



**agriculture  
& rural development**

Department:  
agriculture  
& rural development  
**PROVINCE OF KWAZULU-NATAL**

**KWAZULU-NATAL DEPARTMENT OF AGRICULTURE AND RURAL  
DEVELOPMENT**

**Quotation No: R/N/1920/139**

**CONSTRUCTION OF ANIMAL HANDLING FACILITY AT INDONSA ROYAL FARM  
AT ABAQULUSI WARD 02**

**NAME OF BIDDER: \_\_\_\_\_**

<b>COMPULSORY SITE BRIEFING DETAILS</b>	
<b>DATE</b>	20 JANUARY 2020
<b>MEETING VENUE</b>	AGRICULTURE VRYHEID LOCAL OFFICE
<b>MEETING ADDRESS</b>	CNR HEEREN & VN RIEBEEK STREET, VRYHEID
<b>MEETING TIME</b>	
<b>START TIME</b>	10:00 AM

**1. PRE-QUALIFICATION CRITERIA**

**REQUIREMENT-CIDB Grading: 1 GB / 1 CE**

**Evaluation will be in terms of the 80/20 preference point system**

**For more information, please contact the following official:**

**For: Technical Enquiries:  
Mr MD Dlamini  
079 693 0654**

**For: Quotation/SCM enquiries:  
Ms Khethiwe Gumede**

**CLOSING DATE: 24 JANUARY 2020    TIME: 11:00 AM**



# agriculture & rural development

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**PROVINCE OF KWAZULU-NATAL**

## INVITATION OF QUOTATION ABOVE R30,000.00

THIS FORM SHOULD BE COMPLETED IN DETAIL AND SHOULD BE ACCOMPANIED BY A **VALID TAX COMPLIANCE STATUS PIN AND VALID BBBEE VERIFICATION CERTIFICATE/AFFIDAVIT**

QUOTATION NUMBER: R/S/1920/139	VALIDITY PERIOD OF QUOTATION..... Days (To be completed by the Supplier)
CLOSING DATE: <b>24/01/2020</b>	CLOSING TIME: <b>11H00</b>
DESCRIPTION(SPECIFICATION/S) OF ITEMS/ SERVICE REQUIRED: <b>CONSTRUCTION ANIMAL HANDLING FACILITY AT INDONSA ROYAL FARM(DLOMODLOMO) AT ABAQULUSI WARD 02</b>	COMPANY NAME: _____ TEL NO: _____ FAX NO: _____ CONTACT PERSON: <b>CSD REG NUMBER</b> <b>MAAA.....</b>
DOES OFFER COMPLY WITH SPECIFICATION?	YES/NO (DELETE WHICH EVER IS NOT APPLICABLE)
DOES ARTICLE COMPLY WITH SABS SPECIFICATION? HAS IT BEEN INSPECTED BY SABS?	YES/NO YES/NO (DELETE WHICH EVER IS NOT APPLICABLE)
DELIVERY PERIOD AFTER INITIAL ORDER?	
IS THE PRICE FIRM	
WHERE ARE THE STOCK HELD? (PHYSICAL ADDRESS , PLEASE)	
QUOTATION PRICE INCLUDING VAT (VAT TO BE ADDED BY REGISTERED VAT VENDORS ONLY)	TOTAL: R .....
COMPANY OFFICIAL STAMP (COMPULSORY)	..... SIGNATURE OF BIDDER ..... DATE
NUMBER OF PAGES FAXED BACK TO THE DEPARTMENT BY THE SUPPLIER	.....( Supplier to complete)

**NB: QUOTATION FOR THE ATTENTION OF: Zama Ngubane@033 343 8313**

**NB:**

THE ATTACHED SBD4 & SBD9 FORMS MUST BE COMPLETED IN FULL.  
THIS REQUEST FOR QUOTATION (RFQ) MUST BE COMPLETED AND RETURNED WITH ALL YOUR QUOTATION DOCUMENTS.

