



agriculture
& rural development

Department:
agriculture
& rural development
PROVINCE OF KWAZULU-NATAL

PROVINCE OF KWAZULU NATAL

DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

**THIS FORM SHOULD BE COMPLETED IN DETAIL AND SHOULD BE
ACCOMPANIED BY A VALID TAX COMPLIANCE STATUS PIN AND VALID
BBBEE VERIFICATION CERTIFICATE AFDAVIT AND 2CE CIDB CERTIFICATE**

**RENOVATION OF THREE POULTRY HOUSES AT OWEN SITOLE
COLLEGE OF AGRICULTURE**

KINGCETSHWAYO DISTRICT

(UMHLATHUZE LOCAL MUNICIPALITY)

QUOTATION NUMBER: R/N/1819/967

CLOSING DATE: 06 DECEMBER 2018

TIME: 11H00

COMPULSORY SITE INSPECTION

VENUE: OWEN SITOLE COLLEGE OF AGRICULTURE

DATE: 27 NOVEMBER 2018

TIME: 10H00

TENDERERS NAME

CENTRAL DATABASE NUMBER.....

SECTION A

PLEASE NOTE:

**THIS QUOTATION CLOSES AT : LOT 11634, ALOE LOOP STR, VLEDENVLEI
RICHARDSBAY (OPPOSITE UMHLATHUZE
SPORTS COMPLEX)**

CLOSING DATE : 06 DECEMBER 2018

CLOSING TIME : 11H00

QUOTATION NO : R/N/1819/967

**DISCRIPTION : RENOVATION OF THREE
POUTRY HOUSEE
OWEN SITOL COLLEGE OF AGRUCULURE
UMHLATHUZE LOCAL MUNICIPALITY
(KING CETSHWAYO DISTRICT)**

VALIDITY PERIOD : 12 DAYS

CENTRAL DATABASE REGISTRATION NO.....

LOT 11634 ALOE LOOP STREET VELDENVLEI RICHARDSBAY	THE TENDER BOX IS AVAILABLE ON THE FOLLOWING DAYS AND TIMES MONDAY TO FRIYDAYS : 08H00- 16H00
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TECHNICAL ENQUIRIES CAN BE MADE TO: L.P THOVHAKALE

TEL NO 082 332 5324/035 795 1345

CONTACT PERSON FOR DOCUMENTS: MR N.N MBATHA

TELEPHONE NUMBERS 035 780 6727

TABLE OF CONTENT

COVER PAGE S	1-2
PRICE PAGE	3
SPECIFICATION & ITS TABLE OF CONTENT	4
SBD 4.....	5-7
SBD 9.....	8-11

COMPANY NAME :
 ADDRESS :
 CONTACT PERSON :
 CONTACT NUMBER :
 FAX NUMBER :

LINE NO.	DESCRIPTION OR SPECIFICATION OF ITEM (Please be very specific and clear)	REQUIRED QUANTITY	UNIT PRICE EXCL. VAT		TOTAL PRICE	
			R	C	R	C
1.	Refurbishment of a 500 bird broiler unit (see attached Bid documents and plan)	03				
NB	A compulsory site briefing / meeting					
* LABOUR (IF APPLICABLE)						
*DELIVERY (IF APPLICABLE)						
TOTAL						
*ONLY APPLICABLE TO VAT REGISTERED SUPPLIERS			14% VAT			
TOTAL PRICE						

*VAT Registration No. (Supplier) _____

When Required (Requester): 31 August 2018

Where Required (Requester): Osca College

Contact details of requester: Quinton

TEL : 082 332 5324

(COMPULSORY)

COMPANY STAMP

PRICES ARE VALID FOR 30 60 90 DAYS

Mark one Box (X)

SIGNATURE

DATE

**agriculture
& rural development**Department:
agriculture
& rural development
PROVINCE OF KWAZULU-NATAL**BID DOCUMENT FOR THE
REFURBISHMENT OF A 500 BIRD BROILER UNIT***Project Name:..... OSCA COLLEGE*

1. *This document must be read in conjunction with Drawings 1 (500 BIRD BROILER UNIT), 1A (ROOF DETAILS) and, if applicable, Drawing 2 (VIP LATRINE). If the contractor has the impression that the information provided in the drawing(s) and the technical specifications/Schedule of quantities contradict each other or are perceived to be ambiguous, (s)he should point this out to the Engineer and ask for clarification at an early stage, but not later than before the commencement of any construction. The same applies for purported differences between the technical specifications and schedule of quantities.*
2. *The Engineering Services Section (ESS) takes no responsibility for broiler units built on the basis of this document alone without any prior involvement of ESS before (partial) completion. This involvement consists of, but is not necessarily restricted to:*
 - a. *Signing off of the bid/quote document and Drawing(s) by ESS;*
 - b. *Presence of ESS at the handover of the site to the contractor and at the commencement of the work. The contractor is to make sure that ESS is informed of his/her intention to commence the work so that ESS presence can be assured.*
 - c. *Supply to the contractor by ESS of an A1 size plan of the broiler unit and A3 print of the VIP toilet (if required). The drawings supplied with this document are for quoting/bidding purposes only and no construction should take place before the contractor has received the full sized plans.*
 - d. *Regular site inspections by ESS and the processing of invoices on the basis of achieved progress.*
3. *District managers and other departmental end users are therefore required to involve ESS at the earliest possible stage, i.e. during PPC meetings or before submission of the request memo is submitted.*

This documents contains:

No.	Section	Pages	Action
1	A - Project Particulars	2	Read
2	B - General Conditions of Contract	2 - 10	Read
3	C - Project Technical Specifications	10 - 18	Read
4	ANNEXURE A: Pricing Summary	19-21	Complete
5	ANNEXURE B : Payment Schedule	22	Read
6	ANNEXURE C : Additional Information	23-24	Complete
7	DRAWING 1: 500 Bird Broiler Unit	DR01	Read
8	DRAWING 1A: Roof Details All Poultry Units	DR01A	Read
9	DRAWING 2: Ventilated Improved Pit latrine	DR02	Read



A) PROJECT PARTICULARS

1) PROJECT DESCRIPTION / BACKGROUND:

The contract covers the supply of all material and fittings and construction of a 500 bird broiler unit and associated works (fencing). Documents to accompany this bid specification are listed on the cover page.

2) LOCATION

District:.....Uthungulu.....

Local Municipality:.....uMhlatuze.....

The site is situated inOSCA College.....at approximately...18.km NE from.....Empangeni.....

3) SCOPE OF WORKS

The contract covers the supply of all material and fitting and construction of all works relating to the broiler unit and fencing. The following are the scope of works for the project.

Details of these works are specified in **Section C: Project Technical Specifications**.

Standard items

- .1 Site establishment.
- .2 Earthworks: Excavate topsoil from the area to be concreted over. Compact soil to 95% ModAASHTO.
- .3 Setting out of shed and digging of the foundations and holes for the poles;
- .4 Supply all materials required for the structure and entire works (throughout contract).
- .5 Cast concrete around poles and erect timber structure as per specifications and drawings.
- .6 Brick up walls up to floor level;
- .7 Cast concrete floor in panels in accordance with drawings and specifications;
- .8 Finish all walls up to roof height and install doors;
- .9 Complete roof structure with gutter and fasten weld mesh unto poles;
- .10 Build tank stand, place and secure tank and connect tank to gutter;
- .11 Supply material for and erect fencing according to drawing and specifications.
- .12 Supply poultry equipment and chicks and train beneficiaries in use of equipment.

Special items:

- .13 Construction of a VIP latrine (*This is not standard and may not be required for this project*)
- .14 Supply & installation of 8 florescent lights. (*This is not standard and may not be required for this project*)

B) GENERAL CONDITIONS OF CONTRACT

BID DOCUMENTATION:

1) BIDDERS TO CHECK COMPLETENESS OF DOCUMENT

The Bidder is required to check the number of consecutively numbered pages and should any found to be missing or in duplicate, or the text of figures indistinct, or should there be any doubt or obscurity as to the meaning of any part of these documents, the Bidder must ascertain the true meaning or intent of the same prior to the submission of his/her Bid, as no claims arising from any incorrect interpretation will be admitted.

2) SCHEDULE OF VARIATIONS

If the Bidder chooses to suggest alternatives in his bid proposal, these should be *at least* of equal standards to the original specifications. All materials used must be SABS approved. In the case of variations being suggested, Section K of Bid form ZNT 1 will have to be completed.

3) APPLICABLE STANDARDS: SPECIFICATIONS & MATERIALS

For the purpose of this Contract the relevant SANS specifications shall apply- specifically SABS 1200: *Standardized Specification for Civil Engineering Construction* specifications shall apply. The following sections shall in particular apply here: **SABS 1200 AA - 1986** (General - Small Works), **SABS 1200 DA -1988**



(Earthworks - Small Works) and **SABS 1200GA – 1982** (Concrete - Small Works). All materials to be SANS approved and installed to applicable standards specified by SANS, NBR, or the manufacturer. The Bid shall refer to "the Standard (Abridged) Preamble for all trades", which covers the following (only the items in italics apply to this contract):

STANDARD (ABRIDGED) PREAMBLES TO ALL TRADES		
INDEX		
		Page
1	<i>EARTHWORKS</i>	3
2	<i>CONCRETE, FORMWORK AND REINFORCEMENT</i>	3
3	<i>BLOCK AND BRICKWORK</i>	6
4	<i>WATERPROOFING</i>	8
5	<i>CARPENTRY AND JOINERY</i>	8
6	<i>FLOOR COVERINGS, PLASTIC LININGS, ETC.</i>	11
7	IRONMONGERY	13
8	<i>SCREEDING AND PLASTERING</i>	16
9	TILING	18
10	<i>DRAINAGE AND PLUMBING</i>	19
11	SANITARY PLUMBING AND FITTINGS	25
12	FIRE EXTINGUISHERS	31
13	GLAZING	31
14	<i>PAINTING</i>	31

4) VALIDITY PERIOD FOR BIDS AND QUOTES

Quotes shall remain valid for a period of 30 days after the closing day for the quote.

