2.5mm wire thickness, 30 x 3mm mild steel flat support bar fitted at every 600mm of the horizontal length back to back with a 3mm diameter stainless steel bolt and nut	No	2		
		Carried forward			R
Section No. 1					
Bill No.5					
Metalwork					
Metalwork					

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	Brought forward			R
<u>Gates, etc</u>				
12	Gate (D5 & D7) with frame size 900 x 2330mm high overall with frame formed out of 30 x 25 x 2,5mm rectangular tubing, 12mm vertical solid rods spaced at 162mm c/c and 30 x 25 x 2,5mm horizontal rectangular tubing sections spaced at approximately 300mm fitted complete with lockset case and lock (locking mechanism) with minium of three (3) barrel bolt hinges and secured against wall with eight 150 x 150 x 5mm mild steel fixing plates welded to frame and bolted against the wall with 10mm diameter rawl bolts per fixing plate	No	6	
13	Gate (D8) with frame size 1545 x 2380mm high overall with frame formed out of 30 x 25 x 2,5mm rectangular tubing, 12mm vertical solid rods spaced at 162mm c/c and 30 x 25 x 2,5mm horizontal rectangular tubing sections spaced at approximately 300mm fitted complete with lockset case and lock (locking mechanism) with minium of three (3) barrel bolt hinges and secured against wall with eight 150 x 150 x 5mm mild steel fixing plates welded to frame and bolted against the wall with 10mm diameter rawl bolts per fixing plate	No	4	
14	Gate (D9) with frame size 900 x 2100mm high overall with frame formed out of 30 x 25 x 2,5mm rectangular tubing, 12mm vertical solid rods spaced at 162mm c/c and 30 x 25 x 2,5mm horizontal rectangular tubing sections spaced at approximately 300mm fitted complete with lockset case and lock (locking mechanism) with minium of three (3) barrel bolt hinges and secured against wall with eight 150 x 150 x 5mm mild steel fixing plates welded to frame and bolted against the wall with 10mm diameter rawl bolts per fixing plate	No	1	
<u>Aluminium windows, doors, etc.</u>				
<u>"Trellidor Plus T900" or similar approved powder coated steel security barrier fixed to brick or concrete surfaces complete strictly in accordance with manufacture's specifications (Colour Matt Bronze or accoring to Project Manager's specifications)</u>				
15	Retractable security gate for door (D10), suitable for opening size 2460 x 2465mm high fitted complete including locks, etc.	No	1	
16	Retractable security gate for door (D11), suitable for opening size 1450 x 2350mm high fitted complete including locks, etc.	No	1	
<u>Aluminium louvre units/panels</u>				
<u>Natural anodised aluminium louvre units/panels with horizontal ventilation slots fixed to brickwork on the sides and on subframe above bullet resistant glass strictly in accordance with manufacture's specifications</u>				
17	Purpose made louvre unit/panel size 1000 x 425mm high opening	No	7	
Carried forward				
Section No. 1				
Bill No.5				
Metalwork				
Metalwork				

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[illegible]

123

[illegible]

124



[illegible]

125

[illegible]

126

[illegible]

127

Bill No	COLLECTION SUMMARY - SECTION 1: BUILDING WORKS	Page No		Amount
1	Alterations	1	R	
2	Masonry	2	R	
3	Waterproofing	3	R	
4	Carpentry and Joinery	4	R	
5	Metalwork	8	R	
6	Plastering	9	R	
7	Tiling	10	R	
8	Glazing	11	R	
9	Paintwork	12	R	
Carried to final summary				R 0,00

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**SECTION NO. 2****BILL NO.1****EXTERNAL WORKS**

NOTE: Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill

**FENCING**

Fencing, posts, gates, etc.

- |   |   |      |     |
|---|---|------|-----|
| 1 | Take out existing gate motor and make necessary repairs to existing vehicle access gate, size approximately 4100 x 2435mm high for a gate to accommodate new gate motor and track for properly opening and closing. | Item | 1   |
| 2 | Industrial sliding gate motor kit type D10/1000kg complete with battery, anti-theft bracket, electrical cabling for power to gate motor.  | No   | 1   |
| 3 | Button remote controls  | No   | 10  |
| 4 | 600mm high galvanized high tensile Flat Wrap razor wire mounted on top of existing brick wall fence to prevent climbing   | m    | 484 |

Pedestrian gate (Existing)

- |   |   |      |   |
|---|---|------|---|
| 5 | Supply and fit self-closing mechanism on existing pedestrian gate, size approximately 3500 x 2435mm high complete with electronic magnetic locking system with a manual heavy duty padlock option | Item | 1 |
|---|---|------|---|

Carried to final summary

R

Section No. 2  
Bill No.1  
Extenal works

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**SECTION NO. 3**

**BILL NO.1**

**ELECTRICAL WORKS**

NOTE: The following work is to be carried out by an approved specialist Supplier: Supply, installation and commissioning of new LED Floodlights and Ceiling Mounted LED Panel: the following systems including all components and sundries, test, etc. required to bring the installations to the working order intended, compliance and guarantee.

1	Supply flat twin and earth, Cu, PVC insulated white 2,5mm²	m	60
2	Supply 10 Amp, single pole. 6kA, circuit breaker	No	1
3	PVC Conduit rates to include for waste, couplings, sets etc. (20 mm)	m	40
4	PVC Conduit rates to include for waste, couplings, sets etc. (20 mm)	No	8
5	Supply high pressure mercury 131W LED floodlight IP 66	No	2
6	5 Amp, single pole 3 kA, circuit breaker	No	5
7	Supply Photocell (Day Night Switch) 15Amp, complete	No	2
8	Supply Perimeter light fitting, Decorative Post Top light - 46 watt LED - IP 66, Complete	No	25
9	Remove rubbish and waste management	Item	1
10	Testing and Certification: Certification of Compliance (COC), with regards to all electrical reticulation, connections, wiring, equipment & commissioning of Lights	No	1

**Carried to final summary**

**R**

Section No. 3  
Bill No.1  
Electrical works

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**SECTION NO. 4****BILL NO.1****MECHANICAL WORKS**

**NOTE:** The schedule of quantities is provisional and budget purposes. Supply and Install the following systems including all components, ducting and sundries, inclusive of all electrical switchgear required to bringing the system to the desired optimum working condition and applicable Testing and commissioning & maintenance agreement for the warranty period.