**QUOTATIONS MUST BE DEPOSITED IN THE BID BOX SITUATED AT: THE DEPARTMENT OF AGRICULTURE & RURAL DEVELOPMENT: No 4 PIN OAK AVENUE, HILTON QUARRY, HILTON.**

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.	Construction of a new Animal Handling at Indonsa Royal Farm (Dlomodlomo) at Abaqulusi ward, 2 Zululand District.					
	Construction of a Animal Handling Facility	1				
* LABOUR (IF APPLICABLE)						
*DELIVERY (IF APPLICABLE)						
TOTAL						
*ONLY APPLICABLE TO VAT REGISTERED SUPPLIERS 15% VAT						
TOTAL PRICE						

\*VAT Registration No. (Supplier) -----

When Required (Requester): 31 December 2019

Where Required (Requester): Indonsa Farm

Contact details of requester: Mr M.D. Dlamini

TEL : 079 693 0654

**(COMPULSORY)**

COMPANY STAMP

PRICES ARE VALID FOR    DAYS

**DECLARATION OF INTEREST**

1. Any legal person, including persons employed by the state<sup>1</sup>, 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 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, trustee, shareholder<sup>2</sup>): .....

2.4 Company Registration Number: .....

2.5 Tax Reference Number: .....

2.6 VAT Registration Number: .....

2.6.1 The names of all directors / trustees / shareholders / members, their individual identity numbers, tax reference numbers and, if applicable, employee / persal numbers must be indicated in paragraph 3 below.

<sup>1</sup>"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.

<sup>2</sup>"Shareholder" means a person who owns shares in the company and is actively involved in the management of the enterprise or business and exercises control over the enterprise.

**KINDLY COMPLETE PLEASE!!!**

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 / trustee / shareholder/ member: .....  
Name of state institution at which you or the person connected to the bidder is employed : .....  
Position occupied in the state institution: .....

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

2.7.2 If you are presently employed by the state, did you obtain the appropriate authority to undertake remunerative work outside employment in the public sector? **YES / NO**

2.7.2.1 If yes, did you attached proof of such authority to the bid document? **YES / NO**

(Note: Failure to submit proof of such authority, where applicable, may result in the disqualification of the bid.

2.7.2.2 If no, furnish reasons for non-submission of such proof:

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

2.8 Did you or your spouse, or any of the company's directors / trustees / 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**

**KINDLY COMPLETE PLEASE!!!**

2.9.1 If so, furnish particulars.

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

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

2.10.1 If so, furnish particulars.

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

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

2.11.1 If so, furnish particulars:

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

**3 Full details of directors / trustees / members / shareholders.**

Full Name	Identity Number	Personal Reference Number	Tax Number	State Number	Employee / Persal Number

**KINDLY COMPLETE PLEASE!!!**

**4 DECLARATION**

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

CERTIFY THAT THE INFORMATION FURNISHED IN PARAGRAPHS 2 and 3 ABOVE IS CORRECT. I ACCEPT THAT THE STATE MAY REJECT THE BID OR 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

May 2011

**CERTIFICATE OF INDEPENDENT BID DETERMINATION**

- 1 This Standard Bidding Document (SBD) must form part of all bids<sup>1</sup> 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).<sup>2</sup> 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:

<sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.

<sup>2</sup> 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 consortium<sup>3</sup> 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.

<sup>3</sup> 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.

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



**agriculture  
& rural development**

Department  
agriculture  
& rural development  
**PROVINCE OF KWAZULU-NATAL**

**BID SPECIFICATIONS FOR THE  
CONSTRUCTION OF A CATTLE HANDLING  
YARD AND CRUSH FOR 100 ANIMALS**

**Project : Indonsa Royal Farm Project**

- 1. This document must be read in conjunction with the Drawing. If the contractor has the impression that the information provided in the drawing and the technical specifications/ 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 works done 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 Drawings 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. 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.*

**Table of Contents:**

<b>No.</b>	<b>Section</b>	<b>Pages</b>	<b>Read/ Complete</b>
1	Cover Page	1	Read
2	A - Project Particulars	2	Read
3	B - General Conditions of Contract	2 - 7	Read
4	C - Project Technical Specifications	8 - 10	Read
5	ANNEXURE A : Additional Information	11 - 12	Complete
6	ANNEXURE B: Schedule of Quantities/ Pricing schedule	13	Complete
7	DRAWING 1: Crush pen	DR01	Read



## A) PROJECT PARTICULARS

### 1 PROJECT DESCRIPTION/BACKGROUND

The project covers the construction of a cattle handling facility which is ideal for the handling of small herds of up to 100 animals. The facility is to be constructed from treated timber posts and poles. Concrete works are required throughout the crush race area. A standard cattle neck clamp is to be purchased and installed in the facility. Please refer to the attached Cattle handling facility plan.

### 2 SCOPE OF WORKS

The contract covers the supply of all material and fitting and construction of all works relating to the cattle handling facility. The following are the detailed scope of works for the cattle handling facility: Details of these works are specified in **Project Particular Specifications**.