Bids will remain valid for a period of 90 days from date of the closing of the Bid.

However, in both cases prices are assumed to be firm for the entire period of the project (see also clause 33).

SITE CONDITIONS AND FACILITIES AVAILABLE:

5) COMPULSORY PRE-BID BRIEFING MEETING

A compulsory pre-quote/bid site briefing and consultation meeting will be held with prospective Bidders. Attendance at the meeting will be compulsory and non-attendance shall invalidate any quote/bid. The date and time of the meeting will be published in the Bid Advertisement or, in the case of a quote, be communicated when the prospective service provider is invited to quote.

6) HANDOVER OF SITE TO CONTRACTOR

The Contractor will be introduced to the project participants following the Bid award. The site will be handed over to the Contractor who will control the site for the contract duration. Only the Contractor's own employees, Contractor's local labour and Departmental Representatives will be allowed on site. The Contractor is responsible in the administration, control and security on the site at all times during the contract duration.

7) WATER AND POWER

There is no power or piped water available on site. The Contractor shall make the necessary arrangements for the provision of any water and power. No payment will be made for the provision or use of these services and the cost of these shall be included in the Bid/quoted amount.

8) LOCATION OF CAMP

The Contractor's camp may be erected on the site of the works but must meet the approval of the Engineer, project beneficiaries and land owners. No persons other than a night watchman may sleep in the camp, without the approval of the local participants and Chairperson.



9) HOUSING OF CONTRACTOR'S EMPLOYEES

No housing is available for the Contractor's employees and the Contractor shall make his own arrangement for housing his employees and transporting them to and from the site. However it may be possible to arrange temporary local accommodation for the Contractor's staff with the participants. The Contractor is in all respects responsible for the housing and transporting of his employees, and for the arrangement thereof, and no extension of time due to any delays resulting from this, will be granted.

10) LOCAL LABOUR

Unskilled labour may be available from the project participants or local community. The Contractor and the Departmental representative (Engineer or local Extension officer) may negotiate with the participants in this regard to establish all the conditions for the utilization of the local labour. Nobody besides those directly involved with the project (ie: the Contractors workers and local labour) are allowed on site. The Contractor shall provide his own trained and skilled labour. The Contractor will be responsible for all hiring, payment, housing and transport of any and all labour used for the contract duration.

11) SECURITY & RISK

Except for the necessary security personnel no person shall be allowed on the construction site after normal working hours. The Contractor shall be responsible for all plant, machinery, equipment and materials on site. The Engineer shall not be responsible for any lost, damaged or stolen property or materials. Should any of these situations arise, no allocations will be made in terms of finances or time.

12) MATERIALS: DELIVERY, ON & OFF-LOADING, STORAGE AND RESPONSIBILITY

The approved contractor shall be responsible for the safe delivery, loading, off loading, handling and storage of any equipment and materials on site. All equipment, materials and plant stored on site must be suitably protected against deterioration through any cause whatsoever, including damage or loss by theft or otherwise. The Contractor shall remain fully responsible for all material and plant etc. until the completed works are handed over and has been officially accepted by the Department.

13) EXISTING ROADS, MUNICIPAL PAVEMENTS, ETC.

The Contractor is advised that he will be held responsible for any damage to the existing pavings, roads, municipal pavements, fences, boundary walls, etc., and will have to make good at his expense.

14) DAMAGE TO PROPERTY

If the Contractor or his workmen while engaged in the execution of the contract, shall break, deface, injure, destroy or allow to fall into disrepair any part of the Works or property belonging to the Employer, or any private property including: buildings, pavings, roads, fences, walls or grounds contiguous to the premises of the Employer on which he or they may be employed, the Contractor will be required to made good, in a perfect and workmanlike manner, at own expense all damage to the approval of the Employer. The Completion Certificate will not be issued until the Employer is satisfied that all necessary remedial work has been satisfactorily completed.

The Contractor shall take every precaution against damage or nuisance being caused by dust both to the properties of the Employer and all surrounding properties and shall indemnify the Employer against any claim that might arise there from.

15) UNDERGROUND CABLES AND PIPES

If such services is/are discovered, immediate notification must be made to the Employer and all work in the vicinity of such cables, pipes, etc., shall cease until safe to proceed. Should the Contractor damage underground cable or pipes such damage shall be repaired as soon as safe and possible by the Contractor. The cost of making good such damage will be met by the Contractor as this must be covered by the Contractors works insurance.

16) DAILY RAINFALL RECORDS

The Contractor shall keep **daily rainfall records** and submit them to the Department's representative at every site meeting, or fortnightly by fax in the absence of such visit. No additional payment shall be made for the supply and installation of the rain gauge or for the keeping of the rainfall records and all costs must be included



in the scheduled items. Submission of rainfall figures is required for the granting of permission of extending the contract period on the basis of inclement weather.

INSPECTIONS:

17) INSPECTION OF WORK

The Head of Department or his Representative may at all reasonable times have access to the Works and/or the workshops or other place where work is being prepared for this Contract for inspection. The Engineer may request that evidence of the quality or strength of any materials be supplied by the contractor as may think necessary. Should the Head of Department or Representative consider any materials objectionable or if it shall appear to him at any time during the construction, or prior to the expiry of the defect liability period, that any part thereof has been executed with unsound or imperfect materials or with unskilled or imperfect workmanship, the Engineer will notify the Contractor who shall cause the objectionable materials to be instantly removed from the premises and to be replaced by good and suitable materials, and shall rectify or reconstruct the Works in whole or part, as the case may be at the Contractors own proper cost or charge.

18) NOTICE OF COVERING WORK

The Contractor shall give due notice to the Head of Department or Representative whenever any work or materials are intended to be covered in with earth or otherwise in order that their correct dimensions and quality may be ascertained before being covered, and in the event of any such work or materials being covered without such notice having been given, the work or materials shall be uncovered at the Contractor's expense on instructions given by the Employer.

19) COMPETENCY OF THE CONTRACTOR:

This bid is open for contractors with a Construction Industry Development Board (CIDB) data base grading of **at least 2CE. The contractor is to submit evidence of his/her OWN registration. CIDB registration of possible sub-contractors would be recommended, but will not make up for non-registration by the contractor quoting/bidding for the work.** The Department reserves itself the right to disqualify any quote/bid in the event of substantial unsatisfactory reports being obtained about the proponent of such a quote/bid.

20) CONTRACTOR TO PROVIDE EVERYTHING NECESSARY

The Contractor shall provide everything necessary for the proper execution of the Works according to the true intent and meaning of the Drawings and Specification taken together. The Contractor shall provide without extra charge all assistance and everything reasonably necessary for proving the quality of work done as may be required by the Regional Engineer.

21) SUB-CONTRACTED WORK

The contractor shall not sub-contract the entire contract. The contractor must indicate in **Annexure C2 – Additional Information: Subcontracted works** which part(s), if any, (s)he intends to subcontract. In case the contractor decides to subcontract part of the work (s)he shall obtain written consent of the Engineer, which shall not be unreasonably withheld. Any such consent shall not relieve the contractor from any liability or obligation under the contract and he shall be liable for the acts, defaults and neglects of any sub-contractor, his agent or employees as fully as if they were the acts, defaults or neglects of the contractor, his agents or employees.

22) VARIATIONS / 'AS BUILT' DETAILS

No variations or alterations may be made without the prior approval of the Regional Engineer or his delegated representative. As the work progresses, the Contractor shall keep full records of all amendments to and deviations from the specifications as issued to the Contractor at the start of the contract. These details will, where appropriate, be noted on the supplied drawing. All alterations will be deemed to have a zero additional cost implication. If any additional works are required that have an additional cost implication then these must be handled as a contingency and must first be authorized in writing by the Regional Engineer. Refer to notes on contingencies.



23) VERIFICATION OF EXPERIENCE

The proponent of a bid/quote will be required to produce adequate and sufficient references to enable the Department to inspect previously completed projects and assess his/her capacity. He/She shall provide such information in **Annexure C3 – Additional Information: Experience**.

24) EQUIPMENT & RESOURCES

The proponent of a bid/quote shall in **Annexure C1 – Additional Information: Equipment and Resources** and by way of supplementary information satisfy the Department that sufficient equipment is possessed to execute the services or an indication shall be given as to the manner in which such equipment would be sourced. Should (s)he not be able to prove possession of or ability to access sufficient equipment, the Bid/quote will be wholly disqualified. The Department reserves the right to investigate the existence and/or proposed sourcing of equipment.

25) LABOUR CAPACITY

The proponent of a bid/quote will be required to satisfy the Department that a sufficient and experienced labour force is employed or that sufficient experienced labour can be acquired to complete the services and produce a fair quality of workmanship. The Contractor shall only employ such persons on the Works as are thoroughly efficient and of good character. If in the opinion of the Head of Department or Delegated Representative any person employed by the Contractor misconducts himself or is likely to cause or has caused quarrels, or delay, or is incompetent, the Contractor when so directed by the Head of Department or Delegated Representative shall at once remove such person from the site.

PRELIMINARY CONDITIONS:

26) LOCAL AND OTHER AUTHORITIES NOTICES AND FEES

The Contractor shall comply with and give notices required by any Act of Parliament, Act of the KwaZulu-Natal Provincial Legislature, Laws, Regulations and By-Laws of any Local Authority and/or any public service company or authority relating to the Works or with whose systems the same are or will be connected, and he shall pay and indemnify the Employer against any fees or charges demandable by law thereunder in respect of the Works provided that the said fees and charges, if not expressly included in the Contract Sum or stated by way of Provisional Sum shall be added to the Contract Sum and be payable to the Contractor accordingly.

