

42.2.4 [41.0]	Specific options that are applicable to a State organ only Where so :
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Tender no:

[1.1 #] [31.11.2 #] [31.12.2 #]	1) Interest rate legislation: The interest rate applicable will be as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999)																																												
[11.2. #]	2) Lateral support insurance to be effected by the contractor: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																												
[31.4.2 #]	3) Payment will be made for materials and goods Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																																												
[40.2.2. #]	4) Dispute resolution by litigation Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																												
[26.1.2 #]	5) Extended defects liability period applicable to the following elements:																																												
42.2.6 [15.3]	Period for the commencement of the works after the contractor takes possession of the site : One (1) working day .																																												
42.2.7 [24.3.1] [30.1]	<p>For the works as a whole:</p> <p>The date for practical completion shall be (11) months from the commencement date and the penalty per calendar day shall be calculated proportionally on the contract value of each phase of the project.</p> <p>CALCULATION OF PENALTIES PER DAY (EXCLUDING VAT)</p> <table border="1"> <thead> <tr> <th>CONTRACT PERIOD</th> <th>RATE FOR R100 OF CONTRACT VALUE</th> </tr> </thead> <tbody> <tr><td>1 month</td><td>27,5 cents</td></tr> <tr><td>1,5 months</td><td>22 cents</td></tr> <tr><td>2 months</td><td>16,5 cents</td></tr> <tr><td>2,5 months</td><td>13,5 cents</td></tr> <tr><td>3 months</td><td>11 cents</td></tr> <tr><td>3,5 months</td><td>9,5 cents</td></tr> <tr><td>4 months</td><td>8,5 cents</td></tr> <tr><td>4,5 months</td><td>7,5 cents</td></tr> <tr><td>5 months</td><td>6,25 cents</td></tr> <tr><td>6 months</td><td>5,75 cents</td></tr> <tr><td>7 months</td><td>4,75 cents</td></tr> <tr><td>8 months</td><td>4 cents</td></tr> <tr><td>9 months</td><td>3,75 cents</td></tr> <tr><td>10 months</td><td>3,5 cents</td></tr> <tr><td>11 months</td><td>3 cents</td></tr> <tr><td>12 months</td><td>2,75 cents</td></tr> <tr><td>14 months</td><td>2,5 cents</td></tr> <tr><td>15 months</td><td>2,25 cents</td></tr> <tr><td>16 months</td><td>2 cents</td></tr> <tr><td>18 months</td><td>1,75 cents</td></tr> <tr><td>20 months</td><td>1,5 cents</td></tr> </tbody> </table>	CONTRACT PERIOD	RATE FOR R100 OF CONTRACT VALUE	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
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	24 months	1,25 cents
	30 months	1 cent
	36 months	1 cent
	42 months	1 cent
PENALTY PER DAY ROUNDED OFF AS FOLLOWS		
	R0 – R500	Nearest R5
	R501 - R1 000	Nearest R10
	R1001 – R5 000	Nearest R50
	R5 001 and above	Nearest R100
42.2.8	For the works in sections :	
[24.3.1] [28.1]	The date for practical completion from the commencement date and the penalty per calendar day :	
	Section 1: N/A	
	N/A	
	Section 2: N/A	
	N/A	
	Section 3: N/A	
	N/A	
	Section 4: N/A	
	N/A	
	Section 5: N/A	
	N/A	
	Section 6: N/A	
	N/A	
42.2.9 [1.2]	The law applicable to this agreement shall be that of the: Republic of South Africa	

Tender no:

42.3	INSURANCES
42.3.1 [10.1 #, 10.2 # 12.1 #]	<p>Contract works insurance to be effected by the contractor</p> <p><input checked="" type="checkbox"/> To the minimum value of the contract sum plus 20%</p> <p>With a deductible not exceeding 10% of each and every claim</p> <p>Or</p> <p><input type="checkbox"/> For the minimum sum of R ()</p> <p>With a deductible not exceeding 5% of each and every claim</p>
42.3.2 [10.1 #, 10.2 #, 12.1 #]	<p>Supplementary insurance is required: Yes</p> <p>To the minimum value of the contract sum plus 10 %</p>
42.3.3 [11.1 #, 12.1 #]	<p>Public liability insurance to be effected by the contractor</p> <p><input checked="" type="checkbox"/> For the sum of R 5 million</p> <p>With a deductible not exceeding 5% of each and every claim</p> <p>Or</p> <p><input type="checkbox"/> For the sum of R ()</p> <p>With a deductible not exceeding 5% of each and every claim</p>
42.3.4 [11.2 #, 12.1 #]	<p>Support insurance to be effected by the contractor</p> <p>For the sum of R ()</p> <p>With a deductible of R ()</p>

42.4	DOCUMENTS
42.4.2 [3.7]	Three (3) copies of the construction documents will be supplied to the contractor free of charge
42.4.3	<p>Bills of quantities / Lump sum document schedule of rates drawn up in accordance with:</p> <p><input checked="" type="checkbox"/> Standard System of Measuring Building Work (sixth edition as amended)</p> <p>Or</p> <p><input type="checkbox"/> Standard System of Measuring Building Work for Small or Simple Buildings 1999</p> <p>Or</p> <p><input type="checkbox"/> Other (<i>specify</i>)</p>
42.4.5 [3.4]	JBCC Engineering General Conditions are to be included in the contract documents : No

42.4.6 [31.5.3]	The contract value is to be adjusted using CPAP indices: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
[32.13]	<p>Where CPAP is applicable, the contract sum will be adjusted in accordance with the JBCC Contract Price Adjustment Provisions (CPAP) as set out in the CPAP Indices Application Manual as prepared by the JBCC Series 2000, code 2118, dated May 2005 and any amendments thereto:</p> <ol style="list-style-type: none"> 1) Glass etc. measured in specialist section Metalwork, will be adjusted in terms of the index for that work group unless specifically stated otherwise in the bills of quantities 2) All electrical installations in buildings and power distribution systems shall be adjusted in terms of the index for Work Group 160 Electrical Installation. In case of uninterruptible power supplies, elevators, escalators and hoists, generating sets, motor-alternator sets and intercommunication systems shall be in accordance with Work Group 170 3) With reference to Work Group 190 a proportion of the value related preliminaries pro rata to the amount of work excluded from adjustment, shall be excluded from Contract Price Adjustment Provisions, if Option A has been selected for the adjustment of preliminaries 4) Further to clause 3.4.4 of the CPAP Indices Application Manual, the listing of additional items for exclusion by tenderers, will not be permitted 5) Where V results in a negative amount after application of the formula in clause 8.3 of the CPAP Indices Application Manual the factor of 0,55 shall be substituted by 1,45 <p>Alternative Indices: Not Applicable</p>
42.4.7 [3.10]	<p>Details of changes made to the provisions of JBCC standard documentation</p> <p>Clause</p> <p>1.1 COMMENCEMENT DATE – means the date that the agreement, made in terms of the Form of Offer and Acceptance, comes into effect</p> <p>CONSTRUCTION GUARANTEE – means a guarantee at call obtained by the contractor from an institution approved by the employer in terms of the employer's construction guarantee form as selected in the schedule</p> <p>CONSTRUCTION PERIOD – means the period commencing on the commencement date and ending on the date of practical completion</p> <p>CORRUPT PRACTICE – means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the acquisition process or in contract execution</p> <p>FRAUDULENT PRACTICE – means a misrepresentation of facts in order to influence a acquisition process or the execution of a contract to the detriment of any tenderer, and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition</p> <p>INTEREST – the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act, 1999 (Act No. 1 of 1999)</p> <p>PRINCIPAL AGENT – means the person or entity appointed by the employer and named in the schedule. In the event of a principal agent not being appointed, then all the duties and obligations of a principal agent as detailed in the agreement shall be fulfilled by a representative of the employer as named in the schedule</p>