- |   |   |    |   |
|---|---|----|---|
| 1 | Supply, install and commission 150 000 BTU air conditioner, Ceiling ducted type Split inverter Air-conditioning unit with heating and cooling: for the CSC in the main building (incl. components, ducting sundries, tests required to bring the unit into proper working condition, and maintenance during the guarantee period. Indoor units complete with condensate piping, controls, outdoor labour, transport, etc.) Inclusive of electrical switchgear associated with the Air-conditioning system and training of the end user. | No | 1 |
| 2 | Supply, install and commission Gate motor to be able to pull 1100kg gate inclusive of accessories rails ,electrcal swichgear,antit-heft devices . 12 months maintenance labour, transport, etc.   | No | 1 |
| 3 | Testing and certification: Certification of Compliance (COC), with regards to all electrical reticulation, connections, wiring, equipment & commissioning of new air conditioning units   | No | 1 |

**Carried to final summary**

**R**

Section No. 3

Bill No.1

Electrical works

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Sec No	FINAL SUMMARY	Page No	Amount
1	Alterations	13	R
2	External works	14	R
3	Electrical works(23440 added in P& G)	15	R
4	Mechanical works	16	R
A	<b>Sub-Total</b>		R
5	Add: Preliminaries		R
B	<b>Sub-Total</b>		R
	Add: V.A.T @ 15%		R
TOTAL CARRIED TO TENDER FORM			R

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**APPOINTMENT OF A CONTRACTOR FOR SECURITY UPGRADE AT  
KAGISO POLICE STATION IN GAUTENG PROVINCE**

**BID: 19/1/9/1/119TB(22)**

**PART C**

**CONTRACT**

**PART C 3**

**OCCUPATIONAL HEALTH AND SAFETY**



# HEALTH & SAFETY SPECIFICATION

## FOR CAPITAL WORKS AND PLANNED MAINTENANCE PROJECTS MANAGED ON BEHALF OF SOUTH AFRICAN POLICE SERVICE (THE "CLIENT")

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<b>1. PREAMBLE</b>	

In terms of Construction Regulation 5(1) (b) of the Occupational Health and Safety Act, 1993 (Act 85 of 1993), South African Police Service, as the Client must prepare a suitable, documented and coherent site specific health and safety specification for the intended construction work based on the baseline risk assessment.

The Client's further duties are as described in The Act and the Regulations made there-under. The Principal Contractor shall be responsible for the Health & Safety Policy for the site in terms of Section 7 of the Act and in line with Construction Regulation 7 as well as the Health and Safety Plan for the project.

This 'Health and Safety Specifications' document is governed by the "Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), hereinafter referred to as 'The Act'. Notwithstanding this, cognizance should be taken of the fact that no single Act or its set of Regulations can be read in isolation. Furthermore, although the definition of Health and Safety Specifications stipulates 'a documented specification of all health and safety requirements pertaining to associated works on a construction site, so as to ensure the health and safety of persons', it is required that the entire scope of the Labour legislation, including the Basic Conditions of Employment Act be considered as part of the legal compliance system. With reference to this specification document this requirement is limited to all health, safety and environmental issues pertaining to the site of the project as referred to here-in. Despite the foregoing it is reiterated that environmental management shall receive due attention.

Due to the wide scope and definition of construction work, every construction activity and site will be different, and circumstances and conditions may change even on a daily basis. Therefore, due caution is to be taken by the Principal Contractor when drafting the Health and Safety Plan based on these Health and Safety Specifications. Prior to drafting the Health and Safety Plan, and in consideration of the information contained here-in, the contractor shall set up a Risk Assessment Program to identify and determine the scope and details of any risk associated with any hazard at the construction site, in order to identify the steps needed to be taken to remove, reduce or control such hazard. This Risk

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Assessment and the steps identified will be the basis or point of departure for the Health and Safety Plan.

The South African Police Service is tasked to provide accommodation and operational facilities to a very large proportion of its members. A very large number of State employees and public users of the facilities and the services provided there-in directly interacts with the facilities provided by the well-being, health and safety of a great number of people. This Department thus has directly or indirectly, an impact on the Republic of South Africa as well as the National Parliament.

In this a high premium is to be placed on the health and safety of the most valuable assets of the South African Police Service. These are its personnel, the personnel of its Clients and the physical assets of which it is the custodian and may also include the public as well. The responsibilities the Department and relevant stakeholders have toward its employees and other people present in the facilities or on the sites are captured further in this specification document. These responsibilities stem from both moral, civil and a variety of legal obligations. The Principal Contractor is to take due cognizance of the above statement.

Every effort has been made to ensure that this specification document is accurate and adequate in all respects. Should it however, contain any errors or omissions they may not be considered as grounds for claims under the contract for additional reimbursement or extension of time, or relieve the Principal Contractor from his responsibilities and accountability in respect of the project to which this specification document pertains. Any such inaccuracies, inconsistencies and/or inadequacies must immediately be brought to the attention of the Agent and/or Client.

## 2. SCOPE OF HEALTH AND SAFETY SPECIFICATION DOCUMENT

These Specifications should be read in conjunction with the Act, the Construction Regulations and all other Regulations and Safety Standards which were or will be promulgated under the Act or incorporated into the Act and be in force or come into force during the effective duration of the project. The stipulations in this specification, as well as those contained in all other documentation pertaining to the project, including contract

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documentation and technical specifications shall not be interpreted, in any way whatsoever, to countermand or nullify any stipulation of the Act, Regulations and Safety Standards which are promulgated under, or incorporated into the Act.

### 3. PURPOSE

The **South African Police Service** is obligated to implement measures to ensure the health and safety of all people and properties affected under its custodianship or contractual commitments, and is further obligated to monitor that these measures are structured and applied according to the requirements of these Health and Safety Specifications.

The purpose of this specification document is to provide the relevant Principal Contractor (and his /her contractor) with any information other than the standard conditions pertaining to construction sites which might affect the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery; and to protect persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work during the carrying out of construction work for the **South African Police Service**. The Principal Contractor (and his /her contractor) is to be briefed on the significant health and safety aspects of the project and to be provided with information and requirements on inter alia:

- a) Safety considerations affecting the site of the project and its environment;
- b) Health and safety aspects of the associated structures and equipment;
- c) submissions on health and safety matters required from the Principal Contractor (and his /her contractor); and
- d) the Principal Contractor's (and his /her contractor) health & safety plan.

To serve to ensure that the Principal Contractor (and his /her contractor) is fully aware of what is expected from him/her with regard to the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) and the Regulations made there-under including the applicable safety standards, and in particular in terms of Section 6, 7 and 8 of the construction regulation (2014).

- (a) the erection, maintenance, alteration, renovation, repair, demolition or dismantling of or addition to a building or any similar structure;
- (b) the installation, erection, dismantling or maintenance of a fixed plant where such work includes the risk of a person falling;
- (c) the construction, maintenance, demolition or dismantling of any bridge, dam, canal, road, railway, runway, sewer or water reticulation system or any similar civil engineering structure; or
- (d) the moving of earth, clearing of land, the making of an excavation, piling, or any similar type of work;

**Construction Work Permit** – means a document issued by the Provincial Director of Department of Labour

**“Contractor”** – means an employer, as defined in Section 1 of the Act, who performs construction work and includes Principal Contractors.

**“Contract Amount”** Financial value of the contract at the time of the award of the contract, exclusive of all allowance and any value added tax or sales tax which the law requires the employer to pay to the contractor.

**“Practical Completion Certificates”** A certificates issued in terms of a contract by the employer, signifying that the whole of the construction works have reached a state of readiness for occupation or use for the purposes intended, although some minor work may be outstanding.

**“Accident”** – means unplanned occurrence that happens due to the unsafe condition and may cause injury to a person, damage to the property, material, plant, equipment and the environment;

**“Hazard”** – means anything including work activities and practices with the potential to cause harm;

**“Risk”** – means the likelihood that harm will occur and the subsequent consequences.

To inform the Principal Contractor that the Occupational Health and Safety Act, 1993 (Act 85 of 1993) in its entirety shall apply to the contract to which this specification document applies. The Construction Regulations promulgated on 07 February 2014,

### 4. DEFINITIONS - The most important definitions in the Act and Regulations pertaining to this specification document are hereby extracted.

**“Purpose of the Act”** – To provide for the health and safety of persons at work and the health and safety of persons in connection with the use of plant and machinery, the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected therewith.

**“Health & Safety Specification”** – means a document that includes information required under the construction regulation and obtained from the clients & designers during the early planning & design stage for a specific project on a specific site for use by the contractors when preparing their tenders or bids to clients.