The Contractor before making any variation from the Drawings and Specification necessitated by such compliance shall give to the Regional Engineer written notice specifying and giving the reason for such variation and applying for instructions in reference thereto. If the Contractor within twenty-one days does not receive instructions he shall proceed with the work conforming to the provision, regulation or by-law in question, and any variation necessitated as aforesaid shall be deemed a variation and dealt with as such.

27) INSURANCE

All accepted approved contractors would be required to provide the following insurance's for the project awarded to them:

- Registration with the Compensation Commissioner and compliance with the Compensation for Occupational Injuries and Diseases Act with regard to insurance.
- Unemployment insurance fund for all workers.
- Insurance against damage, destruction or loss caused by fire.
- Public Liability insurance.
- All risks (works) policy and Political for the value of the respective project plus 10%.

GENERAL CONDITIONS:

28) PROTECTION OF THE PUBLIC

The Contractor will be required to pay particular attention to watching and warning lighting and must provide any necessary barriers, etc., required for the protection of the public in terms of the existing Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) as amended.



29) SITE SAFETY

During the construction the regulations of the Occupational Health and Safety Act No. 85 of 1993 and Machinery and Occupational Safety Act (Act 6 of 1983) will apply. By submission of a Bid/Quote the proponent acknowledges and agrees that, should this Bid/quote be accepted, (s)he is an employer in his own right with duties as prescribed in the Occupational Health and Safety Act No. 85 of 1993 and amendments thereto and the corresponding Construction Regulations 2003 will ensure that all Works to be performed or machinery and plant to be used in the Works will be in accordance with the provisions of such regulations.

(S)he also agrees that he is aware of the fully understands all the provisions of such regulations. All equipment, machinery, tools and safety equipment used on site are to be in a safe operating condition and are to be used in a safe and considerate manner by suitably trained and experienced workers. The Contractor is responsible for all such monitoring and control of site operations and equipment throughout the works for the entire contract duration. All necessary safety equipment required to construct the facility must be used by the workers where appropriate and are for the contractor's responsibility and provisioning. A first aid box is to be provided and available at all times on site during working hours and is to comply with the requirements of the Occupational Health and Safety Act. The Contractor shall ensure the safety of all work left standing in an incomplete state during the construction and shall be responsible for all damage or loss caused by his failure to ensure the safety of such incomplete work.

Site operations requiring special attention include but are not limited to: Any excavations; plant, machinery and equipment operations; any chemical storage and usage whatsoever; any works requiring elevated personnel such as for roofing, elevated building works requiring ladders or scaffolding etc...; any works with overhead elevated operations or construction. Please also refer to item "Safety" in **Section C: Project Technical Specifications**.

30) PROTECTION OF THE PUBLIC

The Contractor will be required to pay particular attention to watching and warning lighting and must provide any necessary barriers, etc., required for the protection of the public in terms of the existing Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) as amended.

31) INJURY TO PERSONS

The Contractor shall be liable for and shall indemnify the Employer/Engineer in respect of any liability, loss, claim or proceedings whatsoever, whether arising in Common Law or by Statute in respect of personal injuries to or death of any person whomsoever arising out of or in the course of or caused by the execution of the Works.

32) DISAGREEMENTS

a) Notice of disagreement

The Contractor has the right by written notice to the Engineer to require him to consider any disagreement which he raises with the Engineer provided the said written notice shall be given within 14 days after the cause of disagreement has arisen.

(b) Ruling on disagreements

The Engineer shall give a ruling on the disagreement in writing to the Contractor no later than 14 days after his receipt of a written request from the Contractor requiring him to do so, failing which he shall be deemed to have given a ruling dismissing all the Contractor's contentions.

PRICING AND PAYMENT STRUCTURES:

33) FIXED PRICE CONTRACT

The contract shall **not** be subject to contract price adjustment. Proponents of Bids/Quotes must therefore allow for increase cost for the contract duration, including possible delays in awarding the Bid in accordance with the validity period.



34) PRICING - COMPLETENESS OF BID/QUOTE

- i. Proponents of Bids/Quotes will be required to Bid for **all** services, products and commissioning as specified in this document and associated plans. **If (s)he does not Bid/quote on all items, his/her Bid/quote may be rejected.**
- ii. All bid/quoted prices for separate items are to be in South African currency and must **exclude** VAT.
- iii. All items as described in the project specification are to be priced in full.
- iv. Transport/Delivery costs must be included in the pricing. It must not be a separate item.
- v. VAT must be filled in as the sub total followed by the complete price for the entire project.
- vi. The Bid price must have your company stamp, date and be signed by an authorised person.

35) QUANTITIES OF WORK

The Contractor shall receive payment only for the works actually executed and approved by the Engineer. No claim for an extra or for any addition, or for any variation shall be entertained unless such extra, addition or variation was ordered in writing by the Head of Department. Such a variation will be dealt with as a contingency only if the variation has an additional cost implication. See item on 'contingencies'. No objection to the description or terms of the Order in Writing will be entertained unless lodged in writing with the Head of Department within twenty-one (21) calendar days of the date of the order.

36) PROGRESS PAYMENTS

The contractor may submit claims for progress payments only on completion of the hereunder listed levels. Payment shall only be paid for claims, which are commensurate with the works actually executed and complete. NOTE: Payment will only be made against the construction progress as pertaining to built items. Movable items and materials on site are excluded from progress payments until they have been fully installed or fitted or built up. If any item or part of an item in an invoice is disputed by the Engineer, the Engineer shall give notice of such with reasons.

The contractor shall be paid in up to a maximum of seven installments. Refer to **ANNEXURE B: Payment Schedule** for the values of each phase. These values shall be adhered to during the payment process. Part payments will be made after the Department has approved the completion of each construction phase, in accordance with the retention clause (see below). The penultimate payment occurs after practical works completion. The final payment will be made after the 90 day retention period when the contractor has dealt with all defects, if any.

37) RETENTION

A 15% retention will be withheld on payment for each of the first five construction phases. The Department will pay out two-thirds of this retention, or 10% of the bid value as part of the sixth payment, at **practical completion** of the works. The remainder, viz 5%, will be paid out at **final completion** after expiry of the defect liability period (90 days after practical completion), the bidder having eliminated all defects. See **ANNEXURE B: Payment Schedule** for details.

38) DEFECT LIABILITY PERIOD

An amount of 5% of the contract value for the works will be withheld as defect liability retention. This amount is included in the 15% retention. The contractor shall unconditionally guarantee all materials, workmanship related to the works for a minimum period of three (3) months. The guarantee shall cover any defects due to inferior materials and/or workmanship of the Contractor, or any of his sub-contractors, fair wear and tear excepted. The Contractor shall repair, remedy or replace any such defects, part or complete works without delay and at his own cost.

If any defects are not remedied within the period specified by the Head of Department, then the Head of Department shall have such defect repaired at the risk and cost of the Contractor by another Contractor whom the Head of Department deems to be proficient in the work without prejudice to any rights the Head of Department has against the defaulting contractor. The Head of Department will give written notice to the Contractor of such instances where he appoints another Contractor to remedy defects in the works.

39) ANCILLARY MATERIALS AND EQUIPMENT

A fixed amount of R 25,000 has been set aside to cover any unforeseen expenditure which was not provided for in the Schedule of Quantities and which could occur due to project specific circumstances. If such a situation were to occur according to the contractor, he will notify the Engineer and seek his approval for



expenditure against this item. Provided that approval was given, other than verbal, the contractor will be paid proven expenditure, plus a 10% mark up.

40) SERVICE LEVEL AGREEMENT

The successful Bidder and the Department will sign a Service Level Agreement prior to commencement of works. A proposed schedule of works must be provided by the contractor for the approval of the Engineer within 2 (two) weeks of receiving notification of a successful bid. A required payment schedule will be made in accordance with % works complete (based on installation/work completed on site). Verification of the % complete will be at the sole discretion of the Engineer.

41) COMMENCEMENT OF THE WORKS

The Department will organize a site hand-over to the contractor who will then be introduced to the project stakeholders and participants. The site shall only be accessible to contractor staff and Departmental representatives while work is in progress. The site will be handed back after practical completion. Site establishment must start **within two weeks**, and the actual works **within three weeks** after hand-over of the site, provided that an official order has been issued and that no exceptional circumstances such as inclement weather or other outside the control of either party to the contract prevail. In the case the work has not commenced within three weeks of the hand-over and no attenuating circumstances for the delay can be provided, the Department reserves itself the right to cancel the contract and appoint one of the other contractors that have Bid for the works.

42) RATE OF PROGRESS

The Works shall be completed within the time period indicated on the official order form.

If the Works are delayed by cessation of work by any workmen, inclement weather, or by any omissions, additions, substitutions or variations of the Works, or of any items of work, labour or material, or by an other causes beyond the Contractor's control then the Contractor shall have the right within twenty-one days of any such cause of delay arising, to apply in writing to the Department to extend the date of completion, stating the cause of delay and period of extension applied for.

The Department upon receipt of such written application may by order in writing extend such date of completion by a period to be determined, or may refuse to extend such date of completion, or may postpone giving a decision upon such application until completion of the Contract period set out in sub-clause (a) of this clause. The date of completion will be extended only to the extent approved by the Department.

Should the Contractor fail to apply in writing for an extension within the time set out above, or should the Department refuse to grant any extension in writing, then the Contract period provided by sub-clause (a) of this clause shall not be exceeded. When the Works are completed the Department will give a completion certificate and the date of such certificate shall be the date of commencement of the guarantee period.

43) TIME TO BE OF THE ESSENCE

Time shall be considered as the essence of the Contract. If, therefore, the Contractor fails to commence work or the Works or to proceed with and complete the Works in compliance with the projected timeframes, then the Head of Department shall have the right in his/her absolute discretion to adopt and exercise all or any of the following courses wholly or partly, viz: -

- To direct the Contractor, in writing, on any day named therein to suspend and discontinue the execution of the Works, and to withdraw himself and his workmen from the said Site or Sites, and thereupon: -
- To make any Contract or Contracts by calling for Bids or otherwise with any other Contractor or Contractors for the completion of the Works, or any part thereof, at such times and upon such terms as to the Department shall deem best.
- To provide such number of men, or purchase such materials, or both provide the men and purchase the materials as to him shall seem fit and proceed with and complete the said Works.