- 2.1 Site selection
- 2.2 Supply all materials for the construction of the animal handling facility.
- 2.3 Accurately set out the location of all posts for the facility as per plan.
- 2.4 Excavate all post holes to the specified dimensions.
- 2.5 Install all posts as per the plan.
- 2.6 Backfill and compact soil into specified bases that do not have full concrete fill.
- 2.7 Mix and pour concrete into full and collared bases, ensuring posts are accurately positioned, aligned and plumb. Apply surface finishes as specified.
- 2.8 Allow concrete to set. Cure the concrete.
- 2.9 Excavate topsoil from crush area and compact the in-situ material.
- 2.10 Prepare shuttering and reinforcing for the floor slab in the crush area.
- 2.11 Mix and pour concrete floor slab. Apply surface finishes and cure as specified.
- 2.12 Drill and fix lateral poles to posts.
- 2.13 Drill and fix gates, latches and install neck clamp.

## B) GENERAL CONDITIONS OF CONTRACT

### 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) 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).

### 4) 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.

#### **5) HANDOVER OF SITE TO CONTRACTOR**

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 for the administration, control and security on the site at all times during the contract duration.

#### **6) WATER AND POWER**

It is unlikely that water and electricity will be available on site and the contractor is recommended to make his own arrangements in this regards.

#### **7) 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.

#### **8) 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.

#### **9) 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.

#### **10) 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.

#### **11) MATERIALS: DELIVERY, ON & OFF-LOADING, STORAGE AND RESPONSIBILITY**

The 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.

#### **12) 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.

#### **13) 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.

#### **14) 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 Contractor's works insurance.

#### **15) 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.

#### **16) 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.

#### **17) 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.

#### **18) COMPETENCY OF THE CONTRACTOR/ SUBCONTRACTING OF WORK:**

This bid is open for contractors with a Construction Industry Development Board (CIDB) data base grading of **at least 2 GB/CE**. 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.

The contractor must indicate in **Annexure A1 – 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.

#### **19) 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 Engineer.

#### **20) 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.

#### **21) 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 A2 – Additional Information: Experience**.

#### **22) 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.

#### **23) 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.

#### **24) 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.

## **25) 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.

## **26) 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.

## **27) 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.

## **28) 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. No objection to the description or terms of the order will be entertained unless lodged in writing with the Head of Department within twenty-one (21) calendar days of the date of the order.

## **29) PROGRESS PAYMENTS**

The contractor may submit claims for progress payments only on completion of the hereunder listed levels. Payment shall only be made 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.

## **30) DEFECT LIABILITY PERIOD**

An amount of 10% of the contract value for the works will be withheld as defect liability retention. This amount will be paid out after expiry of the defect liability period of 90 days after the practical completion inspection. 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.

### 31) SERVICE LEVEL AGREEMENT

The successful Bidder and the Department will sign a Service Level Agreement prior to commencement of the works. These General Conditions of Contract will form part of the SLA. A proposed work schedule 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.

### 32) COMMENCEMENT OF THE WORKS

The Department will organize a site hand-over to the contractor. 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. ***This also applies in case contractors that have been awarded more than 1 handling facility. Works on the sheds should run concurrently and the total completion period for all sheds for which the contractor received an order will be 3 months.***

### 33) RATE OF PROGRESS

(a) The Works shall be completed within 3 months.

(b) 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 any 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.

### 34) 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.

### **35) PERIOD OF COMPLETION**

All sheds for which the Contractor received an order are to be completed **within 3 months of award of the contract (90 calendar days)**.

### **36) 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 **0.05% of the contract value per working day delay**. This will be deducted from the retention.

### **37) ADVANCE PAYMENTS**

The Department will not make any advance payments before any work is done.



## C) TECHNICAL SPECIFICATIONS

- 3.1** Site selection:  
The facility should be centrally located on the farm if possible and close to the farm dwelling. The site is to be on a desirable fall of 2-3% grade. The cattle movement should always be uphill except when returning to the holding pens. There should be a rise of 150mm through the crush race. The longitudinal direction of the crush race should be angled across the slope and slightly inclined. The holding pens are to be located on the lower grade. Thus the crush and working areas should be on the upper slope.
- 3.2** Site preparations & establishment: SABS 1200 AA (4)
- 3.3** Setting out of works: SABS 1200 AA (5.1.1)  
Permissible deviations: SABS 1200 GA (6.4) Degree of accuracy II for all posts.
- 3.4** Restricted Excavations: SABS 1200 AA (5); SABS 1200 DA (5.1; 5.2.2)  
Site material excavations are only required throughout the crush area and all individual bases. The area must be cleared and stripped of all plant materials, roots and topsoil prior to site levelling. The cleared and stripped material is to be stockpiled away from the construction site and is to be levelled or replaced once all construction is complete as per engineer's instruction. The site is to be levelled prior to any construction. This includes excavation of in situ material to provide a level platform and well compacted sub base for the structure.
- 3.5** Backfilling and compaction of soil: SABS 1200 DA (3.2; 5.2.3.2)  
Material excavated and suitable for backfilling will be placed in even, thin layers and compacted with thicknesses not exceeding 150mm.