**“Health & Safety Plan”** – means a site, activity or project documented plan in accordance with the clients health and safety specification

**“Agent”** – means any person who acts as a representative for a client;

**“Client”** – means any person for whom construction work is performed;

**“Construction Health & Safety Agent (SACPCMP)”** – The person or entity appointed by the client through the Agent and who has a full authority and obligation to act on the clients behalf in terms of the construction regulations;

**“Construction Work”** is defined as any work in connection with –

**“Risk assessment”** – means a process to determine any risk associated with any hazard at a construction site in order to identify the steps needed to be taken to mitigate, reduce or control such hazards.

**Health and Safety File** – means a file, or other record containing the information in writing required by Construction Regulations.

### 5. OCCUPATIONAL HEALTH & SAFETY MANAGEMENT

#### 5.1 Structure and Organization of OH&S Responsibilities

##### 5.1.1. Overall Supervision and Responsibility for OH&S

a) The Client and/or its Agent on its behalf to ensure that the Principal Contractor, appointed in terms of Construction Regulation 5(1)(k), implements and maintains the agreed and approved H&S Plan. Failure on the part of the Client or Agent to comply with this requirement will not relieve the Principal Contractor from any one or more of his/her duties under the Act and Regulations.

b) The Chief Executive Officer of the Principal Contractor in terms of Section 16 (1) of the Act to ensure that the Employer (as defined in the Act) complies with the Act. The pro forma Legal Compliance Audit may be used for this purpose by the Principal Contractor or his/her appointed contractor.

c) All OH&S Act (85 /1993), Section 16 (2) appointee/s as detailed in his/her/their respective appointment forms to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).

d) The Construction Supervisor and Assistant Construction Supervisor/s appointed in terms of Construction Regulation 8 to regularly, in writing, report to their principals on matters of health and safety per routine and ad hoc inspections and on any



deviations as soon as observed, regardless of whether the observation was made during any routine or ad hoc inspection and to ensure that the reports are made available to the principal Contractor to become part of site records (Health & Safety File).

- e) All Health and Safety Representatives (SHE-Reps) shall act and report as per Section 18 of the Act.

#### 5.1.2 Required appointments as per the Construction Regulations:-

Item	Regulation	Appointment	Responsible Person
1.	3.	Application Construction work permit	Client
2.	5(1)(k)	Principal contractor for each phase or project	Client
3.	5(6)	Construction Health & Safety Agent	Client
4.	7(1)(c)	Contractor	Principal Contractor
5.	7(3)	Contractor	Contractor
6.	8(1)	Construction manager	Contractor
7.	8(2)	Assistance Construction manager	Contractor
8.	8(5)	Construction Safety Officer	Contractor
9.	8(7)	Construction Supervisor	Contractor
10.	8(8)	Responsible employee	Contractor
11.	9(1)	Competent risk assessor	Contractor
12.	10(1)	Fall protection planner	Contractor
13.	12(1)	Temporal work designer	Contractor
14.	12(2)	Supervisor of temporal work operation	Contractor
15.	12(3)(F)	Competent temporary works inspector	Contractor
16.	13(1)(a)	Excavation supervisor	Contractor
17.	13(2)(k)	Competent person in the use of explosive for excavations	Contractor
18.	14(1)	Competent demolition supervisor	Contractor
19.	14(11)	Explosives expert	Contractor
20.	16(1)	Scaffold supervisor	Contractor
21.	17(1)	Suspended platform supervisor	Contractor
22.	18(1)a	Rope access Supervisor	Contractor

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23.	19(8)(a)	Material hoist inspector	Contractor
24.	20(1)	Bulk mixing plant supervisor	Contractor
25.	21(2)(b)	Explosive actuated fastening device inspector	Contractor
26.	21(2)(g)	Explosive actuated fastening device cartridge, nails and studs: issuer & collector	Contractor
27.	23 (1)	Operator : construction vehicle and mobile plant	Contractor
28.	28 (a)	Stacking and storage supervisor	Contractor
29.	29 (h)	Fire equipment inspector	Contractor
OTHER APPOINTMENTS			
	ACT /REGULATION	APPOINTMENT	
1	16(1)	CEO	
2	16(2)	Deputy CEO	
3	17	Health and safety representatives	
4	19	Health and Safety committee members	
5	37(2)	Mandatory agreement	
6	GAR 9(2)	Incident investigator	
7	GSR 3	Competent First aider	
8	GSR 5(1)	Competent Confined space inspector	
9	DMR 18(5)(a)	Lifting machine inspector	
10	DMR 18(5)(a)	Lifting machine entity	
11	GMR 2	Supervisor of machinery	

#### 5.2 Communication, Participation & Consultation

5.2.1 Occupational Health & Safety matters/issues shall be communicated between the Employer, the Principal Contractor, the other Contractors, the Designer and other concerned parties shall be through the H&S Committee or other means determined by the client.

5.2.2 In addition to the above, communication may be directly to the Client or his appointed Agent, verbally or in writing, as and when the need arises.

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5.2.3 Consultation with the workforce on OH&S matters will be through their Supervisors and H&S Representatives ('SHE - Reps')

5.2.4 The Principal Contractor will be responsible for the dissemination of all relevant OH&S information to the other Contractors e.g. design changes agreed with the Client and/or its Agent on its behalf and the Designer, instructions by the Client and/or his/her agent, exchange of information between Contractors, the reporting of hazardous/dangerous conditions/situations etc.

#### 6. INTERPRETATION

- a) The Occupational Health and Safety Act and all its Regulations, with the exception of the Construction Regulations, distinguish between the roles, responsibilities and functions of employers and employees respectively. It views consultants and contractors as employees of the "owner" of a construction or operational project, the "owner" being regarded as the employer.
- b) (The position taken by the Construction Regulations is that the "owner", in terms of its instructions, operates (has to operate) in the role of client as per relevant definition. The contractors working for the "client" are seen to be in two categories, i.e. the Principal Contractor and Contractors.
- c) The Principal Contractor has to take full responsibility for the health and safety on the site of the relevant project / contract. This includes monitoring health and safety conditions and overseeing administrative measures required by the Construction Regulations from all contractors on the project site.

#### 7. RESPONSIBILITIES

##### 7.1 Client

- a) The Client or his appointed Agent on his behalf will appoint each Principal Contractor for this project or phase/section of the project in writing for assuming the role of Principal Contractor as intended by the Construction Regulations.

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- b) The Client or his appointed Agent on his behalf shall discuss and negotiate with the Principal Contractor the contents of the health and safety plan of the both Principal Contractor and Contractor for approval.

- c) The Client or his appointed Agent on his behalf will take reasonable steps to ensure that the health and safety plan of both the Principal Contractor and Contractor is implemented and maintained. The steps taken will include periodic audits at intervals of at least once every month.

- d) The Client or his appointed Agent on his behalf, will prevent the Principal Contractor and/or the Contractor from commencing or continuing with construction work should the Principal Contractor and/or the Contractor at any stage in the execution of the works be found to:

- have failed to have complied with any of the administrative measures required by the Construction Regulations in preparation for the construction project or any physical preparations necessary in terms of the Act;
- have failed to implement or maintain their health and safety plan;
- have executed construction work which is not in accordance with their health and safety plan; or
- act in any way which may pose a threat to the health and safety of any person(s) present on the site of the works or in its vicinity, irrespective of him/them being employed or legitimately on the site of the works or in its vicinity.