In relation to the foregoing provisions the Department shall charge any sums of money which may be paid by the Department for completing the said Contract against the Contractor and if such amount shall exceed this Contract, then the Department shall have the right to recover such excess or any balance thereof from the Contractor by legal proceedings.



44) PROGRAMME AND PROGRESS PAYMENTS (AFTER CONTRACT AWARD)

The contractor is to supply a Gantt chart with the proposed times of completion of each phase and associated progress payment request for the project. At least four (4) progress payments are suggested at any of the stages as detailed in *Annexure B*.

45) PERIOD OF COMPLETION

The project is to be completed **within 3 months of award of the contract (90 calendar days)**.

46) PENALTY CLAUSE / FINES FOR LATE OR NON-COMPLETION

If the contractor does not complete the work **within the time stipulated** and no extenuating circumstances can be given for the delay, the Department may impose a fine as detailed below. The total will be subtracted from the retention allowance. If the contractor fails to complete the works and the Department is forced to employ another contractor to complete the works, the defaulting contractor will be held liable for the costs as far they exceed the original total Bid value. Refer also to the breach of contract and penalty clauses in ZNT 6, condition 4, section B. The Engineer may decide to deduct a penalty for late completion of up to **R200/working day delay**. This will be deducted from the retention.

C) PROJECT TECHNICAL SPECIFICATIONS

1) SCOPE OF WORKS

The works include, but are not necessary restricted to, the following activities:

- Site establishment.
- Supply all materials required for the structure and entire works (throughout contract).
- Cast concrete strip foundations for tank stands
- Build stand walls up to floor height and fill with compacted soil and sand
- Finish repairs and painting of walls and existing steel supports to roof height
- Remove existing roof and purlins
- Attach new purlins to rafters and to walls;
- Attach roof sheets to purlins;
- Fasten tie beams to poles, rafters at rear and fix weldmesh to tie beams and poles;
- Supply all materials for curtains and install;
- Fix fascia boards to rafters and barge boards to beam affixed to purlins
- Fix gutter to tie beams at rear and connect to tank;
- Supply material for and erect fencing according to drawing and specifications.
- Construction of VIP latrine (if applicable).
- Installation of electricity for 8 florescent lights and heaters, plus connection to the grid (if applicable).

2) PRELIMINARIES AND GENERAL

The contractor is to note that all insurances (UIF, workman's compensation, works, public liability etc.); site and equipment safety; site establishment and security; services (water and electricity); testing of materials and any specialist services are for the contractor's responsibility and attention throughout the contract duration until handover of the project. The Department reserves the right to stop progress of the works in case of non-compliance until these conditions are complied with.

**3) EARTHWORKS AND SITE PREPARATIONS**

Normal regulations regarding safety, municipal by-laws, contamination of water sources, erosion, siltation etc. will still apply. Site preparations & establishment: SABS 1200 AA (4).

Setting out of works: SABS 1200 AA (5.1.1)

- 1 **Orientation:** The longitudinal axis of the building shall be placed in an **east-west direction** with the lower side of the mono pitch roof facing in the direction of the prevailing wind.
- 2 The site, including an area extending to at least 3 metres beyond the actual building, must be cleared and stripped of all plant materials, roots and topsoil prior to site leveling.
- 3 The cleared and stripped material is to be stockpiled away from the construction site and is to be leveled/replaced once all construction is complete.
- 4 The site is to be leveled prior to any construction.
- 5 Compaction of the site shall take place at optimum moisture content (OMC) to a maximum dry density of at least 95% of Mod. AASHTO. The Contractor shall arrange independent compaction testing, before the floor slabs are cast. Four (4) distributed places per site shall be tested, once off, after completion of the compaction of the floor base. **(test results are to be provided)**. The floor is to be inspected prior to the pouring of any concrete.

4) MATERIALS AND CONSTRUCTION

All materials must be newly purchased and conform to SABS specifications for the products. This includes all items such as bricks, blocks, brick reinforcement, damp proofing, lintels, glazing, plumbing and drainage, curtains, etc... All construction works must conform to the applicable standard specifications and installation requirements as per NBR requirements and manufacturers recommendations. All concrete works to conform to CNCI standards and recommendations.

5) STANDARD CONCRETE MIXES:

- Mixing, pouring and curing of concrete: SABS 1200 GA (5.4)
- Materials: SABS 1200 AA (3); SABS 1200 GA (3)
- Cement: Common cement 32,5N or R to SANS 50197-1
- Testing: SABS 1200 AA (7); SABS 1200 GA (7)

STANDARD CONCRETE MIXES:

Cement and aggregates shall be mixed by volume and the contents of a 50kg sack of cement shall be taken to be 0,033m³. Water addition should be kept to a minimum. Only sufficient water should be used to produce a workable mix of 60-100mm slump. A recommended maximum water : cement ratio is 1 for a 10MPa; 0.8 for a 15MPa; 0.65 for a 20MPa; 0.59 for a 25MPa; 0.53 for a 30MPa mix, however the lower the ratio the better the durability of the concrete. Approximately 210 litres per m³ of concrete is required for an average quality sand and optimum quantity 19mm stone.

Concrete for non-structural purposes shall be "Prescribed mix concrete" produced in accordance with the requirements indicated in table 5.1, and the Contractor is also referred to the foregoing preambles insofar as they apply: -

Class of Concrete	Estimated Minimum Compressive Strength in MPA at 28 Days	Maximum Nominal Size of Coarse Aggregate in mm	Proportion of Constituents		
			Cement (Parts)	Fine Aggregate (Parts)	Coarse Aggregate (Parts)
A	10	37,5	1	4	5
B ¹	15	19,0	1	3	4
C ²	20	19,0	1	2,5	3,5
D	25	19,0	1	2	3
E	30	19,0	1	2	2½
¹ This project: foundations + pole bases			1 (=1.5 bags)	4	4
² Shed floor, tank stand floor, apron			1 (=1.5 bags)	3	3



PLASTER CLASS:	MIX RATIO: (By Volume)	MASONRY CEMENT: kg	LIME: L	SAND: (loose and damp) L (max)
Rich mix (fdns, wet areas)	1 : 4	50	0-10	130
General purpose	1 : 5	50	0-40	165

MORTAR CLASS	MIX RATIO: (By Volume)	MASONRY CEMENT: kg	LIME: L	SAND: (loose and damp) L (max)
I	1 : 4	50	0-10	130
II	1 : 6	50	0-40	200
This project	1 : 5	50	0-25	165

FINISHES TO IN-SITU CONCRETE

- **Class U1 Ordinary Finish**

Immediately after placing, the concrete shall be finished rough by screeding with the edge of a wooden board of straight and true line and working between guides set accurately to level.

No mortar shall be added and noticeable surface irregularities caused by the displacement of coarse aggregate shall be made good by re-screeding after removing or tamping down the offending aggregate.

- **Class U2 Wood Float Finish**

The concrete surface shall first be brought to the standard Class U1 ordinary finish and then floated with a wood float. Floating shall be started as soon as the screeded finish is stiffened sufficiently and bleed water has evaporated or been removed and it shall be the minimum necessary to produce a surface free from screed marks and uniform in texture.

- **Class U3 Coarse Brush Surface Finish**

The concrete surface shall first be brought to a Class U1 ordinary finish. A coarse brush finish is then applied with a coarse bristle brush. "Brushing" shall be started soon after screeding to produce a uniform patterned coarse surface finish with a rough surface texture in the direction of the desired drainage direction.

- **Class U4 Steel Float Finish**

The concrete surface shall first be brought to the standard Class U1 ordinary finish and then floated with a steel power float. Floating shall be started as soon as the screeded finish is stiffened sufficiently and bleed water has evaporated or been removed and it shall be the minimum necessary to produce a surface free from screed marks and uniform in texture.

6) FOUNDATIONS

- 1 Shed: Trench depth is 450mm for walls and 600mm for poles. Dimensions for strip foundations are 400 x 150mm. First 1.5 course of blocks underground. Strip foundations to extend under doorstep. Pole bases are 400 x 400 x 600mm.
- 2 Tank stands (2x): Trench depth is 350mm with same foundations as shed. Only 1st course is underground.

7) FLOORS

- 1 **Sub-Base:**

The **soil layer** under the floor slab is to be well and uniformly compacted. Backfilling & soil compaction to SABS 1200 DA (3.2; 5.2.3.2). The floors are to be on a leveled base and well compacted to minimum 95% Mod AASHTO – Contractor to supply test results proving compaction results – Department Engineer to be notified of test and observe test procedures. **The base, running under a 1% slope, is to be inspected prior to laying of the damp proofing or pouring of any concrete. Sub base to run under a 1% slope.**

- 2 Pest control soil poisoning is to be applied under floor by reputable pest control specialists (registered with the Department of Agriculture and members of the pest control association). Certification is to be provided.



- .3 Damp proof USB sheeting (green or black, minimum 250 micron thickness) is required throughout the structure. It is to be laid on the compacted sub-base and ending on top of 1st row (4th row above foundation (see Drawing Section A-A) above floor level.
- .4 **Reinforcement: No reinforcement is required.**
- .5 **Floor:**
 - (1) Top floor level must be 350mm above ground level;
 - (2) Class C concrete and surface finishes as per drawing (min U2): $\geq 20\text{MPa}/19\text{mm}$, 1:3:3 mix, slump to SABS 1200GA (5.4.1.2).
 - (3) The floor and aprons are to be a minimum of 75mm thick with a class U2 finish. Floors should have a 1% slope from front to back; the apron 5%. An **inspection** is required during the pouring of the concrete.
- .6 **Formwork:** 75mm high *rigid* formwork with keys.
- .7 **Screed:** a 25mm screed (mix 1:4 river sand) is to be applied within seven days after pouring of the concrete in such a way that water can be drained at the back of the structure. Screed must be shaped in such a way that the inside door can open freely.
- .8 **Curing:** The floor slabs (2.8 x 2.5m) are to be properly cured for a minimum period of seven days by keeping moist and covered over this time or by applying a concrete curing compound (applied as per manufacturer's specifications). The curing compound is to be applied after the floating process.
- .9 **Apron:** A concrete apron is to be constructed around the entire structure 500mm wide. The dimensions are to be 75mm thick and slope away (5%) from the structure.