### STANDARD CONCRETE MIXES:

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: -

Concrete Class	Estimated Compressive Strength in MPA at 28 Days	Minimum Strength	Maximum Nominal Size of Coarse Aggregate in mm	Proportion of Constituents		
				Cement (Parts) <sup>1</sup>	Fine Aggregate (Parts)	Coarse Aggregate (Parts)
A	10		37,5	1 (= 2 bags)	4	5
B	15		19,0	1 (= 2 bags)	3	4
C	20		19,0	1 (= 2 bags)	2½	3½
D	25		19,0	1 (= 2 bags)	2	3
E	30		19,0	1 (= 2 bags)	2	2½

<sup>1</sup> Cement and aggregates shall be mixed by volume and the contents of a 50kg sack of cement shall be taken to be 33L or 0,033m<sup>3</sup>. If the mix is made using wheelbarrows as measurement (65L or 0,65m<sup>3</sup>), the volume of 1 wheelbarrow would equate to 2 bags of cement.

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 m<sup>3</sup> of concrete is required for an average quality sand and optimum quantity 19mm stone.

### 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 rescreeding 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.

- 3.6** 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)  
Quality control through the slump test SABS 1200 GA (5.4.1.2) SABS method 862. The contractor is to supply the slump testing equipment.  
Tolerances to SABS 1200 GA (6.4)  
Refer to standard concrete mixes specification in *TABLE 4.5.1. below*.  
Refer to surface finishes specification in *TABLE 4.5.2. below*.
- 3.7** Formwork: Refer to SABS 1200 GA (4.4; 5.2)
- 3.8** Reinforcing: SABS 1200 GA (5.1)

**3.9 CONCRETE BASES FOR POLES**

- 3.9.1 Class B concrete with Class U1 surface finish to be used for all concrete bases: ±15MPa/19mm, 1:3:4 mix, slump to SABS 1200GA 5.4.1.2**
- 3.9.2** All corner posts, gate posts and posts where overlapping of laterals occur and also all posts throughout the crush area require full depth concrete bases 600mm deep with a compacted soil layer at the base of the post holes- see drawing.
- 3.9.3** All other posts require backfilling of soil (well compacted in thin layers <150mm) and a 200mm deep concrete collar.
- 3.9.4** Four 125mm galvanized round wire nails are to be partially nailed into each vertical post to provide anchorage for the concrete bases/collars approximately 100mm below the ground surface.
- 3.9.5** Surface to be finished 25mm below ground level and covered with topsoil.
- 3.9.6** Permissible deviations: SABS 1200 GA (6.4) Degree of accuracy III for concrete.

**3.10 CONCRETE FLOOR IN CRUSH AREA**

- 3.10.1 Class C concrete with Class U3 surface finish to be used for all concrete floor slabs. ±20MPa/19mm, 1:2½ :3½ mix, slump SABS 1200GA 5.4.1.2**
- 3.10.2** The crush area is to have a 90mm thick concrete slab, reinforced with ref 100 mesh with panels not exceeding 3m in length with coarse surface finish and drainage perpendicular to the crush direction. The mesh is to be placed consistently 30mm below the top surface of the concrete throughout the crush area as indicated on the plan and maintained in position throughout pouring (approximately 16m<sup>2</sup>).
- 3.10.3** Permissible deviations: SABS 1200 GA (6.4) Degree of accuracy III for concrete.

**3.11 POLES**

- 3.11.1 Sizes:** The majority of poles shown are standard sizes and thus do not require cutting. Note that all joints are lapped up and down to prevent cutting and early deterioration. If any non standard lengths are required then the cuts must be treated to prevent deterioration.  
Posts: 100-125mm Ø –2,4m lengths. Select thicker posts for corners/ends.  
Laterals: 75-100 Ø –1,8m;2,4m; 3m; 3,6m; 4,2m;6m lengths. Note: thin ends of poles to be placed on the entry side of the crush race. Refer to the drawing.
- 3.11.2 Treatment:** All poles are to be SABS pre-treated either of creosote or CCA treatment. CCA is not recommended for drier climates where cracking may occur.
- 3.11.3 Quantities:** Please refer to the Drawing for an estimate of approximate quantities. Please note that although much effort is used in estimating these quantities, the onus is on the tenderer to thoroughly check the estimates and to make certain that sufficient materials are available. Note that the tenderer is tendering for the entire works and must price for any additional materials so needed if required.





- 3.11.4 **Fixing:** Please refer to the details on the plan. Laterals are to be fixed to the posts using R8 mild steel reinforcing driven through a 6mm hole drilled through both poles. The reinforcing rod is then to be bent or hammered around the laterals/posts as indicated in the plan. The lateral and post are to be joined tightly together. All posts to be plumb, true and accurately aligned before concrete is poured.
- 3.11.5 Permissible deviations: SABS 1200 GA (6.4) Degree of accuracy II for all posts and laterals.

### 3.12 GATES, NECK CLAMPS AND EQUIPMENT

- 3.12.1 **Gates:** Three heavy duty steel gates and one small man gate fitted with a 'dead bolt / panic bolt' type latch (in the crush) are required as located in the drawing. The gates must be a minimum of 50mm diameter round tubing with horizontal spacing at least the same as for the crush. The gates are to be primed and painted as per *TABLE 4.12*.
- 3.12.2 **Neck Clamp:** One standard V Type steel manufactured neck clamp is required at the exit of the crush. Installation is to be to the manufacturer's recommendation. A crush with gate in front or pole barrier may be used as long as the animals are immobilised by tying their heads to the side of the crush with a leather thong which will not cut their skins. Loose poles at the rear of the animals placed in front of the vertical posts will prevent animals from moving backwards in the crush. The clamp is to be primed and painted as per *TABLE 4.12*.
- 3.12.3 **Latches:** An example of a simple chain linkage latch is shown. The chain is to be a minimum of 4mm thick linkages  $\pm 60$ mm length. One end is to be fixed to the pole fence and the other to the gate. A heavy duty bolt latch is required for the pedestrian gate in the crush area.

**Priming:** Priming of steelwork (non galvanized): Surfaces are to be cleaned in accordance with SABS 064 and painted with red oxide zinc chromate primer or equivalent in accordance with SABS Specification 909 prior to delivery. Upon delivery to the site and again after erection any bared or damaged surfaces and connections are to be made good with similar primer.

**Finishing:** Painting of steelwork (non galvanized): Any surfaces that may be damaged/welded are to be rubbed down over the damaged and surrounding area to a sound surface and then restored by re-applying the removed coat properly merged in with the existing. Two finishing coats of Super Universal Enamel (NY-1G) or equivalent are to be applied after construction is complete to any exposed structural steelwork. Galvanized surfaces requiring surface treatment are to be coated with cold galvanizing.

### 3.13 SAFETY

Refer to general conditions for site safety. Site operations and conditions requiring special attention include but are not limited to:

- 3.13.1 Equipment, machinery, tools: (stationary or mobile) such as vehicles, generators, pumps, drills, augers, picks, spades, hand tools to be in a safe operating condition and are to be used in a safe and responsible manner. The contractor is responsible for all such monitoring and control of site operations and equipment throughout the works for the entire contract duration.
- 3.13.2 Lifting and lowering of materials in any way whatsoever.
- 3.13.3 Excavations including post holes to be clearly indicated to prevent injury to personnel.
- 3.13.4 Potential ingress of water on/through site
- 3.13.5 Potentially hazardous services may be present on site such as water and sewerage mains, electricity cables etc...
- 3.13.6 Chemical transport, storage and usage whatsoever – this includes chemical contact through equipment use such as fuels and oils; materials such as creosote, paints, solvents, cement, concrete...
- 3.13.7 Barriers and safety cordons, safety and warning signage, sirens, lighting etc. as required
- 3.13.8 Safety equipment: Safety and protective clothing, gloves, goggles, masks, hard hats, boots etc.
- 3.13.9 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.
- 3.13.10 Additional risks associated with specific methods of construction selected by the contractor which are not necessarily covered in the above.



**ANNEXURE A1: List of works performed by sub-contractors not in the employ of the Contractor**

>> Please list below which parts of the works will be sub-contracted.

No.	Sub Contractor	Associated works	Percentage
1			
2			
3			
4			
5			
6			



**ANNEXURE A2: List of previous relevant work 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					





**ANNEXURE B: Schedule of Quantities/Pricing schedule**

<b>100 ANIMALS - 215 SQ.M. CATTLE HANDLING FACILITY: SCHEDULE OF QUANTITIES</b>						
Please note that although much effort is used in estimating these quantities, the onus is on the tenderer to thoroughly check the estimates and to make certain that sufficient materials are available to complete the works in full.						
Note that the tenderer is tendering for the entire works and must price for any additional materials so needed if required.						
ITEM	DESCRIPTION	UNIT	QUANTITY	RATE	TOTAL	
<b>EXCAVATIONS</b>						
1	Excavation for bases	Volume of post holes	m <sup>3</sup>	6		
2	Excavation for crush area	Area to be cleared of topsoil to required depth	m <sup>2</sup>	15,8		
3	Backfilling and compaction of soil in post holes	Volume of soil to be replaced	m <sup>3</sup>	1,8		
4	Compact in-situ material- for crush area floor	Area to be compacted	m <sup>2</sup>	15,8		
<b>POLES</b>						
5	Posts for Crush Area	2.4m length x 150mm diameter	no.	18		
6	Posts for Holding Area (Corners & Ends)	2.4m length x 150mm diameter	no.	11		
7	Posts for Holding Area	2.4m length x 100-125mm diameter	no.	26		
8	Laterals to span 2 posts in Handling yard	2.4m length x 75-100mm diameter	no.	6		
9		3.0m length x 75-100mm diameter	no.	3		
10	Laterals to span 3 posts in Crush Area	3.6m length x 75-100mm diameter	no.	24		
11	Laterals to span 3 posts in Handling Yard	3.6m length x 75-100mm diameter	no.	3		
12		4.2m length x 75-100mm diameter	no.	12		
13	Laterals to span 4 posts in Handling Yard	6m length x 75-100mm diameter	no.	18		
14	Horizontal poles used as gates in crush	1.4m length x 75-100 diameter	no.	8		
<b>CONCRETE</b>						
mixing ratio: 1 : 3 : 4						
POST HOLES (400x400mmx700mm deep)			no.	36		
POST HOLES (400x400mmx200mm deep)			no.	18		
POSTS (pole 700mm deep x area of pole):			no.	36		
POSTS (collar 200mm deep x area of pole):			no.	16		
Volume of concrete required (All posts):		Including 10% wastage allowance	m <sup>3</sup>	4,8		
15	Sand	river sand in cubic meters	m <sup>3</sup>	2,7		
16	Stone	concrete stone 19 or 26 mm diameter	m <sup>3</sup>	3,6		
17	Cement	50kg pockets	no.	28,0		
<b>FLOOR (90mm)</b>						
mixing ratio: 1 : 2.5 : 3.5						
Area of floor slab			m <sup>2</sup>	16		
Thickness of floor slab			m	0,09		
Volume of concrete required:		Incl 10% wastage	m <sup>3</sup>	1,6		
18	Sand	river sand in cubic meters	m <sup>3</sup>	0,9		
19	Stone	concrete stone 19 or 26 mm diameter	m <sup>3</sup>	1,2		
20	Cement	50kg pockets	no.	11,0		
<b>MISCELLANEOUS</b>						
21	Gates	3m long farm access type gates	no.	3		
22	Gates	Man gate located in crush with latch	no.	1		
23	Neck Clamp	V type, painted	no.	1		
24	Galvanised Wire (High Tensile Straining)	Straining wire: 4mm diameter- single strand	m	100		
25	Galvanised Wire Staples	25mm staples for Fencing	no.	40		
26	Galvanised round wire nails	Standard builders nails- 125mm length	no.	220		
27	Reinforcing rods	R8 reinforcing bar 26 x 900mm length	m	23,4		
28	Reinforcing rods	R8 reinforcing bar 171 x 500mm length	m	85,5		
29	Reinforcing mesh: Area A	Ref 100: Length 7m; Width 1m	m <sup>2</sup>	7,0		
30	Reinforcing mesh: Area B	Ref 100: Length 3.5m; Width 2.5m	m <sup>2</sup>	8,8		
<b>SUB TOTAL (A)</b>						
31	Ancillary Materials and equipment	By verification only	Sim	1		R 5 000,00
					<b>SUB TOTAL (B)</b>	
					<b>VAT (15%)</b>	
					<b>TOTAL: (inclusive of VAT)</b>	