##### 7.2 Principal Contractor

- a) The Principal Contractor shall accept the appointment under the terms and Conditions of Contract. The Principal Contractor shall sign and agree to those terms and conditions and shall, before commencing work, notify the Department of Labour of the intended construction. Annexure 2 of this construction regulation contains a "Notification of Construction Work" form. The Principal Contractor shall submit the notification in writing prior to commencement of work and inform the Client or his Agent accordingly.

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- b) The Principal Contractor shall ensure that he is fully conversant with the requirements of this Specification and all relevant health and safety legislation.
- c) The Principal Contractor will in no manner or means be absolved from the responsibility to comply with all applicable sections of the Act, the Construction Regulations or any Regulations proclaimed under the Act or which may be applicable to this contract.
- d) The Principal Contractor shall provide and demonstrate to the Client a suitable and sufficiently documented health and safety plan based on this Specification, the Act and the Construction Regulations, which shall be applied from the date of commencement of and for the duration of execution of the works. This plan shall, as appendices, include the health and safety plans of all Sub-contractors for which he has to take responsibility in terms of this contract.
- e) The Principal Contractor shall provide proof of his registration and good standing with the Compensation Fund or with a licensed compensation insurer prior to commencement with the works.
- f) The Potential Principal Contractor shall, in submitting his tender, demonstrate that he has made provision for the cost of compliance with the specified health and safety requirements, the Act and Construction Regulations. (Note: This shall have to be contained in the conditions of tender upon which a tenderer's offer is based.)
- g) The Principal Contractor shall consistently demonstrate his competence and the adequacy of his resources to perform the duties imposed on the Principal Contractor in terms of this Specification, the Act and the Construction Regulations.
- h) The Principal Contractor shall ensure that a copy of his health and safety plan is available on site and is presented upon request to the Client, an Inspector, Employee or Sub-contractor.
- i) The Principal Contractor shall ensure that a health and safety file, which shall include all documentation required in terms of the provisions of this Specification, the Act

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- c) H&S responsibilities: Prior to accepting the H&S agent appointment from clients, H&S agents need to ensure that they brief clients fully on the client's particular responsibilities in terms of the OH&SA of 1993 and Construction Regulations as amended from time to time. In the absence of acceptance by clients of these responsibilities, H&S agents will not be able to adequately meet their own H&S responsibilities and duties.
- d) H&S information: H&S agents must provide the designer or design team with all H&S information to enable them to conduct a design HIRA to identify the significant hazards that need to be included in the H&S specification. This information may be gathered from multiple sources such as, for example, discussion with the client, previous historical use of the site or facility, previous surveys and investigations and past H&S files.

## 8. SCOPE OF WORK

These specifications are applicable to the specific scope of work pertaining to the above-mentioned project as detailed in the tender documents.

Construction Regulation 5(1)(g) determines that potential contractors submitting tenders have made adequate provision for the cost of health and safety measures during the construction process. The Principal Contractor shall on tendering make provision for the cost of health and safety measures in terms of his/her documented Health and Safety Plan and measures based on these Health and Safety Specifications during the period of the project. The cost shall be duly quantified and clearly identified for such identifiable purpose.

## 9. PREPARING A HEALTH & SAFETY PLAN

- (a) The level of detail required for a H&S plan will depend on how complex the workplace is (in particular, the number of contractors at the workplace at any one time) and the risks involved in the work. The plan must be easily accessible in a construction site and it must be clearly understood by management, supervisors & workers on construction site.

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and the Construction Regulations, is opened and kept on site and made available to the Client or Inspector upon request. Upon completion of the works, the Principal Contractor shall hand over a consolidated health and safety file to the Client.

- j) The Principal Contractor shall, throughout execution of the contract, ensure that all conditions imposed on his Sub-contractors in terms of the Act and the Construction Regulations are complied with as if they were the Principal Contractor.
- k) The Principal Contractor shall from time to time evaluate the relevance of the Health and Safety Plan and revise the same as required, following which revised plan shall be submitted to the Client and/or his/her Agent for approval.

## 7.3 Contractor

The contractor must demonstrate to the Principal Contractor that he has the Necessary competencies and resources to perform the construction work safely.

## 7.4 Construction Health & Safety Agent (SACPCMP)

The construction Health & Safety Agent act as a link between the client, Principal Contractor and the project team members with respect to health & Safety. They are Required to ensure that the client carry out its H&S responsibilities in terms of Legislation as well as to co-ordinate and ensure good H&S practices are maintained Throughout the duration of the project. In many cases this role starts from project initiation to project close-out.

- a) H&S competence: In the event that the client is unable to satisfy the requirements of the Construction Regulations for whatever reasons, the construction H&S agent may be appointed to perform these functions on behalf of the client. Given the need to appoint a registered construction H&S agent that is competent and adequately resourced with respect to H&S matters.
- b) H&S goals: It is important that the construction H&S agents demonstrate clearly to clients how they are going to contribute to the achievement of any client H&S goals and objectives. They should also set their own H&S goals.

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- (b) The plan must be implemented, maintained and kept up to date during the construction of the project.

- (c) The principal contractor should prepare a H&S plan that includes

- project information;
- client requirements for H&S management on the project; Environmental restrictions and existing on-site risks arrangements, imposed by others or developed by the principal contractor, to control significant site H&S risks; H&S file & project H&S review.

- (d) The H&S plan should include the following information:

- details of the client, that is the person commissioning the construction work, for example their name, representative and contact details;
- details of the principal contractor;
- details of the construction project, for example address of the workplace, anticipated start and end date and a brief description of the type of construction work that the H&S plan will cover;
- details on how subcontractors will be managed and monitored, including how the principal contractor intends to implement and ensure compliance with the H&S plan such as checking on the performance of subcontractors and how non-compliance will be handled; and
- details on how the risks associated with falls, falling objects, moving plant, electrical work and all high risk construction work that will take place on a construction project will be managed.

- (e) The H&S plan should also include information on:

- the provision and maintenance of a hazardous chemicals register, safety data sheets and hazardous chemicals storage;
- the safe use and storage of plant;
- the development of a construction project traffic management plan;
- obtaining and providing essential services information – electrical, gas, telecom, water and similar services;

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- workplace security and public safety; and
- ensuring workers have appropriate licences and training to undertake the construction work.

(f) The H&S plan must contain:

- a general description of the type of work activities involved in the project and not just a description of the facility to be constructed;
- the project program or schedule details, including start and finish dates, showing principal activities;
- details of client, design team, principal contractor, subcontractors, and major suppliers; and
- extent and location of relevant existing records, surveys, site investigation and geotechnical reports, 'as-built' plans, H&S files.

## 10. HEALTH AND SAFETY FILE

- The H&S file is a document prepared by the principal contractor containing important project H&S information for use by the owner of the completed structure after construction has been completed.
- The principal contractor is responsible for producing an H&S file. It contains important project H&S information for use by the owner of the completed structure after construction has been completed. It is essential that the process of compiling the file commences as early as possible to ensure sufficient time to gather the required information.
- The Principal Contractor must, in terms of Construction Regulation 7(2) (b), keep a Health & Safety File on site at all times that must include all documentation required in terms of the Act and Regulations and must also include a list of all Contractors on site that are accountable to the Principal Contractor and the agreements between the parties and details of work being done. A more detailed list of documents and other legal requirements that must be kept in the Health & Safety File.

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5(1)(f) to ensure that the principal Contractor has implemented, is adhering to and is maintaining the agreed and approved OH&S Plan.

- A representative of the Principal Contractor and the relevant Health and Safety Representative(s) (SHE-Reps) must accompany the Client and/or its Agent on its behalf on all Audits and Inspections and may conduct their own audit/inspection at the same time. Each party will, however, take responsibility for the results of his/her own audit/inspection results. The Client and/or its Agent on its behalf may require to be handed a copy of the minutes of the previous Health and Safety Committee meeting reflecting possible recommendations made by that committee to the Employer for reference purposes.

### 11.1.2 Health & Safety incident/accident reporting & investigations

- The Principal Contractor shall report all incidents where an employee is injured on duty to the extent that he/she:
  - dies
  - becomes unconscious
  - loses a limb or part of a limb
  - is injured or becomes ill to such a degree that he/she is likely either to die or to suffer a permanent physical defect or likely to be unable for a period of at least 14 days either to work or continue with the activity for which he/she was usually employed

OR where:

- a major incident occurred
- the health or safety of any person was endangered
- where a dangerous substance was spilled
- the uncontrolled release of any substance under pressure took place
- machinery or any part of machinery fractured or failed resulting in flying, falling or uncontrolled moving objects

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d) The contractor must ensure that the client's format and layout of the H&S file is adhered to. The contractor must identify the responsible person that will prepare the H&S file and who will be responsible for the drafting of as-built drawings. The contractor must establish procedures:

- The Health and Safety File will remain the property of the Client and/or its Agent on its behalf throughout the period of the project and shall be consolidated and handed over to the Client and/or its Agent on its behalf at the time of completion of the project.

## 11. OH&S GOALS AND OBJECTIVES AND ARRANGEMENTS FOR MONITORING AND REVIEWING OH&S PERFORMANCE

The Principal Contractor is required to maintain an acceptable disabling incident frequency rate (DIFR) and report on this to the Client and/or its Agent on its behalf on a monthly basis.

### 11.1 IDENTIFICATION OF HAZARDS AND DEVELOPMENT OF RISK ASSESSMENTS, STANDARD WORKING PROCEDURES (SWP) AND METHOD STATEMENTS

The Principal Contractor is required to develop Risk Assessments, Standard Working Procedures (SWP) and Method Statements for each activity executed in the contract or project.

The identification of hazards is over and above the hazards identification programme and those hazards identified during the drafting of the Health and Safety Plan.

#### 11.1.1 Monthly Audit by Client and/or its Agent.

The Client and/or its Agent on its behalf will be conducting Periodic Audits at times agreed with the Principal Contractor Audit to comply with Construction Regulation

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vi. Machinery ran out of control, to the Provincial Director of the Department of Labour within seven days and at the same time to the Client and/or its Agent on its behalf.

- The Principal Contractor is required to provide the Client and/or its Agent on its behalf with copies of all statutory reports required in terms of the Act and the Regulations.
- The Principal Contractor is required to provide the Client and/or its Agent on its behalf with a monthly "SHE Risk Management Report".
- The Principal Contractor is required to provide a.s.a.p. the Client and/or its Agent on its behalf with copies of all internal and external accident/incident investigation reports. The Principal Contractor is responsible to oversee the investigation of all accidents/incidents where employees and non-employees were injured to the extent that he/she/they had to receive first aid or be referred for medical treatment by a doctor, hospital or clinic. (General Administrative Regulation 9)
- The results of the investigation to be entered into the Accident/Incident Register listed above. (General Administrative Regulation 9)
- The Principal Contractor is responsible for the investigation of all non-injury incidents as described in Section 24 (1) (b) & (c) of the Act and keeping a record of the results of such investigations including the steps taken to prevent similar incidents in future.
- The Principal Contractor is responsible for the investigation of all accidents relating to the construction site and keeping a record of the results of such investigations including the steps taken to prevent similar accidents in future.

- Notwithstanding the requirements of Section 24 of the Act, ALL incidents shall be investigated and reported on in writing, irrespective of whether such incident gave rise to injury or damage.

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#### (i) Reporting Of Near-Misses

- **South African Police Service** views the reporting of near misses as a critical component in creating a positive health and safety awareness culture on site.
- **South African Police Service** retains the right to enforce the reporting of near misses within 24 hours of occurrence.

### 12. Review

The Principal Contractor is to review the Hazard Identification, Risk Assessments and Standard Work Processes at each Production Planning and Progress Report meeting as the construction work develops and progresses and each time changes are made to the designs, plans and construction methods and processes.

The Principal Contractor must provide the Client and/or its Agent on its behalf, other Contractors and all other concerned parties with copies of any changes, alterations or amendments as contemplated in the above paragraph.

### 12.1 Site Rules and other Restrictions

#### a) Site OH&S Rules

The Principal Contractor must develop a set of site-specific OH&S rules that will be applied to regulate the Health and Safety Plan and associated aspects of the construction. When required for a site by law, visitors and non-employees upon entering the site shall be issued with the proper Personal Protective Equipment (PPE) as and when necessary.

- H&S Representatives must form part of the incident/accident investigating team.

#### 12.1.3 Establishment of H&S Committee(s)

- The Principal Contractor must establish H&S Committees consisting of designated H&S Representatives together with a number of Employers Representatives appointed as per Section 19(3) that are not allowed to exceed the number of H&S Representatives on the committee.
- The persons nominated by the employer on a H&S Committee must be designated in writing for such period as may be determined by him. The H&S Committee shall co-opt advisory (temporary) members and determine the procedures of the meetings including the chairmanship.
- The H&S Committee must meet minimum monthly and consider, at least, an agreed Agenda for the first meeting. Thereafter the H&S Committee shall determine its own procedures.

#### 12.1.4 Training & Awareness

The contents and syllabi of all training required by the Act and Regulations including any other related or relevant training as required must be included in the Principal Contractor's Health and Safety Plan and Health and Safety File.

##### a) Training & Induction

All employees performing work or task on site that potentially impact on H&S must be competent & have the necessary appropriate education, training & experience.

All the training must be closely aligned with the risk profile of the project; procedures must be put in place to ensure that all workers are aware of the consequences of their work activities & benefits of improved H&S performance.

All employees of the Principal and other Contractors must be in possession of proof of General Induction training

#### b) Security Arrangements

The Principal Contractor must establish site access rules and implement and maintain these throughout the construction period. Access control must include the rule that non-employees shall at all times be provided with fulltime supervision while on site. The Principal Contractor must develop a set of Security rules and procedures and maintain these throughout the construction period.

If not already tasked to the H&S Officer appointed in terms of Construction Regulation, the Principal Contractor must appoint a competent person who must develop contingency plans for any emergency that may arise on site as indicated by the risk assessments.

### 12.1.1 Appointment of Health & Safety Representatives

#### a) H&S Representatives("SHE – Reps")

Where the Principal Contractor employs more than 20 persons (including the employees of other Contractors (sub-contractors) he has to appoint one H&S Representatives for every 50 employees or part thereof. (Section 17 of the Act and General Administrative Regulation 6. & 7.)

H&S Representatives must be appointed in writing and the designation shall be in accordance with the Collective Agreement as concluded between the parties as is required in terms of General Administration Regulation 6.

### 12.1.2 Duties and Functions of the H&S Representatives

- The Principal Contractor must ensure that the designated H&S Representatives conduct at least a weekly inspection of their respective areas of responsibility using a checklist developed by a Principal Contractor.
- The report must be consolidated and submitted to the Health & Safety Committee.

#### b) Site Specific Induction Training

All employees of the Principal and other Contractors must be in possession of Site Specific Occupational Health and Safety Induction or other qualifying training.

#### c) Other Training

All operators, drivers and users of construction vehicles, mobile plant and other equipment must be in possession of valid proof of training.

## 13. PROJECT/SITE SPECIFIC REQUIREMENTS

The following is a list of specific activities and considerations that have been identified for the project and site and for which Risk Assessments, Standard Working Procedures (SWP), management and control measures and Method Statements (where necessary) have to be developed by the Principal Contractor:

- a) Clearing & grubbing the area/site
- b) Site establishment
- c) Dealing with existing structures
- d) Location of existing services
- e) Boundary & Access control/Public liability exposures
- f) Protection against heat exhaustion, dehydration, wet & cold conditions
- g) Dealing with HIV & aids other related diseases
- h) Use of portable electrical & explosive tools
- i) Any Excavation work and **Demolition work**
- j) Any welding work
- k) Loading & offloading of trucks
- l) Driving & operations of Construction vehicles & mobile plant
- m) Temporal works and
- n) Construction work as defined in the construction regulation 2014

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14. OUTLINED DATA, REFERENCES AND INFORMATION ON CERTAIN AND/OR SPECIFIC OBLIGATORY REQUIREMENTS TO ENSURE COMPLIANCE

Administrative & Legal Requirements

OHS Act Section/ Regulation	Subject	Requirements
Construction, Regulation 4	Notice of carrying out Construction work	<ul style="list-style-type: none"> <li>Department of Labour notified</li> <li>Copy of Notice available on Site</li> </ul>
General Admin. Regulation 4	Copy of OH&S Act (Act 85 of 1993)	<ul style="list-style-type: none"> <li>Updated copy of Act &amp; Regulations on site.</li> <li>Readily available for perusal by employees.</li> </ul>
COID Act Section 80	Registration with Compensation Insurer	<ul style="list-style-type: none"> <li>Written proof of registration/Letter of good standing available on Site</li> </ul>
Construction Regulation 6 & 7(1)	H&S Specification & Programme	<ul style="list-style-type: none"> <li>H&amp;S Spec received from Client and/or its Agent on its behalf</li> <li>OH&amp;S programme developed &amp; Updated regularly</li> </ul>
Section 8(2)(d) Construction Regulation 9	Hazard Identification & Risk Assessment	<ul style="list-style-type: none"> <li>Hazard Identification carried out/Recorded</li> <li>Risk Assessment and – Plan drawn up/Updated</li> <li>RA Plan available on Site</li> <li>Employees/Sub-Contractors informed/trained</li> </ul>
Section 16(2)	Assigned duties (Managers)	<ul style="list-style-type: none"> <li>Responsibility of complying with the OH&amp;S Act assigned to other persons by CEO</li> </ul>
Construction Regulation 8(1)	Designation of Person Responsible on Site	<ul style="list-style-type: none"> <li>Competent person appointed in writing as Construction Supervisor with job description</li> </ul>
Construction Regulation 8(2)	Designation of Assistant for above	<ul style="list-style-type: none"> <li>Competent person appointed in writing as Assistant Construction Supervisor with job description</li> </ul>
Section 17 & 18 General Administrative Regulations 6 & 7	Designation of Health & Safety Representatives	<ul style="list-style-type: none"> <li>More than 20 employees - one H&amp;S Representative, one additional H&amp;S Rep. for each 50 employees or part thereof</li> <li>Designation in writing, period and area of responsibility specified in terms of GAR 6 &amp; 7</li> <li>Meaningful H&amp;S Rep. reports.</li> <li>Reports actioned by Management.</li> </ul>

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Section 19 & 20 General Administrative Regulations 5	Health & Safety Committee/s	<ul style="list-style-type: none"> <li>H&amp;S Committee/s established.</li> <li>All H&amp;S Reps shall be members of H&amp;S Committee/s</li> <li>Additional members are appointed in writing.</li> <li>Meetings held monthly, Minutes kept.</li> <li>Actioned by Management.</li> </ul>
Section 37(1) & (2)	Agreement with Mandatories/ (Sub-)Contractors	<ul style="list-style-type: none"> <li>Written agreement with (Sub-)Contractors</li> <li>List of Sub-Contractors displayed.</li> <li>Proof of Registration with Compensation Insurer/Letter of Good Standing</li> <li>Construction Supervisor designated</li> <li>Written arrangements re.</li> <li>H&amp;S Reps &amp; H&amp;S Committee</li> <li>Written arrangements re. First Aid</li> </ul>
Section 24 & General Admin. Regulation 8 COID Act Sect 38, 39 & 41	Reporting of Incidents (Dept. of Labour)	<ul style="list-style-type: none"> <li>Incident Reporting Procedure displayed.</li> <li>All incidents in terms of Sect. 24 reported to the Provincial Director, Department of Labour, within 3 days. (Annexure 1)(WCL 1 or 2) and to the Client and/or its Agent on its behalf.</li> <li>Cases of Occupational Disease Reported</li> <li>Copies of Reports available on Site</li> <li>Record of First Aid Injuries kept</li> </ul>
General Admin. Regulation 9	Investigation and Recording of Incidents	<ul style="list-style-type: none"> <li>All injuries which resulted in the person receiving medical treatment other than first aid, recorded and investigated by investigator designated in writing.</li> <li>Copies of Reports (Annexure 1) available on Site</li> <li>Tabled at H&amp;S Committee meeting</li> <li>Action taken by Site Management</li> </ul>
Construction Regulation 10	Fall Prevention & Protection	<ul style="list-style-type: none"> <li>Competent person appointed to draw up the Fall Protection Plan</li> <li>Proof of appointees competence available on Site</li> <li>Risk Assessment carried out for work at heights</li> <li>Fall Protection Plan drawn up/updated</li> <li>Available on Site</li> </ul>
Construction Regulation 20 Driven Machinery	Cranes & Lifting Machines/Equipment	<ul style="list-style-type: none"> <li>Competent person appointed in writing to inspect Cranes, Lifting Machines &amp; Equipment</li> <li>Written Proof of Competence of above appointee available on Site.</li> </ul>

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Regulations 18		<ul style="list-style-type: none"> <li>Cranes &amp; Lifting tackle identified/numbered</li> <li>Register kept for Lifting Tackle</li> <li>Log Book kept for each individual Crane</li> <li>Inspection: - All cranes - daily by operator</li> <li>- Tower Cranes/ - after erection/monthly</li> <li>- Other cranes - annually by comp. person</li> <li>- Lifting tackle(slings/ropes/chain slings etc.) - daily or before every new application</li> </ul>
General Safety Regulation 8(1)(a)	Designation of Stacking & Storage Supervisor	<ul style="list-style-type: none"> <li>Competent Person/s with specific knowledge and experience designated to supervise all Stacking &amp; Storage</li> <li>Written Proof of Competence of above appointee available on Site</li> </ul>
Construction Regulation Environmental Regulation 9	Designation of a Person to Co-ordinate Emergency Planning And Fire Protection	<ul style="list-style-type: none"> <li>Person/s with specific knowledge and experience designated to co-ordinate emergency contingency planning and execution and fire prevention measures</li> <li>Emergency Evacuation Plan developed: <ul style="list-style-type: none"> <li>Drilled/Practiced</li> <li>Plan &amp; Records of Drills/Practices available on Site</li> </ul> </li> <li>Fire Risk Assessment carried out</li> <li>All Fire Extinguishing Equipment identified and on register.</li> <li>Inspected weekly. Inspection Register kept</li> <li>Serviced annually</li> </ul>
General Safety Regulation 3	First Aid	<ul style="list-style-type: none"> <li>Every workplace provided with sufficient number of First Aid boxes. (Required where 5 persons or more are employed)</li> <li>First Aid freely available</li> <li>Equipment as per the list in the OH&amp;S Act.</li> <li>One qualified First Aider appointed for every 50 employees. (Required where more than 10 persons are employed)</li> <li>List of First Aid Officials and Certificates</li> <li>Name of person/s in charge of First Aid boxes displayed.</li> <li>Location of First Aid boxes clearly indicated.</li> <li>Signs instructing employees to report all</li> <li>Injuries/illness including first aid injuries</li> </ul>

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General Safety Regulation 2	Personal Safety Equipment (PSE)	<ul style="list-style-type: none"> <li>PSE Risk Assessment carried out</li> <li>Items of PSE prescribed/use enforced</li> <li>Records of Issue kept</li> <li>Undertaking by Employee to use/wear PSE</li> <li>PSE remain property of Employer, not to be removed from premises GSR 2(a)</li> </ul>
General Safety Regulation 9	Inspection & Use of Welding/Flame Cutting Equipment	<ul style="list-style-type: none"> <li>Competent Person/s with specific knowledge and experience designated to inspect Electric Arc, Gas Welding and Flame Cutting Equipment</li> <li>Written Proof of Competence of above appointee available on Site</li> <li>All new vessels checked for leaks, leaking vessels NOT taken into stock but returned to supplier immediately</li> <li>Equipment identified/numbered and entered into a register</li> <li>Equipment inspected weekly. Inspection Register kept</li> <li>Separate purpose made storage available for full and empty vessels</li> </ul>
General Safety Regulation 13A	Inspection of Ladders	<ul style="list-style-type: none"> <li>Competent person appointed in writing to inspect Ladders</li> <li>Ladders inspected at arrival on site and weekly thereafter. Inspections register kept</li> <li>Application of the types of ladders (wooden, aluminium etc.) regulated by training and inspections and noted in register</li> </ul>
General Safety regulation 13B	Ramps	<ul style="list-style-type: none"> <li>Competent person appointed in writing to supervise the erection &amp; inspection of Ramps. Inspection register kept.</li> <li>Daily inspected and noted in register</li> </ul>

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## 15. THE PRINCIPAL CONTRACTOR'S GENERAL DUTIES

- The Principal Contractor shall at all times ensure his status of an "employer" as referred to in the Act, and will abide by his/her responsibilities, duties and functions as per the requirements of the Act and Regulations with specific reference to Section 8 of the Act.
- The Principal Contractor shall keep, and on demand make available, a copy of the Act on site at all times and in addition to that he/she will introduce and maintain a file titled "Health and Safety File", or other record in permanent form, which shall contain all relevant aspects and information as contemplated in the Construction Regulations. He/she will make this file available to the client or his representative whenever necessary or on request to an interested party.
- The project under control of the Principal Contractor shall be subject to periodic health and safety audits that will be conducted by the client at intervals agreed upon between the Principal Contractor and the client, provided such intervals will not exceed periods of one month.
- The Principal Contractor is to ensure that he/she and all persons under his control on the construction site shall adhere to the above specifications.
- The Principal Contractor should note that he/she shall be held liable for any anomalies including costs and resulting deficiencies due to delays caused by non-conformance and/or non-compliance to the above Health and Safety Specifications and the Health and Safety Plan based on these specifications.

## 16. THE PRINCIPAL CONTRACTOR'S SPECIFIC DUTIES

The Principal Contractor's specific duties in terms of these specifications are detailed in the Construction Regulations as published under government notice 07 February 2014, stipulated in Section 7.

## 17. THE PRINCIPAL CONTRACTOR'S SPECIFIC RESPONSIBILITIES WITH REGARD TO HAZARDOUS ACTIVITIES

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- d. The National Building Regulations and Building Standards Act 1977 (Act 103 of 1977) as amended and relevant proclaimed Regulations (SABS 0400)
- e. The Post Office Act 1958 (Act 44 of 1958) as amended
- f. The Electricity Act 1984, Act 41 of 1984
- g. The Regulations of Local Gas Board(s), including Publications of the SABS Standards and Codes of Practice, with specific reference to GNR 17468 dated 4<sup>th</sup> October 1997
- h. Legislation pertaining to water usage and the environment
- i. Legislation governing the use of equipment, which may emit radiation (e.g. X-Rays etc.)
- j. Common Law

## 19. HOUSEKEEPING

Good housekeeping will be maintained at all times as per Construction Regulation No. 27. Poor housekeeping contributes to three major problems, namely, costly or increased accidents, fire or fire hazards and reduction in production. Good housekeeping will enhance production time.

In promotion of environmental control all waste, rubble, scrap etc. will be disposed of at a registered dump site and records will be maintained. Where it is found to be impractical to use a registered dump site or it is not available, the Principal Contractor will ensure that the matter is brought to record with the client or his representative, after which suitable, acceptable alternatives will be sought and applied.

Dross and refuse from metals, and waste matters or by-products whose nature is such that they are poisonous or capable of fermentation, putrefaction or constituting a nuisance shall be treated or disposed of by methods approved of by an inspector.

NOTE: No employer (Principal Contractor) shall require or permit any person to work at night or after hours unless there is adequate, suitable artificial lighting including support services in respect of Health and Safety.

The following examples of activities are identifiable as hazardous in terms of the Construction Regulations. The contractor shall execute the activities in accordance with the following Construction Regulations and other applicable regulations of the Act:

- Fall protection
- Structures
- Excavation work
- Demolition work
- Scaffolding
- Construction vehicles & mobile plant
- Water environments
- Housekeeping on construction sites
- Fire precautions on construction sites.

This list must not be taken to be exclusive or exhaustive! All of the above requirements will be read in conjunction with the relevant regulations and health and safety standards as required by the Act. All documents and records required by the Construction Regulations will be kept in the Health and Safety File and will be made available at any time when required by the client or his representative, or on request to an interested party.

## 18. GENERAL NOTES TO THE PRINCIPAL CONTRACTOR

### Legal Framework

#### Part of legal obligations

The more important Acts and relevant subordinate/secondary legislation as well as other (inter alia Local Government) legislation that also apply to the State as well as to State owned buildings and premises: -

- a. The latest issue of SABS 0142: "Code of Practice for the Wiring of Premises"
- b. The Local Government Ordinance 1939 (Ordinance 17 of 1939) as amended and the municipal by-laws and any special requirements of the local supply authority
- c. The Fire Brigade Services Act 1987, Act 99 of 1987 as amended

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## 20. FACILITIES

The site establishment plan shall make provision for:

### 20.1 Dining room facilities

The contractor shall make provision for adequate dining room facilities for his employees on site.

### 20.2 Change rooms

The contractor shall make provision for adequate change rooms for his employees on site.

### 20.3 Ablution facilities

The contractor shall make provision for adequate ablution facilities for his employees on site.

### 20.4 Smoking Areas

Designated smoking areas shall be established by Principal Contractor

### 20.5 Drinking Water Facilities

The provision of drinking water facilities shall be negotiated between the Contractor and client.

### 20.6 Equipment Compliance Certificates

Before equipment is brought on site valid certificates of compliance issued by a competent person shall be presented. The equipment includes but shall not be limited to:

- i. lifting equipment and lifting tackle
- ii. power driven machinery
- iii. electrical equipment
- iv. testing and monitoring equipment

## 20.7 Barricading

All barricading shall be of the rigid type unless the use of non-rigid barricading has been approved in writing by South African Police Service Project Manager. The contractors' barricading standard shall be included in the Health and Safety Plan.

Where more than one contractor is working on a site, the fixed barricading shall be clearly marked with the company's name, site contact person as well as the contact number/s.

## 20.8 Erection of Structures for Logistic Support

Prior to site establishment South African Police Service shall approve the contractor's site plan.

South African Police Service shall approve all structures erected for logistical support by the contractor. These structures include fences, workshops, tool sheds, offices, ablution facilities, etc.

## 20.9 Salvage Yard Management

Depending on the site specific arrangements and procedures, South African Police Service may provide the salvage yard and the resources to manage it.

The salvage yard management shall conform to safety, health and environmental requirements. The contractors are required to move the equipment from the place of work to the salvage yard.

## 20.10 Fall Arrest and Prevention Equipment

Approved fall prevention equipment shall be used at heights of less than 2.0 metres. Above heights of 2.0 metres fall prevention equipment shall include fall arrest Equipment. Users of fall arrest equipment shall, amongst other things be trained in what an appropriate load bearing point is for connecting fall prevention equipment. Any deviation from this requirement shall be negotiated and agreed with South African Police Service in writing.

- 1) an evaluation of the method of the work to be conducted
- 2) the method statement on the procedure to be followed in performing the task shall be developed
- 3) the risk assessment will also include activities like:
  - i. Transportation of passengers and goods to and from site
  - ii. Site establishment
  - iii. Physical and mental capabilities of employees
  - iv. Others as may be specified.
- 4) the hazards as listed in the paragraph – Site Specific Health and Safety Hazards
- 5) a review plan for risk assessments shall provide for:
  - i. the quarterly review of all applicable risk assessments
  - ii. the review of an assessment if there is reason to believe that the previous assessment is no longer valid, or there has been a change in a process, work methods, equipment or procedures and working conditions
  - iii. Risk assessment/s to be reviewed if the outcome of incident investigations and audits etc. requires such action.

A pre - task risk assessment shall be conducted in writing on every task and be facilitated by the team leader. All risk assessments and pre-task risk assessments shall be filed and be available on site.

### b) Risk Profile

All contractors shall submit a risk profile of the work to be conducted with their Health and Safety Plan.

### c) Risk Based Inspection Program

The inspection programme shall be risk based. The inspection plan shall form part of the Health and Safety Plan.

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## 20.11 Hazardous Chemical Substances Waste Removal

South African Police Service shall provide a facility to collect all hazardous chemical waste material. The contractor shall provide adequately marked and sealable containers to transport the hazardous chemical waste from the source to the approved South African Police Service disposal point.

## 20.12 Personal Protective Equipment (PPE)

Personal protective equipment issued shall be specific to the risks associated with the work to be performed and specific to conditions on site and shall comply with South African National Standards (SANS).

## 21. LOCKOUT SYSTEMS

A system of control shall be established in order that no unauthorized person can energize a circuit, open a valve, or activate a machine on which people are working or doing maintenance, even if equipment, plant or machinery is out of commission for any period, thus eliminating injuries and damage to people and equipment as far as is reasonably practicable.

Physical/mechanical lock-out systems shall be part of the safety system and included in training. Lockouts shall be tagged and the system tested before commencing with any work or repairs.

## 22. IMPORTANT LISTS AND RECORDS TO BE KEPT

The following are lists of several records that are to be kept in terms of the Construction Regulations. The lists are:

- i. List of appointments
- ii. List of record keeping responsibilities
- iii. Inspection checklist

### a) Contractor Risk Assessment Process

The risk assessment process shall include:

## IMPORTANT CONTACT DETAILS

### (FOR HEALTH & SAFETY ASPECTS ONLY)

The contractor is to add all the important contact information about essentials services, support and assistance.

	SERVICE	NUMBER	CONTACT PERSON
	Hospital		
	Ambulance		
	Water Electricity		
	Police		
	Fire Brigade		
	Engineer		



SECTION 37(2) AGREEMENTS  
CONCLUDED BETWEEN  
SOUTH AFRICAN POLICE SERVICE  
(Hereinafter referred to as South African Police Service)

AND

(Name of contractor/supplier/Agent/)

I, ..... [name] representing ..... [insert name of contractor/supplier], do hereby acknowledge that ..... [insert name of contractor/supplier] is an employer in his/her own right, with duties as prescribed in the Occupational Health and Safety Act No. 85 of 1993 ("the Act"), as amended, and agree to ensure that all work will be performed and/or machinery or plant used in accordance with the provisions of the Act.

I undertake that ..... [insert name of contractor/supplier] shall strictly adhere to, and ensure that his/her employees adhere to, the provisions of the Occupational Health and Safety Act, 1993 (Act 85 of 1993).

I have been provided with SHE specifications for project/service ..... [insert brief details of project/service, for example, name, contract/project number] ..... and will comply with the requirements set out in these.

I accept and agree that the SHE specifications constitute arrangements and procedures between ..... [insert name of contractor/supplier/Agent Safety Manager/Safety Officer] and South African Police Service which will ensure compliance by ..... [insert name of contractor/supplier] with the provisions of the Act, as contemplated in section 37(2) of the Act.

This agreement constitutes the sole agreement between the parties, and no variation, modification, or waiver of any of the provisions of this agreement or consent to any departure from these shall, in any manner, be of any force or effect, unless confirmed in writing and signed by both parties, and

such variation, modification, waiver, or consent shall be effective only in the specific instance and for the specific purpose and to the extent for which it was made or given.

This agreement is signed on behalf of the parties, each signatory to this warranting that he/she has the requisite authority to do so.

Signed this ..... day of ..... 20 ..... at

..... (Place)

(Full name) ..... (Signature) ..... on

behalf of ..... (Supplier/contractor/Agent)

Contractor Responsible Manager (responsible for signing the South African Police Service contract on behalf of the contractor)

Witnesses

1. ....

2. ....

Signed this ..... day of ..... 20 .....

at ..... (Place)

(Full name) ..... (Signature) ..... on

Behalf of South African Police Service.

(Contracts and/or Project Manager or South African Police Service representative)

Witnesses

1. ....

2. ....

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PROJECT: .....  
(full name AND site address of project)  
(and full or proper description of project)

WCS NO: ..... (works control system number)

SUPERVISION BY THE SOUTH AFRICAN POLICE SERVICE:

Mr /Ms/Me - CONSTRUCTION PROJECT MANAGER  
(add full details of the project manager)

Mr /Ms/Me - CONSTRUCTION MANAGER  
(add full details)

Mr /Ms/Me AGENT:  
(full particulars of agent)

SUPERVISION BY THE PRINCIPAL CONTRACTOR:

PRINCIPAL CONTRACTOR: (full particulars of principle contractor / contractor)

Mr /Ms/Me - CONSTRUCTION HEALTH & SAFETY OFFICER  
(add full details and contact of this officer)

Mr /Ms/Me - CONSTRUCTION HEALTH & SAFETY MANAGER  
(add full details of this officer)

Mr /Ms/Me

\*\*\*\*\*

- CONSTRUCTION MANAGER  
(add full details of the head of the project)

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