7) TIMBER STRUCTURE: POLES

- .1 Poles to be 125-150mm diameter, 3.6m long in front and 3.00m at the back. All rafter-poles connections to cross at right angles and to be joined with **15mm** (minimum) threaded steel bars (handbars) cut to size. Use hexagonal nuts and washers (min. 2mm thick).
- .2 Purlins to be joined longitudinally with hurricane clips.
- .3 Notch out top of poles to enable interlocking with the 76 x 228 rafter beams. Use 2 threaded bars per pole.
- .4 Poles to be spaced 1.58m apart in concrete bases (600 x 400 x 400mm), 1:4:4 mix with Class U1 surface finish to be used for all concrete bases: 15MPa/19mm, slump to SABS 1200GA 5.4.1.2 mass concrete). Bases must be free draining (**no concrete under pole head**).

8) ROOFING: SHEETING & INSULATION

- .1 The roof pitch is 8.5 degrees (15% - see drawings) with an overhang of 250mm on the sides, 400mm in front and 350mm at the rear. 20 degrees in areas with snow loading.
- .2 Roof to be made of grade 10.5 full hard corrugated galvanized iron sheets 6000 x 840 x 0.3mm (eff. width 0.762m), or grade 8 with effective width of 610mm. Corrugated galvanized sheeting is to be fixed to purlins with self tapping roofing bolts (**minimum 4 per sheet per purlin**), hook bolts or equivalent, both as roofing and as cladding.
- .3 Purlins to be fastened to rafters with hurricane clips. 2 x 4 nails per clip.
- .4 All purlins to be fastened to the walls on both sides with 8 gauge wire running under third row of blocks from the top.
- .5 Polyethylene and aluminium foil roof insulation 4mm to adhere to SABS 1381 standards. Use double sided Alucushion or equivalent.
- .6 Foil to be fitted between roof sheets and purlins supported by 2.5mm binding wire, 1 line in between 2 purlins, 8 lines in total.

9) ROOFING: TIMBER

- .1 All roofing timber to be TBTO treated and SABS approved. **NO retread beams may be used.**
- .2 Rafters are 228 x 76mm SA pine. Tie beams for gutters, curtains and weldmesh are 38 x 114mm.

10) ROOFING: GUTTER AND FASCIA BOARDS

- .1 The roof shall be fitted with suitable PVC guttering (125mm, use metal brackets), and down pipes for water collection into the supply tank.
- .2 Gutter brackets to be mounted on 3000 x 300 x 12mm fascia boards which must be connected with fascia joiners or jointing plates.



- .3 Drill fixing holes to attach fascia boards to rafters to avoid breakage (Do *not* use hammer drills and masonry bits) and use two screws per rafter.
- .4 Supporting timber (i.e. 38 x 114mm pine beam) must be fixed against the rafters in front and at the rear as additional support for the fascia boards. This is done by notching out the top of the rafter ends so that the outside face of the beam will be flush with the uncut ends of the rafter (See Drawing Detail A).
- .5 300 x 10mm fibre cement/Nutec fascia boards on the sides of the building to be fitted on 38 x 150mm tie beams which in turn are joined against the purlin ends with nails and hurricane clips as indicated on the drawing (2 per connection).
- .6 Gaps between weldmesh top and roof to be closed with fibre cement or uPVC fascia boards. See also 12).

11) WALLS

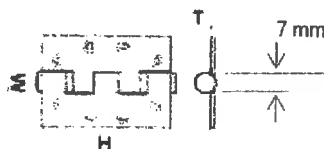
- .1 Brickforce to be used every second row of blocks. SABS damp proof course is required at the base course above the floor slab level throughout.
- .2 Blocks must be SABS approved. Use only SANS M150 blocks. The mortar is to be a 1:4 cement-building sand (*not* river sand) mix. Cement is to be Portland cement of normal setting quality, is to comply with SABS Specification 471, and must be used fresh. Cement containing more than 15% blast furnace slag will not be permitted to be used.
- .3 There shall be no gaps in the partition wall between the store room and broiler area.
- .4 Inside of all walls of the broiler area to be plastered with rich mix (1:4), plaster thickness 10-15mm, and painted with 1 coat of plaster primer followed by 2 coats of Superior exterior PVA paint (white) e.g. Wall & All, Micatex. Outside of walls to be bag washed
- .5 Three holes to be spared out in the wall at the back to fit 50mm diameter 200mm long PVC pipe outlets at just below top screed level. Pipes to run under a 5% slope.
- .6 An inspection is required before the plastering of the walls.
- .7 Wall tops against roof sheeting to be neatly finished off (use steel float)

12) WELDMESH

- .1 1200 x 25 x 25 x 2.0mm weld mesh sheets to be attached horizontally against beams and poles.
No chicken mesh may be used.
- .2 Mesh to run up to just under the rafters. The space above the weld mesh to be closed with 300 x 12 mm fascia boards (fibre cement or uPVC) as indicated on Drawing Detail A. If 225mm high uPVC boards are used the weld mesh should extend for another 75-100mm to close the gap.
- .3 Fasten mesh against beams and poles with 25mm staples at 200mm intervals.
- .4 Overlap between sheets app 200mm (front) and 400mm (back) respectively.
- .5 Bind overlapping sheets together with binding wire at 500 mm intervals.

13) DOORS

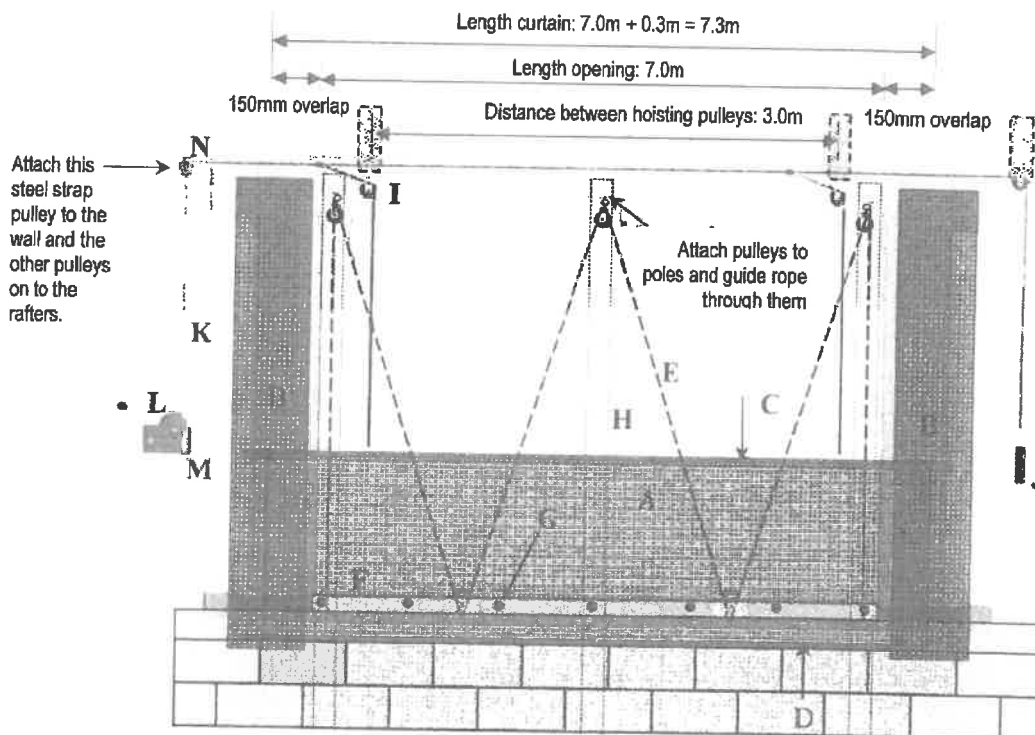
- .1 Standard size doors (813 x 2032 x 40mm) and frames (44 x 60mm) to be made of meranti (**not** pine).
- .2 Doors to be preserved by application of 2 coats of varnish applied 24 hours apart.
- .3 Door must be fitted in such a way that it is swinging open freely and can be closed and locked without jarring of the door in its frame or of the lock in its house. See also par. 7.7: Screed.
- .4 Locksets:
 - (1) *External door* to be equipped with mortise Gower or Radius euro profile cylinder lock sets (NO lever type lockset);
 - (2) *internal door* with 3-4 lever locksets (Union, Yale or equivalent);
- .5 Three brass hinges per door of the ball bearing butt type. See figure below.
Dimensions: H=100mm, W = 75mm T = 3mm, outer diameter of cylinder minimum 7mm.





14) CURTAINS

- 1 The drop-down curtain configuration requires a winch and pulley system that uses various pieces of hardware to construct. Please note that the below figure explains the **principles** of the curtain's (the actual unit has 6 poles and not just 3) and is not to scale.