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	<p>SECURITY – means the form of security provided by the employer or contractor, as stated in the schedule, from which the contractor or employer may recover expense or loss</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:
1.6.4	No clause
3.2.1	A construction guarantee in terms of 14.0, where so elected in his tender
3.7	Add at the end thereof:
	The contractor shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site , to which the employer , principal agent and agents shall have access at all times.
3.10	Replace the second reference to " principal agent " with the word " employer "
4.3	No clause
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 employer has retained its authority and has not given a mandate to the principal agent and in terms of which the employer shall sign all documents
10.5	Add the following as 10.5
	<p>Damage to the works</p> <p>(1) Without in any way limiting the contractor's obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary</p> <p>(2) The contractor shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the works and to rebuild, restore, replace and/or repair the works</p> <p>(3) The employer shall carry the risk of damage to or destruction of the works and materials paid for by the employer that is the result of the excepted risks as set out in 10.6</p> <p>(4) Where the employer bears the risk in terms of this contract, the contractor shall, if requested to do so, reinstate any damage or destroyed portions of the works and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof</p>
10.6	Add the following as 10.6
	<p>Injury to Persons or loss of or damage to Properties</p> <p>(a) The contractor shall be liable for and hereby indemnifies the employer 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 works unless due to any act or negligence of any person for whose actions the employer is legally liable</p> <p>(b) The contractor shall be liable for and hereby indemnifies the employer 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</p>

site, whether belonging to or under the control of the **employer** or any other body or person, arising out of or in the course of or by reason of the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable

- (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

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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 days** of the **commencement date** but before commencement of the **works**, submit to the **employer** proof of such insurance policy, if requested to do so

10.7.4 The **employer** shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** 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 **contractor** or by deducting the same from any amounts still due under this contract or under any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

14.0 Replace the entire clause 14.0 with the following:

14.0 SECURITY

14.1 In respect of contracts with a **contract sum** up to R1 million, the **security** to be provided by the **contractor** to the **employer** will be a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT)

14.1.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A)

14.1.2 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 **security** or portions thereof to the **contractor**

14.2 In respect of contracts with a **contract sum** above R1 million, the **contractor** shall have the right to select the **security** to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the **schedule**. Such **security** shall be provided to the **employer** within twenty-one (21) **calendar days** from **commencement date**. Should the **contractor** fail to select the **security** to be provided or should the **contractor** fail to provide the **employer** with the selected **security** within twenty-one (21) **calendar days** from **commencement date**, the **security** in terms of 14.7 shall be deemed to have been selected.

14.3 Where the **security** as a cash deposit of ten per cent (10%) of the **contract sum** (excluding VAT) has been selected:

14.3.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**

14.3.2 Within twenty-one (21) **calendar days** of the date of **practical completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to three per cent (3%) of the **contract value** (excluding VAT), and refund the balance to the **contractor**

14.3.3 Within twenty-one (21) **calendar days** of the date of **final completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to one per cent (1%) of the **contract value** (excluding VAT) and refund the balance to the **contractor**

14.3.4 On the date of payment of the amount in the final **payment certificate**, the **employer** shall refund the remainder of the cash deposit to the **contractor**

14.3.5 The **employer** shall be entitled to recover expense and loss from the cash deposit 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 cash deposit **security** or portions thereof to the **contractor**

Tender no:

- 14.3.6 The parties expressly agree that neither the **employer** nor the **contractor** shall be entitled to cede the rights to the deposit to any third party
- 14.4 Where **security** as a variable **construction guarantee** of ten percent (10%) of the **contract sum** (excluding VAT) has been selected:
- 14.4.1 The **contractor** shall furnish the **employer** with an acceptable variable **construction guarantee** equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**
- 14.4.2 The variable **construction guarantee** shall reduce and expire in terms of the Variable **Construction Guarantee** form included in the invitation to tender
- 14.4.3 The **employer** shall return the variable **construction guarantee** to the **contractor** within fourteen (14) **calendar days** of it expiring
- 14.4.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall issue a written demand in terms of the variable **construction guarantee**
- 14.5 Where **security** as a fixed **construction guarantee** of five per cent (5%) of the **contract sum** (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the **payment certificate** (excluding VAT) has been selected:
- 14.5.1 The **contractor** shall furnish a fixed **construction guarantee** to the **employer** equal in value to five per cent (5%) of the **contract sum** (excluding VAT)
- 14.5.2 The fixed **construction guarantee** shall come into force on the date of issue and shall expire on the date of the last certificate of **practical completion**
- 14.5.3 The **employer** shall return the fixed **construction guarantee** to the **contractor** within fourteen (14) **calendar days** of it expiring
- 14.5.4 The payment reduction of the value certified in a **payment certificate** shall be in terms of 31.8(A) and 34.8
- 14.5.5 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall be entitled to issue a written demand in terms of the fixed **construction guarantee** or may recover from the payment reduction or may do both
- 14.6 Where **security** as a cash deposit of five per cent (5%) of the **contract sum** (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT) has been selected:
- 14.6.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to five per cent (5%) of the **contract sum** (excluding VAT) within twenty-one (21) **calendar days** from **commencement date**
- 14.6.2 Within twenty-one (21) **calendar days** of the date of **practical completion** of the works the **employer** shall refund the cash deposit in total to the **contractor**
- 14.6.3 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A)
- 14.6.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both
- 14.7 Where **security** as a payment reduction of ten per cent (10%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

- 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

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	<p>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 payment certificate.</p> <p>31.8(B) Where security is a payment reduction in term of 14.7 has been selected the value of the works in terms of 31.4.1 and 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:</p> <p>31.8(B).1 Ninety per cent (90%) of such value in interim payment certificates issued up to the date of practical completion</p> <p>31.8(B).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</p> <p>31.8(B).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</p> <p>31.8(B).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 payment certificate</p> <p>31.12 Delete the following: "Payment shall be subject to the employer giving the contractor a tax invoice for the amount due."</p> <p>32.5.1 Add the following to the end of each of these clauses: "...due to no fault of the 32.5.4 contractor" and 32.5.7</p> <p>34.1 Remove #</p> <p>34.2 Add # next to 34.2</p> <p>34.8 The principal agent shall certify one hundred per cent (100%) of the amount of the final account in the final payment certificate</p> <p>34.13 Replace "seven (7) calendar days" with "twenty one (21) calendar days" and delete the words: "subject to the employer giving the contractor a tax invoice for the amount due"</p> <p>36.1 Add the following clauses 36.1.3 to 36.1.5. under 36.1 to read as follows:</p> <p>36.1.3 refuses or neglects to comply strictly with any of the conditions of contract</p> <p>36.1.4 estate being sequestrated; liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa</p> <p>36.1.5 in the judgment of the employer, has engaged in corrupt or fraudulent practices in competing for or in executing the contract</p> <p>36.3 Remove reference to "No clause", and replace "principal agent" with "employer"</p> <p>36.7 Add the following: "Notwithstanding any clause to the contrary, on cancellation of this 37.5 agreement either by the employer or the contractor; or for any reason whatsoever, and the contractor shall on written instruction, discontinue with the works on a date stated 38.7 and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever"</p>
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	<p>37.3.5 Replace "ninety (90)" with "one hundred and twenty (120)" and</p> <p>38.5.4</p> <p>39.3.5 Add the following words at the end thereof: "within one hundred and twenty (120) working days 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 mediator and related costs.</p>
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42.0	Part 2: Contract Data provided by the Contractor:
42.5	CONTRACT DETAILS
42.5.1	<p>Contractor:</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 contract sum inclusive of tax is R _____</p> <p>Amount in words: _____</p>
42.5.3 [31.3]	The latest day of the month for the issue of an interim payment certificate : _____
42.5.4 [32.12]	The preliminaries amounts shall be paid in terms of: Alternative A <input type="checkbox"/> Alternative B <input type="checkbox"/>
42.5.5 [32.12]	The preliminaries amounts shall be adjusted in terms of: Alternative A <input type="checkbox"/> Alternative B <input type="checkbox"/>

Tender no:

42.5.7 [14]	<p>The security to be provided by the contractor:</p> <p>(a) in respect of contracts up to R1 million, the contractor will provide security in terms of 14.1</p> <p>(b) in respect of contracts above R1 million, the contractor will provide, as security, one of the following:</p> <p>(1) cash deposit of 10 % of the contract sum (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(2) variable construction guarantee of 10 % of the contract sum (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(3) payment reduction of 10% of the value certified in the payment certificate (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(4) cash deposit of 5% of the contract sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>(5) fixed construction guarantee of 5% of the contract sum (excluding VAT) and a payment reduction of 5% of the value certified in the payment certificate (excluding VAT) Yes <input type="checkbox"/> No <input type="checkbox"/></p> <p>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.</p>
42.5.8 [29.7.2]	<p>The annual building holiday period after the commencement of the construction period:</p> <p>From: 15 December to 16 January</p>
42.6 42.6.1	<p>DOCUMENTS</p> <p>Contract documents marked and annexed hereto:</p> <p>Priced bills of quantities: Yes <input type="checkbox"/> No <input type="checkbox"/> Document marked as: _____</p> <p>Lump sum document: : Yes <input type="checkbox"/> No <input type="checkbox"/> Document marked as: _____</p> <p>Guarantees: Yes <input type="checkbox"/> No <input type="checkbox"/> Document marked as: _____</p> <p>Contract drawings: 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>

**APPOINTMENT OF CONTRACTOR FOR SECURITY UPGRADE AT
VILLIERSDORP POLICE STATION IN WESTERN CAPE PROVINCE**

BID: 19/1/9/1/04TB (23)

PART C

CONTRACT

PART C.2.

SCOPE OF WORK AND BILLS OF QUANTITIES



SOUTH AFRICAN POLICE SERVICE

**SECURITY UPGRADE:
SCOPE OF WORKS**

VILLIERSDORP SAPS (WESTERN CAPE)

COMPILED BY: DIVISION SUPPLY CHAIN MANAGEMENT: FACILITY MANAGEMENT

1. SITE LOCATION

Villiersdorp SAPS is located at 3 Buitenkant Street in Villiersdorp, Western Cape Province. The site is bound by Buitenkant Street to the East, R43 Main Road to the South, commercial property to the North and a residential property to the West. Access to the site is from Buitenkant Street.

2. DESCRIPTION OF SERVICES (INTENT)

The works shall be done as per drawings, annexures, and scope of work, specifications and some applicable legislative requirements. This project requires an experienced contractor to execute the job.

The Contractor shall provide 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 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 the execution of work, proper project execution plan must be done in consultation with the station commander to avert any project delays.

3. SCOPE OF WORKS

DESCRIPTION OF THE WORKS

The proposed security upgrades includes the following:

- Remove the existing gates, supply and install new vehicle gates with motors and a pedestrian gate.
- Demolish existing fence and replace with new boundary wall and fence.
- Build a new wall at the Community Service Center (CSC).
- Remove existing counter top and replace with new granite top.
- Demolish existing counter wall and replace with new.
- Build new ramp at the main entrance of the CSC and gate in between.
- Supply and install bullet proof glass at the CSC.
- Supply and install new interlock paving
- Supply and install gate motors as per mechanical scope
- Supply and install perimeter lights as per electrical scope

1.PERIMETER FENCING AND VEHICLE /PEDESTRIAN GATE

External clear zones

The site shall be cleared for a width of 1 m of all rubble, stone, trees, shrubs and plant growth where the fencing is to be erected. The ground shall be roughly levelled to obtain a uniform gradient so that the top of the fence is straight without embedding the bottom of the fence in the ground or leaving a gap under the fence.

Excavation

The ground shall be excavated for all the standards stays, etc, according to the sizes specified for the respective items. In the case of unstable ground or filling the excavation shall be deeper so

that the whole of the concrete base can be cast in solid ground. In the case of the latter, longer standards and stays will be necessary so that the fencing remains at the required height.

Under no circumstances may the poles be planted or the backfilling be carried out or the concrete cast without the bottoms of the excavations having been approved by the SAPS Representative/ Agent.

The Contractor shall notify the SAPS Representative/Agent immediately the excavations are ready for inspection or as soon as the Contractor is ready to cast the concrete base under the fence or to cast the concrete around the bottoms of the poles. If the Contractor neglects to notify the SAPS Representative/ Agent he shall expose the concrete foundation under the fence or the base around the poles as the case may be and refill with earth at his own expense. The Contractor will be held solely responsible if there is any subsidence of the filling before and during the maintenance period.

1.1 PEDESTRIAN GATE

- Main entrance to the CSC: supply and install new 2000mm x 2100mm steel burglar bar and gate (fit existing opening) with self-closure and lock system.

1.2 VEHICLE GATE

- Existing 3500mm wide gates at the street side of the station to be removed completely and supply and install with new 5000mm x 2400mm motorized sliding gates with minimum 600mm high flat wrap wire on top of the gates. The gates must be lockable with a heavy-duty padlock from inside the premises. **See drawing annexure 9**
- Supply and Install Industrial type gate motors to withstand a 1000kg weight of the gates with 750 cycles per day.

1.2.1 SPECIFICATION:

- 1 152 x 152mm Mild steel H-section beam cast in reinforced concrete foundation.
- 2 The mild steel H-Section beam to be levelled prior to casting the beam in concrete.
- 3 20 x3mm Mild steel flat bar lugs to be welded along the length of the beam at maximum 600mm c/c. Lugs to be cut minimum 150mm lengths.
- 4 20mm Diameter Mild steel solid round bar welded on top of mild steel H-Section beam to ease opening the gate manually and take strain off the gates.
- 5 Sliding gate motor: shall be an industrial type motor to withstand weight of 1000kg gate daily operation of 750 cycles with battery backup.
- 6 Provide a 220mm face rick wall 2460mm (H) X 1200mm (w) at the side of the gate motor. An isolator box, with sliding panel to be built on the wall for all connections to and from the gate motor. The wall shall also provide security to the motor to prevent any tampering. Refer to **Annexure 9** for the complete specification.

2. SIDE/FRONT BOUNDARY WALL

- Existing 2210mm (H) x 220m (L) Concrete wall/fence to be removed and replace with new Boundary wall,site measurement to be confirmed on site. **See drawing Annexure 4**

2.1 SPECIFICATION

2.1.1 BOUNDARIES TO ADJACENT SITES AND STREET SIDE (See drawing Annexure 4)

- ❖ Minimum brick specification: Face brick with satin finish manufactured from burnt clay in terracotta colour or similar approved to match and tie-in with existing structures.
 1. Provide a 2465mm high face brick wall built in stretcher bond with recessed mortar joints, provide brick force every fourth brick course.
 2. Foundation wall to be minimum 340mm deep with reinforced concrete strip foundation below to achieve minimum depth of 570mm.

3. The perimeter wall must be CONSTRUCTED with lateral support columns and expansion joints, all in compliance with the minimum standards and regulation of SANS10400, part: K, table 17. Provide a brick on edge roller course to the top of the wall and lateral support columns.
4. The wall must be secured with 100mm electro-galvanized, 2mm thick, toughened steel security spikes on top of roller course.
5. Provide minimum 600mm high galvanized high tensile steel flat wrap razor wire on top of wall to achieve a minimum total height of 3000mm.
6. Provide minimum 50mmØ uPVC weep holes spaced maximum 600mm c/c to the bottom of the wall to accommodate storm water flow-off. In-situ concrete foundations as per the structural engineer specification and details.

3. STREET BOUNDARY FACING

- Remove existing 203m x 1.6 /1.7m high concrete wall and replace with new proposed fence at a height of 3000mm (See below spec)

3.1 BRICK WALL

1. Minimum brick specification: Face brick with satin finish manufactured from burnt clay in terracotta color or similar approved to match and tie-in with existing structures.
2. Foundation wall to be minimum 340mm deep with reinforced concrete strip foundation below to achieve the minimum depth of 570mm.
3. Wall to be built in between mild steel posts used for the fence spaced 3390mm c/c. Posts to be built into concrete foundation, 600mm deep. The post to be 3000mm above natural ground level. Spacing of posts as per manufacturer's specifications.
4. Brick wall to be built 620mm high with brick on edge roller course on top. The wall to be built in stretcher bond with recessed mortar joints, provide brick force in every brick course.
5. The fence and support post to be built flush with external face of the wall, the wall must not have a foot hold to the street/ public side. Refer to Annexure 12 for detail drawing.
6. Provide minimum 50mmØ uPVC weep holes spaced maximum 600mm c/c to the bottom of the wall to accommodate storm water flow-off.
7. In-situ concrete foundations as specified by a registered structural engineer.

8. The perimeter wall must be designed by a registered architect with lateral support columns and expansion joints, all in compliance with the minimum standards and regulation of SANS10400, part: K, table 17.

3.2 FENCE

1. Provide an 1800mm (H) x 3305mm (W) single skin fencing panel consisting of carbon hardened and galvanized steel mesh panels and support posts with security spikes and flat wrap razor wire on top. Mesh to be installed above wall.
 2. Support posts to project 600mm above the top edge of the steel mesh panels as support for the high tensile steel flat wrap razor wire. Overall height to be minimum 3000mm above natural ground line.
 3. Support post to be 85mm front face, tapering to 45mm with depth of 85mm. Post shall include locking recess mechanism to secure panel. Post to be spaced 3390mm c/c.
 4. The fence and support post to be built flush with external face of the wall, the wall must not have a foot hold to the street/ public side. Refer to **Annexure 12** for detailed drawing.
 5. Fence panel to have 70° flanges along the sides, 90° flange along the top and 30° flange along the bottom.
 6. The panel facing the street must be in a horizontal position and the internal panel to be in a vertical position to reduce the aperture size of the panel.
 7. Fence panels to be clamber proof with see-through capabilities and have a top coat finish of marine fusion bond coat in dove grey color or as per approved color.
 8. Mesh strands to be 3 mm diameter minimum, cut resistant and with an aperture not exceeding 12 x 75 mm.
 9. Provide 100mm electro-galvanized, 2mm thick, toughened steel spikes on top of the fence.
 10. Provide minimum 600mm high galvanized high tensile steel flat wrap razor wire on top of the fence to achieve a minimum total height of 3000mm.
- ❖ The products specified must be manufactured and installed in accordance with the manufacturers specifications and should carry at least a SABS or higher standards certificate.

4. SIGNAGE WALL (See drawing on Annexure 8)

4.1 Construction of new 4000mmx2465mm signage wall

- ❖ Minimum brick specification: Face brick with satin finish manufactured from burnt clay in terracotta color or similar approved to match and tie-in with existing structures.
- 1. Provide a 2465mm high face brick wall built in stretcher bond with recessed mortar joints, provide brick force every fourth brick course.
- 2. Foundation wall to be minimum 340mm deep with reinforced concrete strip foundation below to achieve minimum depth of 570mm.
- 3. The perimeter wall must be designed by a registered architect with lateral support columns and expansion joints, all in compliance with the minimum standards and regulation of SANS10400, part: K, table 17. Provide a brick on edge roller course to the top of the wall and lateral support columns.
- 4. The wall must be secured with 100mm electro-galvanized, 2mm thick, toughened steel security spikes on top of roller course.
- 5. Provide minimum 50mmØ uPVC weep holes to the bottom of the wall to accommodate storm water flow-off. In-situ concrete foundations as per the structural engineer specification and details.

5. GRENADE SCREENS (See drawing Annexure 11)

- ❖ All street facing windows at a 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:
 - 25 x 25 x 2.5mm Mild steel angle frame as per drawing **Annexure 11**.
 - Frame to be fitted with galvanized welded wire mesh.
 - Wire mesh to be 2.5mm thick welded wires with an aperture size of 25 x 50mm.
 - Mesh to be fixed to frame by clamping the mesh between the inside of mild steel angle frame with a 3 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 drawing **Annexure 11**.

- Frame to be fixed to wall with 125 x 100 x 5mm mild steel base plate with 10mmØ hole for M10 bolt. Base plate to be welded to frame. All bolts to be tack welded for security.
- Provide a vertical fixing base plate minimum every 900mm and horizontally minimum every 600mm.
- Frame to be supported with two back to back 3 x 30mm mild steel flat bars horizontally every 900mm of additional height. Wire mesh to fitted between flat bar as per drawing **Annexure 11**.
- ❖ 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 coat/s prior to installation. Exposed metal at coastal and high humidity areas must receive hot dipped galvanized treatment, primer coat and final coat/s prior to installation.

7.BULLET PROOF CUBICLE COUNTER AT CSC.

Supply and install bullet proof glass in compliance with SANS 1263:2013 Part 3 class RC to provide a ballistic capacity against a 7.62mmx 51mm caliber.

8.CONCRETE PAVING BLOCK (Engineering Scope of work)

- Clear and grub all unwanted surface material to 150mm depth and maintain a gradient slope of 1% to wards the storm water.
- Compact in-situ material to 93% Mod AASHTO maximum density to accommodate new foundation.
- Place layer works material at 150mm Layers
- Set out required layers for 25mm sand for bedding and jointing shall be free from substances that may be deleterious to blocks.supply and apply approved herbicide. Lay Class 25 SANS approved 80mm interlocking brick (grey)

9 CONSTRUCTION OF KERBING AND CHANNEL (Engineering Scope of work)

- Construc Semi Mountable Kerb Type
- All kerbing works shall be done in accordance to with relevant requirements of SANS 927

10. DRAWINGS

VILLIERSDORP SAPS: WESTERN CAPE PROVINCE: SECURITY UPGRADE

The Provisional bills of Quantities are based on the following drawings which are included for tender purposes:

The drawings are for information purposes only. Final Construction drawings will be issued to successful contractor on date of site handover.

ATTACHED DRAWING

Drawing No 1/2	Site plan
Drawing No 2/2	Ground plan - CSC
Annexure 4	Boundary wall
Annexure 8	Signage wall
Annexure 9	Vehicle Access Gate/Pedestrian gate same spec
Annexure 11	Grenade Screens
Annexure 12	Perimeter fence

NB:

- ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF WORK.
- THIS DOCUMENT TO BE READ IN CONJUNCTION WITH ARCHITECTURAL, CIVIL AND STRUCTURAL ENGINEER'S DRAWINGS AND BILL OF QUANTITIES.

8. 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.

9. WORKMANSHIP

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

10. MATERIAL AND EQUIPMENT DATA SHEET

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

11. WATER AND ELECTRICITY.

It is the Contractors responsibility to supply water and electricity during construction.

12. 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 reserve 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.

13. 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.

14. 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.
- All building work to comply with the National Building Regulations and SANS 10400 (2011).



SOUTH AFRICAN POLICE SERVICE

CIVIL AND STRUCTURAL ENGINEERING

**SECURITY UPGRADE: SCOPE OF WORKS
FOR
VILLIERSDORP SAPS**

MARCH 2023

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SECTION 1- INTRODUCTION

1.1 SCOPE OF WORKS

The scope of works as per the terms in reference is for upgrading of the following:

- i. The design of the perimeter wall and its foundation, and any other civil and structural work deemed necessary.
- ii. The security upgrade Community Service Centre (CSC), and any other civil and structural work deemed necessary.

The professional services provided also includes contract administration, project management, construction supervision and monitoring during construction works.

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SECTION 2- SITE LOCATION AND DESCRIPTION

2.1 SITE DESCRIPTION

The Villiersdorp South African Police Station is situated at 3 Buitenkant Street in Villiersdorp, Western Cape Province. The site is bound by Buitenkant Street to the East, R43 Main Road to the South, commercial property to the North and a residential property to the West. Access to the site is from Buitenkant Street. Refer to Figure 1.1 below.

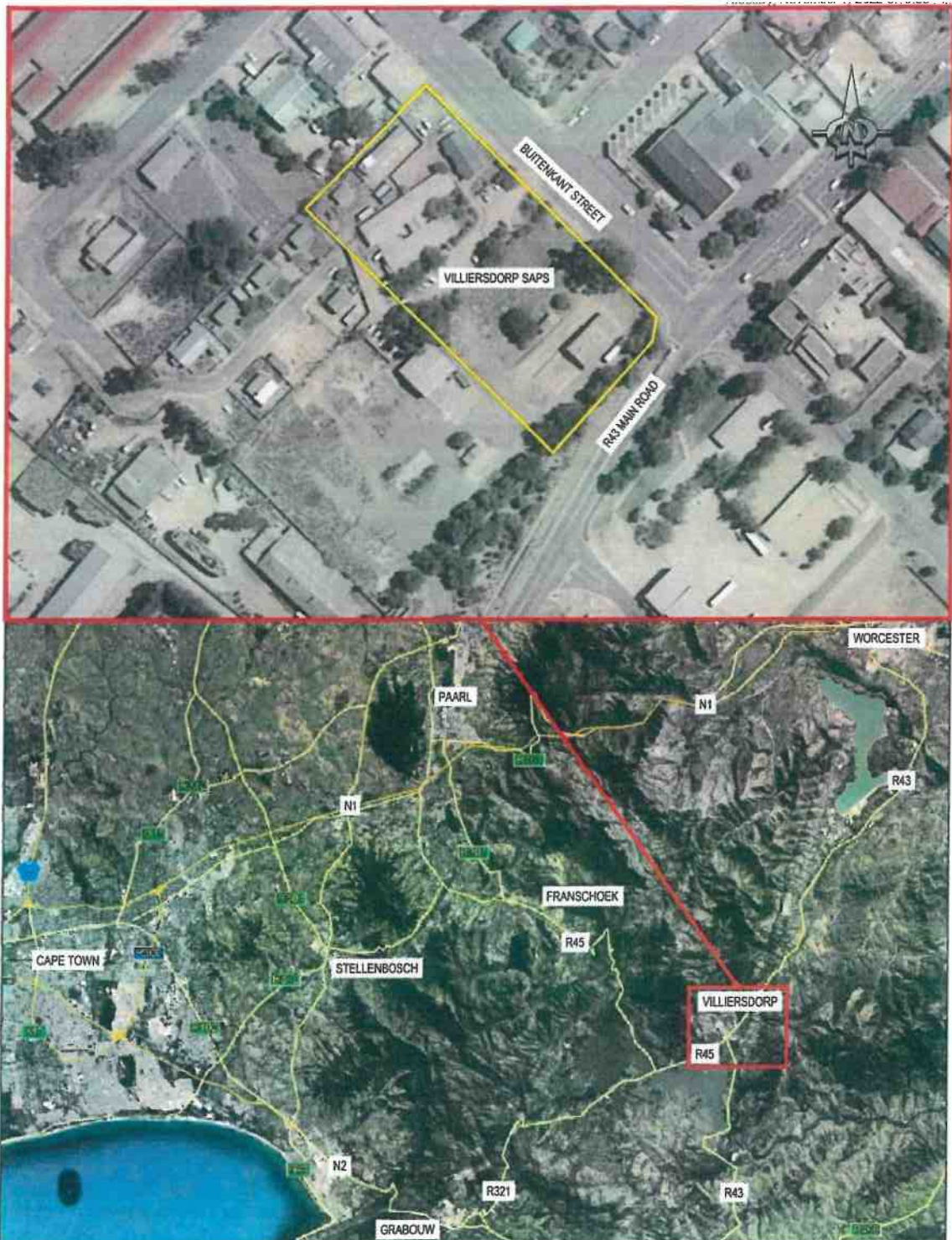


Figure 1.1: Locality Map



SECTION 3- DETAIL DESIGN CONSIDERATION

3.1 SAPS STANDARDS AND SPECIFICATIONS

The *SAPS Minimum Building Construction Standards: Perimeter Security at Police Station* which entails standard details and specifications for the design and construction of boundary wall, and perimeter fence were utilized. The boundary wall and perimeter fence standard details will be used as a basis for the detail design development.

3.2 TOPOGRAPHICAL SURVEY

A topographical and engineering survey of the entire Villiersdorp police station site was done and attached hereto as Annexure C. The topographical survey indicates existing services and infrastructure surrounding and adjacent to the proposed boundary wall. The survey information also includes the latest cadastral information and benchmarks for setting out reference to ensure that the boundary wall is designed and constructed on the site boundary.

Topographical survey of the site enabled the engineer to take into consideration the natural ground level differences between the police station and neighbouring properties along the site boundary, and design retaining walls where required.

The survey indicated a slope from northwest to southeast across the site. The site slopes from 363.00m amsl in the north western boundary to 354.90m amsl in the southern eastern boundary resulting in a 8.10m level difference across the site. The slope across the site requires regular steps in the foundation levels and the top of wall as per proposed design drawings in Annexure C.

There is a ground level difference of up to 2.0m between the SAPS site and neighbouring properties on Erf 549 and Erf 1399 along the north western boundary. The level difference has necessitated the design and construction of a retaining wall of up to 2.0m the site boundary. The boundary wall has been designed to be minimum 3.0m above ground on the neighbouring property as per SAPS requirements and specification. Refer to Figure 3.1 below for typical detail of the retaining wall.

3.3 CADASTRAL BOUNDARY AND WALL POSITION

Based on the cadastral information on the surveyor general diagram, it was noted that a portion of the existing fence along the western and southern boundary of Erf 479 encroaches on to a private property. Refer to Annexure D for surveyor general diagram and Annexure C for topographical survey. The new boundary wall will be designed and constructed on the site cadastral boundary as per the proposed layout on Annexure A. This will ensure that the boundary wall does not encroach on private property.

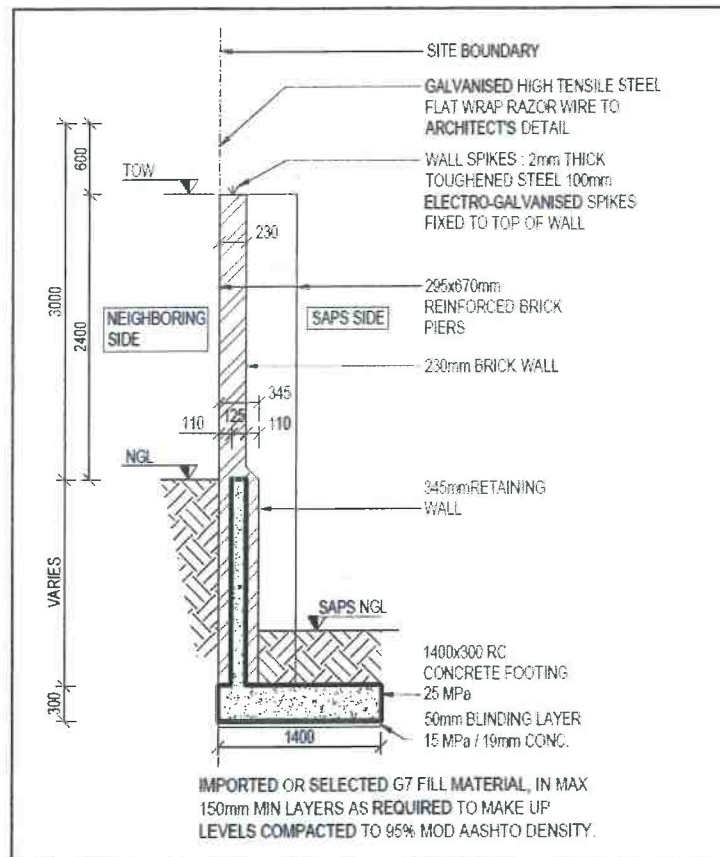


Figure 1.1: Typical Retain Wall

3.4 SITE ACCESSIBILITY

The construction of the boundary on the western and southern cadastral boundary of Erf 479 will result in reduced pedestrian and vehicle access to the justice court and parking within the site. Alternative access to the justice court will be provided via the existing police station building. Additional parking can be allowed for along the northern boundary of Erf 289 which also forms part of Villiersdorp SAPS police station. A new access gate will be installed along Erf 479 and Erf 289 boundary.

3.5 INTERACTION WITH EXISTING INFRASTRUCTURE

There is an existing septic tank which falls on the site boundary along where the proposed wall will be constructed. It is confirmed that the septic tank has been decommissioned and abandoned. The site has an existing sewer connection to the municipal sewer system. The abandoned septic tank will be demolished to make provision for construction of the proposed boundary wall.



SECTION 4- STRUCTURAL DESIGN PARAMETERS

4.1 DESIGN STANDARDS

The primary aim of this project is to upgrade security to the Villiersdorp police station while ensuring that the facility is compliant to the statutory regulations and requirements in terms of Structural Engineering Services. To achieve this, the following design codes and guidelines will be consulted and implemented where and as necessary:

- SANS 10400 – National Building Regulations
- SANS 10100-1 – Structural Use of Concrete
- SANS 10160-1 – Basis of Structural Design
- SANS 10160-3 – Wind Actions
- SANS 10161-1 – Design of Foundations
- SANS 10162-1 – Structural Use of Steel
- SANS 10164-1 – The Structural Use of Masonry
- NHBC Home Building Manual – Parts 1, 2 and 3

4.2 FOUNDATION BEARING CAPACITY

Foundations for the boundary wall has been designed based on an allowable bearing capacity in the region of 150kPa. The foundations will be founded on imported or selected G7 fill material, in maximum 150mm layers compacted to 95% MOD AASHTO density. A site-specific geotechnical investigation has not been conducted, and ground condition will be confirmed on site. Conventional strip footings have been recommended as suitable to carry the loading of the wall.

4.3 DESIGN LOAD COMBINATIONS

The following load combinations will be utilised in the design of new structural elements:

Ultimate Limit State:

Dominating Action	Combination Equation	Permanent Actions (Un-F or F)	Variable Actions (Un-F or F)
Self-weight	$1.35D + 1L$	Self-weight (Un-F)	Imposed (Un-F)
Imposed	$1.2D + 1.6L$	Self-weight (Un-F)	Imposed (Un-F)
Wind down	$1.2D + 1.3W + 1.6\psi L$	Self-weight (Un-F)	Wind-down (Un-F) Imposed load (Un-F)
Wind up	$0.9D + 1.3W$	Self-weight (F)	Wind -up (Un-F)

Serviceability Limit State:

Dominating Action	Combination Equation	Permanent Actions (Un-F or F)	Variable Actions (Un-F or F)
Imposed	$1.1D + 1L$	Self-weight (Un-F)	Imposed (Un-F)
Wind down	$1.1D + 0.6W + 1\psi L$	Self-weight (Un-F)	Wind-down (Un-F) Imposed load (Un-F)
Wind up	$1D + 0.6W$	Self-weight (F)	Wind -up (Un-F)



4.4 MATERIALS SPECIFICATIONS

The following list of materials has been specified for the project along with their respective strengths/grades.

Concrete:

Element	Grade/Strength
Blinding	15 MPa
Mass	20 MPa
Foundations	30 MPa
Surface beds	30 MPa
Columns/Walls	40 MPa
Slabs/Beams	30 MPa
Cavity Wall Infill	15 MPa

Steel:

Element	Grade/Strength
Hot-rolled sections	S355JR
Cold-rolled sections	Commercial grade with a minimum yield strength of 200MPa
Hollow sections	S355JR

Masonry:

Element	Grade/Strength
Loadbearing & non-loadbearing masonry	Minimum average compressive strength of 14 MPa
Mortar	Class II

4.5 DESIGN PARAMETERS FOR PERIMETER WALL

The following design parameters will be considered for the proposed boundary wall.

Element	Design Parameters
Minimum height from ground to top of flat wrap	3 000 mm
Minimum height of wall above ground	2 400 mm
Height of wall below ground	600 mm
Height of flat wrap razor wire	600 mm
Thickness of wall	230 - 345 mm
Thickness of strip foundation	300 mm
Width of strip foundation	800 - 1 000 mm



SECTION 5- DESIGN SOLUTIONS

5.1 OVERVIEW OF STRUCTURAL SYSTEM

This project entails the security upgrade of the existing Villiersdorp police station and construction of new foundations, masonry walls, and installation of bullet proof glass and frame to the CSC.

5.2 FOUNDATIONS

All new 230mm and 280mm masonry walls will be founded on 800mm wide x 300mm deep reinforced concrete (RC) strip footings. The 345mm masonry wall with concrete infill will be founded on 1400mm wide x 300mm deep RC strip footings. Masonry wall piers will be founded on 1400mmx300mm RC pad footings.

5.3 SURFACE BEDS

All new surface beds in the CSC shall be 120mm thick RC surface beds with joint spacing not exceeding 3,75m c/c. The surface beds will be placed on imported G5 material compacted the 95% MOD AASHTO density as per the surface bed layerworks detail.

5.4 BEAMS

All new steel beams forming part of the CSC will be IPE-200 beams. The new IPE-200 beam in the CSC will be supported by new 100mmx100mmx6mm SHS posts. The IPE-200 beam will be installed above the building ceiling and in between the roof trusses.

5.5 COLUMNS

New 100mmx100mmx6mm SHS posts will be installed in the CSC to support the steel beams and bullet proof frame and glass panels. The new SHS posts will be fixed onto new RC footings and bolted to brickwork at the top. The IPE-200 beam will be welded onto the SHS posts. The bulletproof frame and glass will be fixed to the beam and posts to specialist specification and requirements.

5.6 WALLS

All new loadbearing and non-loadbearing walls in the CSC and site boundary shall be constructed from masonry units with a minimum compressive strength of 14MPa. All mortar shall be Class II mortar.

The existing external dry wall must be demolished along the CSC section and replaced with a brick built cavity wall to provide a ballistic capacity against a 7.62mm x 51mm calibre.

5.7 BULLETPROOF GLASS

The CSC situated inside the police station has an existing brick counter wall with wooden countertop and clear Perspex screen. A bullet resistant glass will be installed in compliance with SANS 1263: 2013 Part 3 class RC to provide a ballistic capacity against a 7.62mm x 51mm calibre.



The bullet resistant glass will be fitted with window communication channel. The bullet resistant glass will be installed in panels to achieve an economical installation and security upgrade. The panel installation will also make the repair and replacement of damaged panels more feasible. Aluminium frame will be installed on the counter top to enable fixing of the bullet resistant glass. The aluminium frame will also provide a ballistic capacity against a 7.62mm x 51mm calibre.

The CSC existing wooden counter top will be removed and replaced with a new bullet resistant granite counter top installed on the existing counter wall. The granite counter top will be fitted with a recessed bullet resistant PT 130 shallow transaction trays. A portion of the existing counter wall will be lowered and converted to two workstations for persons with disabilities. Refer to Annexure B for the proposed CSC counter security upgrade layout.

5.8 ACCESS GATE

Existing mesh wire swing gate will be removed and replaced with an access control 2.4m high security clear view gate with security spikes and 600mm flat wrap razor wire. The new motorised sliding gate will be operated and controlled from the CSC. The clear view fence will be installed on a 600mm high brickwall with flat wrap razor wire and spikes on top of the fence along the street facing perimeter.

5.9 EXISTING TREES AND STUMPS

The topographical survey indicated existing trees and stumps on and in close proximity to the site boundary. Several existing trees and stumps close proximity of the proposed boundary wall will be removed to allow for construction and not compromise the structural integrity of the boundary wall and foundation. Local Council approval will be required for removal of trees on the boundary along the road reserve. This application will form part of the building plan submission to local council.



SECTION 6- CONSTRUCTION

6.1 THE CONTRACT

The Joint Building Contracts Committee (JBCC) Series 2000 Principal Building Agreement (Edition 4.1 March of 2005) will be the preferred construction contract for the completion of all the civil works. The standard specifications on which this contract is based are the South African National Standard, Standardised for Civil Engineering Construction (SANS 1200) from which all measurements and payment will be made.

6.2 OCCUPATIONAL HEALTH AND SAFETY

The contractor shall comply with the Occupational Health and Safety Act, 1993 (Act No. 85 of 1993), and a qualified safety consultant will be appointed to oversee the construction phase of the project. The latest Construction Regulations of 2014 will be enforced as part of the contract.

6.3 ENVIRONMENTAL PROTECTION MEASURES

Upon award of the contract, a Construction Environmental Management Plan (CEMP) will be completed and will act as the specification enforced on the contractor, should this be required by the local authority.

6.4 QUALITY ASSURANCE

The contractor shall comply with all quality assurance and testing procedures as outlined in the SANS 1200 series and general notes on drawings of the Engineer. Concrete cube test will be done for concrete cast on site, with a minimum of one set of three cubes per day's casting. The certificates confirming material grade and specification for all civil layerworks, structural steel, and masonry used on site is to be provided to the Engineer.



SOUTH AFRICAN POLICE SERVICE

**MECHANICAL ENGINEERING WORKS:
SECURITY UPGRADES**

**VILLIERSDORP SAPS: WESTERN CAPE
PROVINCE**

Villiersdorp SAPS

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VILLIERSDORP SAPS: MECHANICAL SCOPE OF WORK

MECHANICAL ENGINEERING WORKS: SECURITY UPGRADES: SOUTH AFRICAN POLICE SERVICE: VILLIERSDORP SAPS

1. INTENT

This specification calls for the supply, installation, and commissioning of vehicle gate motors at Villiersdorp SAPS

Bidders shall be responsible for the supply, delivery, and installation of all equipment, accessories, and work specified within this document. 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 installation and commissioning, of Three (03) vehicle gate motors inclusive of accessories.

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

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 illustrations 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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VILLIERSDORP SAPS: MECHANICAL SCOPE OF WORK

3. GENERAL REQUIREMENTS AND SPECIFICATION

STATE UNDER PARTICULAR AGAINST EACH REQUIREMENT WHETHER THE BIDDER COMPLIES OR DOES NOT COMPLY WITH THE REQUIREMENT OF THE SPECIFICATION	
3.1	This requirement is for the supply, installation, and commissioning of The Three (03) new vehicle gate motors inclusive of accessories.
3.2	The Contractor shall fully acquaint them 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)
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.
3.4	Electrical Connections – Electrical connections to the distribution panel form part of this contract. Wiring must be designed and installed as prescribed by SABS 1042 wiring of buildings. Specified in this document)
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.
3.6	The Contractor shall comply with the requirements of the Health & Safety Specification and applicable regulations. The contractor shall refer to the site information, and the specifications describing the scope of the Engineering Works, for information about the type of environment in which the work is to be executed. Notwithstanding anything stated in this document, the contractor shall be responsible for determining the safety requirements of the site. (as specified in this document)
3.7	All electrical cables, unarmored and armored, shall be locally manufactured and shall bear the SABS stamp of approval.
3.8	New equipment and material shall be supplied with a written guarantee confirming a defects liability period of 12 months from the date of practical completion. These guarantees shall be furnished in favour of the SAPS. The guarantee shall include any latent defects in the plant, equipment, fittings, and installation thereof and any labour or other costs inherent in repairing any defects and ensuring that the plant, equipment, and fittings remain free of defects and in good working order to the satisfaction of the SAPS.
3.9	Equipment and material installed shall be new and unused.
3.10	All installations shall comply with the National Building Regulation SANS 10400 on energy efficiency Part XA; read in conjunction with SANS 204.

4. SITE CONDITIONS AND LOCATION

This requirement is for the supply, installation, and commissioning of Three(03) new vehicle gate motors inclusive of accessories at Villiersdorp Saps.

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VILLIERSDORP SAPS: MECHANICAL SCOPE OF WORK

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. CONDITIONS OF CONTRACT

The Contractor shall comply with the obligations and requirements of the Agreement and Contract Data.

The Contractor shall allow for all the responsibilities and obligations in terms of the conditions of the contract and contract data, including;

- Risks, costs, and obligations in terms of the General Conditions of the Contract, the Contract Data, and the standardized specifications, except where provision is made in the Project Specifications to cover compensation for any of these items.
- A detailed program for the execution of the engineering works, Maintenance works and Installation works for the whole of the contract period, listing each plant, its location, and fixed dates of maintenance. The contractor will be required to comply with the program at all times.
- Expenses of a general preliminary and general nature not specifically related to any item or items of permanent or temporary work.

6. STANDARD SPECIFICATIONS 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.

- All electrical work is to be carried out in accordance with the 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.

7. SCOPE OF SPECIFICATION

Vehicle Gate Motor Installation.

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

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VILLIERSDORP SAPS: MECHANICAL SCOPE OF WORK

Hardware features

- Fully-sealed plastic housing for the controller to prevent ingress of dirt and insects
- Easy setup of the controller using LCD user interface
- Removable connectors on the controller for easy maintenance
- Watchdog IC ensures full and safe operation of the controller
- Optional Backup Memory Module allows backing up of all the information that has been set up in the system

Electronic features

- Opening and closing safety beam inputs with beam circuit functional test¹
- High-security cleared-beam Auto close in conjunction with safety beam (PIRAC) ¹
- Break-in and Ambush Alarm (patent pending) with configurable outputs via on-board buzzer, Pillar Light relay, etc.¹
- Multiple Modes of Operation: Standard Mode, Condominium Mode (multi-user), Reversing Mode, PLC 2, and Dead-Mode.

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
- Emergency Stop functionality
- Courtesy / Pillar Light Timer with adjustable time
- Fully-configurable pre-delays with multi-modal pre-flash⁸
- Multiple Operating Profiles to suit the 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 for 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, sensors, etc.

Multiple operating features

In Lockout Mode Once enabled the gate should become totally immobilized

VILLIERSDORP SAPS: MECHANICAL SCOPE OF WORK

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

The 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.

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 ^{3/4}	22 - 26m/min - 51m/min
Gate speed - mm/sec ^{3/4}	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

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VILLIERSDORP SAPS: MECHANICAL SCOPE OF WORK

Packaging dimensions	
Length:	355mm
Width:	288mm

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 a 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			

VILLIERSDORP

SOUTH AFRICAN POLICE SERVICES



BILL OF QUANTITIES

FOR

SECURITY UPGRADES

AT

VILLIERSDORP SAPS(WESTERN CAPE)

PREPARED BY: SAPS PPM

**Department of South African Police Service
Supply Chain Management
Private Bag X 254
Pretoria, 0001**

Enquiries: 012 349 7772

Name of Tenderer.....

Address.....

Tel.....

Fax.....

Tender Amount

100

Item No		Unit	Quantity	Rate	Amount
	SECTION NO. 1 - PRELIMINARIES & GENERALS				
1	Contractual Requirements	Sum	1		
2	Facilities for Contractor :.				
2.1	Offices and storage sheds	Sum	1		
2.2	Ablution and latrine facilities	Sum	1		
2.3	Tool and Equipment	Sum	1		
2.4	Water Supplies, Electric power and communications	Sum	1		
3	Dealing with Water	Sum	1		
4	Access	Sum	1		
5	Plant	Sum	1		
6	Compliance with OHS Act including all site programmes and inductions etc	Sum	1		
7	Compliance with NEMA Act and Tenders Environmental Management Plan	Sum	1		
8	Compliance with Quality Control Management Plan	Sum	1		
9	Allowance for Liason with Electrical/Mechanical Contractor undertaking installation	Sum	1		
	Carried to Final Summary				
	SECTION NO. 2 - BUILDING WORKS				
	ALTERATIONS				
	NOTE: Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill				
	SUPPLEMENTARY PREAMBLES				
	REMOVAL OF EXISTING WORK				
	Taking out and removing joinery fittings, counter tops etc.				
1	Granite counter top 8987mm (L) x 830mm (W) fixed to brickwork	m	9		
	Breaking down and Excavations removing brickwork etc (making good elsewhere)				
2	Half brick wall	m ²	11		
3	Cut toothings and bond new brickwork to existing	m	18		
4	Excavate and break concrete surface bed about 200mm thick .CSC	m ²	50		
5	Break down dry wall and replace with new(brick wall elsewhere measured)	m ²	30		
	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				
6	300mm x 300mm tiles to floors	m ²	58		
	MAKING GOOD OF FINISHES ETC				
	Making good face brickwork				
7	Making good to faces of walls where cross wall removed	m	16		
	Making good internal cement plaster				
8	Concrete ceilings in patches where approximately 850mm wide rectangular bulkhead removed	m	10		
	Taking down and removing mesh fence, palisade etc				
9	Remove existing mesh fence and replace with solid brick wall (brick wall elsewhere measured)	m	150		
10	Remove existing palisade fence up to 2,2m high	m	180		
11	Remove existing vehicle gates	No	3		
12	Remove existing tress including grubbing up of roots	No	3		
13	Remove and Demolish existing old septic tank	Item	1		
	Carried to collection summary				
	Section No. 1				
	Bill No.1				
	Alterations				

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Item No	SECTION NO. 2 -BUILDING WORKS	Unit	Quantity
	BILL NO.2		
	NOTE: Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill		
	MASONRY & CONCRETE		
1	One brick walls in foundations (stock bricks)	m ²	684
2	25MPA reinforced concrete in foundations	m ³	195
3	Backfill to excavated trenches	m ³	187
4	Remove surplus excavated material from site	Item	1
5	Providing and laying hardcore fill under footing	Item	
6	Anti-termite or Soil poisoning to excavated trenches	m ²	382
7	50mm blinding layer 15MPA/20mm concrete including woodfloated finish	m ²	650
8	Concrete tube tests	No	2
9	High tensile steel smaller than 20mm	kg	12000
10	Mild steel smaller than 10mm	kg	350
11	Compacted to 95% modified AASHTO density	m ³	185
12	Compaction Tests	No	2
13	345mm Retaining Wall	m ²	480
	FACE BRICKWORK		
	<u>Face brick to match existing with pointed with flush horizontal and vertical joints</u>		
	One brick walls in stretcher bond pointed on both sides to boundary wall incl signage wall.	m ²	1200
	270mm cavity brick for counter support	m ²	11
	BRICKWORK SUNDRIES		
	<u>Brickwork reinforcement</u>		
	150mm Wide reinforcement built in horizontally	m	300
7	Vertical expansion joints to brick wall formed with 10mm sondor jointex and sealed with polyurethane sealant	m	125
8	Vertical movement joints to brick wall foas per detail complete with 30 x 3mm galvanised hoop iron and filled with 10mm flexicell	m	300
9	Supply, deliver and install 50mm uPVC weep hole pipes at 600mm spacings	m	300
	Carried to collection summary		
	Section No. 1		
	Bill No.2		
	Masonry & Concrete		

Item No	SECTION NO. 2 -BUILDING WORKS	Unit	Quantity
	<u>BILL NO.3</u>		
	<u>WATERPROOFING</u>		
	<u>NOTE:</u> Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill		
	<u>DAMPPROOFING OF WALLS AND FLOORS</u>		
	<u>One layer of 375 micron embossed polyethylene dampproof course</u>		
1	In walls	m	420
Carried to collection summary			
Section No. 1 Bill No.3 Waterproofing			

Item No	SECTION NO. 2-BUILDING WORKS	Unit	Quantity
	BILL NO.4		
	CARPENTRY AND JOINERY		
	NOTE: Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill		
	FITTINGS		
	<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 tray) built into new counter including all fixing brackets, screws, jointing, silicone sealing around edges etc. all in accordance with the manufactures specification.</u>		
1	Countertop, 800mm wide provided in single lengths (1000mm) fixed in position as indicated on the drawings .	m	15
	Fixed seating, chaires, etc.		
2	Fixed chairs bolted to the floor as per specification	No	3
	Aluminium louvre units/panels		
	<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>		
3	Purpose made louvre unit/panel size to be confirmed on architectural drawings	m	10
4	Supply and install 600 x 600 Winlocks into brickwork	No	6
5	Supply and install new IPE-200 beam in the CSC supported by new 100x100x6mm SHS posts. IPE-200 beam will be installed above the building ceiling and in between the roof trusses. Details in Drawing 34392.00-201-01 rev T0	Tonnes	20
	Carried to collection summary		
	Section No. 1 Bill No.4 Carpentry and joinery		

Item No	SECTION NO. 2 -BUILDING WORKS	Unit	Quantity
	BILL NO.5		
	METALWORK		
	NOTE: Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill		
	STEEL DOOR FRAMES, DOORS, WINDOWS, ETC		
	Burglar bars, etc.		
1	Galvanised Burglar bars overall size 900 x 2200mm high self closing fitted on the interior with M10 bolts maximum every 300mm of height reveal with frame formed out of 30 x 6mm flat bar frame made to size of window opening, 12mm diameter mild steel round bars fixed to centre of frame spaced maximum 100mm c/c. Bars to be supported with horizontal 30 x 6mm mild steel flat bar for every 1m in height spaced equally.	No	1
2	Galvanised Burglar bars overall size 2000 x 2100mm high with self closing gate with a buzzer (D03) fitted on the interior with M10 bolts maximum every 300mm of height reveal with frame formed out of 30 x 6mm flat bar frame made to size of window opening, 12mm diameter mild steel round bars fixed to centre of frame spaced maximum 100mm c/c. Bars to be supported with horizontal 30 x 6mm mild steel flat bar for every 1m in height spaced equally.	No	1
	Carried to forward		
	Section No. 1 Bill No.5 Metalwork Metalwork		

		Brought forward			
		Section No. 1			
<u>Grenade screens, Roller Shutter doors etc</u>					
3	Grenade screens suitable for window size 600 x 1200mm high (W1), 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		
	Grenade screens suitable for window size 1500 x 1500mm (W2) 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			
Item No		Carried to collection summary			
Section No. 1					
Bill No. 5					
Metalwork					

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SECTION NO. 2 -BUILDING WORKS

BILL NO.6

PLASTERING

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

SREEDS

Screeds on concrete

INTERNAL PLASTER

Cement plaster on brickwork

1 On walls (wall edges in CSC)

Unit Quantity

m²

29

Carried to collection summary

Section No. 1
Bill No.6
Plastering

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Item No	SECTION NO. 2 -BUILDING WORKS	Unit	Quantity
	BILL NO.7		
	TILING		
	NOTE: Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill		
	FLOOR TILING		
	<u>300 x 300 x 4mm ceramic floor tiles fixed with adhesive to screed (screed elsewhere) to match existing and flush pointed with grout</u>		
1	On floors	m ²	67
2	75mm high tile skirting	m	79
	COVER STRIPS, DIVIDING STRIPS, ETC		
3	2.5 X 12mm L-shaped stainless steel edge strip	m	10
4	2.5 X 12mm straight stainless steel edge strip between tiles	m	8
	Carried to collection summary		

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Item No	Section No. 1 Bill No. 7 Tiling		
	SECTION NO. 2 -BUILDING WORKS	Unit	Quantity
2	<u>BILL NO. 8</u> <u>GLAZING</u> <u>NOTE:</u> Tenderers are advised to study the General Preambles for Trades 2017 before pricing this bill <u>GLAZING TO ALLUMINIUM</u> Bullet Resistant Glass (BRG) with a ballistic capacity of 7.2 x 51mm caliber gun including holes drilled to 75mm diameter to allow speech and fitted on reinforced natural anodized aluminium frame, size 1000mm (W) x 1260mm(H) installed complete in accordance with the manufacture's instructions 53mm High Impact (HI) Bullet Resistance Glass (BRG) clear laminated safety glass (Excavations & Brickwork measured elsewhere)		
1	Panes exceeding 0,5m² and not exceeding 2m²	m²	11
	Carried to collection summary		
	Section No. 1 Bill No. 8 Glazing		

Section No. 1
Bill No.9
Paintwork

Bill COLLECTION SUMMARY - SECTION 2: BUILDING WORKS**No** **Page No**

1	Alterations	1
2	Masonry & Concrete Works	2
3	Waterproofing	3
4	Carpentry and Joinery	4
5	Metalwork	5-6
6	Plastering	7
7	Tiling	8
8	Glazing	9
9	Paintwork	10

Carried to final summary

SECTION NO. 3**BILL NO.1****EXTERNAL WORKS**

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

FENCING

1	Excavate in pickable materials for boundary wall Fencing, posts, gates, etc.	m3	32
2	Supply new vehicle access gate, size approximately 5000 x 2435mm high for a gate to accommodate new gate motor and track for properly opening and closing including sensors.	No	3
3	Button remote controls	No	16
4	600mm high galvanized high tensile Flat Wrap razor wire mounted on top of existing brick wall fence to prevent climbing	m	12
5	2mm Thick and 100mm high electro galvanised toughened steel security spikes fastened continuously to top of fence	m	12
Pedestrian gate			
6	Supply and fit self-closing mechanism and intercom system on existing pedestrian gate, size approximately 3500 x 2435mm high complete with electronic magnetic locking system with a manual heavy duty padlock option. The intercom unit shall have a call button with voice communication abilities to CSC.	Item	1
Welded mesh fencing, Gates, etc			
<u>Galvanised security fence with steel pipe posts, staves, gates, etc. including galvanised steel bolts, straining eye bolts, etc. site clearance and preparation of ground</u>			
7	Security fence 2400mm high formed of 50 x 25 x 3,15mm single skin clamber proof fencing consisting of cut resistant carbon hardened and galvanised welded mesh with a topcoat finish of marine fusion bond coat in dove grey colour or as per approved colour. For a detailed specification refer to architectural drawings attached.	m	265
8	Continuous razor wire security roll to top of fence flat wrapped in 700mm diameter rings, tied together and to straining wire	m	403
9	2mm Thick and 100mm high electro galvanised toughened steel security spikes fastened continuously to top of fence, Included bkwf next to swing gate.	m	403
Paving, Ramps etc			
10	Prepare area to be paved and compact to 93% Mod AASHTO maximum density	m²	980
11	Place layer works at 150mm layers	m²	980
12	Soil insecticide/herbicide on compacted areas	m²	980
13	25mm layer of sand bedding	m²	980
14	Lay Class 25 SANS approved 80mm interlocking brick(Grey)	m²	980
15	Construct semi mountable kerbs, all kerbing works shall be done in accordance to the relevant requirements of SANS 927	m	202
16	Construction of concrete disabled ramp according to engineers details	Item	1
17	Eshen & Reid Engravers : Photographically edged emblem on 1100mm x 3mm thick aluminium backing panel in police blue. Approximate weight is 10kg. Include white laser cutted aluminium lettering below the emblem	Item	1

Carried to final summary