KEY

- A. PVC curtain 550g/m². Dimensions curtain front: 7.3 x 2.20m; rear 7.30 x 2.80m.
- B. PVC curtain envelopes (one on each side, 8 in total). Dimensions front: 0.75 x 2.20m. Rear: 0.75 x 2.80m. Attach to wall with self tapping screws + washers (rubberized)
- C. Swaged curtain conduit: galvanized steel pipe with 3" long swage, 40mm (1.5"-1.6") OD;
- D. Swaged curtain conduit: galvanized steel 25-30mm (1-1.25") OD,
- E. Anti-billowing nylon rope to prevent the curtain from swaying;
- F. 38 x 114mm beam to which the weld mesh and curtain are fastened;
- G. Copper eyelet fitted into curtain fabric + Self Drilling Stainless Steel Tek Screw #12 x 1 1/2" with neo bonded galvanized washers; Distance between fastenings: 0.4 – 0.5m.
- H. 125-150mm CCA treated poles;
- I. 2" Nylon Pulley w/ Swivel Eye; use for steel hoisting cables AND nylon anti-billowing ropes.
- J. Counterweight 1.5-2kg.
- K. 7 x 19 type galvanized steel cable, 1/8" in diameter.
- L. Hand Winch 600 lb (Fulton or equivalent).SAE standard J1853 minimum.
- M. Winch Angle Mounting Bracket for 600lbs hand winch, gauge 0.315" (8mm)
- N. Primary 2-1/2" steel strap pulleys. Must be 15cm at least higher than highest curtain position

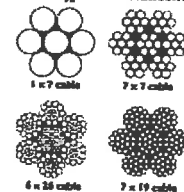
- 2 A manual Hand Winch and Winch Mounting Brackets are used to raise and lower the curtain. The cable is connected to the winch with a cable keeper. It is then run up and over the top of the curtain where the counterweight is hung. The counterweight will keep tension on the cable. It is tied off with one thimble



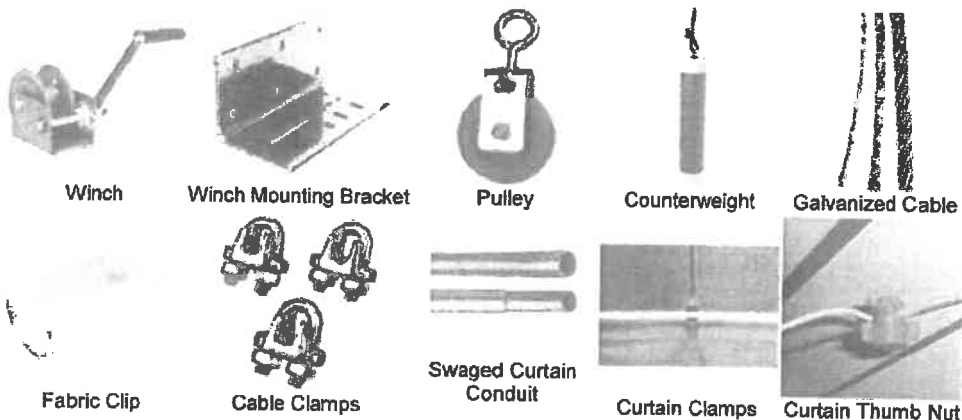
and two cable clamps. The cable is threaded through the two corner cable pulleys that are attached with open eye hooks.

- .3 Use steel galvanized cable 1/8" in diameter and 7 x 19 for strength and flexibility. The length of cable required is equal to the length of your curtain plus four curtain widths (height). An additional pulley is required on which to hang the counterweight. The counterweight needs to be at least two curtain widths from the corner pulley to be able to open your curtain fully.

Cable Types at a Glance...



- 4 Below are some of the items used for the curtains.



- .5 Use hoist up type curtains made of 550 g/m² green or blue PVC. Final dimensions of finished curtain in front: 8.50 x 1.95m. Dimensions at rear: 8.50 x 1.60m. Use 0.75 x 2.70m side envelopes of the same material to prevent billowing. The **width** of the curtain *material* should be 150mm larger to allow for 75mm for a large hem (big enough to accommodate a 1.66" OD (40mm) swaged curtain conduit) and 75mm for overlap, bringing the total material width to 2.10m (front) and 1.75m (rear) respectively. The **length** of the material equals the length of the finished curtain: 8.00m (width opening) plus 500mm to engage the curtain pockets, total 8.50m. If you are planning to make your own curtain pockets/envelopes make sure to include an additional 2.00m of length of material. Envelopes to be fastened to wall with screws + washers at 500mm intervals.
- .6 Attachment of the curtain shall be via screw type nails and washers hammered into the 38 x 114mm tie beam just above the walls at 400mm intervals .
- .7 Only **swaged** galvanized steel curtain conduits to be used.
- .8 Place fabric clips are placed over the inserted conduit every meter length to prevent the conduit from spinning within the hem.
- .9 Use 3/16" diameter Poly Rope on the exterior of the installation to prevent the billowing of the curtain. The rope is woven in a zig-zag pattern through pulleys spaced at 1.6m intervals. The rope should be pulled firmly and tied to the conduit at the bottom of the curtain.



Poly rope



Curtain Cord



15) TANKSTANDS

- .1 Dimensions of the 2 tank stands 2.15 x 2.15 x 0.6m.
- .2 Tanks to be placed on either side of building or on one side, as long as proper drainage of the water from the gutter is secured.
- .2 Three courses of blocks on 150 x 400mm 15 MPa strip foundation.
- .3 Tanks secured to stand with 4 twisted double strands of straining wire connected to 4 Y10 steel stirrups (length: 0.5m each) cast in floor concrete. Strands to be properly strained.
- .4 Connection with gutter with two 50mm diam. downpipe bends and one 40mm diameter straight PVC piece, glued with PVC cement after inspection of connection.
- .5 The 2 tanks can be placed on either or both sides of the shed. (see drawing). If the 2 tanks are built on one side of the shed they should be connected in such a way that the overflow of the first tank would run into the second tank.

16) FENCING (if applicable)

- .1 Use 1.2m high mesh fencing with verticals maximum 150mm apart. (Bonnox or similar).
- .2 Creosoted poles of 2.1m length (100-125mm), to be placed in 600mm deep augered holes. All corner poles in free draining (no concrete under pole) concrete (15Mpa/19mm) base. Concrete base dimensions: 300 x 300 x 600mm. Use 2.4m long poles 120-150mm in corners and for gate.
- .3 Use 32mm wire staples (5 per pole) to affix fence to pole.
- .4 Straining wires to be of 3.15mm thickness. 4 straining wires in total to be fixed unto the poles: 3 to cover the mesh fence height, 1 for the razor wire). At least three binding wire connections per wire between poles. Straining wire to be properly strained.
- .5 Three strands of double stranded barbed wire coils to run above fence properly fixed to poles and the top of weld mesh.
- .6 Entry gate in fence at front of shed to be 3.6 x 1.5m, pipes 40mm x 2mm. Poles to be of 2.4 m length with concrete foot 300 x 300 x 600mm. With regards to locking a combination of a hardened chain and padlock of the makes mentioned under 13) can be used as well.

17) BROODER HEATERS

The broiler unit(s) will be equipped with either electrical heaters if electricity is available, or gas heaters, if this is not the case. In the case of electrical heaters items 93-96 of the Bill of Quantities should be ignored. In the case of gas heating items 97 + 98 should not be costed.

17a) EQUIPMENT: ELECTRICAL HEATERS

- .1 4 heat lamps with dimmer for 150 chicks each: stainless steel and aluminium construction with low maintenance air filter and bulb guard.
- .2 Aluminium shade, lampholder, suspension chain and 2-3m flexible cable with moulded plug.
- .3 Lamps must be supplied and fitted with 250W dull emitter bulbs.

17b) EQUIPMENT: GAS BROODERS

- .1 Stainless steel gas brooder for 500 chicks (Solway, Gasolec A8 or Alke 41, or equivalent).
- .2 Adjustable heat - 2000 -10000 BTU with economical stainless steel (non-ceramic) burner
- .3 Must be supplied with 2 x 48kg propane gas bottles
- .4 Include 5m gas hose and adjustable gas regulator (20-300mB);
- .5 Gas brooder to be placed in steel cage (1000x1500x500mm) with lockable door outside the building.

18) TOILET (if required)

- .1 To be of the ventilated improved pit latrine type.
- .2 Must be at least 5m away from unit.
- .3 Design, BoQ and specs as indicated on drawing.



ANNEXURE A: BILL OF QUANTITIES 500 BIRD BROILER UNIT		OCTOBER 2014		Page 1	
A MATERIALS REQUIRED FOR CONCRETE AND WALLS		UNIT	QTY	RATE***	TOTAL
1	Cement 50kg pockets*	No.	20		
2	River sand (course)*	m3	2		
3	Concrete stone*	m3	2		
4	Building/Plaster sand*	m3	2		
5	M 150 Cement blocks (Quantity includes 5% breakage)**	No.	350		
6	Brickforce (M150 Block/20m roll)	rolls	4		
7		Sub-total item 1-6			
B TIMBER PRODUCTS					
8	100 x 38mm SA pine purins (TBTO treated)	m	20		
9	150 x 75mm SA pine beams (TBTO treated)	m	15		
10		Sub-total items 8-9			
C ROOF					
11	6.0m 0.50mm roof sheet corrugated aluzinc (762mm cover)	no.	20		
12	standard galvanized hurricane clips	no.	200		
13	90 x 38 x 1.0mm truss hangers	No.	10		
14	75mm wire nails	kg	5		
15	60mm std roofing screw including washer (100/box)	box	5		
16	4mm dia straining wire (5kg roll = 80m app)	roll	1		
17	1.25mm binding wire (56m/roll of 500g)	roll	2		
18	30m roll of 2100 x 25 x 25 x 2.5mm (fully galvanized) bonnox fence	No.	1		
19	200mm X 50mm x 2mm flat bar galvanized steel	no.	24		
20	zinc plated 60mm X 12mm hexagonal bolts,nuts and washers	no.	30		
21	300mm X 100mm x 5mm flat bar galvanized steel For support of main wooden roof beam	no.	4		
22	Fibre cement/ Nutec fascia boards (3000 x 300 x 12mm) at ends of rafters	No.	12		
23	Fibre cement Nutec barge boards (3000 x 300 x 12mm)	No.	6		
24	Fascia board joiners or jointer plates	No.	12		
25	Polyethylene & aluminium foil roof insulation 4mm (SABS 1381) Doublesided Alucushion or eq.	m2	100		
26		Sub-total items 11-25			
D CURTAINS		UNIT	QTY	RATE***	TOTAL
27	Green/ Blue PVC Tarpaulin curtains 550 g/m2, 7.30 x 2.20m X 2 (33m2)	m2	33		
28	Green/ Blue PVC Tarpaulin curtains 550 g/m2, 7.30 x 2.80m X 2 (41m2)	m2	41		
29	Green/ Blue PVC Tarpaulin curtain side envelopes 550 g/m2, 0.75 x 2.20m X 2 (4.0m2)	m2	4		
30	Green/ Blue PVC Tarpaulin curtain side envelopes 550 g/m2, 0.75 x 2.80m X 2 (5.0m2)	m2	5		
31	Swaged curtain conduit: galvanized steel 25-30mm (1-1.25") OD, lengths of 3m	no	12		
32	Swaged curtain conduit: galvanized steel 40-45mm (1.66"OD), lengths of 3.0m (120") ea	no	12		
33	Self-Drilling Tek Screws #12x1-1/2" Zinc	No	1		
34	Black Polypropylene Rope - 5mm diam - roll of 100 m	No	1		
35	2"Nylon Pulley w/swivel Eye	No.	56		
36	Primary 2-1/2" steel strap pulleys	No	8		
37	Galvanized Aircraft Cable 3.2mm (1/8") thick Type 7x19 OR 4.8mm 3/16" thick Type 7x7	m	100		
38	Galvanized Cable Clamp 3/16"	No	20		
39	1" Neo Bonded Galvanized Washers. Packet of 100	No	2		
40	Curtain & Winch Counterweight 1.5-2.0kg	No	4		
41	Hand Winch 600 lb (Fulton or equivalent),SAE standard J1853 minimum.	No	4		
42	Winch Angle Mounting Bracket for 600lbs hand winch, gauge 0.315" (8mm)	No	4		
43	Fabric Clip for 1.66" OD Pipe	No	40		
44		Sub-total items 27-43			
E WATER PROVISIONING					
45	Water tank polypropylene 2500 L	No	2		
46	High density plastic on/off ball valve plus fittings to fit on tank	no	2		
47	Metal brackets to mount gutter to wall plates	No	12		



48	50mm diam. downpipe bend to tank	No	2		
49	50mm PVC pipe straight	m	6		
50	Sub-total items 45-49				
F	PAINT AND MISCELLANEOUS				
51	Grey oil paint	Litres	10		
52	Red oxide/ rust inhibitor paint	Litres	10		
53	Superior exterior PVA paint (white) e.g. Wall & All, Micatex, etc x 2 coats. Cover 8m ² /L	Litres	40		
54	Sub-total items 51-53				
G	FENCING BASED ON 20 X 15M PERIMETER FENCE (IF REQUIRED)				
55	Weld Mesh fencing 100m, 1.2m high, 25mm X 25mm X 2mm fencing	Roles	1		
56	Creosoted poles 2.3m x 100-125mm	No	20		
57	Wire staples 32mm/500g/pack	No	2		
58	Straining wire 3.15mm-roles of 5kg (app. 80m)	No	3		
59	Binding wire 2mm thick - roles of 5 kg (app. 200m)	No	1		
60	Galvanized steel gate+ hinges: round bar (42 x 2.0mm) 1.5 x 2.0m	No	4		
61	Sub-total item 55-60				
H	POULTRY				
62	PVC Tube Feeders 5kg with anti scratch rings (Solway, Starlic or equivalent)	No.	16	R 100	R 1 500.00
63	4 Liter water font (Poltec or equivalent) 1	No.	16	R 40	R 600.00
64	10 Liter water font (Poltec or equivalent) 1	No.	16	R 65	R 975.00
65	Max and Min Thermometer	No.	2	R 100	R 200.00
66	Stainless steel gas brooder, adjustable heat (2000-10000BTU) for 500 chicks (Solway, Gasolec A8 or Alke 41, or equivalent)	No.	2	R 2 000	R 2 000.00
67	Heat lamp with dimmer for 150 chicks + 3m cable, spun aluminium shade with heat sink, bulb guard, complete with 250W dull emitter bulb (Interheat or equivalent).	No	4	R 600	R 2 400.00
68	20-300mB HP Regulator and 3m Gas Hose and Clamps (only if gas brooder is used)	No.	2	R 450	R 450.00
69	Filled Propane Gas Bottle 48 kg (only if gas brooder is used)	No.	4	R 500	R 1 000.00
70	Electrical reticulation from distribution box to brooder & lamps (electrical brooder only)	Sum	1	R 1 000	R 1 000.00
71	Plastic Buckets 20L	No.	4	R 50	R 100.00
72	Large plastic foot dip tray for disinfectants. Min (L)800mm x (W)600mm x (H)200mm	No	2	R 450	R 450.00
73	HDPE transport crates with locking gate catch	No.	5	R 500	R 2 500.00
74	Wheelbarrow	No.	2	R 400	R 800.00
75	Hard Broom	No.	2	R 80	R 160.00
76	Shovels	No.	2	R 100	R 200.00
77	Knapsack Sprayer (15L)	No.	1	R 400	R 400.00
78	Cooler box (4L)	No.	1	R 100	R 100.00
79	Masonite Sheet (1,2m wide X 2,4m long)	No.	3	R 100	R 300.00
80	Nipple valve gravity operated drinking system (50 nipples - VAL, AVIAN AQUA MISER or equivalent) - 2 x 6m length PVC pipe on steel conduit 2	No	2	3000	R 3 000.00
81	Sub-total items 62-80				
I	CHICKS, FOOD, VACCINS, DETERGENTS				
82	1 Day – old broiler chicks (vaccinated and certified)	No.	500		
83	Starter crumble (50 kg bags) (1)	No.	10		
84	Grower Pellets (50 kg bags) (2)	No.	25		
85	Finisher Pellets, 50kg bags	No.	10		
86	Bales of 50kg of chicken saw dust	No.	2		
87	Newcastle Disease vaccin (1000 doses)	No.	1		
88	Gumboro Vaccine (1000 doses)	No.	1		
89	IBD vaccins (1000 doses)	No.	1		
90	Terramycine (1000 doses)	No.	1		
91	Menthophyl (1 litre) or Consumix Plus (200 grams)	No.	1		
92	Disinfectant (Virukill, Vircon S, Farm Guard) 2 litres	No.	1		



KZN DEPARTMENT OF AGRICULTURE AND RURAL DEVELOPMENT

93	Detergent (Cleaning soap) Antec DSC 1000 or equivalent) 2 litres	No.	1		
94		Sub-total items 82-93			
J	NON-MATERIAL				
95	Labour + Supervision	Sum	1		
96	Hiring of plant and equipment	Sum	1		
97	Preliminary and General (site establishment, insurances, etc)	Sum	1		
98	Training participants to use equipment 3 hours min (if req)	Sum	1		
99	Ancillary materials, Services & Equipment	Sum	1	R10000	R 10000
100		Sub-total items 95-99			
101		TOTAL EXCLUDING VAT			
102				VAT 14%	
				TOTAL	
103					
ALL SUB-TOTALS HAVE TO BE PRICED, THE OTHER LINES ARE OPTIONAL					
*** All material prices to include transport costs to site					



ANNEXURE B : Payment Schedule Broiler Unit

PAYMENT #	PHASE DESCRIPTION	App. % of contract	Payment after completion of phase	
1	Preliminary and general/Site establishment + Levelling 1) Insurances, project risk, workman's compensation, UIF Etc. 2) Project administration, services, external services, testing, safety, provision of all required equipment for works at required times etc 3) Site preparation (bush/veld clearing). (1ST INSPECTION)*	8%	7%	
2	Poles, materials and flooring preparations 4) Delivery to site of all building materials 5) Supply and erection of fencing poles 6) Casting of the strip foundation for tank stand 2ND INSPECTION	16%	14%	
3	Floor and walls 7) Repairs and painting in accordance with drawings and specs; 3RD INSPECTION	16%	14%	
4	Roof, gutter, weldmesh and fascia boards 8) Complete roof structure with fascia board and mount fascia boards & gutter; 9) Install weld mesh; 10) Place and secure tank and connect tank to gutters (4TH INSPECTION)*	20%	17%	
5	Curtains, fence and site clearing 11) Supply and install curtains 12) Completion of erection of fencing and install gates 13) Cleaning of site. 5TH INSPECTION	25% (15%)	21% (12%)	
5	Poultry equipment and chicks 14) Supply all equipment, food and chicks; 15) Train staff on the use of the equipment. (6TH INSPECTION)*	15%	12%	
6	a) Electrical Installations (if required) 16) All fixtures installed and connected to grid, lamps & circuit breakers working	10%	8%	18%
	b) Retention money 10% at practical completion	-	10%	
7	Retention money 5% at final completion after 90 days (7TH INSPECTION)*	0% if no defects	5%	
	TOTAL	100%	100%	

* Inspections by engineering staff between brackets may be skipped or alternatively done by extension staff.



ANNEXURE C

ADDITIONAL INFORMATION

(1) EQUIPMENT & RESOURCES:

Please provide an indication of the equipment and resources which will be available to execute the services required:

No	Equipment and resources available in order to execute the services:
1	
2	
3	
4	
5	

(2) SUB CONTRACTED WORKS: Please list which parts of the works will be sub-contracted.

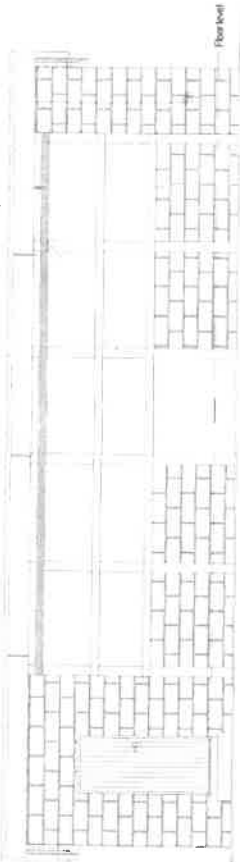
No	Sub Contractor	Associated works	Percentage
1			
2			
3			
4			
5			



3) EXPERIENCE: Please indicate your experience and expertise by completing the table:

No	Name of project + Period	Project description	Role (self or sub-contracted)	Project value	Name and contact number of referee
1					
2					
3					
4					
5					

38 x 114mm
plastic sheet



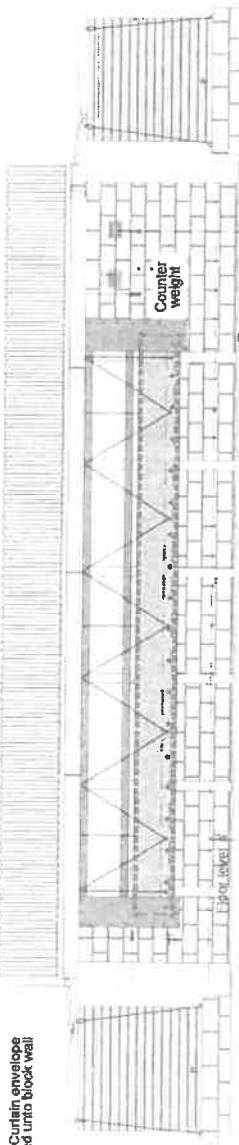
75 x 50mm
purlin

SOUTH ELEVATION (CURTAINS NOT SHOWN)

The window is made of 4
layers of 10mm glass
was replaced to air tight
& 50mm floor concrete.

Tank stand
1.8m x 1.8m x 0.4 (0.6)m

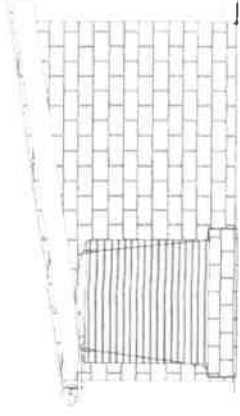
Curtain envelope
attached into block wall



200mm x 50mm PVC pipe to drain water,
sloping down to below floor level

NORTH ELEVATION

WEST ELEVATION



Position at 38 x 150mm to beam supporting
Batts above (purlin)

3000 x 300 x 16mm
current brick fabric contact

8000 x 114 x 38mm to beam
to support fabric found

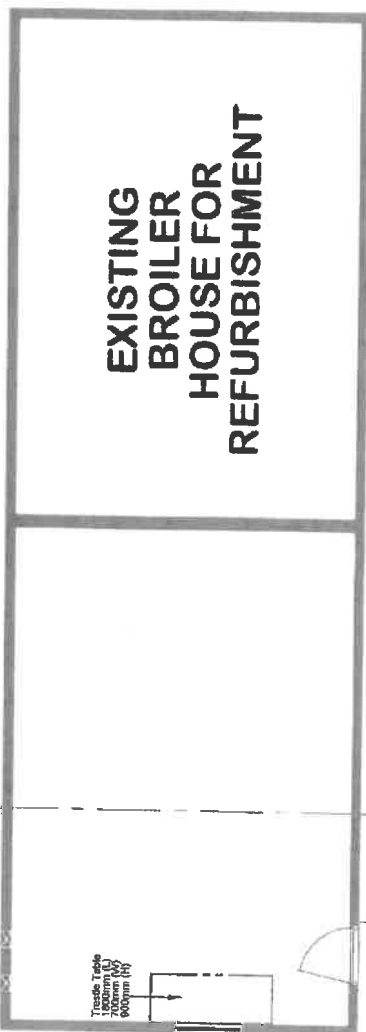
Which is ribs and lower curtain
Mounted on 75 angle iron
along the wall at about
0.5-1.0m from corner

Air brick

EAST ELEVATION



Air bricks



EXISTING BROILER HOUSE FOR REFURBISHMENT

Treadle Triple
7000mm (W)
7000mm (H)
900mm (D)

SS312
window

Concrete step
1000 X 250 X 250mm



Water
tank
Same on other
side of building.

PLAN VIEW

**KZN DEPARTMENT
OF AGRICULTURE &
RURAL DEVELOPMENT**

ENGINEERING SERVICES
4 PINDAK AVENUE / PRIVATE BAG X6005
MILTON / DURBAN / KZN / 3140
TEL: 0333585443
FAX: 0333585443

Checked for STANDARD
P: Tech Eng Date

Client:
**OSCA
COLLEGE**
**500 BIRDS
BROILER HOUSE**
PLAN & ELEVATIONS

DRAWN	C. Simul	DESIGNED
DATE	25/07/2018	CHECKED
SCALE	1:176	

DECLARATION OF INTEREST

1. Any legal person, including persons employed by the state*, or persons having a kinship with persons employed by the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid (includes a price quotation, advertised competitive bid, limited bid or proposal). In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons employed by the state, or to persons connected with or related to them, it is required that the bidder or his/her authorised representative declare his/her position in relation to the evaluating/adjudicating authority and/or take an oath declaring his/her interest, where-

- the bidder is employed by the state; and/or
- the legal person on whose behalf the bidding document is signed, has a relationship with persons/a person who are/is involved in the evaluation and or adjudication of the bid(s), or where it is known that such a relationship exists between the person or persons for or on whose behalf the declarant acts and persons who are involved with the evaluation and or adjudication of the bid.

2. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

2.1 Full Name of bidder or his or her representative:

2.2 Identity Number:

2.3 Position occupied in the Company (director, shareholder etc):

2.4 Company Registration Number:

2.5 Tax Reference Number:

2.6 VAT Registration Number:

* "State" means –

- (a) any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No. 1 of 1999);
- (b) any municipality or municipal entity;
- (c) provincial legislature;
- (d) national Assembly or the national Council of provinces; or
- (e) Parliament.

2.7 Are you or any person connected with the bidder presently employed by the state? **YES / NO**

2.7.1 If so, furnish the following particulars:

Name of person / director / shareholder/ member:
Name of state institution to which the person is connected:
Position occupied in the state institution:

Any other particulars:
.....
.....
.....

2.8 Did you or your spouse, or any of the company's directors / shareholders / members or their spouses conduct business with the state in the previous twelve months? **YES / NO**

2.8.1 If so, furnish particulars:

.....
.....
.....

2.9 Do you, or any person connected with the bidder, have any relationship (family, friend, other) with a person employed by the state and who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

2.9.1 If so, furnish particulars.

.....
.....
.....

2.10 Are you, or any person connected with the bidder, aware of any relationship (family, friend, other) between the bidder and any person employed by the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

2.10.1 If so, furnish particulars.

.....
.....
.....

2.11 Do you or any of the directors /shareholders/ members of the company have any interest in any other related companies whether or not they are bidding for this contract? YES / NO

2.11.1 If so, furnish particulars:

.....
.....
.....

DECLARATION

I, THE UNDERSIGNED (NAME).....

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2.1 TO 2.11.1 ABOVE IS CORRECT.

I ACCEPT THAT THE STATE MAY ACT AGAINST ME IN TERMS OF PARAGRAPH 23 OF THE GENERAL CONDITIONS OF CONTRACT SHOULD THIS DECLARATION PROVE TO BE FALSE.

.....
Signature

.....
Date

.....
Position

.....
Name of bidder

CERTIFICATE OF INDEPENDENT BID DETERMINATION

- 1 This Standard Bidding Document (SBD) must form part of all bids¹ invited.
- 2 Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).² Collusive bidding is a *pe se* prohibition meaning that it cannot be justified under any grounds.
- 3 Treasury Regulation 16A9 prescribes that accounting officers and accounting authorities must take all reasonable steps to prevent abuse of the supply chain management system and authorizes accounting officers and accounting authorities to:
 - a. disregard the bid of any bidder if that bidder, or any of its directors have abused the institution's supply chain management system and or committed fraud or any other improper conduct in relation to such system.
 - b. cancel a contract awarded to a supplier of goods and services if the supplier committed any corrupt or fraudulent act during the bidding process or the execution of that contract.
- 4 This SBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
- 5 In order to give effect to the above, the attached Certificate of Bid Determination (SBD 9) must be completed and submitted with the bid:

¹ Includes price quotations, advertised competitive bids, limited bids and proposals.

² Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

(Bid Number and Description)

In response to the invitation for the bid made by:

(Name of Institution)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____ that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign the bid, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
 - (a) has been requested to submit a bid in response to this bid invitation;
 - (b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
 - (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium³ will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
 - (a) prices;
 - (b) geographical area where product or service will be rendered (market allocation)
 - (c) methods, factors or formulas used to calculate prices;
 - (d) the intention or decision to submit or not to submit, a bid;
 - (e) the submission of a bid which does not meet the specifications and conditions of the bid; or
 - (f) bidding with the intention not to win the bid.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.
9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

³ Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.

SBD 9

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

.....
Signature

.....
Date

.....
Position

.....
Name of Bidder

Js914w 2

SECTION J

OFFICIAL BRIEFING SESSION/SITE INSPECTION CERTIFICATE

N. B.: THIS FORM IS ONLY TO BE INCLUDED AND COMPLETED WHEN APPLICABLE TO THE BID.

Site/building/institution involved:

Quotation No:

Service:

THIS IS TO CERTIFY THAT (NAME):

ON BEHALF OF:

VISITED AND INSPECTED THE SITE ON..... (DATE)

AND IS THEREFORE FAMILIAR WITH THE CIRCUMSTANCES AND THE SCOPE OF THE SERVICE TO BE RENDERED.

.....
SIGNATURE OF BIDDER OR AUTHORISED REPRESENTATIVE
(PRINT NAME)

DATE:

.....
SIGNATURE OF DEPARTMENTAL REPRESENTATIVE
(PRINT NAME)

.....
DEPARTMENTAL STAMP:
(OPTIONAL)

DATE: