

Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise

Draft Basic Assessment Report

Prepared By:

Environmental Management Group

July 31, 2019

Prepared For:

Department of Rural Development

and Land Reform

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BASIC ASSESSMENT REPORT



destea

department of
economic, small business development,
tourism and environmental affairs
FREE STATE PROVINCE

(For official use only)

File Reference Number:

Application Number:

Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for.
2. This report format is current as of **08 December 2014**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
3. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
4. Where applicable **tick** the boxes that are applicable in the report.
5. An incomplete report may be returned to the applicant for revision.
6. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
7. This report must be handed in at offices of the relevant competent authority as determined by each authority.
8. No faxed or e-mailed reports will be accepted.
9. The signature of the EAP on the report must be an original signature.
10. The report must be compiled by an independent environmental assessment practitioner.
11. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
12. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.
13. Should a specialist report or report on a specialised process be submitted at any stage for any part of this application, the terms of reference for such report must also be submitted.

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14. Two (2) colour hard copies and one (1) electronic copy of the report must be submitted to the competent authority.
15. Shape files (.shp) for maps must be included in the electronic copy of the report submitted to the competent authority.

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES

NO

If YES, please complete the form entitled "Details of specialist and declaration of interest" for the specialist appointed and attach in Appendix I.

1. PROJECT DESCRIPTION

a) Describe the project associated with the listed activities applied for

The Department of Rural Development and Land is proposing to develop an ostrich breeding and rearing farm located approximately 20 kilometers North of Petrusburg. The town of Petrusburg falls under the Letsemeng Local Municipality and is located approximately 70km West of Bloemfontein.

The proposed development is for the construction of 2 identical rearing houses positioned either back to back or face to face. The proposed structures are to house 400 'Day old Chicks'. These structures will be constructed on concrete strip foundations with high density engineering brick pier walls supporting floated concrete slab floors. Floors will be graded so as to facilitate the effective drainage and removal of generated effluent.

External walls will be constructed in double course brickwork that will support the bearing trusses for the roof which in turn will be fixed to span the 4 meter width of the building. Walls will be plastered and painted with approved acrylic paints to a suitable colour both internally and externally.

Access and service doors will be provided at the ends of each building. Doors will be industrial quality with louvered finishes so as to provide sufficient air flow capacity thus accommodating the mechanical ventilation system. Whirlybird ventilators will provide for mechanical extraction and ventilation to each of the buildings.

The Floor will be provided with adequate drainage and flushing channels which will run the full length of the eleven-meter walls. These channels will discharge to external collection points, which will eventually be connected to a minimum of four 50mm NB UPVC pipes finished flush to the internal face of the wall and discharging over the lip of the external collection channel. Timber trusses with 38mm x 76mm SA Pine purlins will support the 0.5mm galvanised sheet steel roof with fixed underside insulation. The roof will be fixed to the timber purlins with suitable drive screws that will have bonded washers to ensure a sealed and leak free installation.

The ostrich camps will comprise designated area in age categories. The proposed ostrich camp is a 7500m² fenced enclosures. This dedicated enclosure is to be subdivided into four (4) equally sized camps with pedestrian and transit walkways between the individual sub-enclosures. Fencing will comprise of a 1,8-metre-high diamond mesh wire having steel posts and stays firmly grounded in concrete foundations and supplemented by treated wooden droppers at prescribed intervals. A 1.5m wide 60% shade net screen will be attached to the fence.

Each ostrich camp will also incorporate a 10m by 20m protective shelter with a minimum height of 2.5m. The shelter is constructed from 150 - 174mm treated gum poles, 50mm x 152mm SA pine bolted to the gum pole with screwing purlins and roofed with corrugated iron sheeting.

Weather protection and shading will be provided by installation of a 2.5m high shade net screen fixed to steel wire supports, spaced at 300mm centre to centre at the back of the shelter and at both ends.

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The identified site has a number of existing boreholes. These boreholes have windmill driven pumps that supply water to a brick and concrete reservoir as well as an existing JoJo tank. The existing water reservoir is impaired and will require rehabilitation before it may be used on a permanent basis. Two (2) dedicated and interconnected JoJo tanks with individual capacities of 5000 litres each will provide water to the proposed development. This water supply will continue to be sourced from existing boreholes with windmill driven submersible pumps.

The total manure to be generated by the layer houses will be approximately 480kg per day. The manure will be temporarily stockpiled on an impenetrable (concrete) layer and covered with sails to prevent contamination of the surrounding environment. The stockpile area for this manure will be located approximately 400-600m away to the north of the ostrich houses. Manure will be used on site as fertilizer for crop production. The remaining manure will be sold to local farmers. If there is further remaining manure it will be disposed of to the nearest landfill site.

Diseased carcasses will be disposed of an open pit covered by lime. A 4m wide x 4m long x 2m deep pit will be provided at least 400m away from the site. This hole will be fenced off and have a locking mechanism. Carcasses safe for consumption will be taken to a predator farms in the area.

- b) Provide a detailed description of the listed activities associated with the project as applied for

Listed activity as described in GN 983,984 and 985	Description of project activity
<p>Example: GN 983 Item xx xx): The construction of a bridge where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.</p>	<p>A bridge measuring 5 m in height and 10m in length, no wider than 8 meters will be built over the Orange river</p>
<p>NEMA GN R327 39 The expansion and related operation of facilities for the concentration of animals in densities that will exceed—</p> <p>(v) 250 square metres per ostrich or emu where the expansion will constitute more than 50 additional ostriches or emus.</p>	<p>Ostrich facilities will be expanded which will exceed 250 square meters per ostrich where the expansion will constitute more than 50 additional ostriches. The expansion contains 400 'Day old Chicks'</p>

2. FEASIBLE AND REASONABLE ALTERNATIVES

“**alternatives**”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application as required by Appendix 1 (3)(h) of GN 982, Regulation 2014. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity (NOT PROJECT) could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

The determination of whether site or activity (including different processes, etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the, competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

The identification of alternatives should be in line with the Integrated Environmental Assessment Guideline Series 11, published by the DEA in 2004. Should the alternatives include different locations and lay-outs, the co-ordinates of the different alternatives must be provided. The co-ordinates should be in degrees, minutes and seconds. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

a) Site alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Langgenoeg 908	28°67'36.69"S	25°23'17.72"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

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In the case of linear activities:

Alternative:

Latitude (S):

Longitude (E):

Alternative S1 (preferred)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Alternative S2 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

Alternative S3 (if any)

- Starting point of the activity
- Middle/Additional point of the activity
- End point of the activity

For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

In the case of an area being under application, please provide the co-ordinates of the corners of the site as indicated on the lay-out map provided in Appendix A of this form.

b) Lay-out alternatives

Alternative 1 (preferred alternative)		
Description	Lat (DDMMSS)	Long (DDMMSS)
Langgenoeg 908	28°67'36.69"S	25°23'17.72"E
Alternative 2		
Description	Lat (DDMMSS)	Long (DDMMSS)
Alternative 3		
Description	Lat (DDMMSS)	Long (DDMMSS)

c) Technology alternatives

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

d) Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)

Alternative 1 (preferred alternative)
Alternative 2
Alternative 3

e) No-go alternative

If the proposed facility does not take place, a new facility will have to be developed to meet the demand elsewhere in the area. Job creation will be lost in the Petrusburg area. The demand for proper protein will not be met.

Paragraphs 3 – 13 below should be completed for each alternative.

3. PHYSICAL SIZE OF THE ACTIVITY

a) Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:

- Alternative A1¹ (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

Size of the activity:

7500m ²
m ²
m ²

or, for linear activities:

Alternative:

- Alternative A1 (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

Length of the activity:

m
m
m

b) Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:

- Alternative A1 (preferred activity alternative)
- Alternative A2 (if any)
- Alternative A3 (if any)

Size of the site/servitude:

m ²
m ²
m ²

¹ "Alternative A.." refer to activity, process, technology or other alternatives.

4. SITE ACCESS

Does ready access to the site exist?

YES	NO
	m

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

The proposed development is located in Petrusburg in the Xhariep district municipality West of Bloemfontein in the Free State province. The locality plan and overall ground plan is attached as Appendix A

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

5. LOCALITY MAP

An A3 locality map must be attached to the back of this document, as Appendix A. The scale of the locality map must be relevant to the size of the development (at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map.). The map must indicate the following:

- an accurate indication of the project site position as well as the positions of the alternative sites, if any;
- indication of all the alternatives identified;
- closest town(s);
- road access from all major roads in the area;
- road names or numbers of all major roads as well as the roads that provide access to the site(s);
- all roads within a 1km radius of the site or alternative sites; and
- a north arrow;
- a legend; and
- locality GPS co-ordinates (Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

6. LAYOUT/ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- the property boundaries and numbers of all the properties within 50 metres of the site;
- the current land use as well as the land use zoning of the site;
- the current land use as well as the land use zoning each of the properties adjoining the site or sites;
- the exact position of each listed activity applied for (including alternatives);

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- servitude(s) indicating the purpose of the servitude;
- a legend; and
- a north arrow.

7. SENSITIVITY MAP

The layout/route plan as indicated above must be overlain with a sensitivity map that indicates all the sensitive areas associated with the site, including, but not limited to:

- watercourses;
- the 1:100 year flood line (where available or where it is required by DWS);
- ridges;
- cultural and historical features;
- areas with indigenous vegetation (even if it is degraded or infested with alien species); and
- critical biodiversity areas.

The sensitivity map must also cover areas within 100m of the site and must be attached in Appendix A.

8. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this report. It must be supplemented with additional photographs of relevant features on the site, if applicable.

9. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of at least 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

10. ACTIVITY MOTIVATION

Motivate and explain the need and desirability of the activity (including demand for the activity):

1. Is the activity permitted in terms of the property's existing land use rights?	YES	NO	Please explain
The proposed development site is situated on a property zoned as agricultural. As such small to medium scale agriculture such as the proposed activity is permitted.			

2. Will the activity be in line with the following?			
(a) Provincial Spatial Development Framework (PSDF)	YES	NO	Please explain
<p>The proposed development is in line with the PSDF since it promotes shortcomings and addresses issues as stated in the paragraphs below:</p> <p>On page 131 of the Free State SDF the following is stated that: The protection and appropriate use of high potential agricultural land is of critical importance for sustainable economic growth and food security. High potential agricultural land in close proximity to settlements are often subjected to non-agricultural development pressure, while negative social impacts associated with such settlements often have a significant detrimental impact on the production potential of such land. It is therefore imperative that the highest priority be given to the protection of high potential agricultural land and that measures be instituted to create and maintain circumstances conducive to sustainable agriculture.</p> <p>Agriculture is still one of the most labour-intensive goods-production sectors, with substantial employment linkages. Resources are not being used sensibly, which requires urgent attention because this sector is one of the few remaining goods producers with strong direct and indirect economic and employment links to the rural poor. Increasingly, South African agriculture faces technical and structural challenges that require improved sector management, including adequate funding of research, investment in skills and training, effective communication strategies and agricultural extension. However, there are also underlying structural and policy issues that need to be addressed in order for a regeneration of rural communities to take place. The industrialisation of agriculture and the country's unique ecosystems also demand that attention be paid to advances in ecological approaches to sustainable agriculture.</p>			
(b) Urban edge / Edge of Built environment for the area	YES	NO	Please explain
<p>The activity is located at the outer boundary within which urban expansion and small holder agriculture can be accommodated or coincide with the urban edge line.</p>			
I Integrated Development Plan (IDP) and Spatial Development Framework (SDF) of the Local Municipality (e.g. would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?).	YES	NO	Please explain
<p>Agriculture is important in the Letsemeng Local Municipality as it is the largest contributor to the local economy. Letsemeng Local Municipality has a goal to create jobs and achieve vibrant, equitable and sustainable rural communities with food security for all.</p>			
(d) Approved Structure Plan of the Municipality	YES	NO	Please explain

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<p>1 An Environmental Management Framework (EMF) adopted by the Department (e.g. Would the approval of this application compromise the integrity of the existing environmental management priorities for the area and if so, can it be justified in terms of sustainability considerations?)</p>	YES	NO	Please explain
<p>The EMP will form part of this application and will be implemented throughout the construction and operational phases of the project. This document will ensure that existing environmental management priorities for the area are not compromised.</p>			
<p>(f) Any other Plans (e.g. Guide Plan)</p>	YES	NO	Please explain
<p>3. Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved SDF agreed to by the relevant environmental authority (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP)?</p>	YES	NO	Please explain
<p>The proposed area is currently zoned as agricultural. The activity is an agricultural activity, which falls in line with the SDF.</p>			
<p>4. Does the community/area need the activity and the associated land use concerned (is it a societal priority)? (This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate.)</p>	YES	NO	Please explain
<p>The project will help in the large demand that exists in the country in general. The proposed development addresses poverty within the local community through the generation of employment opportunities, as well as food security and nutrition. The activity will result in job creation, both permanent and temporary</p>			
<p>5. Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development? (Confirmation by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	YES	NO	Please explain
<p>The necessary services with adequate capacity are currently available (See design report, Appendix I)</p>			

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<p>6. Is this development provided for in the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)? (Comment by the relevant Municipality in this regard must be attached to the final Basic Assessment Report as Appendix I.)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>This development is provided for in the infrastructure planning of the municipality. Water and connections are in place as there is a borehole on site and it will be utilised. The applicant is in the process of applying for a section 21 water use for the abstraction of additional water from the said borehole.</p>			
<p>7. Is this project part of a national programme to address an issue of national concern or importance?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The agricultural sector in South Africa plays a valuable role in ensuring the sustainable supply of food to our growing population and represents one of the main sources of revenue. As such the project plays its part in addressing issues of national concern in terms of sustainable agriculture. The activity will result in job creation, both permanent and temporary and will also aid in addressing food security.</p>			
<p>8. Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context.)</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The proposed area is currently zoned as agricultural. The activity is an agricultural activity, which falls in line with the SDF.</p>			
<p>9. Is the development the best practicable environmental option for this land/site?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The proposed ostrich facility will be an agricultural development within an area zoned as agricultural. The surrounding land use is mainly small-scale agriculture and the zoning of the area provides for agriculture; therefore, the proposed activity is in line with the land use zoning.</p>			
<p>10. Will the benefits of the proposed land use/development outweigh the negative impacts of it?</p>	<p>YES</p>	<p>NO</p>	<p>Please explain</p>
<p>The negative impacts identified during the impact assessment as well as those raised by the I&AP's will be addressed by implementing the mitigation measures contained in this report, which will in turn eliminate the majority of negative impacts. The positive impacts associated with the proposed land use will not only be of great benefit for the local community in terms of employment opportunities, but will also aid in addressing issues of national concern in terms of sustainable agriculture and local and national food security.</p>			

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11. Will the proposed land use/development set a precedent for similar activities in the area (local municipality)?	YES	NO	Please explain
<p>The proposed development will set a precedent for similar activities in the area and aid in the creation of jobs in the area as well as the continual growth of sustainable and suitable farming as identified as one of the strategic locations of economic growth by Letsemeng Local Municipality Spatial Development Framework and the Draft Integrated Development Plan (2017).</p>			
12. Will any person's rights be negatively affected by the proposed activity/ies?	YES	NO	Please explain
<p>After addressing all issues raised by the I&AP's, impacts identified during the impact assessment and implementing all the proposed mitigations, no rights of the surrounding landowners nor the surrounding environment will be negatively affected, provided that the applicant adheres to the proposed mitigations, recommendations and conditions of this report and the EMP.</p>			
13. Will the proposed activity/ies compromise the "urban edge" as defined by the local municipality?	YES	NO	Please explain
<p>The activity is located at the outer boundary within which urban expansion and small holder agriculture can be accommodated or coincide with the urban edge line.</p>			
14. Will the proposed activity/ies contribute to any of the 17 Strategic Integrated Projects (SIPS)?	YES	NO	Please explain
<p>No. 11: Agri-Logistics and Rural Infrastructure</p>			
15. What will the benefits be to society in general and to the local communities?	Please explain		
<p>The proposed development will have a positive impact in the local community as it will be an operational ostrich breeding and rearing farm. The proposed development will provide numerous permanent employment opportunities for the lower-income community within the area. The positive impacts associated with the proposed activity will not only be of great benefit for the local community in terms of employment opportunities, but will also aid in addressing issues of national concern in terms of sustainable agriculture and local and national food security.</p>			
16. Any other need and desirability considerations related to the proposed activity?	Please explain		
<p>Food security is one of the main concerns in the local farming sector and general communities of the Free State Province. The facility supplies job opportunities as well as the opportunity of skills development and transfer to local community and additional work for contractors in the area.</p>			

17. How does the project fit into the National Development Plan for 2030?	Please explain
<p>Agriculture has the potential to create close to 1million new jobs by 2030, a significant contribution to the overall employment target. Therefore, the project fits into the National Development Plan. South Africa has strategies to achieve this by developing strategies that give new entrants access to product value chains and support from better-resourced players</p>	
<p>18. Please describe how the general objectives of Integrated Environmental Management as set out in section 23 of NEMA have been taken into account.</p>	
<p>Section 23 requires the following general objectives:</p> <p>(2) The general objective of integrated environmental management is to—</p> <ol style="list-style-type: none"> a. Promote the integration of the principles of environmental management set out in section 2 into the making of all decisions which may have a significant effect on the environment; b. Identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2; c. Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them; d. Ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment; e. Ensure the consideration of environmental attributes in management and decision-making which may have a significant effect on the environment; and f. Identify and employ the modes of environmental management best suited to ensuring that a particular activity is pursued in accordance with the principles of environmental management set out in section 2. <p>These are achieved as follows:</p> <ol style="list-style-type: none"> a) Decision making based on the findings of the BAR process b) Impacts have been identified, predicted and evaluated in terms of environmental, socio-economic and cultural heritage environment. The risks, consequences and alternatives and options for mitigation have been evaluated. c) This BAR process and the EMP ensure that the effects of the activities on the environment receive adequate consideration before actions are taken in connection with them. d) There will have been adequate and appropriate opportunity for public participation that will lead to the decision being taken. e) Environmental attributes have been considered in management and decision making. f) The modes best suited to environmental management for this activity have been followed and recommended. 	

19. Please describe how the principles of environmental management as set out in section 2 of NEMA have been taken into account.

NEMA Section 2 requires:

(2) Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.

This has been achieved as follows:

The environmental management relating to the proposed project by the construction of the proposed layer houses has been set up in such a way as to place the needs of people at the forefront of its concern while addressing the environmental issues concerning the establishment of the facility. The facility has been designed to allow for addition of modules utilizing the same infrastructure which allows for true sustainable management.

11. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline	Applicability to the project	Administering authority	Date
National Environmental Management Act (Act 107 of 1998)	The proposed ostrich farm is a listed activity requiring environmental authorisation in terms of the Environmental Impact Assessment Regulations, 2017 promulgated under sections 20 and 44 of the National Environmental Management Act, 1998 (Act No.107 of 1998). The applicable activities are in terms of Listing Notice 1 (GNR 327) of 2017, which trigger a Basic Assessment application process.	National and provincial	April 2017
National Water Act (Act 36 of 1998)	Boreholes will be utilised to abstract groundwater	DWS – National and provincial	1998
Environmental Impact Assessment Regulations, 2014	Competent Authority	DESTEA	2014

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National Development Plan		National Government	2012
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12. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

a) Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	NO
m ³	

If YES, what estimated quantity will be produced per month?

How will the construction solid waste be disposed of (describe)?

N/A

Where will the construction solid waste be disposed of (describe)?

N/A

Will the activity produce solid waste during its operational phase?

YES	NO
15 ton/month	

If YES, what estimated quantity will be produced per month?

How will the solid waste be disposed of (describe)?

The stockpile area for this manure will be located approximately 400-600m away to the north of the ostrich houses. Manure will be removed from the premises on a weekly basis and will be used on site as fertilizer for crop production; the remaining manure will be sold to local farmers. If there is additional remaining manure it will be disposed of to the nearest municipal landfill site.

If the solid waste will be disposed of into a municipal waste stream, indicate which registered landfill site will be used.

Peterusburg Landfill site

Where will the solid waste be disposed of if it does not feed into a municipal waste stream (describe)?

The stockpile area for this manure will be located approximately 400-600m away to the north of the ostrich houses. Manure will be removed from the premises on a weekly basis and will be used on site as fertilizer for crop production; the remaining manure will be sold to local farmers. If there is additional remaining manure it will be disposed of to the nearest municipal landfill site.

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the NEM:WA?

YES	NO
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If YES, inform the competent authority and request a change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

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Is the activity that is being applied for a solid waste handling or treatment facility?

YES	NO
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If YES, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA. An application for a waste permit in terms of the NEM:WA must also be submitted with this application.

b) Liquid effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system?

YES	NO
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If YES, what estimated quantity will be produced per month? m³

Will the activity produce any effluent that will be treated and/or disposed of on site?

YES	NO
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If YES, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility?

YES	NO
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If YES, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:	Cell:		
E-mail:	Fax:		

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

N/A

c) Emissions into the atmosphere

Will the activity release emissions into the atmosphere other than exhaust emissions and dust associated with construction phase activities?

YES	NO
-----	----

If YES, is it controlled by any legislation of any sphere of government?

YES	NO
-----	----

If YES, the applicant must consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If NO, describe the emissions in terms of type and concentration:

<p style="color: blue; margin: 0;">The air emissions generated by the Ostrich feedlot facility do not require an Air Emissions License as per NEM:AQA (Act No 39 of 2004). The relevant impacts of these odours have been assessed in the Impact Assessment Section (Section D).</p>
--

d) Waste permit

Will any aspect of the activity produce waste that will require a waste permit in terms of the NEM:WA?

YES	NO
-----	----

If YES, please submit evidence that an application for a waste permit has been submitted to the competent authority

e) Generation of noise

Will the activity generate noise?

YES	NO
YES	NO

If YES, is it controlled by any legislation of any sphere of government?

Describe the noise in terms of type and level:

The noise generated by the Ostrich facility does not exceed thresholds. The relevant impact for the noise generated has been assessed in the Impact Assessment Section (Section D).

13. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es):

Municipal	Water board	Groundwater	River, stream, dam or lake	Other	The activity will not use water
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If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate the volume that will be extracted per month:

7502 litres

Does the activity require a water use authorisation (general authorisation or water use license) from the Department of Water Affairs?

YES	NO
------------	----

If YES, please provide proof that the application has been submitted to the Department of Water Affairs.

14. ENERGY EFFICIENCY

Describe the design measures, if any, which have been taken to ensure that the activity is energy efficient:

Most of the equipment and machinery used during construction is self-powered and does not require electricity There is an existing electrical service provided by Eskom and terminating at a pole mounted 25kVa three-phase transformer adjacent to the proposed development area. Electricity will sourced from this pole to the posed development during the operational phase.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

N/A

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

1. For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section B and indicate the area, which is covered by each copy No. on the Site Plan.

Section B Copy No. (e.g. A):

2. Paragraphs 1 - 6 below must be completed for each alternative.

3. Has a specialist been consulted to assist with the completion of this section? YES NO
If YES, please complete the form entitled "Details of specialist and declaration of interest" for each specialist thus appointed and attach it in Appendix I. All specialist reports must be contained in Appendix D.

Property description/physical address:

Province	Free State
District Municipality	Xariep District Municipality
Local Municipality	Letsemeng Local Municipality
Ward Number(s)	Ward 3
Farm name and number	RE of Farm Langgenoeg 908
Portion number	RE of Farm Langgenoeg 908
SG Code	F0040000000090800000

Where a large number of properties are involved (e.g. linear activities), please attach a full list to this application including the same information as indicated above.

Current land-use zoning as per local municipality IDP/records:

Agricultural

In instances where there is more than one current land-use zoning, please attach a list of current land use zonings that also indicate which portions each use pertains to, to this application.

Is a change of land-use or a consent use application required? YES NO

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1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S2 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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Alternative S3 (if any):

Flat	1:50 – 1:20	1:20 – 1:15	1:15 – 1:10	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5
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2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

2.1 Ridgeline	<input type="checkbox"/>	2.4 Closed valley	<input type="checkbox"/>	2.7 Undulating plain / low hills	<input type="checkbox"/>
2.2 Plateau	<input type="checkbox"/>	2.5 Open valley	<input type="checkbox"/>	2.8 Dune	<input type="checkbox"/>
2.3 Side slope of hill/mountain	<input type="checkbox"/>	2.6 Plain	<input checked="" type="checkbox"/>	2.9 Seafront	<input type="checkbox"/>
2.10 At sea	<input type="checkbox"/>				

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO
An area sensitive to erosion	YES	NO	YES	NO	YES	NO

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the

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completion of this section. Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted.

4. GROUND COVER

Indicate the types of groundcover present on the site. The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld – good condition ^E	Natural veld with scattered aliens ^E	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

5. SURFACE WATER

Indicate the surface water present on and or adjacent to the site and alternative sites?

Perennial River	YES	NO	UNSURE
Non-Perennial River	YES	NO	UNSURE
Permanent Wetland	YES	NO	UNSURE
Seasonal Wetland	YES	NO	UNSURE
Artificial Wetland	YES	NO	UNSURE
Estuarine / Lagoonal wetland	YES	NO	UNSURE

If any of the boxes marked YES or UNSURE is ticked, please provide a description of the relevant watercourse.

A wetland is located approximately 400m west of the site. This is considered as a highly sensitive system and any impacts on it would consequently also be considered as high. If a 100 meter buffer from this wetland is maintained it is unlikely that the operations will have any impacts on it.

6. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

Natural area	Dam or reservoir	Polo fields
Low density residential	Hospital/medical centre	Filling station ^H
Medium density residential	School	Landfill or waste treatment site
High density residential	Tertiary education facility	Plantation
Informal residential ^A	Church	Agriculture
Retail commercial & warehousing	Old age home	River, stream or wetland
Light industrial	Sewage treatment plant ^A	Nature conservation area
Medium industrial ^{AN}	Train station or shunting yard ^N	Mountain, koppie or ridge
Heavy industrial ^{AN}	Railway line ^N	Museum
Power station	Major road (4 lanes or more) ^N	Historical building
Office/consulting room	Airport ^N	Protected Area
Military or police base/station/compound	Harbour	Graveyard
Spoil heap or slimes dam ^A	Sport facilities	Archaeological site
Quarry, sand or borrow pit	Golf course	Other land uses (describe)

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity? Specify and explain:

N/A

Does the proposed site (including any alternative sites) fall within any of the following?

Critical Biodiversity Area (as per provincial conservation plan)	YES	NO
Core area of a protected area?	YES	NO
Buffer area of a protected area?	YES	NO
Planned expansion area of an existing protected area?	YES	NO

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Existing offset area associated with a previous Environmental Authorisation?	YES	NO
Buffer area of the SKA?	YES	NO

If the answer to any of these questions was YES, a map indicating the affected area must be included in Appendix A.

7. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or paleontological sites, on or close (within 20m) to the site? If YES, explain:	YES	NO
	Uncertain	

If uncertain, conduct a specialist investigation by a recognised specialist in the field (archaeology or palaeontology) to establish whether there is such a feature(s) present on or close to the site. Briefly explain the findings of the specialist:

Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO
If YES, please provide proof that this permit application has been submitted to SAHRA or the relevant provincial authority.		

8. SOCIO-ECONOMIC CHARACTER

a) Local Municipality

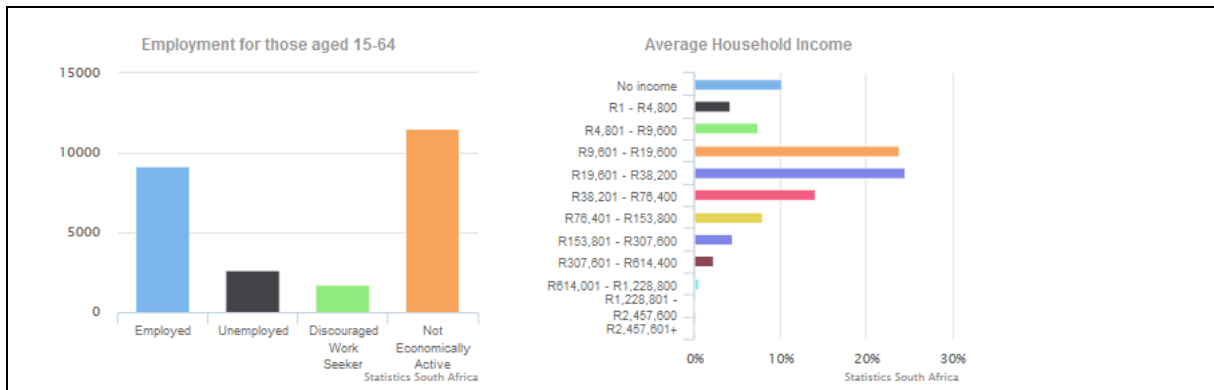
Please provide details on the socio-economic character of the local municipality in which the proposed site(s) are situated.

Level of unemployment:

11 788 people are economically active (employed or unemployed but looking for work), and of these 22,3% are unemployed. Of the 6 058 economically active youth (15 – 34 years) in the area, 27,7% are unemployed.

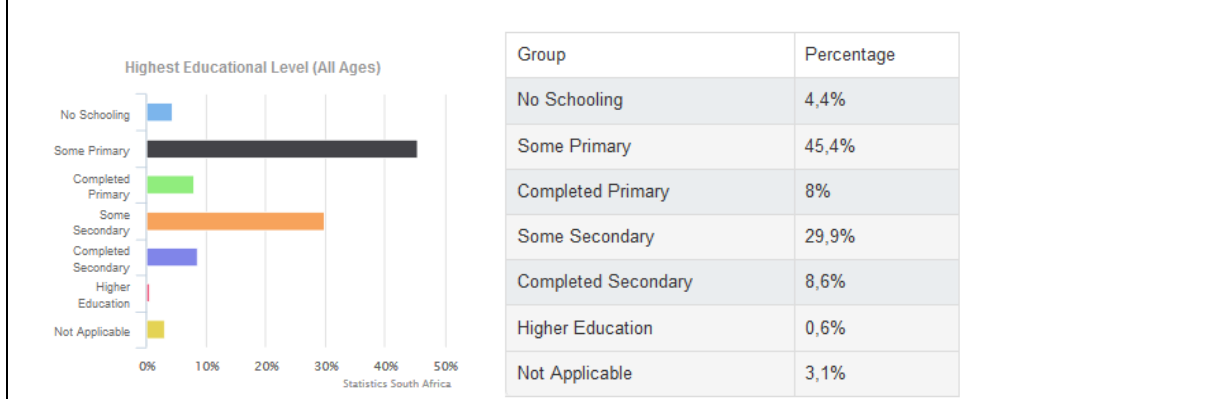
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Economic profile of local municipality:



Level of education:

Of those aged 20 years and older, 6,9% have completed primary school, 31,6% have some secondary education, 18,8% have completed matric and 4,8% have some form of higher education



b) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R 5 000 000.00

What is the expected yearly income that will be generated by or as a result of the activity?

R 1 000 000.00

Will the activity contribute to service infrastructure?

YES NO

Is the activity a public amenity?

YES NO

How many new employment opportunities will be created in the development and construction phase of the activity/ies?

12

What is the expected value of the employment opportunities during the development and construction phase?

R 5 000 000.00

What percentage of this will accrue to previously disadvantaged individuals?

100%

How many permanent new employment opportunities will be created during the operational phase of the activity?

6

What is the expected current value of the employment opportunities during the first 10 years?

R 10 000 000.00

What percentage of this will accrue to previously disadvantaged individuals?

100%

9. BIODIVERSITY

Please note: The Department may request specialist input/studies depending on the nature of the biodiversity occurring on the site and potential impact(s) of the proposed activity/ies. To assist with the identification of the biodiversity occurring on site and the ecosystem status consult <http://bgis.sanbi.org> or BGIShelp@sanbi.org. Information is also available on compact disc (cd) from the Biodiversity-GIS Unit, Ph (021) 799 8698. This information may be updated from time to time and it is the applicant/EAP's responsibility to ensure that the latest version is used. A map of the relevant biodiversity information (including an indication of the habitat conditions as per (b) below) and must be provided as an overlay map to the property/site plan as Appendix D to this report.

- a) Indicate the applicable biodiversity planning categories of all areas on site and indicate the reason(s) provided in the biodiversity plan for the selection of the specific area as part of the specific category)

Systematic Biodiversity Planning Category				If CBA or ESA, indicate the reason(s) for its selection in biodiversity plan
Critical Biodiversity Area (CBA)	Ecological Support Area (ESA)	Other Natural Area (ONA)	No Natural Area Remaining (NNR)	The proposed development is situated on previously cultivated land. The sensitivity of the affected vegetation layer is low.

- b) Indicate and describe the habitat condition on site

Habitat Condition	Percentage of habitat condition class (adding up to 100%)	Description and additional Comments and Observations (including additional insight into condition, e.g. poor land management practises, presence of quarries, grazing, harvesting regimes etc).
Natural	5%	A small portion of the site is regarded to be natural veld.
Near Natural (includes areas with low to moderate level of alien invasive plants)	15%	The remaining extent of the development is degraded and invaded by alien vegetation. Signs of ploughing is visible.
Degraded (includes areas heavily invaded by alien plants)	55%	The site is degraded. Signs of ploughing is visible.
Transformed	30%	30% of the proposed area has been transformed to a

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(includes cultivation, dams, urban, plantation, roads, etc)		degraded status, on account of trampling and agricultural activities.
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c) Complete the table to indicate:

- (i) the type of vegetation, including its ecosystem status, present on the site; and
- (ii) whether an aquatic ecosystem is present on site.

Terrestrial Ecosystems		Aquatic Ecosystems						
Ecosystem threat status as per the National Environmental Management: Biodiversity Act (Act No. 10 of 2004)	Critical	Wetland (including rivers, depressions, channelled and unchanneled wetlands, flats, seeps pans, and artificial wetlands)			Estuary		Coastline	
	Endangered							
	Vulnerable							
	Least Threatened							
		YES	NO	UNSURE	YES	NO	YES	NO

- d) Please provide a description of the vegetation type and/or aquatic ecosystem present on site, including any important biodiversity features/information identified on site (e.g. threatened species and special habitats)

The vegetation type within the area is considered as Northern Upper Karoo regarded as Least Threatened. The topography of this area consists of shales of the Volksrust Formation and to a lesser extent the prince Albert Formation (both of the Ecca Group), as well as Dwyka Group Diamictities form the underlying geology. Jurassic Karoo Dolerite sills and sheets support this vegetation complex in places. Wide stretches of land are covered by superficial deposits including calcretes of the Kalahari Group. Soils are variable from shallow to deep, red-yellow, apedal, freely drained soils to very shallow Glenrosa and Mispah forms. 21% is considered least threatened. About 4% has been cleared for cultivation (the highest proportion of any type in the Nama-Karoo) or irreversibly transformed by building of dams (Houwater, Kalkfontein and Smart Syndicate Dams). Areas of human settlements are increasing in the north-eastern part of this vegetation type.

This vegetation type is described as a shrubland dominated by dwarf karoo shrubs, grasses and *Senegalia mellifera* and several other low growing trees. The landscape is characterised as flat to gently sloping, with isolated hills of Upper Karoo Hardeveld in the south and Vallbos Rocky Shrubland in the north-east, and with many interspersed pans.

The affected environment covered by the footprint of this development can not be regarded as part of the Northern Upper Karoo, for the fact that it is transformed and disturbed by agricultural activities. Thus, the sensitivity of the affected area is seen to be depleted. The proposed development will not negatively affect the current ecological status.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT AND NOTICE

Publication name	Express	
Date published	24 July 2019	
Site notice position	Latitude	Longitude
	28°57'37.73"S	25°23'26.28"E
	28°57'43.15"S	25°23'21.94"E
Date placed	6 June 2019	

Include proof of the placement of the relevant advertisements and notices in Appendix E1.

2. DETERMINATION OF APPROPRIATE MEASURES

Provide details of the measures taken to include all potential I&APs as required by Regulation 41(2)(e) and 41(6) of GN 982

Key stakeholders (other than organs of state) identified in terms of Regulation 41(2)(b) of GN 982

Title, Name and Surname	Affiliation/ key stakeholder status	Contact details (tel number or e-mail address)
Please refer to Public Participation Report (PPR).		

Include proof that the key stakeholder received written notification of the proposed activities as Appendix E2. This proof may include any of the following:

- e-mail delivery reports;
- registered mail receipts;
- courier waybills;
- signed acknowledgements of receipt; and/or
- or any other proof as agreed upon by the competent authority.

3. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summary of main issues raised by I&APs	Summary of response from EAP
This is the draft Basic Assessment Report. Comments will be included in the Final, after the PPP has been completed.	N/A

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4. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments received from I&APs and respond to each comment before the Draft BAR is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to the Final BAR as Appendix E3.

5. AUTHORITY PARTICIPATION

Authorities and organs of state identified as key stakeholders:

Authority/Organ of State	Contact person (Title, Name and Surname)	Tel No	e-mail	Postal address
Department of Agriculture and Rural Development	Mr Thabethe	0518618509	pa.hodagric@fs.agric.za schultzjg@gmail.com	Gielie Joubert St Glen, BFN, 9360
Department of Water & Sanitation	Mr Vernon Blair	0514059000 0828073552	blairV@dws.gov.za	Bloem Plaza 2nd Floor c/o Charlotte Maxeke & East Burger Streets Private Bag 528 Bloemfontein 9300
Free State Department of Public Works and Infrastructure	Ms G Brown	0514923909	hodoffice@fsworks.gov.za	Cnr Markgraaf & St Andrew's Streets Bloemfontein 9301
Department of Heritage (Department of sports, arts, culture and recreation)	Ms. Ntando Mbatha	0514104750 / 4738/4829	mbatha.npz@sacr.fs.gov.za - loudine.philip@nasmus.co.za	Private Bag X 20606 Bloemfontein 9300
Letsemeng Local Municipality Manager Environmental Assessment	Mr. Mpolokeng Kolobe	0514058577 0514058429	mpolokeng.kolobe@mangaun g.co.za vivian.minnaar@mangaun.co .za	Room 1017, 10th Floor, Bram Fischer's Building, Bloemfontein, 9301
Municipal Manager	Ms. LY Moletsane	051 713 9304	Moletsanel@xhariep.gov.za	Xhariep District Municipality PO Box 136 Trompsburg

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				9913
Executive Mayor	Cllr. Oly Mlamleli	0514058494		1st Floor , Room 101 Bram Fischer's Building, Mangaung Metropolitan Municipality, BFN, 9301

Include proof that the Authorities and Organs of State received written notification of the proposed activities as appendix E4.

In the case of renewable energy projects, Eskom and the SKA Project Office must be included in the list of Organs of State.

6. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for any activities (linear or other) where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that sub-regulation to the extent and in the manner as may be agreed to by the competent authority.

Proof of any such agreement must be provided, where applicable. Application for any deviation from the regulations relating to the public participation process must be submitted prior to the commencement of the public participation process.

A list of registered I&APs must be included as appendix E5.

Copies of any correspondence and minutes of any meetings held must be included in Appendix E6.

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

1. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

Provide a summary and anticipated significance of the potential direct, indirect and cumulative impacts that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed. This impact assessment must be applied to all the identified alternatives to the activities identified in Section A(2) of this report.

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Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
DESIGN AND PLANNING PHASE			
Environmental Legal and Policy compliance	Direct impacts: Failure to adhere to existing policies and legal obligations could lead to the project conflicting with local, provincial and national policies, legislation etc. This could result in lack of institutional support for the project, overall project failure and undue disturbance to the natural environment.	HIGH	The planning and design of the ostrich facility must comply with all relevant legislation and Policies.
	Indirect impacts: None		
	Cumulative impacts: None		
No-go option			
Should the No-go option be implemented this activity would per definition not entail any construction impacts.	Direct impacts: .		

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Activity	Impact summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
CONSTRUCTION PHASE			
Construction camp and construction activities	<p>Direct impacts: Siting of construction camp could lead to negative environmental impacts including dust, noise, soil contamination and erosion, and visual pollution.</p>	MEDIUM	<p>The construction camp must be located in an area that will not create a visual and noise hazard, not create a traffic hazard.</p> <p>The position must be determined in conjunction with the Environmental Control Officer (ECO) (see Environmental Management Plan – Appendix G)</p>
	<p>Indirect impacts: The generation of dust, noise and visual impacts will create a nuisance factor in the area, particularly with regards to the surrounding residential areas, as well as the riverine area located in close proximity.</p>	HIGH	<p>Construction activities must account for reducing and controlling dust, noise and visual impacts.</p> <p>Method Statements must be written and adhered to for measures to control and reduce noise, dust and visual impacts.</p> <p>Construction work must only take place in normal working hours, unless the neighbours are informed and agree to other working hours.</p>
	<p>Cumulative impacts: - None</p>		
Impacts on indigenous vegetation	<p>Direct impacts: Vegetation on site consists mainly of cultivated pastures. No natural veld will be disturbed.</p>	LOW	<p>Ensure the Environmental Management Plan includes localities of these plants and if applicable animals, and measures to rescue, protect/remove them.</p>

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			<p>Any animals found should be relocated to places of safety.</p> <p>No hunting or trapping of animals to be permitted.</p> <p>All persons should be sensitised to the fact that they are working in an open veld area, and ALL fauna encountered must be treated with respect.</p>
	<p>Indirect impacts: None</p>		
	<p>Cumulative impacts: - None</p>		
Hydrological – Storm water System and water supply	<p>Direct impacts: Initially storm water runoff will be as per natural state i.e. infiltration into soils and sheet washing.</p> <p>The construction of the ostrich houses and transformation of base soil will result in higher levels of storm water runoff, with the possibility of increased erosion and decline in water quality.</p>	LOW	Storm water run-off generated within the development should be accommodated through formal systems.
	<p>Indirect impacts: None.</p> <p>The construction phase of the development will require very little water.</p>	LOW	Personnel will be instructed not to waste water during the construction phase.

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	Cumulative impacts: - None		
Waste – Sewage / Effluent	Direct impacts: Very little sewage will be generated during the construction phase.	LOW	Portable toilets will be supplied for personnel during the construction phase of the development. Thereafter, suitable connection to the municipal sewerage system will take place.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Waste – Building Rubble & Littering	Direct impacts: Littering may occur by personnel during construction phase. Building waste will thus be continuously generated in small quantities over the construction period.	LOW	The building waste will be transported at the Building Contractors / Developer's cost to the Municipality's landfill site. Waste and litter drums will be placed at strategic points for use by personnel. The drums will be regularly emptied and waste removed to the Municipal's landfill site. The municipality should ensure that municipal by-laws regarding waste disposal are upheld by the single residential home owners and their builders. Illegal dumping of domestic and other waste should not be allowed. Warning signs should be

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			erected, spot fines imposed or even prosecution should occur if dumping continues. The Developer will display an all-hours telephone number on the site for emergency calls or complaints.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Land transformation – Dust Levels	Direct impacts: Increased dust levels due to the clearing of vegetation, earthmoving activities and movement of vehicles may impact on air quality and possibly surrounding natural vegetation.	MEDIUM	The Developer should ensure that dust levels are kept to a minimum by: Exposing only those areas to be developed i.e. areas corresponding to road surfaces, cables and pipelines. The Developer will display an all-hours telephone number on the site for emergency calls or complaints.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Land transformation – Noise Levels	Direct impacts: Increased levels of noise due to earthmoving & construction activities. Associated noise may potentially impact on nearby natural surrounding ecosystems.	LOW	The Developer will ensure that noise levels are kept to a minimum by: Limiting operation of heavy earthmoving equipment and construction activities to normal

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			working hours, and to normal work days (i.e. Monday to Friday, between 08h00 and 17h00). The Developer will display an all-hours telephone number on the site for emergency calls or complaints.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Land transformation – Veldfire	Direct impacts: Machinery and human activity will increase veldfire risk levels. The site is currently covered with cultivated lands, from which a veldfire may spread to adjacent natural areas.	MEDIUM	The Developer will ensure that firefighting equipment is available on site in the event that an accidental fire should break out. Implementing firebreaks on the perimeter of the farm. Construction workers will not be allowed to make fires on the site. The Developer will display an all-hours telephone number on the site for emergency calls or complaints.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Increased levels of traffic	Direct impacts: The transportation of construction material will	LOW	The Developer will ensure that traffic flow is not impeded by avoiding the transportation of

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	increase traffic on the S1331 road. The additional trips will have negligible impact on the current traffic flows.		materials during peak traffic hours of 7:00 am – 8:00am and 4:00pm – 5:00pm.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Socio-Economic	Direct impacts: Casual labour taking advantage of the job opportunities created by the construction phase may increase the number of people loitering, levels of vagrancy and possibly petty crime.	LOW	The Developer will secure the building site by fencing off the construction yard. The Developer should ensure that the appointed building contractor manages his/her labour force in such a way as to discourage the employment of casual labour. Labour should be transported to and from work. Labour brokering, if allowed, should be dealt with off-site.
	Indirect impacts: - None		
	Cumulative impacts: - None		
No-go option			
Should the No-go option be implemented this activity would per definition not entail any construction	Direct impacts: Invasion of natural veld by alien plant species would continue unchecked.	MEDIUM	Alien invasive plants should be cleared. Firebreaks should be cut and maintained along the property boundaries. The local authority fire

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impacts.	Loss of opportunities in terms of potential short and long-term employment, food production and education.		and disaster management plans should be put in place. The local authority's LED policy would be tested to find replacement employment opportunities. Increased burden on state for social security.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Activity	Impact Summary	Significance	Proposed mitigation
Alternative 1 (preferred alternative)			
OPERATIONAL PHASE			
Food security	Direct impacts: More affordable protein will be made available to surrounding communities.	HIGH	None
	Indirect impacts: None		
	Cumulative impacts: None		
Job creation	Direct impacts: Several jobs will be made available, part time and permanent.	HIGH	None

BASIC ASSESSMENT REPORT

	Indirect impacts: - Poverty will reduce		
	Cumulative impacts: - None		
Noise	Direct impacts: Increased levels of noise due to vehicles on the road. Associated noise may potentially impact on nearby residential neighbourhoods, or natural surrounding ecosystems.	LOW	Follow a diligent “housekeeping” practices which ensure frequent removal of ostrich manure and other organic waste which may generate from time to time. Thus far all the necessary measures are taken to prevent any odour. Dispose of ostrich feed, bedding, carcasses, and all other waste using effective and environmentally-friendly methods as planned. No carcasses may be dumped on site. Immediately implement effective measures to rehabilitate accidentally contaminated areas.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Transmission of diseases of wildlife from the ostriches and pets.	Direct impacts: Spread of diseases to ostriches and humans.	MEDIUM	Implement procedures and measures (e.g. sand traps) to prohibit accidental dirty water or contamination from entering the surrounding environment. Ensure that the ostrich house remains isolated from the surrounding environment. Prevent wild animals from entering the ostrich houses.
	Indirect impacts: - None		

BASIC ASSESSMENT REPORT

	Cumulative impacts: - None		
Poor / inappropriate control of invertebrate pests such as flies, weevils, ants, termites, cockroaches, fleas, lice, mites, ticks, etc.	Direct impacts: This could have a negative effect on the health of the ostriches, as well as humans in the facility.	MEDIUM	It is important to detect pest infestation before they become a problem. Failure to do so will often result in increased costs of control, less effective or ineffective control measures and significant damage or loss.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Poor / inappropriate control of vertebrate pests such as rodents, snakes, mammalian carnivores and bats.	Direct impacts: This could have a negative effect on the health of ostriches, as well as humans in the facility.	MEDIUM	The following measures should be implemented: <ul style="list-style-type: none"> • Keep grass and weeds mowed to 5cm or less immediately around the facilities, to prevent insect growth and hiding place for rats and mice. • Remove all trash and sources of feed and water for pests from the outside perimeter of the facilities.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Disturbance of surrounding fauna from human activity, noise and light, environmental contamination, inappropriate pest	Direct impacts: The dynamics and wellbeing of the surrounding environment will decrease if this issue is not mitigated.	MEDIUM	Highlight all prohibited activities to workers through training and notices. Implement measures (e.g. speed bumps) along the gravel access to control dust, erosion, sedimentation, and faunal roadkill and any sensory disturbance.

BASIC ASSESSMENT REPORT

management, disease transmission, proliferation of alien species, and unnatural fires.			Minimize lighting. Where this is not possible, lights should be hooded and orientated downwards to reduce the disturbance or attraction of fauna to lights. Fluorescent and mercury vapour lighting should be avoided and sodium vapour (yellow) lights should be used wherever possible.
	<i>Indirect impacts:</i> - None		
	<i>Cumulative impacts:</i> - None		
Potential visual intrusion of structures and buildings associated with the proposed development on existing views of sensitive visual receptors. This impact is rated as neutral.	<i>Direct impacts:</i> Scenes of place is impacted.	LOW	No specific mitigation measures are recommended.
	<i>Indirect impacts:</i> - None		
	<i>Cumulative impacts:</i> - None		
Potential impact of night lighting of the development on the nightscape of the surrounding landscape. This impact is rated as neutral.	<i>Direct impacts:</i> Scenes of place is impacted.	LOW	No specific mitigation measures are recommended as it is assumed that night lighting of the proposed ostrich facility will be planned in such a manner so as to minimize light pollution such as glare and light spill (light trespass) by: <ul style="list-style-type: none"> • Using light fixtures that shield the light and focus illumination on the ground (or only where light is required). • Using minimum lamp wattage within safety/security requirements.

BASIC ASSESSMENT REPORT

			<ul style="list-style-type: none"> • Avoiding elevated lights within safety/security requirements. • Where possible, using timer switches or motion detectors to control lighting in areas that are not occupied continuously (if permissible and in line with minimum security requirements). • Switching off lights when not in use in line with safety and security.
	Indirect impacts: - None		
	Cumulative impacts: - None		
Land contamination as a result of storage of ostrich waste on the proposed waste storage facility	Direct impacts: Soil contamination, as well as water contamination might occur prior to implementation of waste management system.	MEDIUM	<p>The waste storage facility must be operated within its design capacity.</p> <p>Ensure that the waste storage facility is free from odour or emissions at levels that are likely to cause annoyance.</p> <p>Personnel should ensure careful transportation of waste from the ostrich facilities to the storage facility as to avoid spillage.</p> <p>Training must be provided continuously to all employees working with waste and all contract workers that might be exposed to waste.</p>
	Indirect impacts: - None		
	Cumulative impacts: - None		
Potential impact on the	Direct impacts:		Operational personnel must wear basic PPE

BASIC ASSESSMENT REPORT

<p>health of operating personnel resulting in potential health injuries. This impact is rated as neutral</p>	<p>Potential impact on the health of operating personnel resulting in potential health injuries. This impact is rated as neutral.</p>		<p>(e.g. gloves, goggles etc.) as necessary during the operational phase.</p>
	<p>Indirect impacts: - None</p>		
	<p>Cumulative impacts: - None</p>		
<p>Minor accidents to the public and moderate accidents to operational staff (e.g. fires). This impact is rated as neutral.</p>	<p>Direct impacts: Injuries to personnel</p>	<p>LOW</p>	<p>An Emergency Plan should be compiled in order to deal with potential spillages and fires. Records of practices should be kept on site. Scheduled inspections should be implemented by operating personnel in order to assure and verify the integrity of hoses, piping and waste storage facility. Portable fire extinguishers and fire water hydrants (i.e. appropriate fire-fighting equipment) should be provided at the facility as required.</p>
	<p>Indirect impacts: - None</p>		
	<p>Cumulative impacts: - None</p>		
<p>Improved service delivery with regards to produce. This impact is rated as positive</p>	<p>Direct impacts: Improved service delivery with regards to produce. This impact is rated as positive. .</p>	<p>HIGH</p>	<p>Ensure that the proposed infrastructure is maintained appropriately to ensure that all facilities and infrastructure operate within its design capacity to deliver as the market requires.</p>
	<p>Indirect impacts: - None</p>		

BASIC ASSESSMENT REPORT

	Cumulative impacts: - None		
No-go option			
Further spread and infestation of alien and invasive vegetation on the proposed footprint area	Direct impacts:	MEDIUM	Systematic removal of all alien and invasive vegetation through a comprehensive control and eradication programme. Implement a monitoring programme to detect alien invasive species early, before they become established and, in the case of weeds, before the release of seeds.
	Indirect impacts: None		
	Cumulative impacts: None		

A complete impact assessment in terms of Regulation 19(3) of GN 326 must be included as Appendix F.

2. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)

In terms of potential impacts resulting from the proposed preferred development during the operational phase, the most significant impacts are those related to land transformation and waste generation by the proposed Ostrich Feedlot upgrade.

Major positive impacts during the operational phase are socio-economic, educational, improved access and food security. All of these will enhance the livelihoods of the local community.

Other less significant impacts include increased noise volumes and unpleasant odour.

All of these impacts can be adequately addressed by the implementation of suitable mitigation measures.

In the opinion of Environmental Management Group, there are no environmental impacts that have been identified that will be detrimental to the environment to such an extent that the proposed development should not be permitted, nor were any sensitive environmental components or fatal environmental flaws identified within the study area, such that should result in refusal of environmental authorization for this application. Therefore, it is recommended that this application receives favourable consideration, given that the overall impact of this proposed activity will be of a positive nature.

Alternative B

--

Alternative C

--

No-go alternative (compulsory)

This option assumes that a conservative approach would ensure that the environment is not impacted upon any more than is currently the case. It is important to state that this assessment is informed by the current condition of the area. Should the Competent Authority decline the application, the 'No-Go' option will be followed and the status quo of the site will remain in the same degraded and un-preferred operational state. All of the advantages will be lost, which in turn has a negative effect on our economic growth rate.

SECTION E. RECOMMENDATION OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES

NO

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment).

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application.

As a result of the above information The Department of Rural Land Reform request that the above mentioned be approved as long as the following are followed:

- **The mitigation measures in the EMP attached must be adhered to at all times and must ensure the developer comply with the EMP;**
- **Mitigation measures should be incorporated into the management plans and adhered to.**
- **A detailed record of all activities related to environmental and social management, as well as stakeholder engagement, should be retained for review and audit by independent parties for all phases of the project. The audit findings should be made available to the relevant environmental and local authorities; and**
- **Any substantive changes to the project configuration should be the subject of environmental assessments and should result in amendments to the EMP. Information related to any such changes should be made available to the authorities as well as for public review in the spirit of full disclosure.**

Is an EMPr attached?

YES

NO

The EMPr must be attached as Appendix G.

The details of the EAP who compiled the BAR and the expertise of the EAP to perform the Basic Assessment process must be included as Appendix H.

If any specialist reports were used during the compilation of this BAR, please attach the declaration of interest for each specialist in Appendix I.

Any other information relevant to this application and not previously included must be attached in Appendix J.

BASIC ASSESSMENT REPORT

NAME OF EAP

SIGNATURE OF EAP

DATE

SECTION F: APPENDIXES

The following appendixes must be attached:

Appendix A: Maps

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix C (i): Operational Plan

Appendix C (ii): Technical Design Report

Appendix D: Specialist reports (including terms of reference)

Appendix D (i): Phase 1 Heritage Impact Assessment

Appendix E: Public Participation Report

Appendix F: Impact Assessment

Appendix G: Environmental Management Programme (EMPr)

Appendix H: Details of EAP and expertise



Appendix I: Specialist's declaration of interest

Appendix J: Title Deeds

Appendix A: Maps

Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise Layout Map

Legend

-  Access Route
-  Manure Stockpile Area



Google earth

Image © 2019 CNES / Airbus

© 2018 AfriGS (Pty) Ltd.

400 m



Locality Map

Legend

- Feature 1
- Feature 2
- Ostrich Farm
- Ostrich Feedlot
- Saps - Petrusburg

Ostrich Feedlot

Dahlia

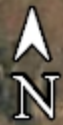
Petrusburg

R48

8

Google Earth

© 2018 AfrigiS (Pty) Ltd.
Image © 2019 Maxar Technologies
Image © 2019 CNES / Airbus
© 2018 Google




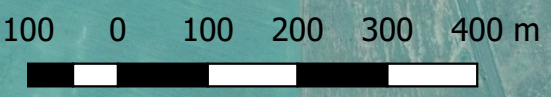
7 km

Thusanang Ostrich Farm: Sensitivity Map

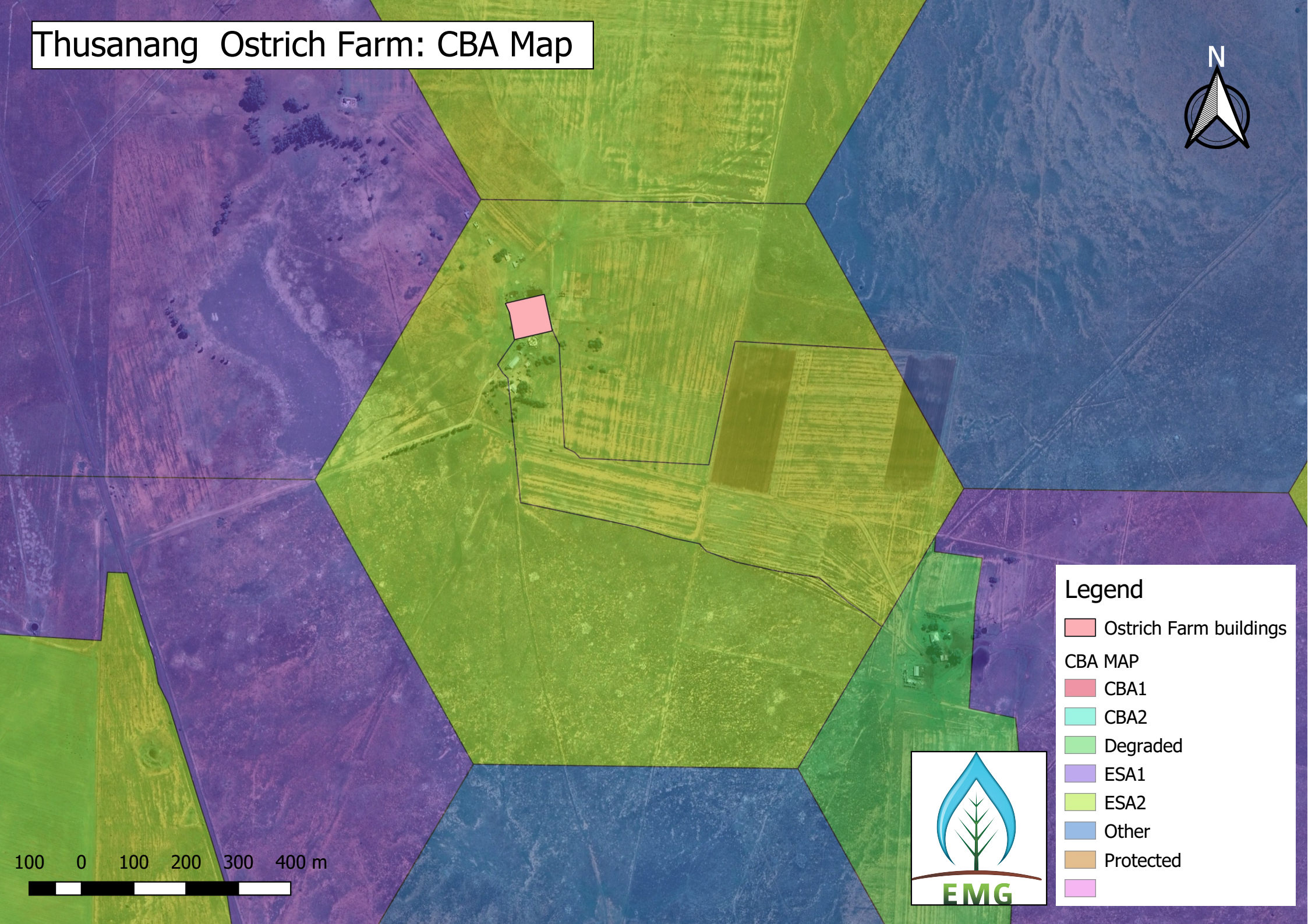


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



-  Ostrich Farm Buildings
-  NFEPA_Wetlands
- veg2006
 -  Northern Upper Karoo



Thusanang Ostrich Farm: CBA Map



Legend

-  Ostrich Farm buildings
- CBA MAP**
-  CBA1
-  CBA2
-  Degraded
-  ESA1
-  ESA2
-  Other
-  Protected
- 



Appendix B: Photographs





fs.

Appendix C: Facility illustration(s)

h Farm

Description for your map.



NOTES:

1. A 100 sow building is approximately 0.67 ha including the pond
2. Dewetsdorp piggery - Site = 0.73ha - is too small to fit 100 sow building.

REFERENCE DOCUMENTS

No.	Date	Revision Description
0	26-06-2019	ISSUED FOR CONSTRUCTION

REVISION SCHEDULE

PROJECT

CLIENT

Department: Rural Development and Land Reform
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF RURAL DEVELOPMENT AND LAND REFORM

Member of the Surbana Jurong Group

23 Second Avenue
WESTDENE
Bloemfontein, South Africa
9301
Website: //www.smeccom
Tel. (051) 411-8700
Fax (051) 447-6000

ENGINEER	PR ENG no.	DATE
CLIENT		DATE
DESIGNED	DRAWN	CHECKED
T. MABELE	T. MABELE	S. MARAIS

PROJECT

Dewetsdorp Piggery

DRAWING DESCRIPTION

LOCALITY PLAN

DATE	SCALE	SIZE
14-01-2019	1:1	A1

DRAWING NUMBER		
PROJ No - PHASE - DISCIPLINE - STAGE - DOC - SERV - LEV - SEQ No - (SHEET)	REV	
BCM62-2019-100	0	

Earth

ty Ltd.

ALL DIMENSIONS AND HEIGHTS ARE TO BE CHECKED ON SITE BEFORE WORK IS PUT IN HAND.
 ALL WORK AND MATERIAL ARE TO COMPLY TO RELEVANT SABS CODES WHERE APPLICABLE.
 BRAND NAMES DENOTE SIMILAR OR EQUALLY APPROVED.
 ALL WORK TO BE IN ACCORDANCE TO A.R.B.
 REPORT DISCREPANCIES TO ARCHITECT OR ENGINEER.

BENCHMARK CO-ORDINATE LIST

NAME	Y-COORDINATE	X-COORDINATE	ELEVATION
OSH 1	156865.733	3205942.339	1204.912
OSH 2	156810.456	3206014.759	1204.892
OSH 3	156696.586	3206033.636	1204.761
OSH 4	156696.578	3205902.252	1204.610

OSTRICH HOUSE CO-ORDINATE LIST

Name	Y-Coord	X-Coord
A1	156830.128	3205939.504
A2	156817.128	3205945.504
A3	156817.128	3205945.504
A4	156830.128	3267705.234
A5	156816.628	3267687.269
A6	156816.628	3205945.504
A7	156803.628	3205945.504
A8	156803.628	3205945.504

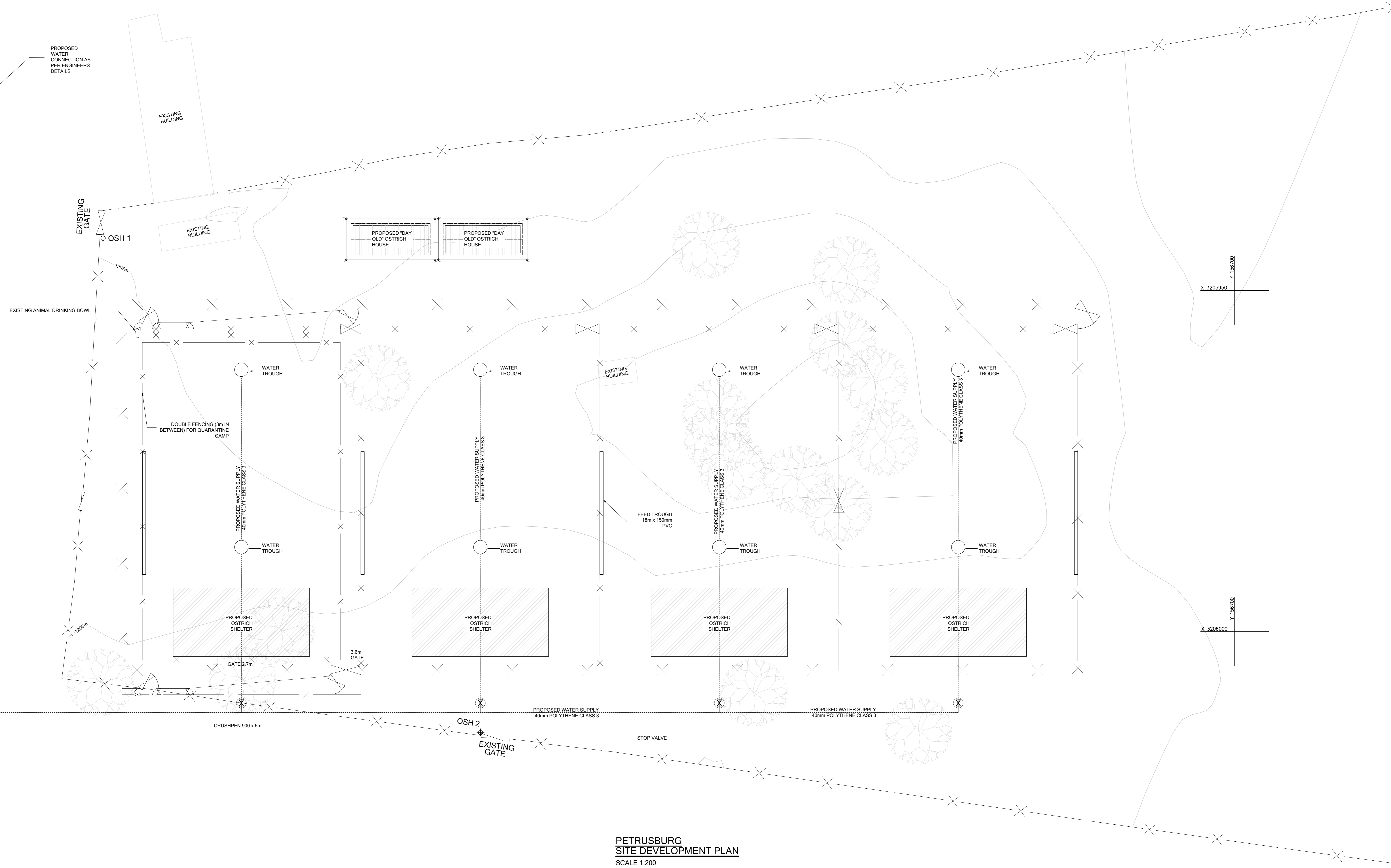
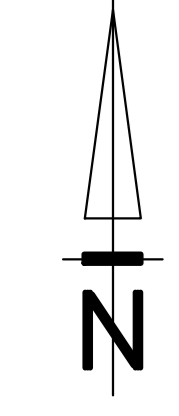
AREA SCHEDULE

NO.	Description	Area (m2)
1	SITE AREA	22 463.31
2	PROPOSED BUILDINGS	959.00
3	EXISTING BUILDINGS	64.61
TOTAL PERCENT COVERAGE		21.95%

NOTES:

TENDER

REV No	DATE	DESCRIPTION
A	18-12-2017	ISSUED FOR APPROVAL



**PETRUSBURG
 SITE DEVELOPMENT PLAN**
 SCALE 1:200

SIZE ON ORIGINAL DRAWING 100 mm

CLIENT LOGO

PROJECT DETAILS

CONSTRUCTION OF OSTRICH FACILITY IN FREE STATE

CONTRACT No

TCE-1103

DISCIPLINE

ARCHITECTURAL

DRAWING DESCRIPTION

PETRUSBURG SITE DEVELOPMENT PLAN

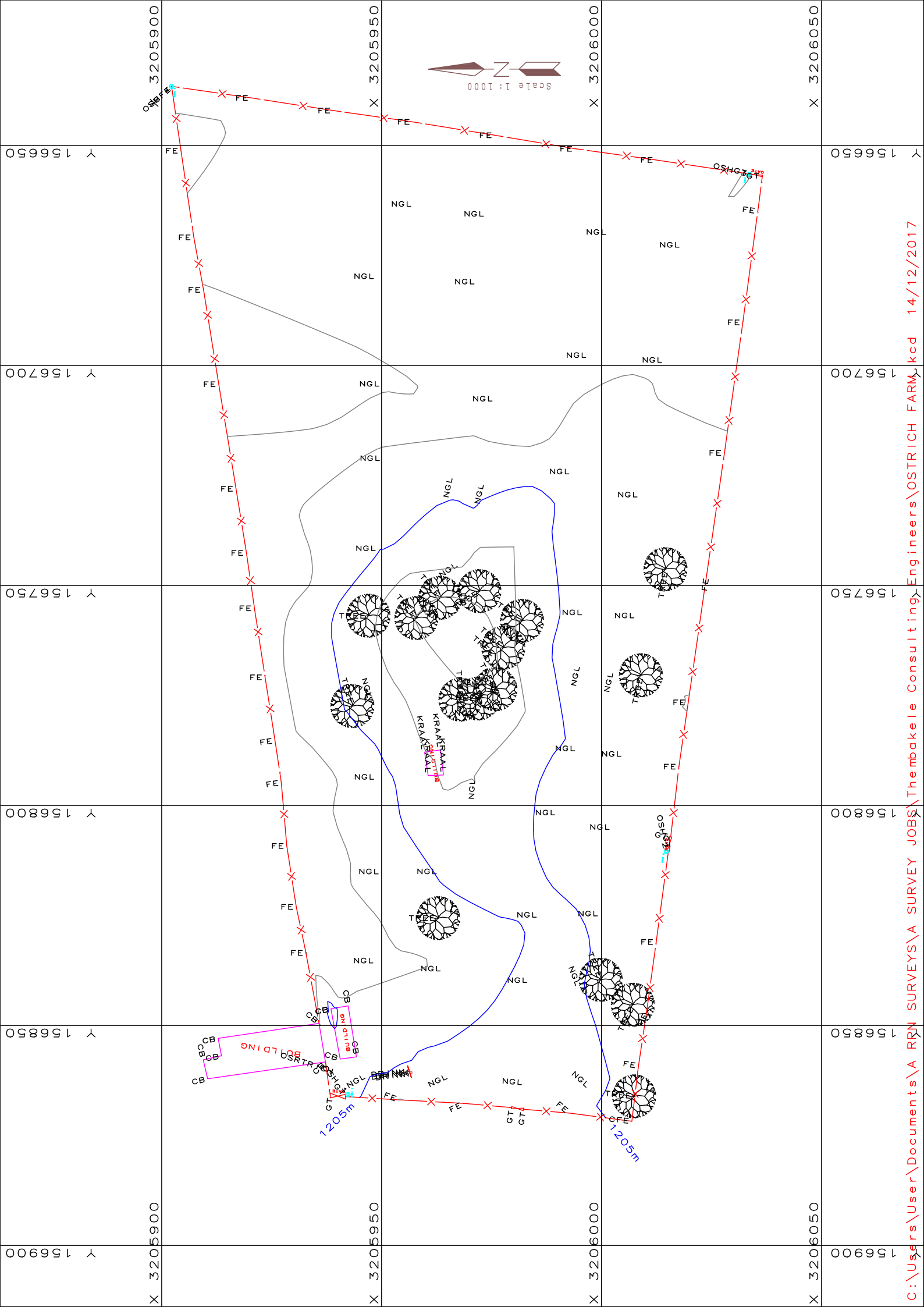
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N KGANAKGA	N KGANAKGA	C KATIVHU

DRWG UNITS	SCALE
MILLIMETERS	AS SHOWN

RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	PR NUMBER

UNIT 6,
 GARDENS BUSINESS PARK
 ATELJEE STREET
 RANDPARK RIDGE
 2169
 Web address: www.thembakele.co.za
 Telephone: 011 478 8100
 Facsimile: 011 478 8100

SIZE	DRAWING NUMBER	REV
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X 3206000

X 3206050

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Y 156650

Y 156700

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Y 156850

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Y 156900

X 3205900

X 3205950

X 3206000

X 3206050

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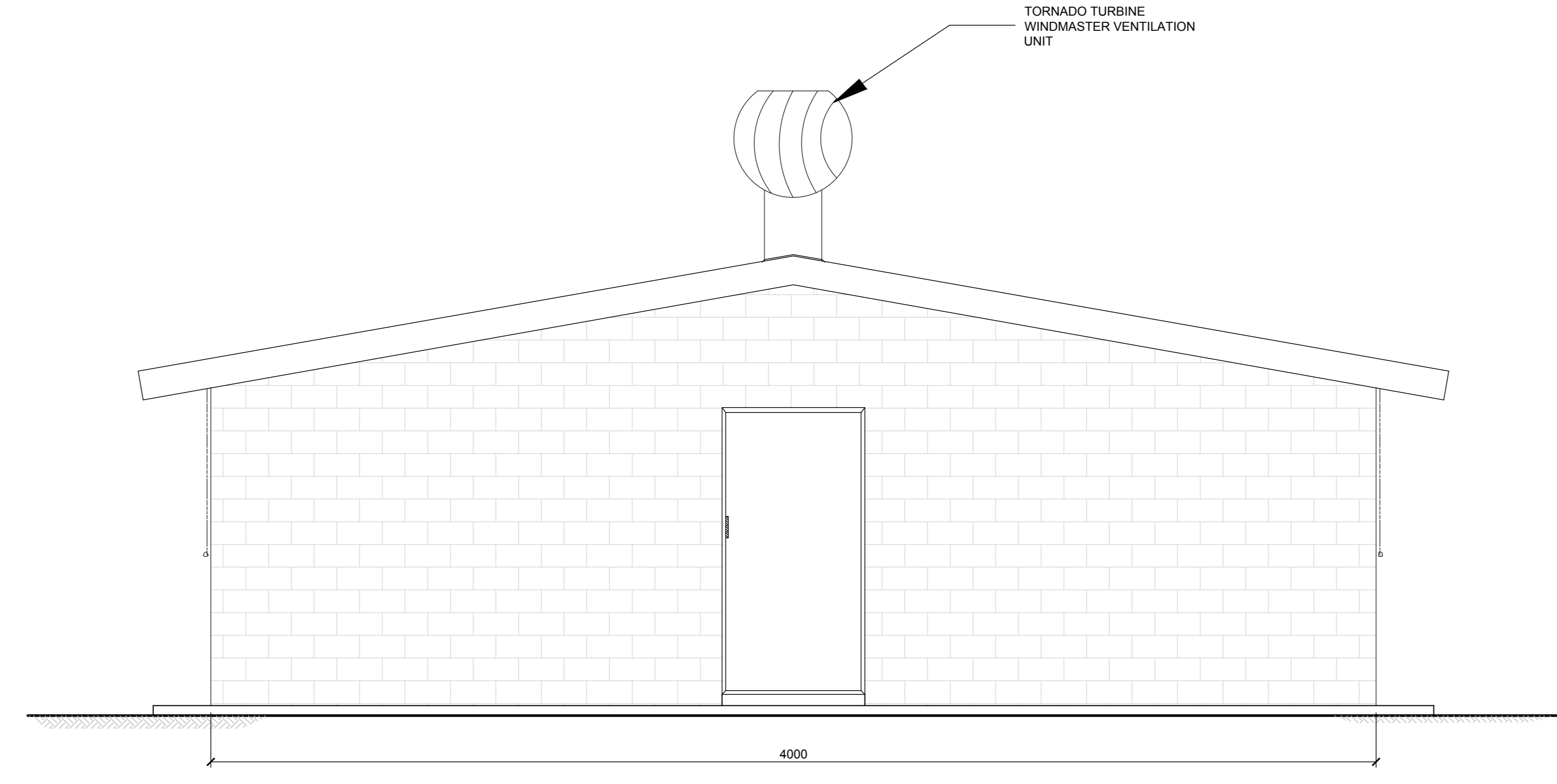
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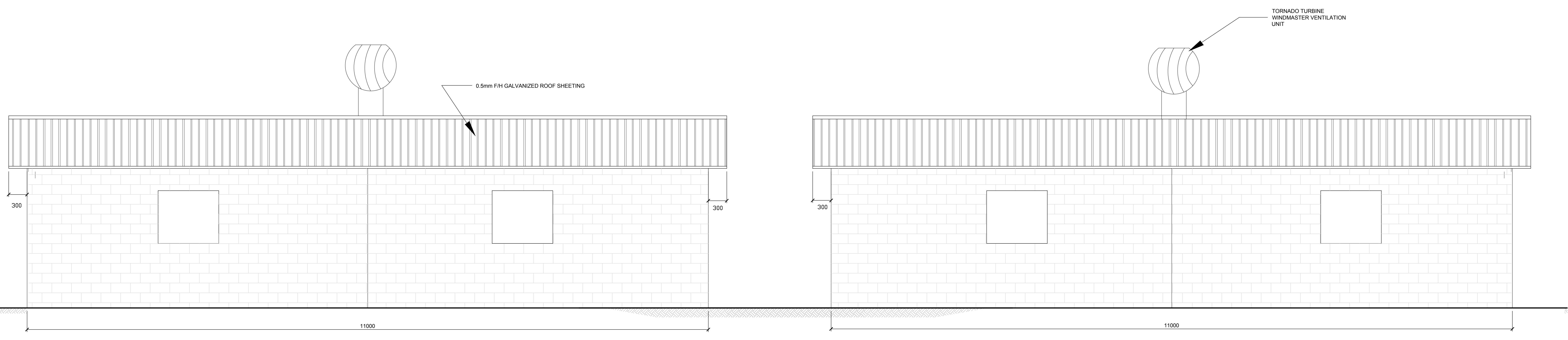
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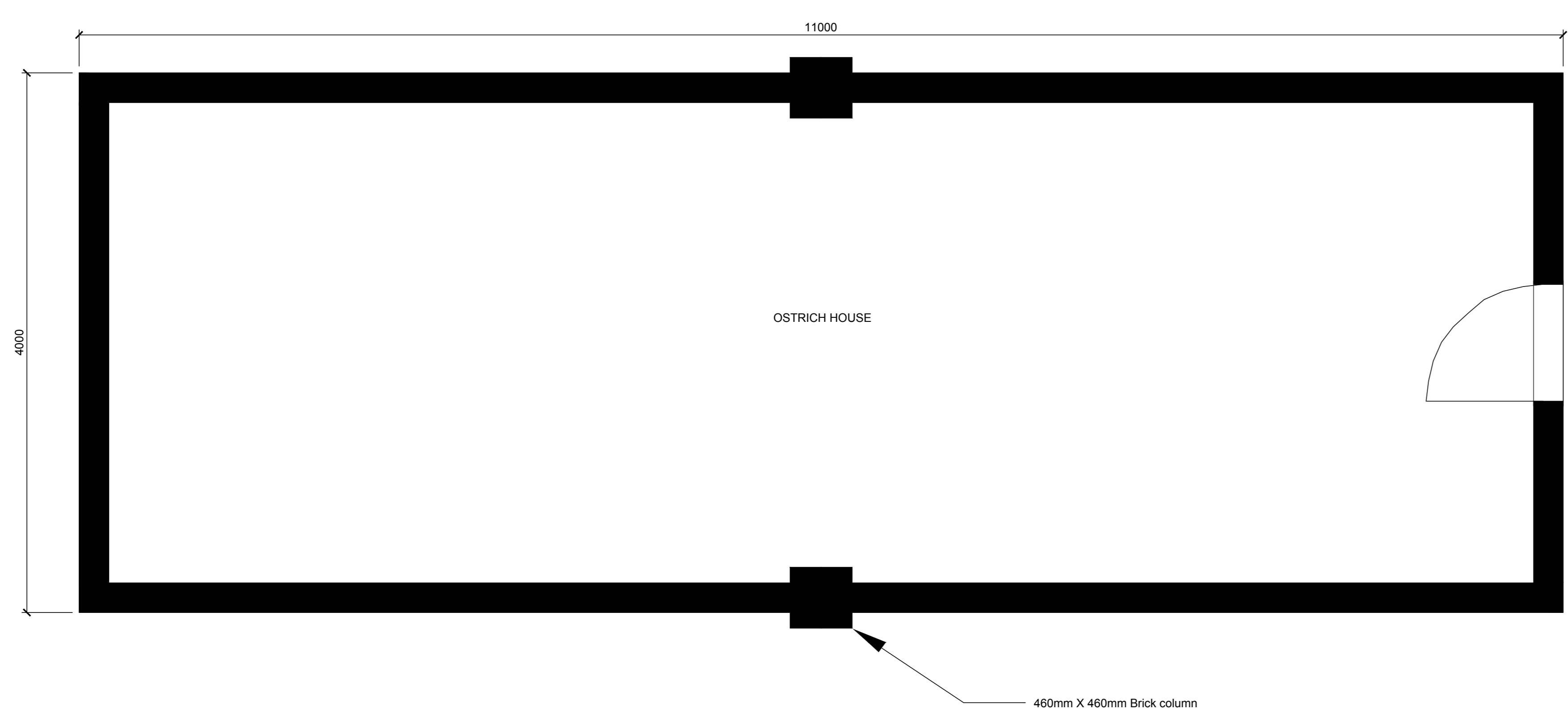
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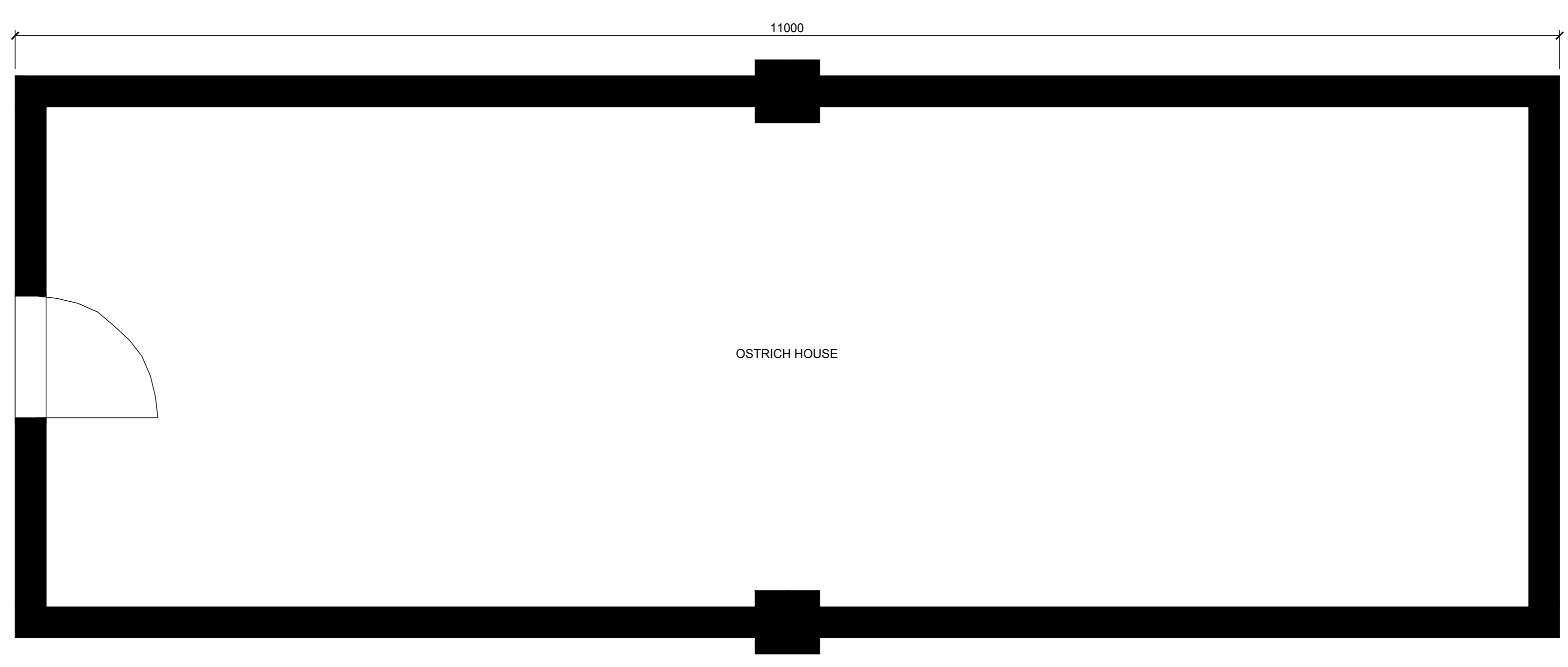
END ELEVATION
SCALE 1:25



SIDE ELEVATION
SCALE 1:25



TOP VIEW
SCALE 1:25



SIZE ON ORIGINAL DRAWING 100 mm

CLIENT LOGO

PROJECT DETAILS

CONSTRUCTION OF OSTRICH FACILITY IN THE FREE STATE

CONTRACT No

TCE-1103

DISCIPLINE

ARCHITECTURAL

DRAWING DESCRIPTION

OSTRICH HOUSE LAYOUT

DESIGNED BY	DRAWN BY	CHECKED BY
	N.KGANAKGA	C.KATIVHU
DRWG UNITS	SCALE	
MILLIMETERS	AS SHOWN	

RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	PR NUMBER

UNIT 6,
 GARDENS BUSINESS PARK
 ATELJEE STREET
 RANDPARK RIDGE
 2169
 Web address: www.thembakele.co.za
 Telephone: 011 474 4520
 Facsimile: 011 474 3140

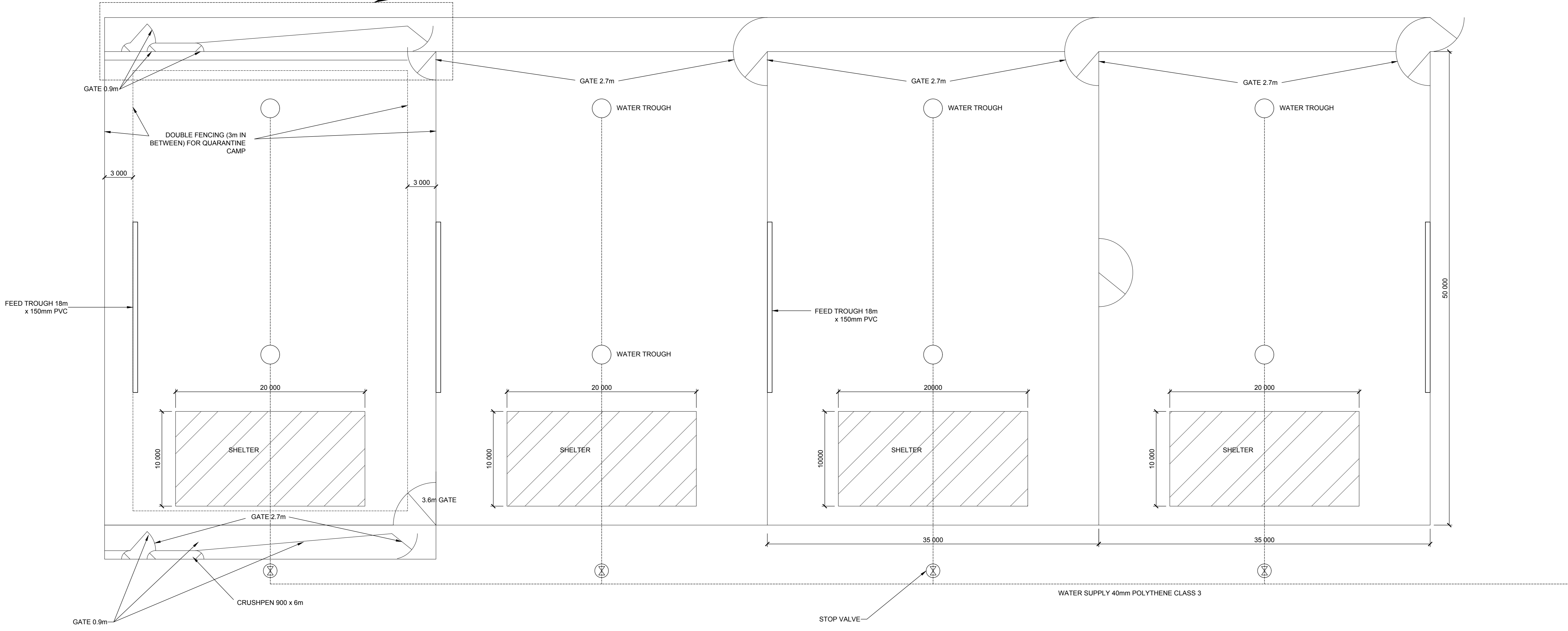
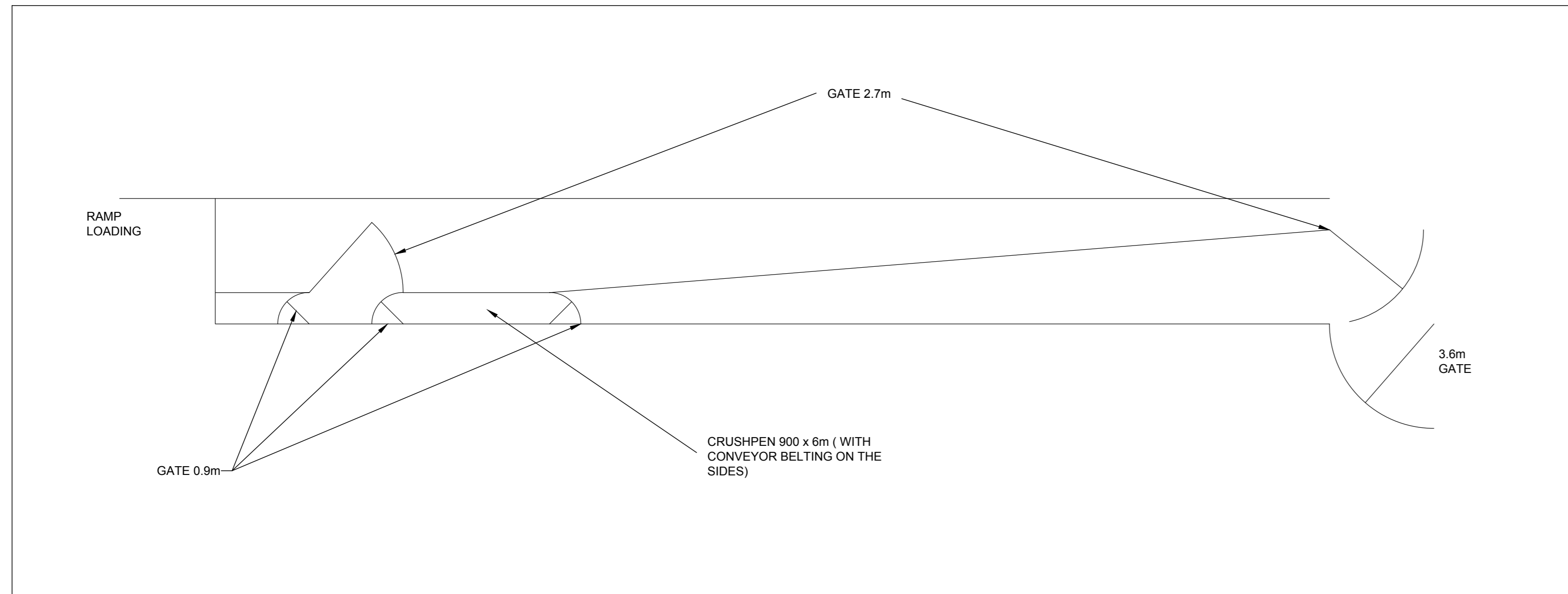
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 REPORT DISCREPANCIES TO ARCHITECT OR ENGINEER.

- NOTES:**
1. ALL GATES 30mm MEDIUM STRENGTH
 2. ALL FENCES TO BE 1.8m HIGH
 3. ALL SIDES TO BE COVERED WITH 80% SHADE CLOTH AND 1500mm WIDE.
 4. SIDES OF CRUSHPEN TO BE COVERED WITH CONVEYOR BELTING 900mm WIDE
 5. A PASSAGE OF 6m WIDE AROUND THE FACILITY OF STOCKPROOF FENCE FROM GAIN OF EXISTING MATERIAL.

TENDER

REV No	DATE	DESCRIPTION
A	08-12-2017	ISSUED FOR APPROVAL



OSTRICH HANDLING FACILITY
 SCALE 1:200

SIZE ON ORIGINAL DRAWING 100 mm

CLIENT LOGO

PROJECT DETAILS

CONSTRUCTION OF OSTRICH FACILITY IN THE FREE STATE

CONTRACT No

TCE-1103

DISCIPLINE

ARCHITECTURE

DRAWING DESCRIPTION

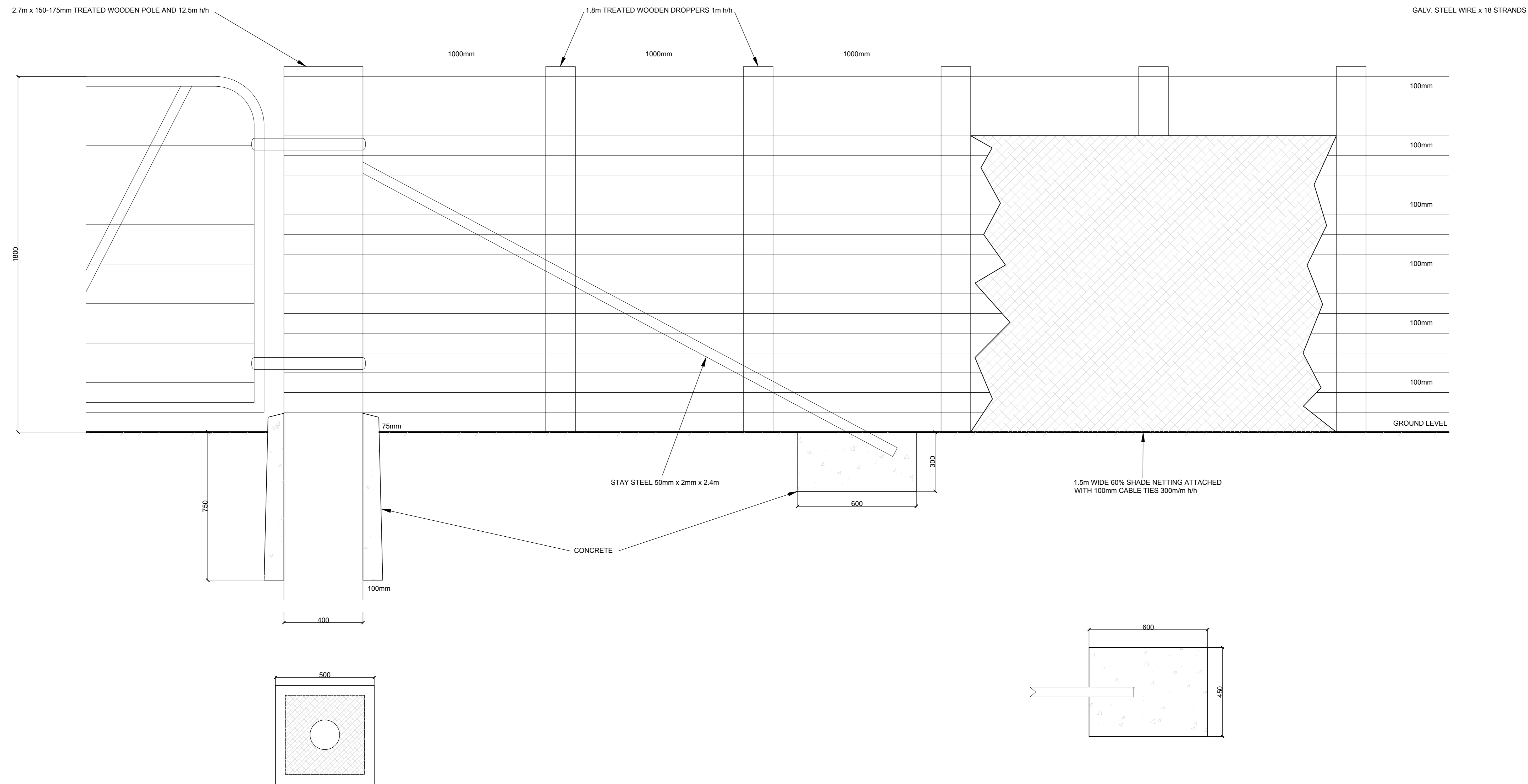
OSTRICH HANDLING FACILITY

DESIGNED BY	DRAWN BY	CHECKED BY
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MILLIMETERS	AS SHOWN	

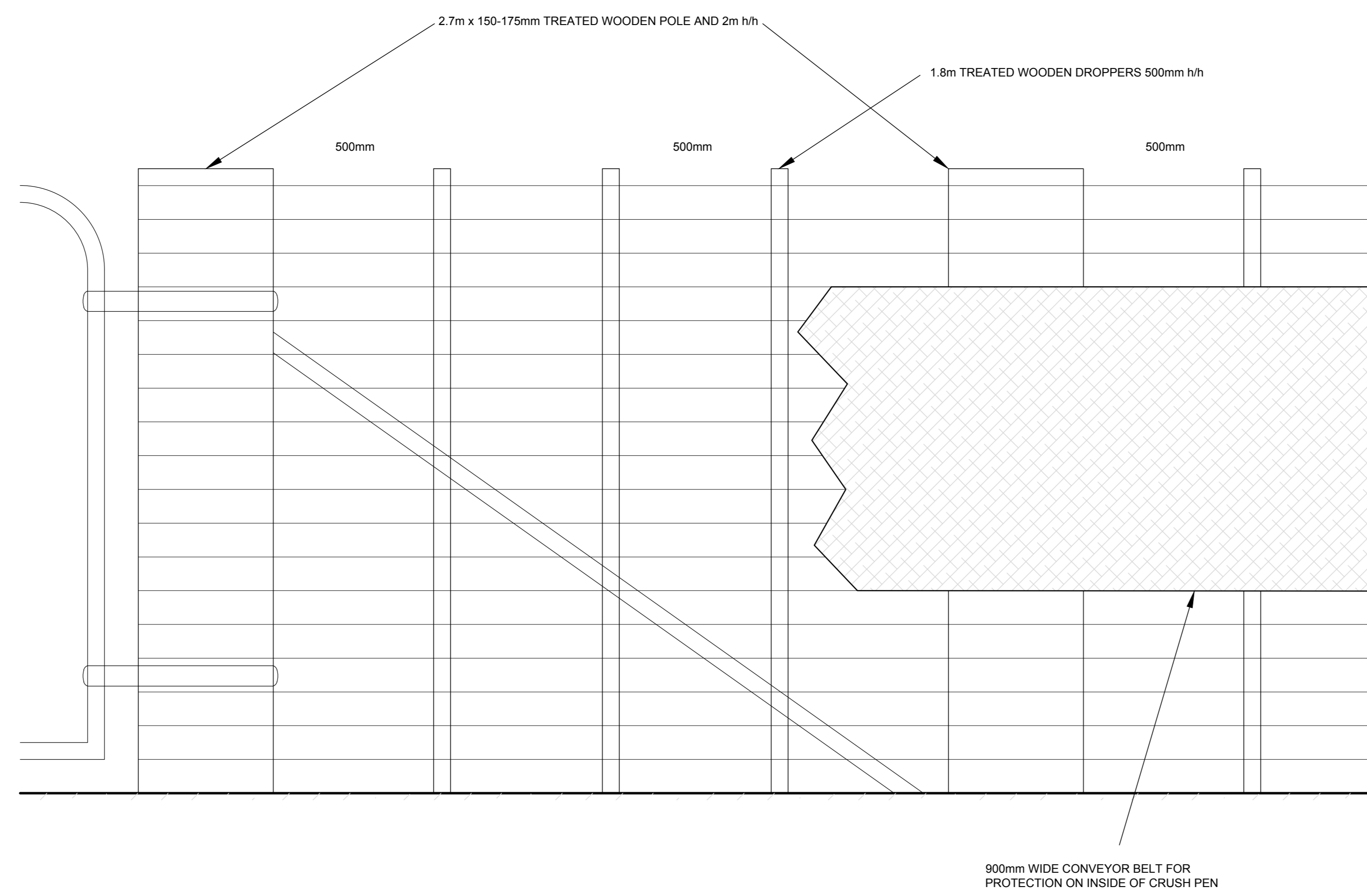
RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	PR NUMBER

UNIT 6,
 GARDENS BUSINESS PARK
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 RANDPARK RIDGE
 2169
 Web address: www.thembakele.co.za
 Telephone: 011 474 4500
 Facsimile: 011 474 3140

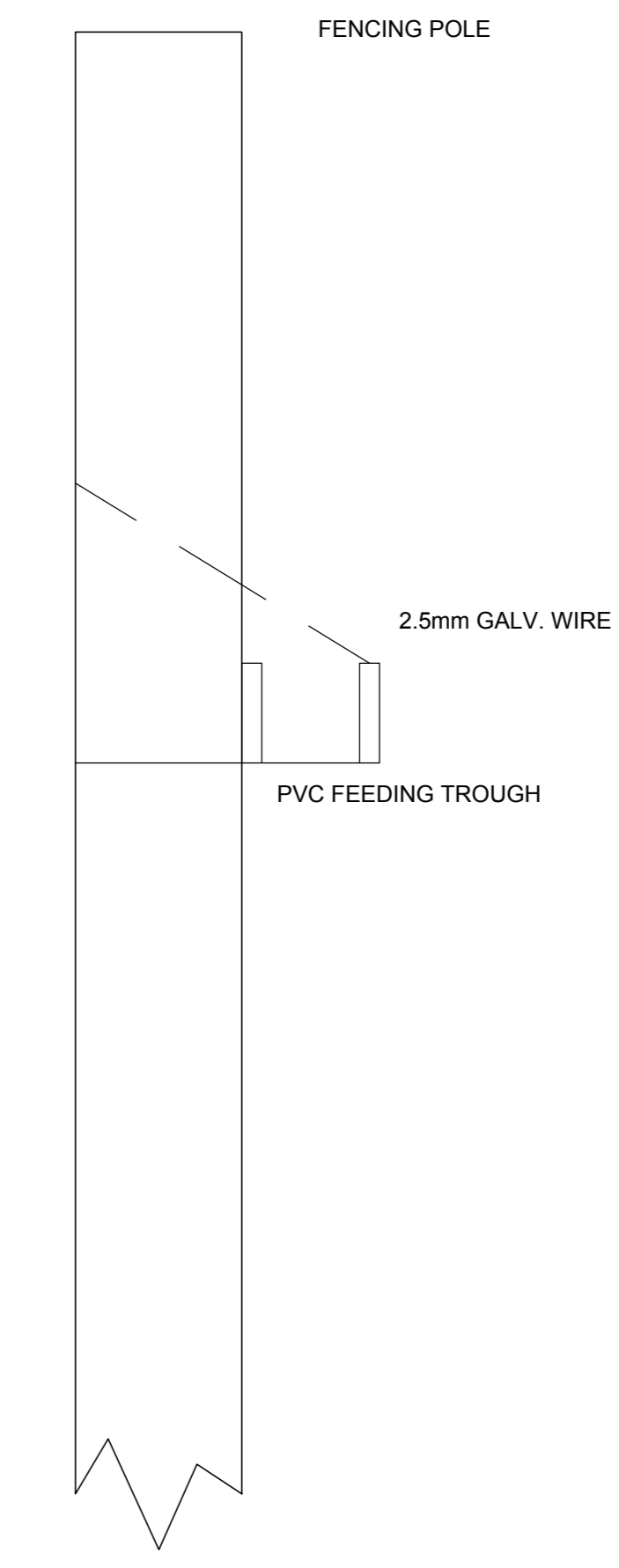
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GENERAL DETAILS OF FENCING
N.T.S



DETAILS OF CRUSH PEN
N.T.S



PVC FEEDING TROUGH
N.T.S

TCE-CV-FM-005
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REPORT DISCREPANCIES TO ARCHITECT OR ENGINEER.

NOTES:

TENDER

REV No	DATE	DESCRIPTION
A	06-12-2017	ISSUED FOR APPROVAL

SIZE ON ORIGINAL DRAWING 100 mm

CLIENT LOGO

PROJECT DETAILS

CONSTRUCTION OF OSTRICH FACILITY IN FREE STATE

CONTRACT No

TCE-1103

DISCIPLINE

ARCHITECTURAL

DRAWING DESCRIPTION

OSTRICH FENCING DETAIL

DESIGNED BY	DRAWN BY	CHECKED BY
	P.PADAYACHI	C.KATIVHU
DRWG UNITS	SCALE	
MILLIMETERS	AS SHOWN	

RESPONSIBLE PROFESSIONAL			
DATE	NAME	SIGNATURE	PR NUMBER

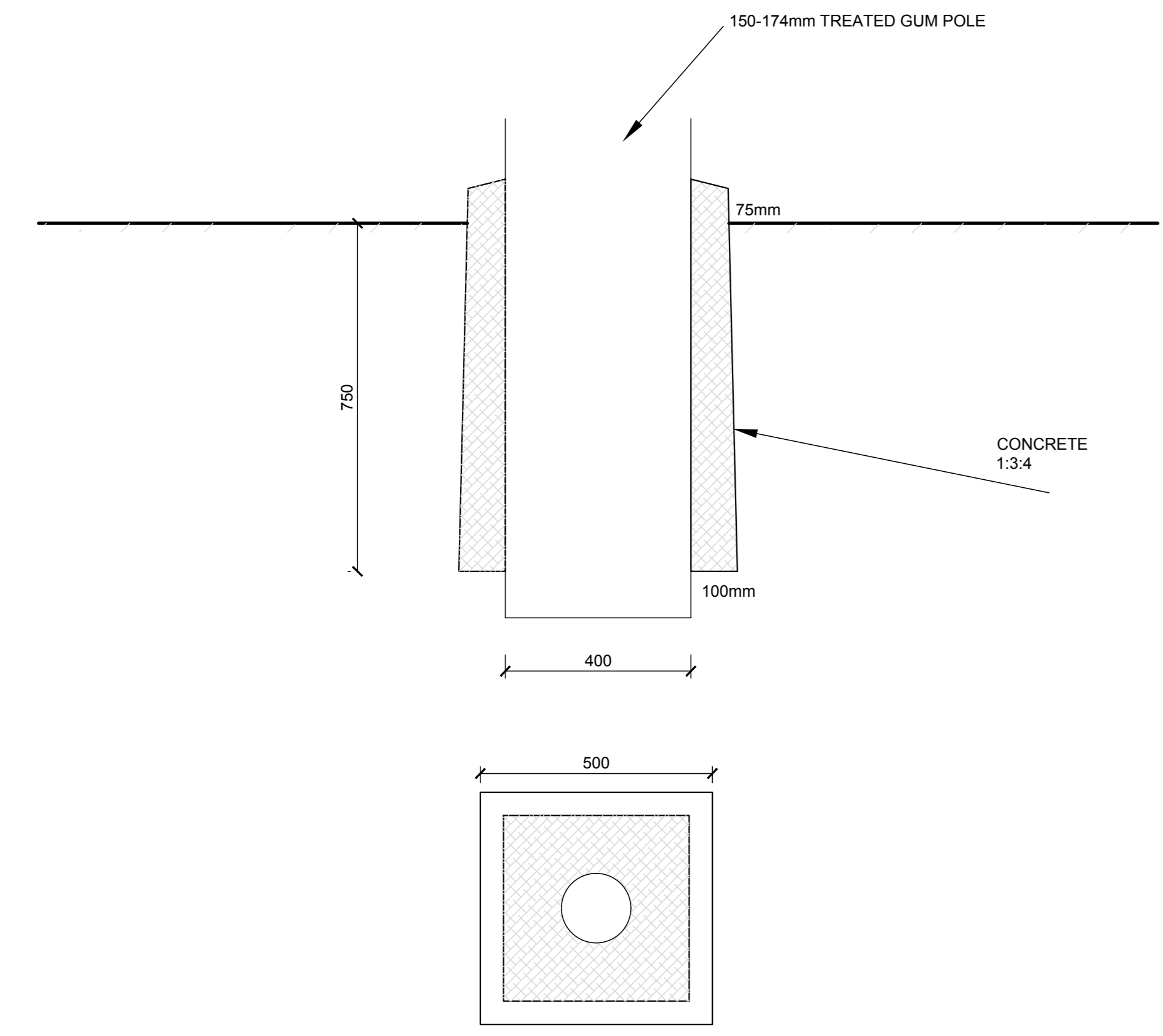
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ATELJEE STREET
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2169
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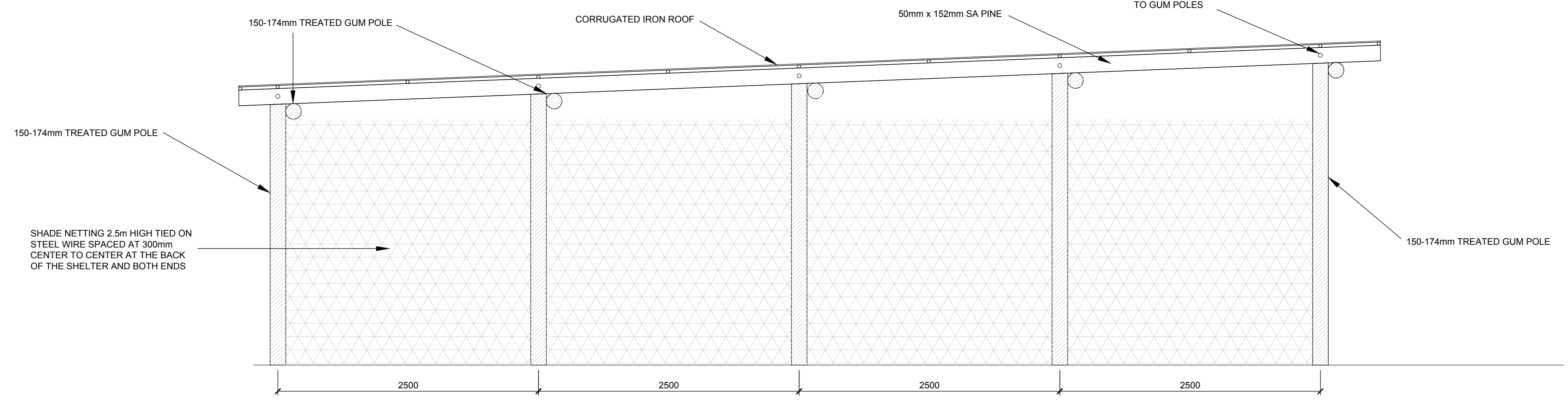
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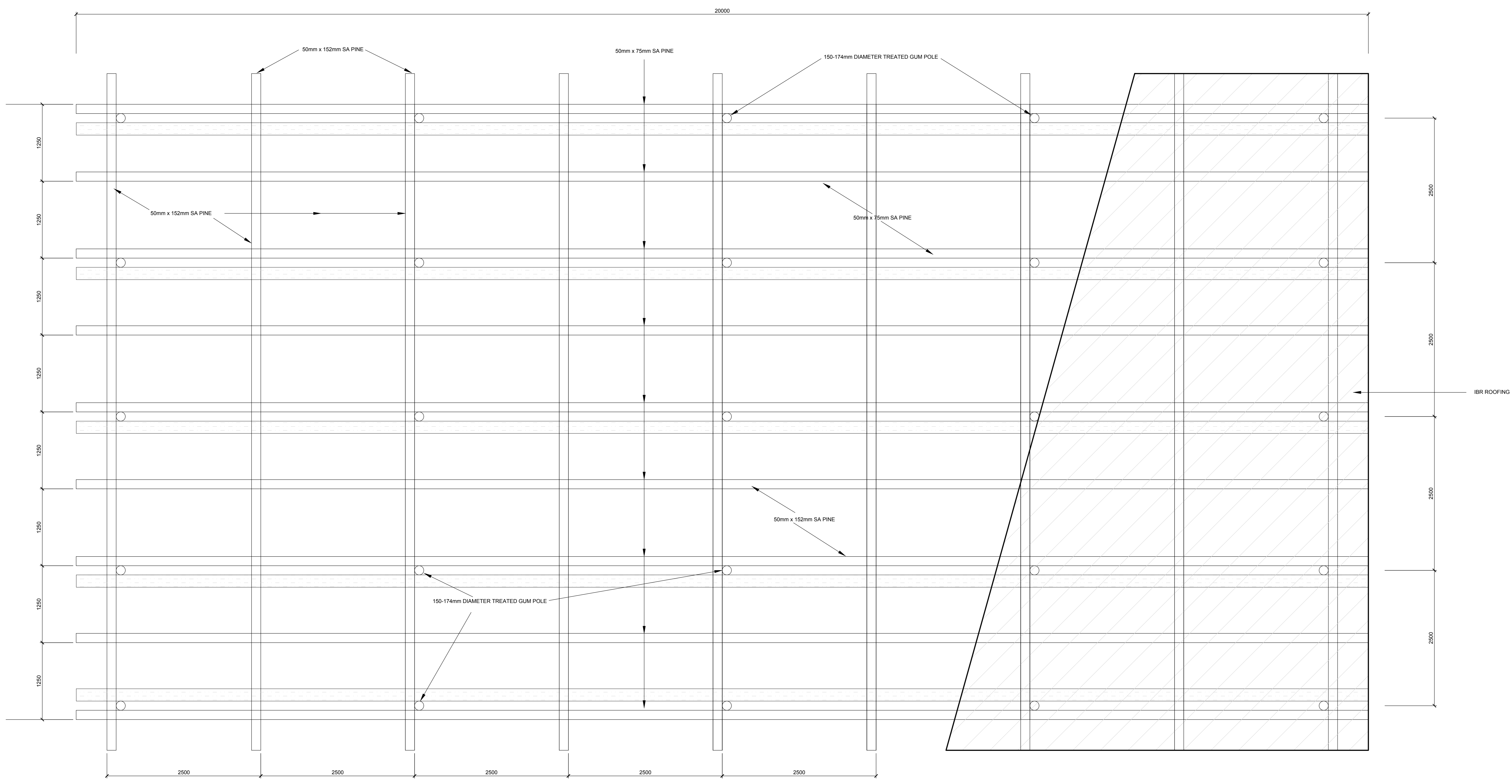
TENDER		
REV No	DATE	DESCRIPTION
A	06-12-2017	ISSUED FOR APPROVAL



DETAIL OF CONCRETE
SCALE 1:10



SIDE ELEVATION
SCALE 1:25



PLAN OF SHELTER
SCALE 1:25

SIZE ON ORIGINAL DRAWING 100 mm

CLIENT LOGO

rural development & land reform
 Department: Rural Development and Land Reform
 REPUBLIC OF SOUTH AFRICA

PROJECT DETAILS

CONSTRUCTION OF OSTRICH FACILITY IN THE FREE STATE

CONTRACT No

TCE1103

DISCIPLINE

ARCHITECTURAL

DRAWING DESCRIPTION

OSTRICH SHELTER LAYOUT

DESIGNED BY	DRAWN BY	CHECKED BY
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DRWG UNITS	SCALE	
MILLIMETERS	AS SHOWN	


RESPONSIBLE PROFESSIONAL			
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SIZE	DRAWING NUMBER	REV
A0	TCE-1103-TEN-ARCH-OST-04	A

0. DOCUMENT CONTROL

Issued/Revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	Final Draft			
Date	11 January 2018			
Prepared By	Marcus Naidoo			
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Pr. No				
Project Name/No.	PETRUSBURG – OSTRITCH FARM			
File Reference	TCE -1103-PD-CIV-OSR-001-00			

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1. INTRODUCTION

1.1. Appointment narrative

The Department of Rural Development and Land Reform have appointed Thembaekele Consulting Engineers (Pty) Ltd. as the Professional Service Providers for the design and construction monitoring of an Ostrich House for the Thusanang Ostrich Enterprise.

The proposed development is located in Petrusburg in the Xhariep district municipality West of Bloemfontein in the Free State province.

The appointment incorporates a number of deliverables including the preparation of a design report for the proposed development.

1.2. Client details

The Implementing Agent is the Department of Rural Development and Land Reform; details are as follows:

***Department of Rural Development and Land Reform
136 Charlotte Maxeke
Bloemfontein***

2. GENERAL SITE INFORMATION

2.1. Study Area

The proposed development project for the Thusanong Ostrich Enterprise, which was identified by the farm owner is to be implemented on an operational ostrich breeding and rearing farm located approximately 20 km North of Petrusburg. The town of Petrusburg falls under the Letsemeng Local Municipality and is located approximately 70 km West of Bloemfontein.

The locality plan and overall ground plan (Site Development Plan - SDP) is attached as **Appendix A**".

The site co-ordinates are:
28°67'36.69" South
25°23'17.72" East

2.2. Topography

The site identified is relatively flat at approximately 1205 m above sea level with the highest point having a ground elevation of approximately 1205.500 m. A natural slope of 1% exists across the proposed site.

Climate

The area investigated experiences summer rainfall and a relatively dry winter. According to the Weinert's N-value chart, the region is situated on an N-value between 2 and 5 and a Thorn Thwaite's value of between -20 to 20. The climatic region is thus classified as sub-humid warm climate.

2.3. Founding conditions of the soils

A geotechnical investigation concluded findings are as follows:

No seepage or groundwater was encountered in the test pits. The site is underlain by dry, reddish brown to light red, medium dense silty sand up to 200mm, underlain by very dense,

light brown, quarzitic sandstone to the depth of 800mm, underlain with weathered dolerite up to the depth of 2,0m.

Due to hardness of the in situ material, no penetration could be achieved for a DCP test. From these findings, it can be concluded that the residual material is competent for founding.

It is further recommended that the topsoil should be removed to expose the residual material for founding purposes. Any backfilling should then be carried out with G7 material, or better, compacted in 150mm layers to 93% Mod. AASHTO at -1% to +2% OMC.

2.4. Proposed development data

The proposed development data is presented as follows;

Table 2: Area coverage schedule

Facility	Area (m2)	No of Ostriches
Ostrich Structure	88	400 Day old
Ostrich camps	7500	Breeding Stock levels may vary.
Total	7588	

3. PROPOSED DEVELOPMENT

3.1. Type of Structures

A formalised Cooperative currently utilises the site on which a 'Day Old Rearing House' exists. This is a relatively new building which had been sized to accommodate approximately 200-day old ostrich chicks in accordance with densities recommended by the relevant authorities.

The proposed site development structure comprises various sections that are listed in the table below;

Table 1: Types of Structures

Item	Type of Structure
1.	Ostrich Building to house up to 400 "Day old chicks."
2.	Fenced camps for different aged ostriches
3.	Shelters

A number of buildings in a relatively poor state of repair have been identified as unsuitable or unsustainable for rehabilitation or conversion to meet the requirements of this development.

3.2. Project investigations

The following activities have been undertaken in preparation of this report:

- Site visits – physical verification of the existing water, sewer and electrical infrastructure.
- Commissioning of geotechnical surveys
- Commissioning of topographical surveys.

The client has not yet confirmed authority to commission an Environmental Impact Assessment. However, we have consulted specialists in this field and have confirmed the necessity of this assessment. Refer to attached **Appendix B** for more information.

Commissioning of Geo-hydrological investigations to test existing borehole yields, ground water potential and water quality analysis do not form part of our Scope of Works for this development project. However, these investigations have been conducted under the auspices of the Department of Rural Development and Land Reform and the results gathered from those investigations are available for record purposes.

4. DESIGN STANDARDS, GUIDELINES AND SPECIFICATIONS

The following standards, guidelines and specifications are incorporated in the provision of civil engineering services for this development:

Table 3: Design standards, Guidelines and Specifications

Item	Reference	Published/Issued by
1	<i>Ostrich manual</i>	Western Cape Government: Agriculture
2	<i>General Procedures and Loadings to be adopted in the Design of Buildings</i>	SANS 10160
3	<i>The Structural use of Concrete</i>	SANS 10100
4	<i>The Structural use of Steel</i>	SANS 10162-2
5	<i>The Application of the National Building Regulations</i>	SANS 10400
6	<i>Guidelines for human settlement planning and design.</i>	CSIR Building and Construction Technology
7	<i>Water supply and drainage for buildings</i>	SANS 10252-1: 2004 Part 1 & Part 2
8	<i>The standardized specification for civil engineering construction (SABS 1200)</i>	South African Bureau of Standards

5. OSTRICH HOUSING

5.1. Existing Infrastructure

The existing ostrich housing is on a farm operating under Thusanong Ostrich Enterprise. The existing infrastructure has a 'Day Old Housing' building and 7 camps for grown birds separated based on age.

The 11 m long and 4 m wide 'Day Old Housing' building was recently constructed by the Department of Rural Development and Land Reform. This building has twenty-two (22) open topped, rearing pens 1 m wide by 1 m deep and approximately 400 mm high, to accommodate up to 200 day old ostriches.

Ostrich chicks are housed in this structure until such time as they may be safely transferred to the fenced off camps. This transfer typically occurs at approximately five months of age.

The building has a number of open channel drains that discharge via 50 mm diameter pipes which penetrate each end wall and carry effluent to the available open channel which finally discharges onto the external perimeter of the structure.

Although the building has windows but is not provided with a mechanical ventilation system. Seven camps for the grown ostriches are located adjacent to the existing building. These camps are fenced off with diamond mesh fencing material but are not predator proof in that specific animal are still able to access the area.

The cooperatives' representatives cited numerous incidents where the fencing is undermined by the local warthog population following which predators gain access to livestock by passing through openings in the damaged fence.

5.2. Proposed Infrastructure

1.2.1. Day Old Rearing Buildings

The construction of 2 identical rearing houses positioned either back to back or face to face are proposed. These structures will be constructed on concrete strip foundations with high density engineering brick pier walls supporting floated concrete slab floors.

Floors will be graded so as to facilitate the effective drainage and removal of generated effluent.

External walls will be constructed in double course brickwork that will support the bearing trusses for the roof which in turn will be fixed to span the 4 metre width of the building.

Walls will be plastered and painted with approved acrylic paints to a suitable colour both internally and externally.

Access and service doors will be provided at the ends of each building. Doors will be industrial quality with louvered finishes so as to provide sufficient air flow capacity thus accommodating the mechanical ventilation system. Whirlybird ventilators will provide for mechanical extraction and ventilation to each of the buildings.

Floor will be provided with adequate drainage and flushing channels which will run the full length of the eleven metre walls. These channels will discharge to external collection points which will eventually be connected to a minimum of four 50mm NB UPVC pipes finished flush to the internal face of the wall and discharging over the lip of the external collection channel.

Timber trusses with 38 mm x 76mm SA Pine purlins will support the 0.5mm galvanised sheet steel roof with fixed underside insulation. The roof will be fixed to the timber purlins with suitable drive screws that will have bonded washers to ensure a sealed and leak free installation.

1.2.2. Quarantine camps

The ostrich camps comprise designated area in age categories. The proposed ostrich camp is a 7500 m² fenced enclosure. This dedicated enclosure is to be subdivided into four (4) equally sized camps with pedestrian and transit walkways between the individual sub-enclosures.

Fencing will comprise of a 1,8 m high diamond mesh wire having steel posts and stays firmly grounded in concrete foundations and supplemented by treated wooden droppers at prescribed intervals. A 1.5 m wide 60% shade net screen will be attached to the fence.

Due to the known predator threat and the damage caused by the warthog population, it is recommended that the footing of each fence is founded in a continuous concrete footing.

Each ostrich camp will also incorporate a 10 m by 20 m protective shelter with a minimum height of 2.5m. The shelter is constructed from 150 - 174mm treated gum poles, 50 mm x 152 mm SA pine bolted to the gum pole with screwing purlins and roofed with corrugated iron sheeting.

Weather protection and shading will be provided by installation of a 2.5m high shade net screen fixed to steel wire supports, spaced at 300mm centre to centre at the back of the shelter and at both ends.

ELECTRICAL SUPPLY

There is an existing electrical service provided by Eskom and terminating at a pole mounted 25kVa three-phase transformer adjacent to the proposed development area. However, the occupants of this farm have not concluded their agreement for the activation of this service at time of the initial site inspection.

WATER SUPPLY

3.1. Existing Water Infrastructure

The identified site is currently supplied with water from a number of existing boreholes. These boreholes have windmill driven pumps that supply water to a brick and concrete reservoir as well as an existing JoJo tank. The existing water reservoir is impaired and will require rehabilitation before it may be used on a permanent basis

3.2. Technical Design Guidelines

4: Water demand for stock

STOCK	WATER DEMAND (litres/head/day)
Intensive: meat: Large Stock	50
Small Stock	12
Dairy: Large Stock	120
Extensive: Large Stock	50
Small Stock	10

3.3. Water Supply and Storage

Two (2) dedicated and interconnected JoJo tanks with individual capacities of 5000 litres each will provide water to the proposed development. This water supply will continue to be sourced from existing boreholes with windmill driven submersible pumps.

However, when the available electrical supply is brought on line at this site, it is recommended that this unit be replaced with a three phase (400 V) submersible pump.

The holding camps and quarantine areas will be supplied from the elevated tanks through 40mm class 6 LDPE pipes to the water troughs.

WASTE MANAGEMENT

4.1. Handling and storage of waste

As a poultry bird ostrich may also suffer from various infectious diseases. Most common diseases of ostrich are as follow.

- Haemorrhagic Enteritis
- Influenza
- Pox
- Newcastle

To mitigate against the threat and to contain further spreading of any disease that may cause possible deaths, the carcasses of ostriches that have died from disease must be incinerated.

Available options for this process include electrical or oil fired incinerator disposal or open pit incineration. The process determination is dependent on the size of the enterprise as well as the funding availability.

At present, the Thusanong Ostrich Enterprise qualifies to dispose of diseased carcasses by open pit incineration and for this purpose, a 4m wide x 4m long x 2m deep pit must be

provided at least 400m away from the site. This hole must be fenced off and have a locking mechanism.

6. VENTILATION

Due to the type of construction, the new broiler houses will be equipped with manually operated, retractable canvas curtains. These curtains will be manufactured from 500 grams/m² industrial canvas and be strengthened top and bottom with integrated steel conduit bracing.

7. ELECTRICAL

Despite the current electrical availability not being utilised by the cooperative, all electrical installations will be carried out to conform to the requirements of the regulations contained in SANS 10400.

Additionally, the following specific codes shall apply to all relevant portions or components of the electrical installations:

- i. SABS 0313 Code of Practice of Structures against Lightning and incorporating SABS IEC 61;24-1-1,2 & 4
- ii. SABS 1065 Metallic Conduits and Accessories;
- iii. SABS 1765 Flush Mounted Distribution Boards; and
- iv. SABS 10142 Busbars.

ENVIRONMENTAL IMPACT ASSESSMENT

Desk studies and consultation with an environmental specialist in conjunction with the relevant authority indicate the need for environmental impact assessment (EIA) and water use license application (WULA). This is against the backdrop that the site is within vicinity of a residential area, wherein the surrounding environment has to be maintained with respect to waste management from the project, considering that there will be an effluent dam and more so that the local community also uses borehole water for drinking purposes.

According to the Agricultural Research Council (ARC) the minimum distance of the effluent pond should be positioned at least 300m away from the residential area and must have a depth of at least 2m. The wind direction is also considered as an important aspect with regards to the odour to the neighbouring residents. Possible water contamination from the proposed development is highly sensitive and would require a water use licence application.

It is in this context that it is recommended that consideration be given for both Environmental Impact Assessment and Water Use Licence Application that will in turn entail water quality testing.

Consultation with relevant specialist and stakeholders has been conducted for the discussion of potential impacts, mitigation and management procedures for the proposed development with regards to possible environmental impact. The matters addressed outline the concerns of possible water pollution caused by ostriches and the water quality from the boreholes.

CONCLUSION

The proposed infrastructure is designed in accordance with the Agricultural Research Council manual for the housing of ostriches. Reference has been made to standard guidelines and drawings developed by ARC wherein minimum requirements and standards have been adopted for such live stock. The necessary required standards and norms have been applied to ensure that adequate infrastructure and needs for the housing of ostriches are met. The design for the proposed development includes fencing, an existing borehole for water supply and water storage facilities.

We trust the report will meet your requirements. Should you require any further information please contact the author using the contact details below.

Appendix D: Specialist reports

Appendix D (i): Phase 1 Heritage Impact Assessment

**Phase 1 Heritage Impact Assessment of a proposed new
0.6 ha ostrich farming facility near Petrusburg, FS
Province.**

Report prepared for:
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by

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13 August 2019

Summary

A phase 1 Heritage Impact Assessment was carried out for a proposed new ostrich farm facility, located on a 0.6 ha area located about 17 km north of Petrusburg. The affected area itself is underlain by geologically recent, Quaternary-age surface calcretes (*Qc*), aeolian sand and residual soils. There are no exposures of older bedrock units at the site. Several uncapped and heavily rolled stone tools and were recorded during the pedestrian survey, but no evidence was found of *in situ* Stone Age archaeological material, capped or distributed as surface scatters on the landscape. There are also no indications of rock art, prehistoric structures or historical buildings older than 60 years within the vicinity of the study area. Provided that all planned activities are restricted to within the boundaries of the affected area as indicated in Figure 1, the probability of palaeontological impact during the operational phase of the development is considered unlikely. The nature of the proposed development will almost certainly have an adverse affect on residual topsoils (Quaternary sediments) that are largely disturbed as a result of prior farming activities. However, it is unlikely that the proposed development will result in any significant archaeological impact at the site. Potentially fossil-bearing rock units within the broader region include Adelaide Subgroup strata and Quaternary alluvial sediments, spring deposits and pan dunes (lunettes). The field assessment shows that none of these rock units and sedimentary types is represented within the study area, which is largely mantled by calcretes and aeolian sands of low palaeontological sensitivity. The proposed development does not pose a significant threat to paleontological heritage resources and there are no major palaeontological grounds to halt the project. However, in the unlikely event of fossil remains being uncovered during construction activities, it is advised that SAHRA and a qualified palaeontologist are informed immediately so that appropriate mitigation measures can be taken. The area demarcated for the proposed development is regarded as of low archaeological significance and is assigned the rating of Generally Protected C (GP.C)

Introduction

A phase 1 Heritage Impact Assessment was carried out for a proposed new ostrich farm facility, located on a 0.6 ha area located about 17 km north of Petrusburg (**Fig. 1**).

The study is required in terms of Section 38 of the National Heritage Resources Act 25 of 1999 as a prerequisite for any development which will change the character of a site exceeding 5 000 m² in extent. The task involved identification and mapping of possible archaeological heritage within the proposed project area, an assessment of their significance, related impact by the proposed development and recommendations for mitigation where relevant.

Terms of Reference

- Identify and map possible archaeological sites and occurrences using available resources.
- Determine and assess the potential impacts of the proposed development on potential archaeological resources;
- Recommend mitigation measures to minimize potential impacts associated with the proposed development.

Methodology

The archaeological significance of the affected area was evaluated through a desktop study and carried out on the basis of existing field data, database information and published literature. This was followed by a field assessment by means of a pedestrian survey. A Garmin Etrex Vista GPS hand model (set to the WGS 84 map datum) and a digital camera were used for recording purposes. Relevant archaeological information, aerial photographs and site records were consulted and integrated with data acquired during the on-site inspection.

Description of the Affected Area

1 : 50 000 scale topographic map: 2825 CD Cheddar

General site coordinates : 28°57'36.59"S 25°23'26.14"E

The study area is located on a 0.6 ha area located about 17 km north of Petrusburg.

The terrain is part an existing farming area that is capped by aeolian sands and calcrete-rich residual soils that are covered by grasses and shrubs. The site appears to be used mostly for grazing at present (**Fig. 3 & 4**).

Background

Geology

The site is located near the western and eastern peripheries of the Permian Adelaide Subgroup and Tierberg Formation outcrop areas, respectively (**Fig. 5**). The argillaceous rocks of the older Tierberg Formation (*Pt*), represents the uppermost unit of the Ecca Group (Karoo Supergroup) and primarily comprises well-laminated, dark shales with abundant carbonate concretions, inter-bedded by siltstones and fine-grained sandstones (Zawada 1992). The overlying Adelaide Subgroup (*Pa*, Beaufort Group, Karoo Supergroup) strata are represented by blue-grey and purple mudstone inter-bedded with yellow sandstone and siltstone. Dolerite (*Jd*, Karoo Dolerite Suite), in the form of dykes and sills, is common throughout the region and intruded into Karoo Supergroup rocks as large volumes of Drakensberg lavas during the Jurassic Period. Being more resistant to weathering than the surrounding sedimentary rocks it gave rise to the characteristically flat –topped hills in the region. Dolerites are not palaeontologically significant and can be excluded from further consideration in the present evaluation.

Archaeology

The archaeological footprint in the area are primarily represented by Stone Age surface occurrences, structural remnants dating back to the Anglo Boer War and its aftermath, graveyards and other historical structures.

Stone Age archaeological sites in the region are generally associated with river courses, spring areas or pans. Numerous Middle Stone Age and Later Stone artefacts, have been found eroding out of Pleistocene alluvial terraces and dongas along the Modder River and its tributaries north of Petrusburg. Pan lunettes occasionally provided a locus for prehistoric human habitation in the past and as a result, frequently contain stone tool assemblages, such as at Liebenbergspan (Voigts Post), approximately 5 km southwest of Petrusburg (Horowitz *et al.* 1978). In addition, spring deposits occasionally found in the vicinity of pans, such as at Florisbad

northwest of Bloemfontein and Baden Baden north of Dealesville are renowned for their intact stone tool assemblages and archaeozoological remains (Brink 1987).

Palaeontology

The palaeontological footprint in the region is primarily represented by Permian Karoo vertebrate fauna and Late Cenozoic (Quaternary) macrofossils (Broom 1909 a, b; Kitching 1977; Brink 1987; Churchill *et al* 2000; Rossouw 2006).

Fossils from the Ecca Group rocks (Tierberg Formation) are poorly represented and occur mainly as sparsely distributed and generally not diverse assemblages of trace fossils (Anderson 1976; De Beer *et al.* 2002; Viljoen 2005; Johnson *et al.* 2006). These ichno-assemblages include arthropod trackways and associated resting impressions, fish swimming trails, horizontal epichnial furrows often attributed to gastropods, as well as a variety of different kinds of small burrows. Impressions of *Gondwanidium validum* and pieces of *Dadoxylon* have been discovered between Douglas and Belmont, south of Kimberley (McLaren 1976). Sponge spicules, fish scales and disarticulated microvertebrate remains from calcareous concretions have also been recorded (Zawada 1992, Bosch 1993). The succession of the overlying Beaufort Group sedimentary rocks is subdivided into eight biostratigraphic units, called assemblage zones (Rubidge 1995) (**Fig. 6**).

Quaternary-age surface sediments in the region can be highly fossiliferous in places, especially those that are directly related to fluvial environments along major river courses, spring areas or pans (**Fig. 7**). Fossil assemblages, individual specimens and fossilized hyena burrows have been found preserved in Late Pleistocene alluvial sediments of the Modder River (Broom 1909 a, b; Cooke 1955; Churchill *et al.* 2000; Rossouw 2006). These assemblages are frequently made up of an assortment of mammalian bones and teeth. Numerous fossil sites, often associated with Middle Stone Age artefacts, have been found eroding out of Pleistocene alluvial terraces and dongas along the Modder River between Bloemfontein and Ritchie, southwest of Kimberley (**Fig. 7 no. 1 & 2**). Fossils discovered at various fossil sites along the Modder River and its tributaries revealed the existence of a number of open grassland adapted herbivores (*Equus capensis*, *Megalotragus priscus*, *Pelorovis antiquus*, *Antidorcas bondi* and *Equus lylei*).

Fossilized bone accumulations as well as fossiliferous sediments (local peat deposits) also occur within calcified pan dunes frequently found in the region, such as at

Liebenbergspan (Voigts Post, approximately 2 km southwest of the study area), Deelpan and Sunnyside Pan (Horowitz *et al.* 1978; Scott and Klein 1981; Butzer 1984) (**Fig. 7 no. 3 – 5**). When these types of pans were formed, the prevailing winds blew unconsolidated material (aeolian sands) into newly formed lunettes on the lee side of the deflation hollows which occasionally provided a locus for hyena activities (burrows) and prehistoric human habitation in the past (**Fig. 8**). In addition, spring deposits occasionally found in the vicinity of pans, such as at Florisbad northwest of Bloemfontein and Baden Baden north of Dealesville, may contain Pleistocene vertebrate fossils and plant microfossils (Brink 1987; Scott & Rossouw 2005) (**Fig. 7 - 10**)

Field Assessment

The affected area itself is underlain by geologically recent, Quaternary-age surface calcretes (*Qc*), aeolian sand and residual soils (**Fig. 9**). There are no exposures of older bedrock units at the site. Several uncapped and heavily rolled stone tools were recorded during the pedestrian survey, but no evidence was found of *in situ* Stone Age archaeological material, capped or distributed as surface scatters on the landscape (**Fig. 10 & 11**) There are also no indications of rock art, prehistoric structures or historical buildings older than 60 years within the vicinity of the study area.

Impact Statement

The affected area is capped by superficial deposits made up of Quaternary-age aeolian sands and surface calcretes. Provided that all planned activities are restricted to within the boundaries of the affected area as indicated in Figure 1, the probability of palaeontological impact during the operational phase of the development is considered unlikely. The nature of the proposed development will almost certainly have an adverse affect on residual topsoils (Quaternary sediments) that are largely disturbed as a result of prior farming activities. However, it is unlikely that the proposed development will result in any significant archaeological impact at the site.

Recommendations

Potentially fossil-bearing rock units within the broader region include Adelaide Subgroup strata and Quaternary alluvial sediments, spring deposits and pan dunes

(lunettes). The field assessment shows that none of these rock units and sedimentary types is represented within the study area, which is largely mantled by calcretes and aeolian sands of low palaeontological sensitivity.

The proposed development does not pose a significant threat to paleontological heritage resources and there are no major palaeontological grounds to halt the project. However, in the unlikely event of fossil remains being uncovered during construction activities, it is advised that SAHRA and a qualified palaeontologist are informed immediately so that appropriate mitigation measures can be taken.

In accordance with the types and ranges of heritage resources as outlined in Part 2, Sections 34, 35 and 37 of the National Heritage Resources Act (No 25 of 1999), there is no above-ground evidence of residential building structures or material of cultural significance or intact archaeological sites within the demarcated area. The area demarcated for the proposed development is regarded as of low archaeological significance and is assigned the rating of Generally Protected C (GP.C) (**Table 1**).

References

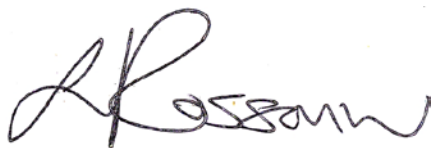
- Anderson, A.M. 1976. Fish trails from the Early Permian of South Africa. *Palaeontology* 19: 397-409, pl. 54.
- Bosch, P.J.A. 1993. Die geologie van die gebied Kimberley. Toeligting van Blad 2824. *Geologiese Opname*, Pretoria 60 pp.
- Brink, J.S. 1987. The archaeozoology of Florisbad, Orange Free State. *Memoirs of the National Museum* 24: 1 – 151.
- Broom, R. 1909 a. On a large extinct species of Bubbalus. *Annals of the South African Museum* 7:219 - 280
- Broom, R. 1909 b. On the evidence of a large horse recently extinct in South Africa. *Annals of the South African* 7.281 -282.
- Butzer, K. W. 1984. *Archaeology and Quaternary environment in the interior of southern Africa* In: R.G. Klein (ed.) *Southern African prehistory and palaeoenvironments*. Rotterdam. Balkema pp 1-64.

- Churchill, S.E., Brink, J.S., Berger, L.R. Hutchison, R.A., Rossouw L., *et. al.* 2000. Erfkroon: a new Florisian fossil locality from fluvial contexts in the western Free State, South Africa. *South African Journal of Science* 96: 161 – 163.
- Cooke, H.B.S. 1955 Some fossils in the South African Museum Collection. *Annals of the South African Museum* 42: 161 – 169.
- De Beer *et al.* 2002. The geology of the Calvinia area. Explanation to 1: 250 000 geology Sheet 3118 Calvinia. *Geological Survey*, Pretoria 92 pp.
- Horowitz *et al.* 1978. Analysis of the Voigtspost site, OFS. *South African Archaeological Bulletin* 33: 152 – 159.
- Johnson, M.R. *et. al.* 2006. Sedimentary Rocks of the Karoo Supergroup. **In:** M.R. Johnson, *et. al.* (eds). *The Geology of South Africa*. Geological Society of South Africa.
- Kitching, J.W. 1977. The distribution of Karoo Vertebrate Fauna. *Bernard Price Institute for Palaeontological Research, Memoir* 1, 1 – 131.
- Kitching, J.W. 1995. Biostratigraphy of the Dicynodon AZ. **In:** B.S. Rubidge, *Biostratigraphy of the Beaufort Group*. Biostrat. Ser. S.Afr. Comm. Strat. 29 – 34.
- McLaren, C.H. 1976. Die geologie van die gebied suid van Plooyburg, Noord-Kaapland. *Unpublished M.sc. Thesis*, UFS.
- Scott, L. and Klein, R.G. 1981. A hyena-accumulated bone assemblage from Late Holocene deposits at Deelpan, Orange Free State. *Annals of the South African Museum* 86(6): 217 – 227.
- Rossouw, L. 2000. Preliminary species list of Late Pleistocene / Holocene fossil vertebrate remains from erosional gullies along the Modder River NE of Sannaspos, Free State Province. Unpublished Report , Palaeo- Anthropological Research Group, University of the Witwatersrand.
- Rossouw, L. 2006. Florisian mammal fossils from erosional gullies along the Modder River at Mitasrust farm, central Free State, South Africa. *Navorsing van die Nasionale Museum* 22(6): 145-162.
- Rubidge, B. S. 1995. (ed.) *Biostratigraphy of the Beaufort Group*. Biostrat. Ser. S.Afr. Comm. Strat. 1, 1 – 45.
- Viljoen, J.H.A. 2005. Tierberg Formation. SA Committee for Stratigraphy, Catalogue of South African Lithostratigraphic Units 8: 37-40.

Zawada, P.K. 1992. The geology of the Koffiefontein area. Explanation of 1: 250 000 geology sheet 2924, 30 pp. Council for Geoscience, Pretoria.

DECLARATION OF INDEPENDENCE

I, Lloyd Rossouw, declare that I act as an independent specialist consultant. I do not have or will not have any financial interest in the undertaking of the activity other than remuneration for work as stipulated in the terms of reference. I have no interest in secondary or downstream developments as a result of the authorization of this project.

A handwritten signature in black ink, appearing to read 'L Rossouw', written in a cursive style.

13 / 08 / 2019

Table 1. Field rating categories as prescribed by SAHRA.

Field Rating	Grade	Significance	Mitigation
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)
Generally Protected A (GP.A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction



Figure 1. Aerial view and layout of the study area.



Figure 2. Aerial view of the site (yellow star) and its position in relation to Petrusburg.



Figure 3. General view of the site, looking west.



Figure 4. General view of the site, looking east.

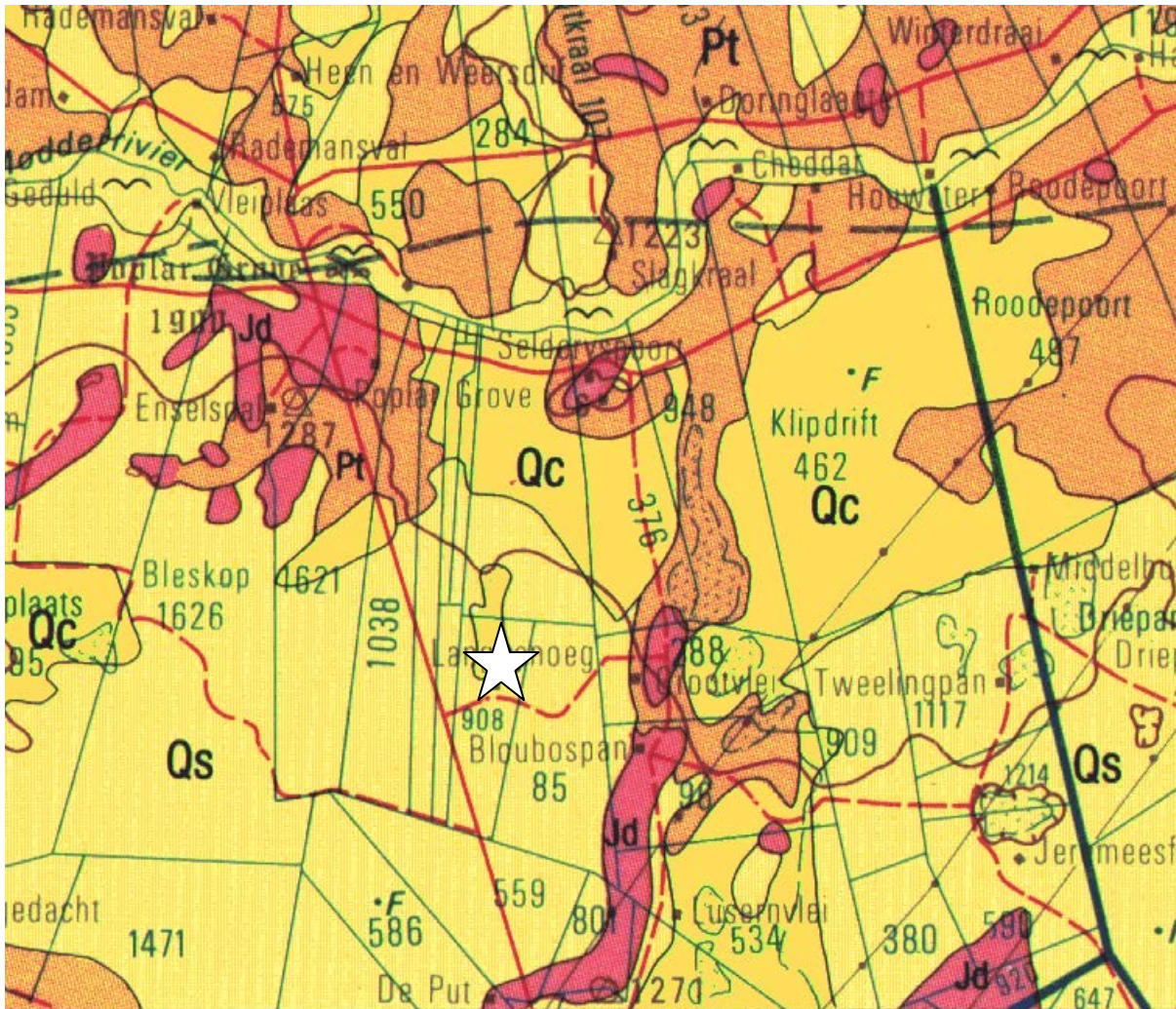


Figure 5. Portion of 1 : 250 000 scale geological map 2824 Kimberley. The study area (white star) is located within the Ecca Group (Pt) of the Karoo Supergroup.

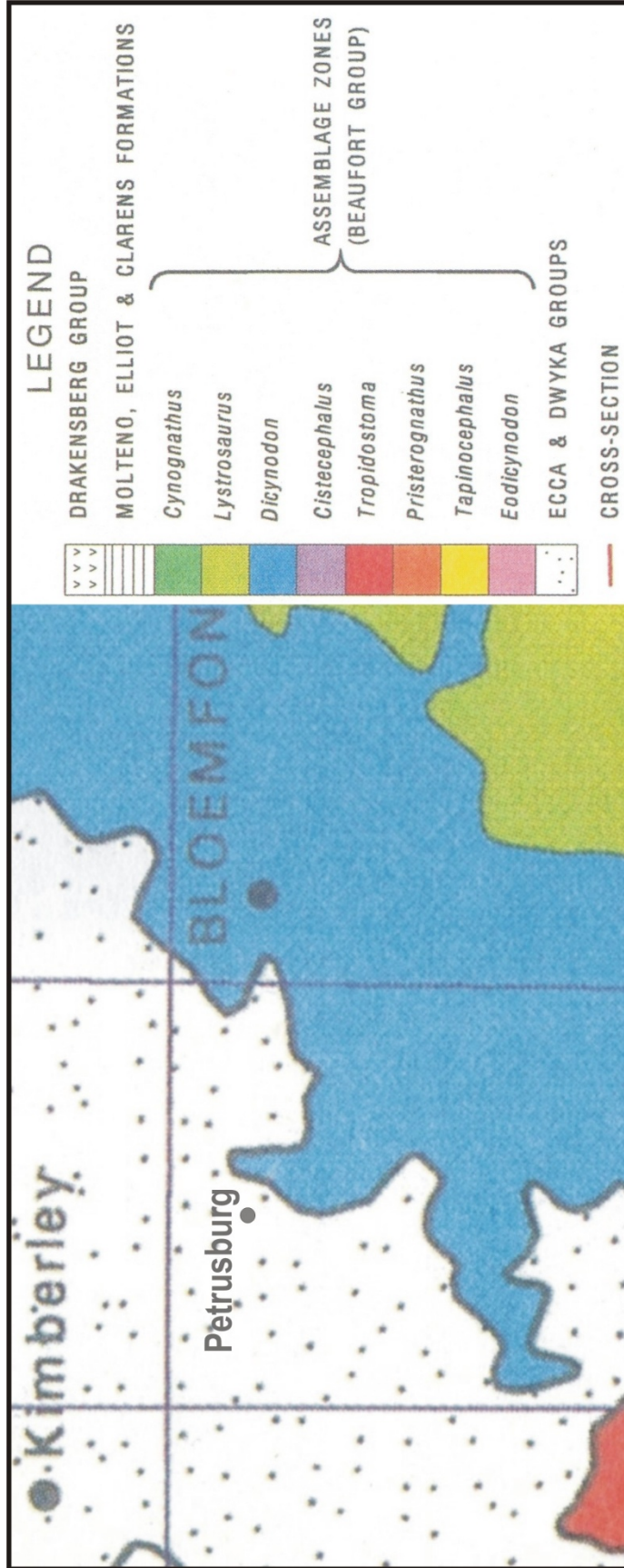


Figure 6. Geographical distribution of vertebrate biozones of the Beaufort Group near Petrusburg (after Rubidge 1995).



Figure 7. Important fossil localities in the region northwest of Bloemfontein.



Figure 8. Fossiliferous pan dunes at Deelpan between Bloemfontein and Petrusburg.



Figure 9. General view of the condition of the veld within the study area.



Figure 10. Weathered hornfels artefacts recorded as isolated occurrences on the landscape.



Figure 11. Informal, hornfels stone flakes recorded as isolated occurrences on the landscape.

Appendix E: Public Participation Report



Ostrich Feedlot:
Petrusburg -
Thusanong Ostrich
Enterprise

ENVIRONMENTAL
MANAGEMENT
GROUP

PUBLIC
PARTICIPATION

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ABBREVIATIONS

BID	Background Information Document
DWS	Department of Water and Sanitation
RI&APS	Registered Interested & Affected Parties
I&APS	Interested & Affected Parties
PPP	Public Participation Process

1. INTRODUCTION

The Public Participation Process (PPP) forms an integral part of the rectification application process. It provides people with the opportunity to raise their issues and concerns about the proposed Thusanong Ostrich Enterprise Development near Petrusburg. A comprehensive public participation process was conducted by EMG Consultants, to ensure that all identified Interested and Affected Parties (I&APs) were informed of the proposed project and their input is able to influence decision-making process with regards to the development.

2. APPROACH AND METHODOLOGY

The Public Participation Process was conducted as per Regulation 39, 40, 41, 42, 43 & 44 of the Environmental Impact Assessment Regulations 2014 (as amended 07 April 2017) and the Public Participation Guidelines, 2017 were considered. Steps, which were taken to inform the identified I&APs and surrounding community of the proposed development included:

- ♣ Newspaper advertisement;
- ♣ On site Notice and Posters;
- ♣ Notifications, i.e. Distribution of Background Information Document (BID) to neighbouring property Owners & Stakeholders.

3. PUBLIC PARTICIPATION PROCESS CONDUCTED

The methods that were undertaken during conducting of the public participation process as discussed in detail below.

3.1. NEWSPAPER ADVERTISEMENT

The project was advertised in a local newspaper, The Express on the 24th of July 2019 to inform the I&APs of the Basic Assessment Report for the proposed Thusanong Ostrich Enterprise Development in Petrusburg.

DEATH NOTICE

SEEKE
 Date of birth: 15/08/1945
 Date of passing: 18/07/2019
 Burial date: 27/07/2019

The funeral service of Mofeti (Boy-Boy) late of 18626 Cathrine Peete Street Phase 2 will start at 7:30 at home and then proceed to the Unity Primary School Phase 2. The cortege will leave for the South Park Cemetery at 10:45.

Contact persons:
 Thabang 083 867 5722
 Samakaleng 072 374 4446

www.express-news.co.za TO ADVERTISE CALL T: 051 404 7600 F: 051 447 2940 E: adverts@velkshad.com

Classifieds



MOTLOUNG
 Date of Birth: 14/02/1945
 Date of Passing: 22/07/2019
 Date of Burial: 27/07/2019

The funeral service of Mohanuca Elizabeth, late of 3662 Maleleka Street, Bochabela will start at 09:00 at home and then proceed to the Ame Church - Bethel Memorial, Bochabela. The cortege will leave for the Magengene Cemetery at 12:00.

Contacts:
 Joe - 073 504 4960
 Tlaga - 083 427 1946

DESLEY FURNITURE
NEW AND SECOND HAND FURNITURE FOR SALE
 051 444 1638
 Victoria Road 66 Willows
 www.desley.co.za

Become a Tupperware Demonstrator. Join for free, train for free, earn 2% commission and gifts. Ask me how. Sisiyana WhatsApp on 076 156 3468 - I'll call you back or WhatsApp/FB

LEGAL & TENDERS

OIS OMGEWINGSMAKSTUDIE
NOTICE OF APPLICATION FOR ENVIRONMENTAL IMPACT ASSESSMENT AND INTEGRATED WATER USE LICENSING

Notice is hereby given in terms of regulation 41 of Government Notice No. R326 under the National Environmental Management Act (Act 107 of 1998) as amended 7 April 2017, National Environmental Management: Waste Act, 2008 (Act 59 of 2008), National Heritage Resources Act (Act 25 of 1999) as well as in terms of the National Water Act (Act 36 of 1998) Section 21 of intent to carry out the following project:
APPLICATION FOR THUSANONG OSTRICH ENTERPRISE UPGRADING IN PETRUSBURG
 NEMA: Listing Notice 1 (No. 327, 07 April 2017) - GN R327, April 2017

SA OF SECURITY SERVICES

Voted Best Security Training Centre since 2011. Grade E, D and C - 3 weeks
 101 St. Andrew's St. Bloemfontein 051 430 1938
 Welkom: Donkon St. 057 353 1777

expansion will constitute more than 50 additional ostriches or emus. NWA: Section 21 (Act No. 36 of 1998) as amended 21(a) taking water from a water resource; 21(c) impeding or diverting the flow of water in a watercourse; 21(i) altering the bed, banks, course or characteristics of a watercourse. National Heritage Resources Act (Act 25 of 1999) The development of infrastructure with a physical footprint of > 5000m2 LOCATION: Petrusburg, situated on remaining extent of the Farm Lange-nooen 908, Letsemeng Local Municipality PROPONENT: Department of Rural Development and Land Reform CONSULTANT: ENVIRONMENTAL MANAGEMENT GROUP PO BOX 37473 LANGENHOVEN PARK, 9330 TEL. 051 412 6350 FAX: 051 412 6351 E-MAIL: svr@envmvp.com In order to ensure that you are identified as an interested and/or affected party, please submit your name, contact information and interest in the matter to the consultant given above within 30 days of publication of this notice. Registration and Response Forms will be available at the Local Library for I&AP Parties for your comments.

NOTICE OF NEW OWNERSHIP
RATTAU BURIAL SERVICE
 NEMASSEBLIEF KENNIS DAT JOM FUNERALS VERSKUIF NA HEIDEDAL-LEE MARCO CENTRUM REG ORKANT DIE PAD BY TWIN CITY. BETALINGS MOET GEMAAK WORD BY RATTAU BURIAL SERVICE NEX TO OLD ABSA BANK IN DIE LEE MARCO CENTRUM VANAF 30 AUGUSTUS 2019.

TAKE NOTICE
 PLEASE TAKE NOTE THAT JOM FUNERAL MOVE TO HEIDEDAL-LEE MARCO CENTRE ACROSS THE ROAD AT TWIN CITY. PAYMENTS MUST BE PAID AT RATTAU BURIAL SERVICE NEXT TO OLD ABSA BANK IN THE LEE MARCO CENTRE ON 30 AUGUST 2019.

OSISVA, DOMELO, KWILERA, REAKWA HEIDEDAL-LEE MARCO CENTRE
 PELA GA BANJA JA NISA, YA GALE DI OROIT, SAKONA E TLABA RATTAU BURIAL SERVICE NEX TO OLD ABSA BANK IN DIE LEE MARCO CENTRUM VANAF 30 AUGUSTUS 2019 REVA KWILERA E GWI TWIN CITY

CONTACT SIENA 078 937 8679
 AARON 061 640 0438 / LLOOD 078 920 8655

GENERAL NOTICES

PERSONAL SERVICES

COMMUNITY NOTICES

LOANS

FOR SALE

MISCELLANEOUS

GENERAL & HOME SERVICES

BUILDING PLANS

HOUSE PLANS

FOR HIRE

VENUES

BUSINESS OPPORTUNITIES

A BRIDGING LOAN: WAITING FOR PENSION/ PACKAGE (LUMP SUM) PAY-OUTS? SMS OR SEND PLEASE CALL ME. 082 301 7856.

Thapelo Phadimi or any family member contact Magda de Beer from Engo Adoptions at 0515226914/0822024306 regarding girl child born 8 July 2019.

Experienced Nannies/domestic workers, 30 - 45 years old preferably. WITH references regarding babies, cooking and kids, needed. Also garden workers. SMS 'JOB' to 071 294 3156 Office H. Opportunity to earn as you train in a marketing company using an international system. Ambitious people needed in different positions, including admin, sales and management immediately. Be ready to travel widely in our marketing tours. For interview: Ester 084 437 0528

Available at showgrounds for weddings, functions and special events. Premises also available on long term basis. Contact: Lisa tel. 051-4488949/5

BUSINESS OPPORTUNITIES

autoteam bloemfontein Christmas in July

we specialize in all makes and models

2015 TOYOTA LAND CRUISER 200 V6 4.0 V8 AT GOLD DIESEL 151 685 KM R749 895	2013 MERCEDES-BENZ M-CLASS M350 D BLUETEC WHITE 111 083 KM R389 895	2011 TOYOTA PRADO VX 4.0 V6 AT WHITE PETROL 117 545 KM R349 895	2017 TOYOTA QUANTUM 2.7 10 SEATER WHITE PETROL MANUAL 44 711 KM R349 895	2016 TOYOTA COROLLA QUEST 1.6 PLUS AVANT-GARDE BRONZE PETROL MANUAL 20000 KM R239 895		
2018 VOLKSWAGEN POLO VIVO 1.4 TRENDLINE 5-DOOR GREY PETROL MANUAL 47 915 KM R159 895	2015 BMW 3 SERIES 320I M SPORT LINE (F30) BLUE PETROL MANUAL 77 431 KM R269 895	2014 TOYOTA COROLLA 1.6 ADVANCE DICE PETROL MANUAL 108 001 KM R159 895	2015 MINI COOPER SS ROADSTER (5y22) WHITE PETROL MANUAL 16 384 KM R239 895	2017 VW CADDY MAXI CREWBUS 2.0 TDI SILVER DIESEL MANUAL 84 742 KM R249 895	2019 TOYOTA COROLLA QUEST 1.6 AUTO AVANT-GARDE BRONZE PETROL 6 000 KM R219 895	2017 TOYOTA AVANZA 1.5 SX AUTO GOLD PETROL 44 756 KM R229 895
2015 TOYOTA COROLLA QUEST 1.6 AVANT-GARDE BRONZE PETROL MANUAL 105 481 KM R149 895	2012 TOYOTA 86 2.0 STERLING SILVER PETROL 82 575 KM R219 895	2019 TOYOTA ETIOS CROSS 1.5 SX SDI IVORY WHITE PETROL 5 000 KM R199 895	2014 TOYOTA RAV4 2.0 GX RED MM PETROL MANUAL 65 295 KM R229 895	2014 TOYOTA RAV4 2.0 GX WHITE PETROL MANUAL 182 949 KM R209 895	2012 VOLKSWAGEN JETTA VI 1.6 TSI COMFORTLINE DSG WHITE DIESEL AUTO 80 333 KM R179 895	2016 TOYOTA COROLLA QUEST 1.6 WHITE PETROL 85 214 KM R169 895
2018 FORD FIORD 1.5 TREND (SDR) WHITE PETROL MANUAL 32 485 KM R159 895	2018 DAT SUN GO 1.2 LUX(AB) WHITE PETROL MANUAL 21 178 KM R99 895	2013 VOLKSWAGEN POLO 1.4 COMFORTLINE WHITE PETROL 117 948 KM R139 895	<p>Contact our Sales Team: Marius Minnaar Louis Carstens Allan Lackay</p> <p>Or visit us: 79 Oliver Tambo Road, (Church Street) Bloemfontein Tel no: 051 406 3022</p> <p>Business hours: Monday to Friday: 7:30 - 17:30 / Saturday: 08:00 - 12:00</p> <p>FINANCE AVAILABLE AT ALL MAJOR BANKS</p> <p>Standard Bank, FNB, Absa, WesBank</p>			

LEGAL & TENDERS

OIS OMGEWINGSMAKSTUDIE

NOTICE OF APPLICATION FOR ENVIRONMENTAL IMPACT ASSESSMENT AND INTEGRATED WATER USE LICENSING

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 NEMA: Listing Notice 1 (No. 327, 07 April 2017) - GN R327, April 2017

The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation. 39(v) The expansion and related operation of facilities for the concentration of animals [for the purpose of commercial production] in densities that will exceed— (v) 250 square metres per ostrich or emu where the expansion will constitute more than 50 additional ostriches or emus. NWA: Section 21 (Act No. 36 of 1998) as amended 21(a) taking water from a water resource; 21(c) impeding or diverting the flow of water in a watercourse; 21(i) altering the bed, banks, course or characteristics of a watercourse. National Heritage Resources Act (Act 25 of 1999) The development of infrastructure with a physical footprint of > 5000m2 LOCATION: Petrusburg, situated on remaining extent of the Farm Lange-nooen 908, Letsemeng Local Municipality PROPONENT: Department of Rural Development and Land Reform CONSULTANT: ENVIRONMENTAL MANAGEMENT GROUP PO BOX 37473 LANGENHOVEN PARK, 9330 TEL. 051 412 6350 FAX: 051 412 6351 E-MAIL: svr@envmvp.com In order to ensure that you are identified as an interested and/or affected party, please submit your name, contact information and interest in the matter to the consultant given above within 30 days of publication of this notice. Registration and Response Forms will be available at the Local Library for I&AP Parties for your comments.

3.2. SITE NOTICES

Three site notices were placed on the 6th of June 2019, to bring the proposed upgrading of the Ostrich Farm to the attention of I&APs including surrounding land users.



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GN R327 07 April 2017	39(v)	The expansion and related operation of facilities for the concentration of animals in densities that will exceed— v) 250 square metres per ostrich or emu where the expansion will constitute more than 50 additional ostriches or emus.
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NWA: Section 21 (ACT NO. 36 of 1998) as amended
 (a) taking water from a water resource;
 (b) storing water;
 (c) impeding or diverting the flow of water in a watercourse;
 (i) altering the bed, banks, course or characteristics of a watercourse;

National Heritage Resources Act (ACT 25 OF 1999)
 The development of infrastructure with a physical footprint of > 5000m2

LOCATION: Petrusburg, situated on remaining extent of the Farm Langgenoeg 908, Letsemeng Local Municipality

PROponent: Department of Rural Development and Land Reform

CONSULTANT: ENVIRONMENTAL MANAGEMENT GROUP
 PO BOX 37473
 LANGENHOVEN PARK, 9330
 TEL: 051 412 6350
 FAX: 051 412 6351
 Email: svr@envmgrp.com



EMG

In order to ensure that you are identified as an interested and/or affected party, please submit your name, contact information and interest in the matter to the consultant given above within 30 days of publication of this notice.

Registration and Response Forms will be available at the Local Library for I&AP Parties for your comments.

3.2.1 The poster was placed in surrounding area.



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National Heritage Resources Act (ACT 25 OF 1999)

The development of infrastructure with a physical footprint of > 5000m²

LOCATION: Petrusburg, situated on remaining extent of the Farm Langgenoeg 908, Letsemeng Local Municipality

PROPONENT: Department of Rural Development and Land Reform

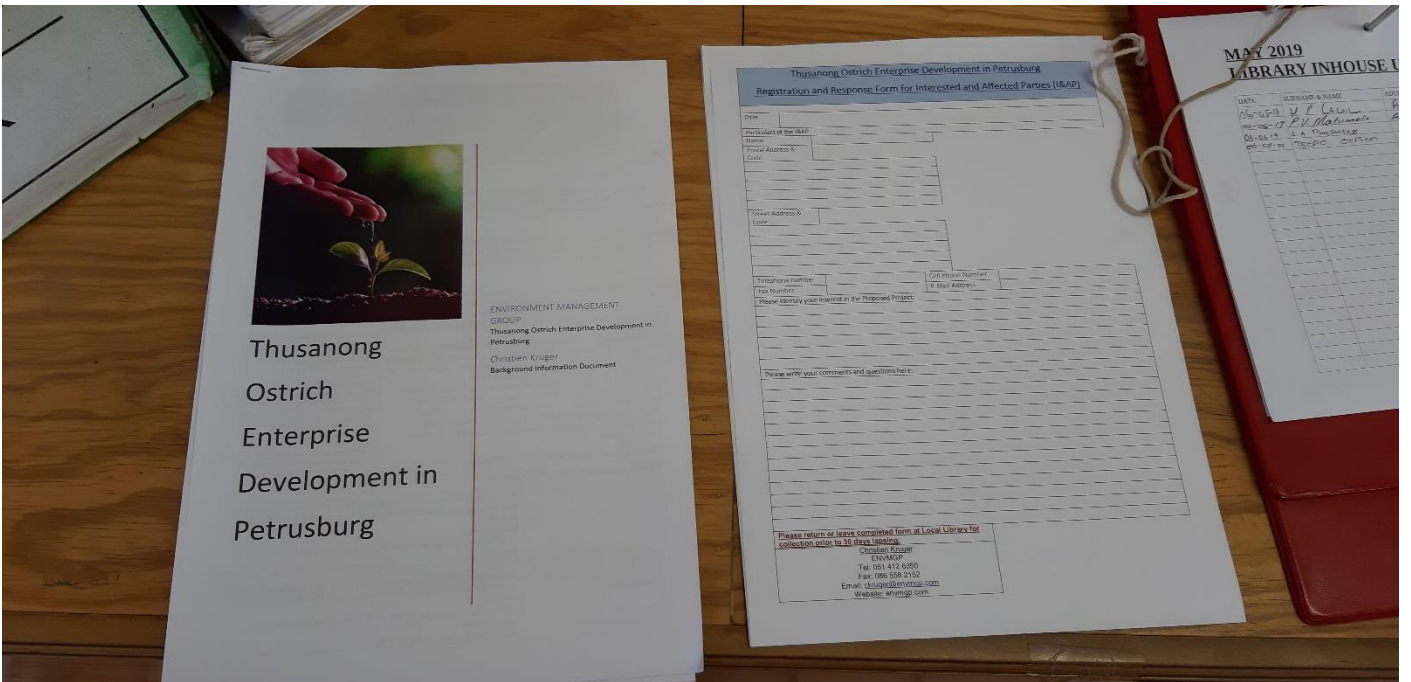
CONSULTANT: ENVIRONMENTAL MANAGEMENT GROUP
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FAX: 051 412 6351
Email: svr@envmgrp.com



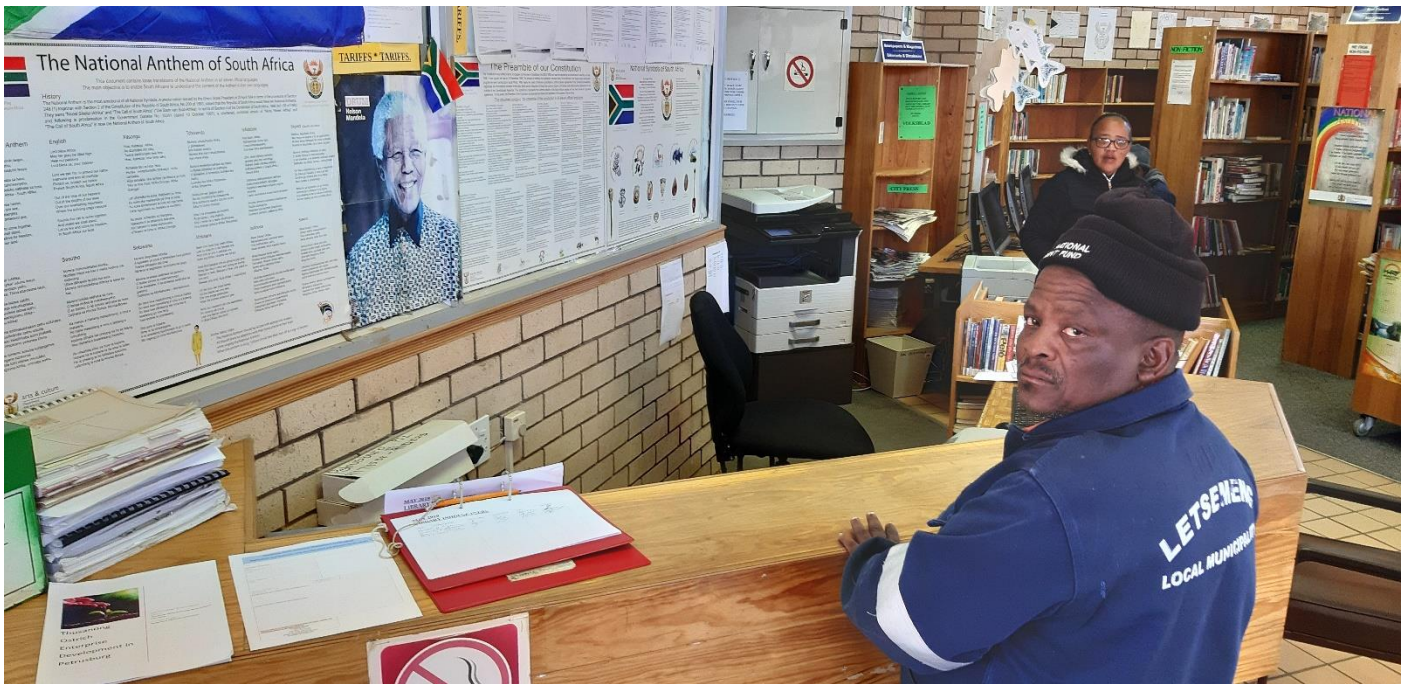
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Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise
PUBLIC PARTICIPATION REPORT



Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise
PUBLIC PARTICIPATION REPORT



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National Heritage Resources Act (ACT 25 OF 1999)

The development of infrastructure with a physical footprint of > 5000m²

LOCATION: Petrusburg, situated on remaining extent of the Farm Langgenoeg 908, Letsemeng Local Municipality

PROPONENT: Department of Rural Development and Land Reform

CONSULTANT: ENVIRONMENTAL MANAGEMENT GROUP
PO BOX 37473
LANGENHOVEN PARK, 9330
TEL: 051 412 6350
FAX: 051 412 6351
Email: svr@envmgp.com



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Registration and Response Forms will be available at the Local Library for I&AP Parties for your comments.



PETRUSBURG - THUSANONG OSTRICH ENTERPRISE

ENVIRONMENTAL MANAGEMENT GROUP

Ostrich Feedlot: Petrusburg -
Thusanong Ostrich Enterprise

CHRISTIEN KRUGER

Background Information
Document

Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise

Background Information Document

August 2019

INTRODUCTION

The Department of Rural Development and Land Reform has appointed Environmental Management Group (EMG) as the Professional Service Providers to apply for all applicable Environmental Authorisations and Water Use Licence.

LOCALITY

The proposed development is situated north of Petrusburg in the Letsemeng Local Municipality, Xhariep district municipality, on the remaining extent of the Farm Langgenoeg 908, in the Free State Province.

ENVIRONMENTAL AUTHORISATION

Prior to the commencement of the proposed project environmental authorisation must be obtained in terms of the National Environmental Management Act (NEMA), 107 of 1998 from the Department of Economic Development, Tourism, Environmental Affairs & Small Business (DESTEA) as the competent authority.

The environmental assessment process will be conducted in terms of the EIA Regulations of 2014 NEMA, as amended.

In addition to this, the proposed project will also require authorisation in terms of the National Water Act (NWA), 36 of 1998.

PURPOSE OF THIS DOCUMENT

EMG has prepared this document to inform you about:

- ♣ The proposed project
- ♣ The Background
- ♣ The required environmental authorization processes
- ♣ Possible environmental impacts
- ♣ How you can have input into the Environmental Authorization
- ♣ Registration and Response Form for Interested and Affected Parties

YOU'RE ROLE

You have been identified as an interested and/or affected party (I&AP) who may want to be informed about the proposed project and have input into the environmental authorization process.

You have an opportunity to review this document and provide your initial comments to us for incorporation in the Basic Assessment Report. You will also be given the opportunity to provide input at the public meeting, if the need arises.

♣ Draft BAR

Comments will be recorded and included in the reports submitted to the relevant authorities for decision-making.

HOW TO RESPOND

If you are interested in receiving further information on the project please register your details with the persons listed below. Responses to this document can be submitted by means of the attached comments sheet and/or through communication with the persons listed below.

Christien Kruger

Tel: 051 412 6350 or Fax: 051 412 6351

E-mail: ckruger@envmgrp.com

The following activities are applicable to this project:

NEMA: Listing Notice 1: (GN R 327, 7 April 2017)

GN R327 07 April 2017	39(v)	The expansion and related operation of facilities for the concentration of animals [for the purpose of commercial production] in densities that will exceed— (v) 250 square metres per ostrich or emu where the expansion will constitute more than 50 additional ostriches or emus.
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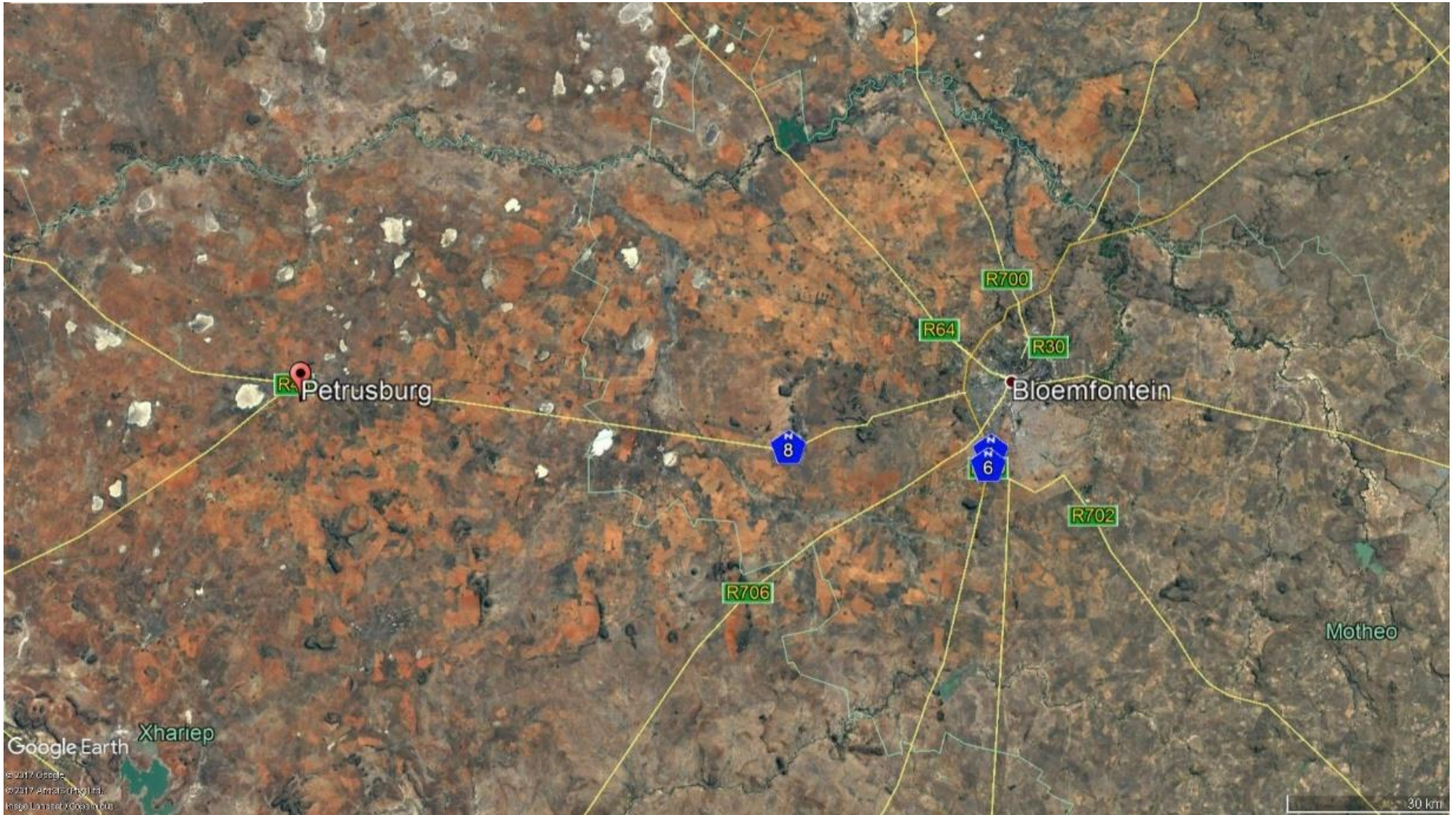
National Heritage Resources Act (ACT 25 OF 1999)

The development of infrastructure with a physical footprint of > 5000m²

Reports will be available on our Website <http://envmgp.com>

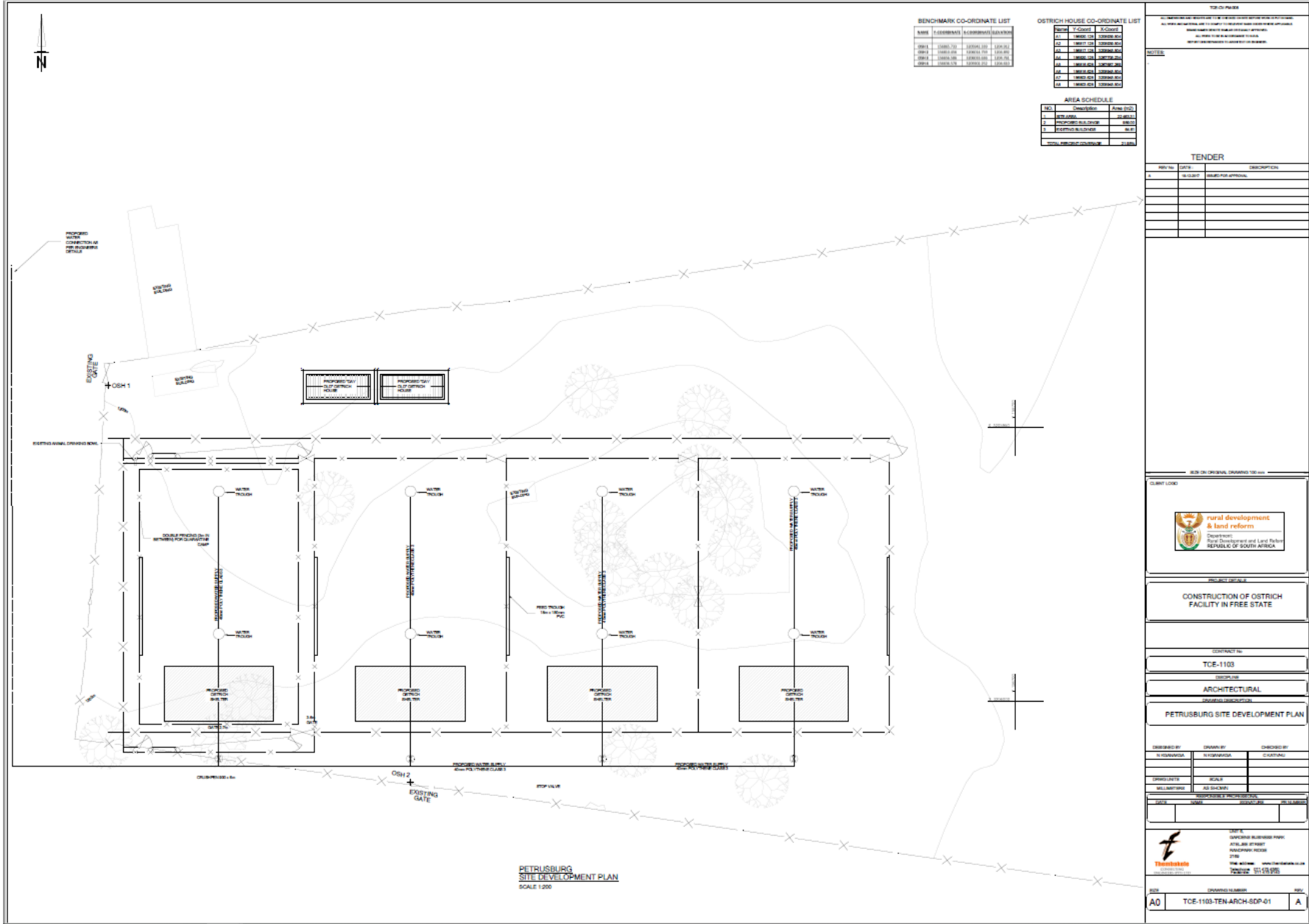
Go to Projects, Agriculture for reviewing purposes.

Registration and Response Forms will be available at the Local Library for I&AP for comment.





Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise PUBLIC PARTICIPATION REPORT



BENCHMARK CO-ORDINATE LIST

NAME	E (EASTING)	N (NORTHING)	HEIGHT
OBH 1	1000.72	1000.10	100.00
OBH 2	1000.00	1000.00	100.00
OBH 3	1000.00	1000.00	100.00
OBH 4	1000.00	1000.00	100.00

OSTRICH HOUSE CO-ORDINATE LIST

NAME	X (EASTING)	Y (NORTHING)
OH 1	1000.00	1000.00
OH 2	1000.00	1000.00
OH 3	1000.00	1000.00
OH 4	1000.00	1000.00
OH 5	1000.00	1000.00
OH 6	1000.00	1000.00
OH 7	1000.00	1000.00
OH 8	1000.00	1000.00
OH 9	1000.00	1000.00
OH 10	1000.00	1000.00

AREA SCHEDULE

NO.	DESCRIPTION	AREA (SQM)
1	ENCLOSURE	1000.00
2	PROPOSED BUILDINGS	1000.00
3	PROPOSED ROADWAY	1000.00
4	TOTAL PROPOSED ENCLOSURE	3000.00

TOP OF PAGE

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE.
ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE.
ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED EXCEPT WHERE SHOWN OTHERWISE.

TENDER

NO.	DATE	DESCRIPTION
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

BASE ON ORIGINAL DRAWING 100/100

CLIENT LOGO

PROJECT NAME

CONSTRUCTION OF OSTRICH FACILITY IN FREE STATE

CONTRACT NO.

TCE-1103

DISCIPLINE

ARCHITECTURAL

PROFESIONAL DESCRIPTION

PETRUSBURG SITE DEVELOPMENT PLAN

DESIGNED BY N. VAN DER MERWE
DRAWN BY N. VAN DER MERWE
CHECKED BY C. VAN DER MERWE

DATE 2014/08/01
SCALE 1:200

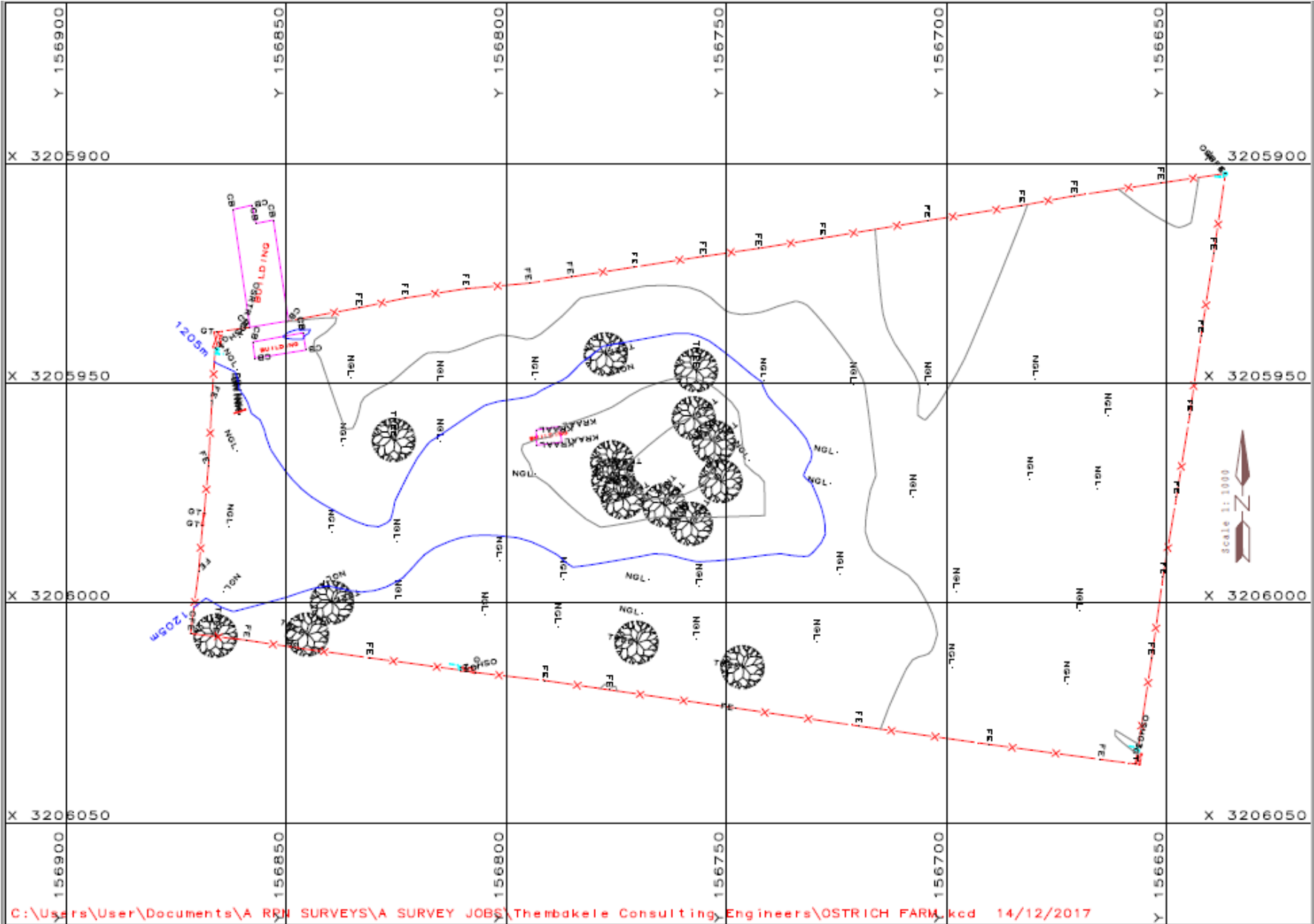
PROJECT MANAGER N. VAN DER MERWE
RESPONSIBLE ENGINEER N. VAN DER MERWE

DATE 2014/08/01
SCALE 1:200

CLIENT THUSANONG OSTRICH ENTERPRISE
CONTACT PERSON N. VAN DER MERWE
PHONE 051 811 1111
EMAIL nvdmerwe@thusanong.co.za
WEBSITE www.thusanong.co.za

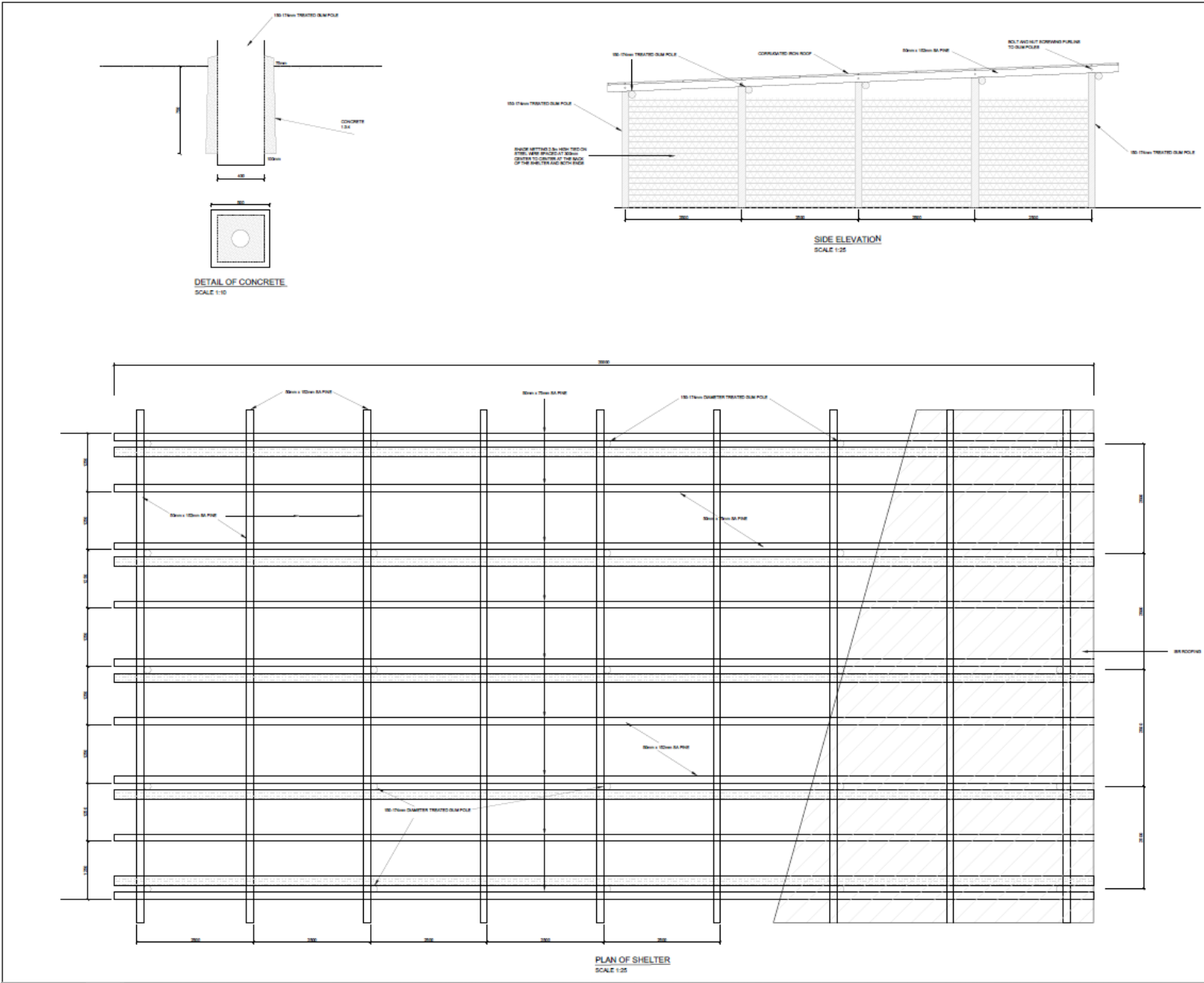
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Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise
PUBLIC PARTICIPATION REPORT



C:\Users\User\Documents\A RRM SURVEYS\A SURVEY JOBS\Thembakele Consulting Engineers\OSTRICH FARM.kcd 14/12/2017

Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise
PUBLIC PARTICIPATION REPORT



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PROJECT DESCRIPTION

The proposed development is for the construction of 2 identical rearing houses positioned either back to back or face to face. These structures will be constructed on concrete strip foundations with high density engineering brick pier walls supporting floated concrete slab floors. Floors will be graded so as to facilitate the effective drainage and removal of generated effluent.

External walls will be constructed in double course brickwork that will support the bearing trusses for the roof which in turn will be fixed to span the 4 meter width of the building. Walls will be plastered and painted with approved acrylic paints to a suitable color both internally and externally.

Access and service doors will be provided at the ends of each building. Doors will be industrial quality with louvered finishes so as to provide sufficient air flow capacity thus accommodating the mechanical ventilation system. Whirlybird ventilators will provide for mechanical extraction and ventilation to each of the buildings.

The Floor will be provided with adequate drainage and flushing channels which will run the full length of the eleven-meter walls. These channels will discharge to external collection points, which will eventually be connected to a minimum of four 50mm NB UPVC pipes finished flush to the internal face of the wall and discharging over the lip of the external collection channel. Timber trusses with 38mm x 76mm SA Pine purlins will support the 0.5mm galvanised sheet steel roof with fixed underside insulation. The roof will be fixed to the timber purlins with suitable drive screws that will have bonded washers to ensure a sealed and leak free installation.

The ostrich camps will comprise designated area in age categories. The proposed ostrich camp is a 7500m² fenced enclosures. This dedicated enclosure is to be subdivided into four (4) equally sized camps with pedestrian and transit walkways between the individual sub-enclosures. Fencing will comprise of a 1,8-metre-high diamond mesh wire having steel posts and stays firmly grounded in concrete foundations and supplemented by treated wooden droppers at prescribed intervals. A 1.5m wide 60% shade net screen will be attached to the fence.

Each ostrich camp will also incorporate a 10m by 20m protective shelter with a minimum height of 2.5m. The shelter is constructed from 150 - 174mm treated gum poles, 50mm x 152mm SA pine bolted to the gum pole with screwing purlins and roofed with corrugated iron sheeting.

Weather protection and shading will be provided by installation of a 2.5m high shade net screen fixed to steel wire supports, spaced at 300mm centre to centre at the back of the shelter and at both ends.

The identified site has a number of existing boreholes. These boreholes have windmill driven pumps that supply water to a brick and concrete reservoir as well as an existing JoJo tank. The existing water reservoir is impaired and will require rehabilitation before it may be used on a permanent basis. Two (2) dedicated and interconnected JoJo tanks with

individual capacities of 5000 liters each will provide water to the proposed development. This water supply will continue to be sourced from existing boreholes with windmill driven submersible pumps.

The total manure to be generated by the layer houses will be approximately 480kg per day. The manure will be temporarily stockpiled on an impenetrable (concrete) layer and covered with sails to prevent contamination of the surrounding environment. The stockpile area for this manure will be located approximately 400-600m away to the north of the ostrich houses. Manure will be used on site as fertilizer for crop production. The remaining manure will be sold to local farmers. If there is further remaining manure it will be disposed of to the nearest landfill site.

Diseased carcasses will be disposed of in an open pit covered by lime. A 4m wide x 4m long x 2m deep pit will be provided at least 400m away from the site. This hole will be fenced off and have a locking mechanism. Carcasses safe for consumption will be taken to a predator farms in the area.

BASELINE ENVIRONMENT

This section provides a basic description of the existing status of the environment. Please let us know of any additional information that would assist with the understanding of the baseline environment.

Geology, soils and land capability:

A geotechnical investigation was included in December 2017 and preliminary findings are as follows:

No seepage or groundwater was encountered in the test pits. The site is underlain by dry, reddish brown to light red, medium dense silty sand up to 200mm, underlain by very dense, light brown, quartzitic sandstone to the depth of 800mm, underlain with weathered dolerite up to the depth of 2,0m.

Due to hardness of the in situ material, no penetration could be achieved for a DCP test. From these preliminary findings, it can be concluded that the residual material is competent for founding.

It is further recommended that the topsoil should be removed to expose the residual material for founding purposes.

Any backfilling should then be carried out with G7 material, or better, compacted in 150mm layers to 93% Mod. AASHTO at -1% to +2% OMC.

Climate:

The area investigated experiences summer rainfall and a relatively dry winter. According to the Weinert's N-value chart, the region is situated on an N-value between 2 and 5 and a Thorn Thwaite's value of between -20 to 20. The climatic region is thus classified as sub-humid warm climate.

Topography:

The site identified is relatively flat at approximately 1205m above sea level with the highest point having a ground elevation of approximately 1205.500m. A natural slope of 1% exists across the proposed site.

POTENTIAL ENVIRONMENTAL IMPACTS

Below is a preliminary list of potential impacts identified at this stage of the process and will be investigated as part of the environmental assessment process. The list will be refined during the course of the environmental assessment process.

SPECIALIST ASSESSMENTS

Below is a list of specialist assessments that might be required for the project.

- ♣ Biodiversity (aquatic and wetland/riparian)
- ♣ Waste
- ♣ Air quality
- ♣ Noise
- ♣ Visual
- ♣ Traffic
- ♣ Paleontological
- ♣ Economic impact
- ♣ Financial provision
- ♣ Safety:
- ♣ Surface water:
- ♣ Groundwater:
- ♣ Heritage/cultural and palaeontological resources:
- ♣ Socio-economic:
- ♣ Land use:

PARTIES INVOLVED IN THE ENVIRONMENTAL APPLICATION PROCESSES

IAPs

- ♣ Surrounding landowners, land users and communities
- ♣ Surrounding industries
- ♣ Non-governmental organisations and associations
- ♣ Parastatals

REGULATORY AUTHORITIES

- ♣ Department of Agriculture and Rural Development
- ♣ Department of Agriculture Forestry and Fisheries
- ♣ Department of Public Works and Infrastructure
- ♣ Department of Water and Sanitation (DWS)
- ♣ Department of Heritage (SAHRA)

LOCAL AUTHORITIES

- ♣ District Municipality
- ♣ Local Municipality
- ♣ Ward Councillor

Please let us know if there are any additional parties that should be involved.

ENVIRONMENTAL AUTHORISATION AND WULA PROCESS

The environmental assessment processes will be conducted to inform the competent authorities in their decision-making. These processes are conducted simultaneously.

STEPS IN THE ENVIRONMENTAL AUTHORIZATION PROCESSES

The environmental authorisation processes provides information on the project and environment in which it is being undertaken; identifies, in consultation with registered interested & affected parties (RI&APs), the potential negative as well as positive impacts of the project; and reports on management measures required to mitigate impacts to an acceptable level. The likely process steps and timeframes are provided below. RI&APs and other stakeholders on the project's database will receive notification of public participation opportunities in advance.

PUBLIC PARTICIPATION

Public Participation provides Stakeholders and I&APs the opportunity to raise issues of concern and comment on the proposed activity. Notify other regulatory authorities and I&APs of project and environmental assessment (via newspaper advertisements, site notices and this BID document)

PROCESS STEPS (in accordance with GN R326)	RESPONSIBLE PARTY	TIMEFRAME
1. Initial communication to clarify the application with the Authorising Department.	EAP	1 day
2. EAP to conduct a site investigation	EAP	1 day
3. EAP to submit Application to competent authority.	EAP	1 day
4. Competent authority Accepts Application	DESTEA	14 days
5. EAP to undertake the BAR and compile a Report (including the draft EMP) subjected to 30 days Public Participation Process	EAP	90 days
6. EAP to submit Final BAR report inclusive of comments to competent authority.	EAP	1 day
7. Competent Authority to grant environmental authorisation	DESTEA	107 days
8. Environmental Authorisation subjected to 20-day appeal process	EAP	20 days
9. Final Approval of Environmental Authorisation	DESTEA	1 day

Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise
Registration and Response Form for Interested and Affected Parties (I&AP)

Date	
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Particulars of the I&AP

Name	
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Postal Address & Code	
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Street Address & Code	
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Telephone number		Cell Phone Number	
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Fax Number		E-Mail Address	
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Please Identify your Interest in the Proposed Project:

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Please write your comments and questions here:

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Please return or leave completed form at Local Library for collection prior to 30 days lapsing:

Christien Kruger
 ENVMGP
 Tel: 051 412 6350
 Fax: 086 556 2152
 Email: ckruger@envmgp.com
 Website: envmgp.com

3.4 NOTIFICATION TO LOCAL AUTHORITY SENT ON THE 3rd OF SEPTEMBER 2019

3.4.1 Notification was sent to Department of Agriculture and Rural Development.



ENVIRONMENTAL MANAGEMENT GROUP

Specialists in Environmental Management
Integrating Industry and Infrastructure with the Environment

Tel: +27 51 412 0350
Fax: +27 51 412 0351
Email: clouger@envmgrp.com
Postal Address:
P.O.Box 37473,
Langenhoven Park 9330

3 September 2019

Dr Masiteng - pa.hodagric@fs.agric.za, degracia@fs.agric.za, landswa@fs.agric.za
Department of Agriculture and Rural Development
Giele Joubert Street
Glen
Bloemfontein
9360

Dear Sir / Madam

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA) 1998 (Act 36 of 1998) of intent to carry out the following activity:

We have been appointed by Department of Rural Development and Land Reform regarding the application for the proposed ~~Thusanong~~ Ostrich Enterprise development, situated north of Petrusburg, remaining extent of the Farm Langgenoeg 908, in the Free State Province.

Please find attached a copy of the Draft BAR for your comments. Thirty days are allowed as per GN R 326 of the Act starting from the date of this notice for the comments to reach us.]

Your comments on the project will be appreciated.

Should you have any project related queries, please do not hesitate to contact the undersigned.

Sincerely

S.E. van Rooyen
Director Managing & Environmental Assessment Practitioner & Ecologist
(MSc. ~~Cand.Sci.Nat.116554~~; IAA Reg No. 5901)
Cell: 083 678 3032
E-mail: ~~svr@envmgrp.com~~

3.4.2 Notification was sent to Department of Agriculture Forestry and Fisheries



ENVIRONMENTAL MANAGEMENT GROUP

Specialists in Environmental Management
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Tel: +27 51 412 6350
Fax: +27 51 412 6351
Email: diruger@enwmgp.com
Postal Address:
P.O.Box 37473,
Langenhoven Park 9330

3 September 2019

Mr O E Kumang – oratilek@daff.gov.za - ziungilem@daff.gov.za – 051 409 2619
Department of Agriculture Forestry and Fisheries
Omni Building 1st floor
73 Alwal Street
Bloemfontein
9301

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA), 1998 (Act 36 of 1998) of intent to carry out the following activity:

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Sincerely



S.E. van Rooyen,
Director Managing & Environmental Assessment Practitioner & Ecologist
(MSc. ~~Cand.Sci.Nat.116554~~; IAIA Reg No. 5901) ||
Cell: 083 678 3032
E- mail: svr@enwmgp.com

3.4.3 Department of Water and Sanitation



ENVIRONMENTAL MANAGEMENT GROUP

Specialists in Environmental Management
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Tel: +27 51 412 0350
Fax: +27 51 412 0351
Email: ckruiger@envmgrp.com
Postal Address:
P.O.Box 37473,
Langenhoven Park 9330

3 September 2019

Mr Vernon Blair & George Nel - blair@dstw.gov.za, nel@dstw.gov.za - 051 405 900
Department of Water and Sanitation
PO Box 528
Bloemfontein
9300

Dear Sir / Madam

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA), 1998 (Act 36 of 1998) of intent to carry out the following activity:

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Sincerely



S.E. van ~~Rooyen~~
Director Managing & Environmental Assessment Practitioner & Ecologist
(MSc. ~~Cand.Sol.Nat.118554; WJA Reg No. 5901~~)
Cell: 083 678 3032
E-mail: ~~sw@envmgrp.com~~

3.4.4 Department of Heritage



ENVIRONMENTAL MANAGEMENT GROUP

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Tel: +27 51 412 0350
Fax: +27 51 412 0351
Email: clouger@envmgp.com
Postal Address:
P.O.Box: 37 473,
Langenhoven Park 9330

3 September 2019

Ms Ntando PZ Mbatsha - mbatsha.pz@saor.fs.gov.za - boelene.phillip@nasmus.co.za

Free State Department of Heritage
Private Bag X 20606
Bloemfontein
9300

Dear Sir / Madam

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA), 1998 (Act 36 of 1998) of intent to carry out the following activity:

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Sincerely



S.E. van ~~Rooyen~~
Director Managing & Environmental Assessment Practitioner & Ecologist
(MSc. ~~Capd.Sci.Nat.118554~~; IAA Reg No. 5901)
Cell: 083 678 3032
E-mail: ~~svr@envmgp.com~~

3.4.5 Executive Mayor & Municipal Manager - Letsemeng Local Municipality



ENVIRONMENTAL MANAGEMENT GROUP

Specialists in Environmental Management
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Fax: +27 51 412 8351
Email: diruger@enwmgp.com
Postal Address:
P.O.Box 37473,
Langenhoven Park 6330

3 September 2019

Mr ~~Tshenoi Lucas Mkhwanzi~~ - Municipal Manager - 053 3300 210 - tsiso@letssemeng.gov.za
Mr KW ~~Bilikoe~~ - Executive Mayor - 083 330 0219 - gamayoo@letssemeng.gov.za
Letsemeng Local Municipality
No 7 Groot Trek Street
Koffiefontein,
5986

Dear Sir / Madam

I

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA), 1998 (Act 36 of 1998) of intent to carry out the following activity:

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3.4.6 Free State Department of Public Works and Infrastructure



ENVIRONMENTAL MANAGEMENT GROUP

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Fax: +27 51 412 0351
Email: chruger@envmgp.com
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P.O.Box 37473,
Langenhoven Park 9330

3 September 2019

Ms G Brown – hdr.office@fsworks.gov.za - 051 492 3909
Free State Department of Public Works and Infrastructure
Cnr Markgraaf & St Andrew's Streets
Bloemfontein
9301

Dear Sir / Madam

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA), 1998 (Act 36 of 1998) of intent to carry out the following activity:

We have been appointed by Department of Rural Development and Land Reform regarding the application for the proposed ~~Thusanong~~, Ostrich Enterprise development, situated north of Petrusburg, remaining extent of the Farm Langgenoeg 908, in the Free State Province.

Please find attached a copy of the Draft BAR for your comments. Thirty days are allowed as per GN R 326 of the Act starting from the date of this notice for the comments to reach us.

Your comments on the project will be appreciated.

Should you have any project related queries, please do not hesitate to contact the undersigned.

Sincerely

S.E. van Rooyen,
Director Managing & Environmental Assessment Practitioner & Ecologist
(MSc. ~~Cand.Sci.Nat.118554~~; WIA Reg No. 5901)
Cell: 083 678 3032
E-mail: ~~svr@envmgp.com~~

3.4.7 Executive Mayor - Letsemeng Local Municipality



ENVIRONMENTAL MANAGEMENT GROUP

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Integrating Industry and Infrastructure with the Environment

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P.O. Box 37 473,
Langenhoven Park 9330

3 September 2019

Executive Mayor

Mr KW Pitsoe – 083 330 0219 – pamayor@letsemeng.gov.za
Letsemeng Local Municipality
No 7 Groot Trek Street
Koffiefontein,
9986

Dear Sir / Madam

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA), 1998 (Act 36 of 1998) of intent to carry out the following activity:

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Sincerely

S.E. van Roooyen
Director Managing & Environmental Assessment Practitioner & Ecologist
(MSc. Card Sci No. 116554; IAA Reg No. 5901)
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3.4.8 Letsemeng Local Municipality Ward 3 Councilor



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Langenhoven Park 9330

3 September 2019

Ward 3 Councilor – 060 505 6791 – pency.lebata@gmail.com

Clr MA Lebata

Dear Sir / Madam

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA), 1998 (Act 36 of 1998) of intent to carry out the following activity:

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(MSc. Cand.Sci.Nat.116554; IAIA Reg No. 5901)
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3.4.9 Xhariep District Municipality



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3 September 2019

Ms. L.Y. Moletsang – 051 713 9304 - Moletsangl@xhariep.gov.za
Municipal Manager
Xhariep District Municipality
PO Box 136
Trompsburg
9913

Dear Sir / Madam

Re: Notice is given in terms of Government Notice No. 326 in Government Gazette No. 40772 of 7 April 2017 issued under the National Environmental Management Act 1998 (Act 107 of 1998) and The National Water Act (NWA), 1998 (Act 36 of 1998) of intent to carry out the following activity:

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S.E. van Rooyen
Director Managing & Environmental Assessment Practitioner & Ecologist
(MSc. Geod.Sci.Nat.116554; IAIA Reg No. 5901)
Cell: 083 678 3032
E-mail: svr@envmgp.com

3.5 LIST OF I&AP's

List of I&AP's				
<u>Department/ Organisation</u>	<u>Contact Person</u>	<u>E-Mail Address</u>	<u>Address</u>	<u>Contact Nr</u>
Department of Agriculture and Rural Development	Dr Masiteng	pa.hodagric@fs.agric.za , degracia@fs.agric.za , tandiswa@fs.agric.za	Gielie Joubert St, Glen, BFN, 9360	051 861 8509
Department of Agriculture Forestry and Fisheries	Zilungile	zilungilem@daff.gov.za	Allied Building 3rd Floor C/O Maitland & West Burger Streets BFN 9300	051-400 3517
Department of Heritage (D Department of sports, arts, culture and recreation)	Ms. N Mbatha	mbatha.npz@sacr.fs.gov.za	C/O Henry & East Burger Str, 2 Floor , Bloenfontein 9301	051 410 4750, 4738, 4829
Department of Water & Sanitation	Mr Vernon Blair Deputy Director: Water Use	blairV@dws.gov.za	Private Bag 528 BLOEMFONTEIN 9300	+27(0) 51 405 9000, +27(0) 82 807 3552
Department of Public Works and Infrastructure	Ms G Brown	hodoffice@fsworks.gov.za	Cnr Markgraaf & St Andrew's Streets Bloemfontein 9301	051 492 3909
Ward Councilor 3	CIlr MA Lebaka	pency.lebaka@gmail.com	Letsemeng Local Municipality No 7 Groot Trek Street Koffiefontein, 9986	060 505 6791
Letsemeng Local Municipality	Mr Tshemedi Lucas Mkhwane	mm@letsemeng.gov.za / letse@letsemeng.gov.za	Letsemeng Local Municipality No 7 Groot Trek Street Koffiefontein, 9986	053 3300 210
District Municipality	Ms. LY Moletsane	Moletsanel@xhariep.gov.za	Xhariep District Municipality PO Box 136 Trompsburg , 9913	051 713 9304
Executive Mayor	Mr KW Pitikoe	pamayor@letsemeng.gov.za	Letsemeng Local Municipality No 7 Groot Trek Street Koffiefontein, 9986	083 330 0219

3.6 COMMENTS RECEIVED & RESPONSE

No comments were received during the Public Participation Process.

4. CONCLUSION

It is concluded that the methods incorporated in the public participation process to inform the surrounding landowners, users, organs of state and identified government authorities was adequate. All the identified I&APs is given an opportunity to provide inputs regarding the proposed construction. The final PPR will include all responses from stakeholders and I&AP's.

Appendix F: Impact Assessment

BASIC ASSESSMENT REPORT

SIGNIFICANCE RATING

The impacts that may result from the planning and design phase, construction phase, operation phase and decommissioning phase of the project was assessed according to a number of criteria to arrive at an overall significance rating. The criteria used were as follows:

Spatial Scale

Site	(S)	Immediate area of impact
Local	(L)	Area within 20km of the development
Regional	(R)	Entire Municipality

Duration

Short Term	(ST)	Less than the duration of the activity
Medium Term	(MT)	Impact persists until activity ceases
Long Term	(LT)	Impact persists well beyond the cessation of the activity
Permanent	(P)	Impact is permanent

Probability

Low	(L)	Unlikely
Medium	(M)	Possible
High	(H)	Likely

Intensity

Low	(L)	Ecological functions may continue undisturbed. No rare or endangered species affected. No objection from I&APs.
Medium	(M)	Ecological functioning temporary affected. No rare or endangered species affected. Some concern from I&APs.
High	(H)	Ecological functioning permanently altered. Rare or endangered species impacted. Major concern from I&APs.

Significance Impacts can be Low, Medium or High and can be positive (+ve) or negative (-ve).

BASIC ASSESSMENT REPORT

IMPACT	IMPACT TYPE Positive (+) or Negative (-)	ACTIVITY	ALTERNATIVE 1				
			SPATIAL SCALE	DURATION	PROBABILITY	INTENSITY	POST MITIGATED SIGNIFICANCE
PLANNING AND DESIGN PHASE							
Environmental Legal and Policy Compliance	(-)	Failure to adhere to legal obligations could result in overall project failure.	L	LT	M	H	M
CONSTRUCTION PHASE							
<i>DIRECT IMPACTS</i>							
Construction camp and activities	(-)	Siting of construction camp could lead to negative environmental impacts including dust, noise, soil contamination and erosion, and visual pollution.	L	ST	H	M	L
Use of hazardous substances	(-)	Using hazardous substance to construct the facility	L	ST	H	M	L
Impacts on indigenous vegetation	(-)	Loss of indigenous vegetation.	S	ST	H	M	L
Hydrological – Storm water System and water supply	(-)	The construction of roads associated compacting of soils and land transformation will result in higher levels of storm water runoff, with the possibility of increased erosion and decline in water quality.	S	LT	H	M	L
Waste – Sewage / Effluent	(-)	Improper or insufficient ablution facilities for personnel during construction phase.	S	ST	L	L	L

BASIC ASSESSMENT REPORT

Waste – Building Rubble & Littering		Littering may occur by personnel during construction phase.	S	ST	M	L	L
Land transformation – Dust Levels	(-)	Increased levels of noise due to earthmoving & construction activities. Associated noise may potentially impact on surrounding environment.	S	ST	M	L	L
Land transformation – Noise levels	(-)	Increased levels of noise due to earthmoving & construction activities. Associated noise may potentially impact on surrounding environment.	S	ST	M	L	L
Land transformation – Veldfires		Machinery and human activity will increase veldfire risk levels.	L	ST	M	L	M
Increased levels of traffic	(-)	The transportation of construction and road material will increase heavy traffic S 1331. The additional trips will have negligible impact on the current traffic flows.	L	MT	M	M	M
Socio-Economic	(-)	Casual labour taking advantage of the job opportunities created by the construction phase may increase the number of people loitering, levels of vagrancy and possibly petty crime.	S	ST	M	M	L
Safety and awareness	(-)	Inadequate attention to fire safety awareness and fire safety equipment could result in an unsafe working environment.	S	ST	M	M	L
OPERATIONAL PHASE							
DIRECT IMPACTS							
Food security	(+)	The proposed expansion to ensure that more affordable protein will be made available to surrounding communities.	S	LT	H	M	L
Smell/Odour	(-)	Foul smells from the ostrich manure and feed on site will have a direct negative impact on surrounding environment.	S	ST	M	M	L
Transmission of diseases in facility	(-)	Ostrich mortalities could result in the spread of diseases. Disease outbreaks in the facility could potentially spread to surrounding landowners.	S	ST	M	M	L

BASIC ASSESSMENT REPORT

control of invertebrate pests	(-)	Poor / inappropriate control of invertebrate pests such as flies, weevils, ants, termites, cockroaches, fleas, mice, mites, ticks, etc.	L	ST	H	M	L
control of vertebrate pests	(-)	Poor / inappropriate control of vertebrate pests such as rodents, snakes, mammalian carnivores and bats	L	ST	H	M	L
Disturbance of surrounding fauna	(-)	Disturbance of surrounding fauna from vehicle and human activity, noise and light, environmental contamination, inappropriate pest management, disease transmission, proliferation of alien species, and unnatural fires.	L	MT	M	M	L
Land contamination	(-)	Land contamination as a result of storage of ostrich waste on the proposed waste storage facility	L	MT	M	M	L
Health impacts	(-)	Potential impact on the health of operating personnel resulting in potential health injuries. This impact is rated as neutral	L	MT	M	M	L
Injuries to personnel	(-)	Minor accidents to the public and moderate accidents to operational staff (e.g. fires).	S	ST	M	L	L
Service delivery	(+)	Improved service delivery with regards to produce.	S	LT	H	M	L
Additional traffic	(-)	Additional traffic	L	MT	M	M	M

Appendix G: Environmental Management Programme (EMPr)

“JWALE KE NAKO YA KOTULO, RE A KUBELE TSA”

www.edtea.fs.gov.za

“JWALE KE NAKO YA KOTULO, RE A KUBELETSA”

www.edtea.fs.gov.za

**ENVIRONMENTAL MANAGEMENT PLAN:
Ostrich Feedlot: Petrusburg - Thusanong
Ostrich Enterprise**

For
Department of Rural Development and Land Reform

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1. Definitions

Alien Vegetation: alien vegetation is defined as undesirable plant growth which shall include, but not be limited to; all declared category 1 and 2 listed invader species as set out in the Conservation of Agricultural Resources Act (CARA) regulations. Other vegetation deemed to be alien shall be those plant species that show the potential to occupy in number, any area within the defined construction area and which are declared to be undesirable.

Aspect: Element of an organisation's activities, products or services that can interact with the environment.

Auditing: A systematic, documented, periodic and objective evaluation of how well the environmental management plan is being implemented and is performing with the aim of helping to safeguard the environment by: facilitating management control which would include meeting regulatory requirements. Results of the audit help the organisation to improve its environmental policies and management systems.

Built Environment: Physical surroundings created by human activity, e.g. buildings, houses, roads, bridges and harbours.

Contamination: Polluting or making something impure.

Corrective (or remedial) action: Response required addressing an environmental problem that is in conflict with the requirements of the EMP. The need for corrective action may be determined through monitoring, audits or management review.

Degradation: The lowering of the quality of the environment through human activities, e.g. river degradation, soil degradation.

Ecology: The scientific study of the relationship between living things (animals, plants and humans) and their environment.

Ecosystem: The relationship and interaction between plants, animals and the non-living environment.

Environment: environment means the surroundings within which humans exist and that could be made up of -

- the land, water and atmosphere of the earth;
- micro-organisms, plant and animal life;
- any part or combination of (i) and (ii) and the interrelationships among and between them; and
- the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental aspect: an environmental aspect is any component of a contractor's construction activity that is likely to interact with the environment.

Environmental impact: an impact or environmental impact is the change to the environment, whether desirable or undesirable, that will result from the effect of a construction activity. An impact may be the direct or indirect consequence of a construction activity.

Environmental Authorisation: an environmental authorisation is a written statement from the National Department of Environmental Affairs and Tourism, (N.DEAT) that records its approval of a planned undertaking to improve, upgrade or rehabilitate a section of road and the mitigating measures required to prevent or reduce the effects of environmental impacts during the life of a contract.

Hazardous waste: Waste, even in small amounts that can cause damage to plants, animals, their habitat and the well-being of human beings, e.g. waste from factories, detergents, pesticides, hydrocarbons, etc.

Land use: The use of land for human activities, e.g. residential, commercial, industrial use.

Mitigation: Measures designed to avoid, reduce or remedy adverse impacts

2. Introduction and background

Scope

Environmental Management Group, as independent environmental managers and impact assessors, has been appointed by the Department of Rural Development and Land Reform to compile and submit an Environmental Management Programme (EMP), in support of the Basic Assessment Process for an EA (Environmental Authorisation under the National Environmental Management Act No 107 of 1998, to the decision making authority namely the DESTEA; for the development of an Ostrich feedlot located approximately 20 kilometers North of Petrusburg.

This document is compiled in accordance with the Integrated Environmental Management (IEM) philosophy which aims to achieve a desirable balance between conservation and development (DEAT, 1992). IEM is a key instrument of the National Environmental Management Act [NEMA] (Act No. 107 of 1998). NEMA promotes the integrated environmental management of activities that may have a significant effect on the environment, while IEM prescribes a methodology for ensuring that environmental management principles are fully integrated into all stages of the development process. It advocates the use of several environmental management tools that are appropriate for the various levels of decision-making. One such tool is an EMP. The IEM guidelines encourage a pro-active approach to sourcing, collating and presenting information in a manner that can be interpreted at all levels. The basic principles underpinning IEM are that there be:

- informed decision-making;
- accountability for information on which decisions are taken;
- accountability for decisions taken;
- a broad meaning given to the term environment (i.e. one that includes physical, biological, Social, economic, cultural, historical and political components);
- an open, participatory approach in the planning of proposals;
- consultation with interested and affected parties;
- due consideration of alternative options;
- an attempt to mitigate negative impacts and enhance positive aspects of proposals;
- an attempt to ensure that the 'social costs' of development proposals (those borne by society, rather than the developers) be outweighed by the 'social benefits' (benefits to society as a result of the actions of the developers);
- democratic regard for individual rights and obligations;
- compliance with these principles during all stages of the planning, implementation and decommissioning of the proposals (i.e. from 'cradle to grave'); and
- the opportunity for public and specialist input in the decision-making process.

The Environmental Impact Assessment Regulations that took effect in December 2014 regulate the procedures and criteria for the submission, processing, consideration and decision on applications for environmental authorisation of listed activities.

The general principles contained within this document apply to all **PLANNING PHASE, CONSTRUCTION PHASE, and OPERATIONAL PHASE** activities with regard to the development of the Ostrich facility.

3. Site Specific Information

Environmental Management Group has been appointed by the Department of Rural Development and Land Reform to conduct the Basic Assessment process of the development of the Ostrich Farm in Petrusburg.

The proposed project is located approximately 20 kilometers North of Petrusburg. The town of Petrusburg is under the Letsemeng Local Municipality and is located approximately 70km West of Bloemfontein.

4. Interpretations

The implementation of the EMP is not an additional or “add on” requirement. The EMP is legally binding through NEMA. The proponent is to ensure that through the project tender process the EMP forms part of the Project Contract Document for the proposed Ostrich feedlot development to be incorporated in line with:

- a) General project specifications; and
- b) SANS 1200 A or SANS 1200 AA, as applicable.

5. Role Players and Responsibility Matrix

In order for the EMP to be successfully implemented, all the role players involved in the project need to co-operate. For this to happen, role players must clearly understand their roles and responsibilities in the project, must be professional, form respectful and transparent relationships, and maintain open lines of communication.

Table 1: Functions and Responsibilities of Project Team

KEY	FUNCTION	RESPONSIBILITY
P	Proponent/Developer	<p>Proponent is ultimately accountable for ensuring compliance to the EMP. The ECO must be contracted by the Proponent (full time or part time depending on the size of the project) as an independent appointment to objectively monitor implementation of relevant environmental legislation, conditions of the EMP for the project.</p> <p>The Proponent is further responsible for providing and giving mandate to enable the ECO to perform responsibilities. The developer must ensure that the ECO is integrated as part of the project team.</p>
PM	Project Manager	<p>The Project Manager has over-all responsibility for managing the project, contractors, and consultants and for ensuring that the environmental management requirements are met.</p> <p>The CE may also act as the PM. All decisions regarding environmental procedures must be approved by the PM. The PM has the authority to stop any decommissioning activity in contravention of the EMP in accordance with an agreed warning procedure.</p>
ECO	Environmental Control Officer	<p>An independent Environmental Control Officer (ECO) shall be appointed, for the duration of the pre-construction and construction phase of the services and bulk Infrastructure, by the developer to ensure compliance with the requirements of this EMP. Thereafter, the individual property owners will be responsible for the further appointment of the ECO).</p> <p>The Environmental Control Officer shall ensure that the contractor is aware of all the specifications pertaining to the project.</p> <p>Any damage to the environment must be repaired as soon as possible after consultation between the Environmental Control Officer, Consulting Engineer and Contractor.</p> <p>The Environmental Control Officer shall ensure that the developer staff and/or contractor are adhering to all stipulations of the EMP.</p> <p>The Environmental Control Officer shall be responsible for monitoring the EMP throughout the project by means of site visits and meetings. This should be documented as part of the site meeting minutes.</p> <p>The Environmental Control Officer shall be responsible for the environmental training program.</p> <p>The Environmental Control Officer shall ensure that all clean up and rehabilitation or any remedial action required, are completed prior to transfer of properties.</p> <p>A post construction environmental audit is to be conducted to ensure that all conditions in the EMP have been adhered to</p>
C	Contractor	<p>The contractors shall be responsible for ensuring that all activities on site are undertaken in accordance with the environmental provisions detailed in this document and that sub-contractor and labourers are duly informed of their roles and responsibilities in this regard.</p> <p>The contractor will be required, where specified to provide Method Statements</p>

		<p>setting out in detail how the management actions contained in the EMP will be implemented.</p> <p>The contractors will be responsible for the cost of rehabilitation of any environmental damage that may result from non-compliance with the environmental regulations</p>
ESO	Environmental Site Officer	<p>The ESO is employed by the Contractor as his/her environmental representative to monitor, review and verify compliance with the EMP by the contractor. This is not an independent appointment; rather the ESO must be a respected member of the contractor's management team.</p> <p>Dependent on the size of the development the ESO must be on site one week prior to the commencement of construction. The ESO must ensure that he/she is involved at all phases of the construction (from site clearance to rehabilitation).</p>
A	Lead Authority	<p>The authorities are the relevant environmental department that has issued the Environmental Authorisation. The authorities are responsible for ensuring that the monitoring of the EMP and other authorisation documentation is carried out, this will be achieved by reviewing audit reports submitted by the ECO and conducting regular site visits.</p>
OA	Other Authorities	<p>Other authorities are those that may be involved in the approval process of an EMP. Their involvement may include reviewing EMP's to ensure the accuracy of the information relevant to their specific mandate.</p> <p>Other authorities may be involved in the development, review or implementation of an EMP.</p> <p>For example if a specific development requires a water use licence for the relevant national authority then that authority should review and comment on the content of the particular section pertaining to that mandate.</p>
EAP	Environmental Assessment Practitioner	<p>The definition of an environmental assessment practitioner in Section 1 of NEMA is <i>"the individual responsible for the planning, management and coordination of environmental impact assessments, strategic environmental assessments, environmental management plans or any other appropriate environmental instruments introduced through regulations"</i>.</p>

6. Lines of Communication

The Environmental Control Officer in writing should immediately report any breach of the EMP to the Project Manager. The Project Manager should then be responsible for rectifying the problem on-site after discussion with the contractor. Should this require additional cost, then the developer should be notified immediately before any additional steps are taken.

7. Objectives of the EMP

The specific objectives of this EMP are to:

- To provide explicit operational guidelines and environmental monitoring requirements during the construction phases so that activities are done in environmentally responsible and sustainable manner.
- To benefit the host communities, minimise the impacts on the environment and to ensure the health and safety of the community by creating a development that eliminates unacceptable health hazards and ensures public and animal safety.
- To ensure that social and environmental impacts, risks and liability identified during the process are effectively managed during the construction, operations and closure of the project.
- To leave areas disturbed by construction in a rehabilitated, stable, non-polluting and tidy condition.

8. Activities Covered by the EMP

8.1 Planning Stage

The project planning stage consists that all plans and required contracts, permits/licenses and agreements are in place.

8.2 Construction Stage

The construction phase will start after the relevant authorizations are granted. The construction phase will start after the relevant authorizations are granted. This phase includes:

- Establishment of construction camp and equipment yards
- Transportation of construction material and other resource inputs,
- Use of heavy construction equipment on site.
- Storage of input materials and disposal of waste generated
- Construction of building structures
- Provision on ancillary service such as parking bays, connections to municipal water and sewer

8.3 Rehabilitation of the disturbed areas through:

- Demolition/Removal of any unwanted construction fences and infrastructure
- Top-soiling and re-vegetation of areas disturbed by construction

9. Identification of Environmental Aspects and Impacts

The contractor shall identify likely aspects before commencing with any construction activity. Examples of environment aspects include:

- waste generation
- stormwater discharge
- emission of pollutants into the atmosphere
- chemical use operations
- energy use operations
- water use operations
- use of natural resources
- noise generation

Thereafter the contractor shall programme his work in such a way that each cause and effect of a construction activity is also identified and the activity planned so as to prevent any impact from happening. If prevention is not practicable, or in the event of mishap or misapplication, the contractor shall provide plans and measures for the engineer's approval, which will limit and contain the magnitude, duration and intensity of the impact. The contractor shall demonstrate that he is capable of carrying out any repair and reinstatement of the damaged environment.

Listed below are some environmental impacts that could adversely alter an aspect of the environment through usual construction activities:

- Pollution of atmosphere, soil or water
- Destruction or removal of fauna and flora and effect on biological diversity
- Deformation of the landscape
- Soil erosion
- Effect on the built environment

10. Legal Requirements

10.1 General

Construction activities will be according to the best industry practices, as identified in the project documents. This EMP, which forms an integral part of the contract documents, informs the contractor as to his duties in the fulfilment of the project objectives, with particular reference to the prevention and mitigation of environmental impacts caused by Construction activities associated with the project. The contractor should note that obligations imposed by the EMP are legally binding in terms of environmental statutory legislation and in terms of the additional conditions to the general conditions of contract that pertain to this project. In the event that any rights and obligations contained in this document contradict those specified in the standard or project specifications then the latter shall prevail.

10.2 Statutory and other applicable legislation

The contractor is deemed to have made themselves conversant with all legislation pertaining to the environment, including provincial and local government ordinances, which may be applicable to the contract.

11. Administration of Environmental Obligations

11.1 Appointment of an Environmental Site Officer (ESO)

The ESO is not an independent appointment but must be a member of the contractor's management team. The ESO must ensure that he/she is involved at all phases of the construction (from site construction to rehabilitation).

11.2 Administration

Before the contractor begins each construction activities the ESO shall give a written statement setting out the following:

- The type of construction activity.
- Locality where the activity will take place.
- Identification of the environmental aspects and impacts that might result from the activity.
- Methodology for impact prevention for each activity or aspect.
- Methodology for impact containment for each activity or aspect.
- Emergency/disaster incident and reaction procedures.
- Treatment and continued maintenance of impacted environment.

The contractor may provide such information in advance of any or all construction activities provided that new submissions shall be given to the engineer whenever there is a change or variation to the original.

The engineer may provide comment on the methodology and procedures proposed by the ESO, but he shall not be responsible for the contractor's chosen measures of impact mitigation and emergency/disaster management systems. However, the contractor shall demonstrate at inception and at least once during the contract that the approved measures and procedures function properly.

12. Record Keeping

All records related to the implementation of this management plan (e.g. site instruction book, ESA/ESO dairy, methods statements etc.) must be kept together in an office where it is safe and can be retrieved easily. These records should be kept for two years at any time be available for scrutiny by any relevant authorities.

13. Compliance and Penalties

The contractor shall act immediately when a notice of non-compliance is received and correct whatever is the cause for the issuing of the notice. Complaints received regarding activities on the construction site pertaining to the environment shall be recorded in a dedicated register and the response noted with the date and action taken. This record shall be submitted with the monthly reports and an oral report given at the monthly site meetings.

Any non-compliance with the agreed procedures of the EMP is a transgression of the various statutes and laws that define the manner by which the environment is managed therefore any avoidable non-compliance, dependant on severity, shall be considered sufficient grounds for contact to be made with relevant provincial or national authorities.

The responsible provincial or national authorities shall ensure compliance and impose penalties relevant to the transgression as allowed for within its statutory powers.

14. Report Availability

Copies of this EMP shall be kept at the construction site office and will be accessible to all senior contract personnel. All senior personnel working on the project shall be required to familiarise themselves with the contents of this document.

15. Environmental Mitigation Specifications for Impacts

15.1 Social and Environmental Issues

It is important to minimize any negative perception, by taking proactive measures to prevent any social conflicts or social gaps and to develop a positive attitude within the community of the project. The following management strategies are to be implemented:

- Transparent fair recruitment and procurement practices. The contractor chosen should maximize the involvement of local communities in construction and support activities, to the extent possible, based on available skill levels. Whenever possible, training programmes that will benefit both construction stage skills requirements and long-term employment demand should be developed.
- The recruitment selection process should seek to promote gender equality and the employment of women wherever possible.
- Priority should be given to the local suppliers of goods and services, which meet requirements of project procurement as far as is possible. In order to optimize the opportunities for local businesses to supply goods and services to the project, the contractor will do a survey of the capabilities of the goods and services that are locally available that are of an acceptable standard and quality and a survey of the capabilities of local construction companies and identify opportunities for local suppliers.
- A public complaint register and system to ensure that community complaints clearly investigated and adequate remedial taken should be instituted.
- Adequate notification should be done to people residing close to where construction activities are taking place especially if they are to be affected by them. In addition, there should be a system of compensation for any damages to infrastructure that may occur.
- Each worker should be required to abide by a Code of Conduct which will limit unsavoury activities in local towns and communities and restrict certain behaviours in the work sites and accommodation.

15.2 Establishing Office / Camp Sites

- The area chosen for these purposes shall be the minimum reasonably required and which will involve the least disturbance to vegetation. No trees or shrubs will be felled or damaged for the purpose of obtaining firewood, unless agreed to by the landowner/tenant.
- Fires will only be allowed in facilities or equipment specially constructed for this purpose. If required by applicable legislation, a fire-break shall be cleared around the perimeter of the camp and office sites.

- Lighting and noise disturbance or any other form of disturbance that may have an effect on the landowner/tenant/persons lawfully living in the vicinity shall be kept to a minimum.
- Chemical toilet facilities or other approved toilet facilities should be sited in such a way that they do not cause water or other pollution. The use of existing facilities (if any) must take place in consultation with the landowner/tenant.
- In cases where facilities are linked to existing sewerage structures, all necessary regulatory requirements concerning construction and maintenance should be adhered to. The facilities must comply with water act requirements.
- Adequate signage must be provided and the area must be appropriated secured.
- Adequate parking and security should be provided at the campsites.

15.3 Air Quality

The main sources of impact on air quality are mobilization of equipment, and earthworks. To ensure air quality characteristics of the project area are maintained near the baseline conditions during of the construction stage, the following measures shall be done:

- Regular inspection and scheduled maintenance of all equipment to ensure that construction vehicles are in good condition, are utilising fuel efficiently and do not smoke.
- Periodically watering the bare surfaces and excavations during construction to keep the dust level down.
- Slowing down the vehicles carrying the construction materials to reduce dust generation.
- Properly wrapping the material truck containers with cover to avoid dust spreads on windy days and prohibiting transport of over loaded trucks.
- Providing and using the safety equipment such as dust mask, noise cover for employees who work near the dusty location such as the heavy equipment operators
- Optimization of working schedule and work to help to minimize several material vehicle mobilization trips.

15.4 Noise and Vibrations

The primary noise sources will be vehicles and equipment utilized during the construction stage including graders, bulldozers, general purpose vehicles, etc. To manage the impact the following will be done:

- Working schedule for the activities with high noise level will be arranged between 08:00 AM to 17:00 PM.
- Only well-maintained vehicles and equipment should be operated onsite and all machinery should be serviced regularly during the construction stage.
- Avoiding unnecessary simultaneous noisy activities.
- No amplified music shall be allowed at the site.
- Selecting 'quiet' construction equipment and working method and avoiding unnecessary revving and hooting.
- Providing ear protection for activities that are likely to create noise in order to protect worker's health and safety.

15.5 Erosion Control

Construction activities will require the removal of vegetation cover, potentially resulting in soil erosion and subsequent impacts on surface water quality due to uncontrolled rainwater run-off or mechanical/wind action.

The following measures are necessary to minimise impacts.

- Clearance of vegetation should be restricted to the absolute minimum required to facilitate construction activities to proceed. No protected plant species shall be removed without a permit. Disturbance of topsoil and vegetation rootstock must be minimized as far as possible.
- Appropriate drainage systems will be built to accommodate the surface water movement from the rain and wind.
- Construction activities shall take place only within the approved demarcated area. Appropriate drainage facilities must be constructed to make sure water runs smoothly downstream.

- Top soil layer will be kept to rehabilitate and will be adequately stored to protect it from erosion.
- Areas where construction has been finished should immediately be re-vegetated.

15.6 Contamination of Land

Land contamination may occur as a result of fuel and oil leaks or spills and/or poor fuel, chemical and waste storage.

- The storage areas shall be securely fenced and secured and appropriately marked to indicate the goods in the storage. Material Safety Data Sheets should be kept for all hazardous materials on site.
- All hazardous substances and stocks such as diesel, oils, detergents, etc., shall be stored in areas with impervious flooring such as concrete and properly bunded. Drip pans, other impervious surface, shall be installed in such storage areas with a view to prevent soil and water pollution.
- Dedicated impervious areas should be designated for concrete mixing and the spillage from concrete mixed should be cleaned immediately.
- The waste management strategy on the construction site should be hinged on the waste hierarchy model of 'reduce, reuse and recycle' waste in order to reduce the ultimate impact on the environment.
- All used oils, grease or hydraulic fluids shall be placed in appropriate impervious containers and these receptacles will be removed from the site on a regular basis for disposal at a licensed disposal facility or sent for recycling/reuse with a registered facility.
- Residues from machinery maintenance and other sources contaminated with hazardous waste should be stored in proper containers that avoid seepage to ground.
- Spills should be cleaned up immediately by removing the spillage together with the polluted soil and by disposing of them at a recognised facility. In areas where the spills are some, an absorbent agent can be used and the area treated in situ
- Adequate waste receptacles shall be made available and all waste shall be adequately stored so that it does not pose a pollution risk. General waste is to be disposed of through the municipal service. Any other waste will be disposed of through only licensed waste disposal facilities.

15.7 Surface Water and groundwater Quality

Poor chemical storage and poor waste management practices may lead to the contamination of water sources. Sewage and sanitary effluent has the potential to adversely affect the quality of receiving water bodies unless properly managed. To eliminate the risk of contamination, the following measures have to be instituted.

- Chemical toilets shall be used during the construction stage and a registered service provider shall be contracted to service the toilets regularly.
- Suitable covered receptacles for waste shall be available at all times and conveniently placed for the disposal of waste.
- Warehouse floors and workshop areas should be of concrete. Drainage from warehouse is collected separately with trap for oil or fuels oil. Trap containers when full will be removed, properly stored and sent out to oil waste management company.
- Refuelling, fuel loading/unloading, oil change-outs, waste storage and disposal activities must be carefully managed to prevent spillages.
- Adequate toilets must be available on site for use by construction staff at all times. The digging of pit latrines for this purpose is not allowed under any circumstances. Should chemical toilets be used, an appropriate contractor must be employed to service these facilities on an ongoing basis.
- Spills or overflows from chemical or other toilets used by construction staff must be dealt with by a sanitation expert immediately.
- Any effluents containing oil, grease or other industrial substances must be collected in a suitable receptacle and treated prior to discharge or removed from the site for appropriate disposal at a recognised facility.
- Two monitoring boreholes be drilled north east and north west of the study area.
- Responsible management of the site will be required to reduce risks/threats to groundwater and surface water

15.8 Water Usage

- Any water that is used which does not emanate from Municipality supplies must be registered and authorised by the Department of Water Affairs prior to usage commencement.
- The contractor shall promote responsible water use by all personnel.

15.9 Fauna and Flora

Fauna and flora are negatively impacted by noise from construction activities (disturbance) and gathering/hunting of flora and fauna by workers. The following measures are necessary to mitigate impacts.

- Topsoil shall be removed and kept for use during rehabilitation.
- The Contractor shall be responsible for the removal of alien vegetation within areas affected by the construction activities including cleared ground and topsoil stockpiles. Equipment used should be regularly washed down to avoid transporting seeds (invasive species) or plant diseases.
- No protected or endangered plant species shall be removed without a permit or license.
- No trees or shrubs will be felled or damaged for the purpose of obtaining firewood, unless agreed to by the landowner/tenant.
- The rehabilitation activities require the re-planting of vegetation in any areas cleared for the construction activities. This will promote soil stability, improve the visual environment and provide faunal habitat.
- Hunting/gathering by construction workers must not be permitted.
- Localized habitat features such as nests, dens or burrow sites should be avoided as much as possible. In addition, care should be taken in working in areas of active nesting, spawning, and feeding areas.

15.10 Safety

- The Contractor shall be responsible for the protection of the public and public property from any dangers associated with the construction and operation of the road activities,
- All work should be handled in accordance with the Occupational Health and Safety Act and adequate safety precautions taken and suitable sanitation facilities provided in line with the requirements of the act. It is the duty of the contractor to ensure that the all protective measures against accidents are done.
- Any works/activities which may pose a hazard to humans and/or domestic animals are to be protected or cordoned off and, if appropriate, warning signage erected
- Appropriate security is to be provided at the site to protect equipment and provide for a safe construction site and works areas.
- Any damage caused as a result of the construction activities shall be repaired to the satisfaction of the project manager and owner.

15.11 Historical, Archaeological and Heritage Impacts

- Should any cultural or archaeological artefacts be found during operational activities, operations must cease immediately and the area secured and SAPS, and the South African Heritage Resources Agency and other relevant authorities informed immediately.
- No site of archaeological or historical significance maybe moved without a permit from the SAHRA. Any permitted removal of any archaeological or historical matter must be done under the strict supervision of a qualified registered archaeologist.

16. Rehabilitation

- On completion of operations, all buildings, structures or objects on the camp/office site shall be demolished and removed.
- Where office/camp sites have been rendered devoid of vegetation/grass or where soils have been compacted owing to traffic, the surface shall be scarified or ripped.

- On completion of operations, the areas shall be cleared of any contaminated soil, which must be dumped as per the waste management plan.
- All the infrastructure, equipment, plant, temporary housing and roads and other items used during the construction period will be removed from the site.
- Waste material of any description, including receptacles, scrap, rubble and tyres, will be removed entirely from the area and disposed of at a registered waste disposal facility. It will not be permitted to be buried or burned on the site.
- Disturbed areas should be left in a safe and stable manner. Preventative measures may be necessary to construct adequate drainage structures including ditches and other structures to facilitate the movement of surface water.
- Photographs of the camp and office sites, before and during the construction and after rehabilitation, shall be taken at selected fixed points and kept on record.
- The disturbed surfaces shall then be ripped or ploughed and the topsoil previously stored shall be spread evenly to its original depth over the whole area. The area shall then be fertilised if necessary (based on a soil analysis).
- If a reasonable assessment indicates that the re-establishment of vegetation is unacceptably slow, there might be need that the soil be analysed and any deleterious effects on the soil arising from the construction operation be corrected and the area be seeded with a seed mix to his or her specification.

17. Recommendations by the specialists

The following were recommended by the various specialists and should be adhered to:

17.1 Heritage Impact Assessment

- It is considered unlikely that Quaternary fossil material may be found within the superficial overburden, there is a low to moderate likelihood that the planned Ostrich facility could affect potentially *in situ* vertebrate and plant fossils. It is advised that the proposed development can proceed, provided that all excavation activities are restricted to within the boundaries of the development footprint and that, as part of the overall management plan for the development, a professional paleontologist must be called in immediately if fossilized material resembling bones or tree trunks are exposed in order to confirm and record the finds. In the meantime, *ex situ* remains must be wrapped in paper towels or heavy duty tin foil and stored in a safe place. The material should not be washed or cleaned in any way. *In situ* material must be kept in place and protected from further damage by covering it with light but rigid object like a box, bucket or metal sheet until further confirmation by the paleontologist.
- The terrain in general is regarded as of low archaeological significance and is assigned a rating of Generally Protected C (GP.C). As far as the archaeological heritage is concerned, the proposed development may proceed with no additional heritage assessments necessary, provided that all excavation activities are restricted to within the boundaries of the development footprint.

18. Handling of Emergencies

- The contractor should identify all situations that can lead to emergency situations and provide response strategies. The situations should include fire and major chemical spill.
- Contact details of all departments/service providers to be contacted in case of an emergency shall be made available to employees.
- Equipment for dealing with emergencies such as spill kits, firefighting equipment, first aid boxes etc. shall be made available and personnel properly trained in its use.
- All staff on site should be trained on how to handle emergency situations and emergency drills/ rehearsals should be conducted periodically to ensure that staff prepared.

19. Method Statements

The Contractor shall submit written Method Statements for all environmentally sensitive aspects of the work. It should be noted that Method Statements must contain sufficient information and detail to mitigate the potential impacts of the works on the environment. The Contractor will also need to thoroughly understand what is required of him / her in order to undertake the works. Work shall not commence until Method Statements have been put in place.

REPORT PREPARED BY: S.E. van Rooyen

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QUALIFICATIONS OF EAP: Sampie van Rooyen has a MS.c in Environmental Sciences and over 5 years' experience in the environmental industry.
He is also registered with SACNASP **reg no. 116554**

CO- AUTHOR DETAILS

NAME: Matshego Keikelame
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Cell: 051 412 6350

CO-AUTHOUR

QUALIFICATIONS: Matshego Keikelame has a BSc degree in Geography. He has over 3 years environmental assessment experience in projects covering road construction, Agri-Park developments, mining, among many other.

Appendix H: Details of EAP and expertise

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CURRICULUM VITAE

Salmon E. van Rooyen (Sampie)

*Director Managing & Environmental Assessment Practitioner & Ecologist
(MSc. Cand.Sci.Nat.116554; IAIA Reg No. 5901)*

Personal Information

ID: 9205095047086
Nationality: South African
Gender: Male
Health: Excellent
Vehicle License: Code A&B
Language: English/Afrikaans
Contact number: 083 678 3032
Email: svr@envmgp.com

Skills and Responsibilities

- Use of Geographical Information Systems;
- Conduct Environmental Impact Assessments and other Environmental Technical Investigations;
- Apply and obtain, water licenses, mining permits and environmental authorisations for clients;
- Use different GIS datasets in order to create new information or investigate patterns for projects;
- Conduct environmental compliance and other environmental audits;
- Microsoft Office and Planet GIS;
- Project Management;
- Biodiversity Assessments;
- Agricultural advisory.

Professional Experience

Date	5/2017 - Present
Organisation	Environmental Management Group
Position	Director; EAP; Ecologist

Date	8/ 2016 - 5/2017
Organisation	Terra Works Environmental
Position	Environmental scientist/ Office Manager

Date	1/2016 - 8/2016
Organisation	Bokamoso Environmental
Position	Environmental Specialist (Fauna and Flora), Water Use License Application Consultant, General Environmental Consultant.
Responsibilities	Conducting specialist Faunal and Flora assessments. Applying for Water Use Licenses. GIS Mapping. Environmental Impact Assessments.



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Date	1/2015 – 6/2015
Organisation	Agreenco
Position	Flora and Fauna Specialist
Responsibilities	Rehabilitation and Alien eradication on game farm in the Magaliesburg region, Rustenburg.

Date	2014 - 2015
Organisation	NWU Potchefstroom
Position	Practical demonstrator
Responsibilities	Responsible for laboratory preparation for NWU and UNISA Botany practical sessions, assistant facilitator of the practical syllabus, invigilating practical exams.

Date	1/2015 – 11/2015
Organisation	NWU Potchefstroom
Position	Practical Post-Graduate Student Assistant
Responsibilities	Assisting Post-Graduate students in veld surveying methods and technologies.

Date	1/2014 – 6/2014
Organisation	E-Tek Consultants
Position	Contract, Monitoring specialist on De Beers Mining, Kimberley.
Responsibilities	Monitoring rehabilitated tailings on De Beers mines.

Date	2008 - 2016
Organisation	Monswario Boerdery
Position	Assistant Farm Manager
Responsibilities	Farming experience of Bonsmara cattle and Meat-master sheep, as well as veld management practices.

Education

Institution	Degree(s) or Diploma(s) obtained
North West University Potchefstroom 2011 – 2013	BSc. Environmental and Biological Sciences and Tourism
North West University Potchefstroom 2014 – 2015	Hons BSc. Environmental Sciences (<i>Ecology: Ecological Remediation & Sustainable development</i>)
North West University Potchefstroom 2015 – 2016	MSc BSc. Environmental Sciences (<i>Ecological Remediation & Sustainable Management</i>)
North West University Potchefstroom 2015	Short Course at CEM (Centre for Environmental Management) in Basic Principles of Ecological Rehabilitation and Mine closure.



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Research and Conferences

Masters degree research project (2015 January-2016 November)

Ecological Remediation and Sustainable Management

Supervisors: Prof. Klaus Kellner and Dr. Niels Dreber

Title: Composition and structure of woody vegetation in thickened and controlled bushveld savanna in the Molopo, South Africa

Honours degree research project (2014 January-2014 November)

Ecological Remediation and Sustainable Management

Supervisors: Prof. Klaus Kellner and Dr. Niels Dreber

Title: Comparison of plant diversity of shrub thickened and chemically controlled savannas in the Molopo district, North-West Province, South Africa

Conference presentations (2014-2015)

- Comparison of plant diversity of shrub thickened and chemically controlled savannas in the Molopo district, North-West Province, South Africa. Biological Sciences Symposium, Potchefstroom, 2014. Presentation.
- Comparison of plant diversity of shrub thickened and chemically controlled savannas in the Molopo district, North-West Province, South Africa. Poster presentation: Arid-Zone Ecology and Thicket Fusion Form in 2014.
- Attending the Third Annual LaRSSA Conference (Land Rehabilitation Society of Southern Africa) (2015).

Experience of Academic Introductory Modules

Introduction to Environmental Management

Introduction to Landscape Ecology

Conservation Ecology

Introduction to GIS Applications

Restoration of degraded ecosystems

Microbial Ecology

Short Course at CEM (Centre for Environmental Management) in Basic Principles of Ecological Rehabilitation and Mine closure 28 September – 2 October 2015

Publications

DREBER, N., VAN ROOYEN, S.E. AND KELLNER, K. 2017. Relationship of plant diversity and bush cover in rangelands of a semi-arid Kalahari savannah, South Africa. John Wiley & Sons *African Journal of Ecology*



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Environmental Impact Assessment Projects

Type	Client	Project	Role
Waste	Metsimaholo Local Municipality	Scoping/EIA; WULA application for the development of a new landfill site in Sasolburg	Lead EAP
	Joe Morolong Local Municipality	Scoping/EIA application for the development of a new landfill site in Hotazel	Lead EAP
Mining Permits or Rights	Danoher Contracting (PTY) Ltd	Mining Right application for a gravel BP in Bloemfontein	
	Michael Gutter	Mining Permit in Theunissen, Free State Province	Lead EAP
	Department of Rural Development and Land Reform	Mining Permit application for a sandstone Quarry in Zastron	Lead EAP
Road Construction	Free State Department of Police, Roads and Transport	BAR/IWUL/Mining Permit applications/ECO for the Deneysville - Jim Fouché road rehabilitation	Review of reports
	Free State Department of Police, Roads and Transport	BAR/IWUL/Mining Permit applications/ECO for the Deneysville - Heilbron road upgrading	Review of reports
	Free State Department of Police, Roads and Transport	BAR/IWUL applications/ECO for the Schonkenville - Koppies road upgrading	Review of reports
	SANRAL	BAR/IWUL/ECO applications for the N1 Section 16 road upgrade	Assistant EAP
	SANRAL	ECO Periodic Maintenance on National Route N6 Sec 8 from Reddersburg (km 0.00) to Rustfontein (km37.8)	Lead EAP
	Department of Roads and Public Works, Northern Cape	BAR/IWUL/Mining Permit applications for the MR 938 Mamatwan road upgrade	Assistant EAP
	Free State Department of Police, Roads and Transport	ECO for the internal road upgrades in Thumahole, Free State Province.	Review of reports



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	Department of Roads and Public Works, Northern Cape	Environmental Screening/BAR/IWUL/ DAFF Permit applications/ECO for the BK126 Magobing to Bathlaros road upgrade.	Lead EAP
	Department of Roads and Public Works, Northern Cape	Environmental Screening/BAR/IWUL/ DAFF Permit applications/ECO for the Tsineng to Washington road upgrade.	Lead EAP
	Department of Roads and Public Works, Northern Cape	BAR/IWUL/ DAFF Permit applications/ECO for the Hotazel to Maipeng road upgrade.	Lead EAP
Infrastructure Developments	Amatola Water	IWUL application/ECO for the installation of a bulk water pipeline, Herschel	Assistant EAP
	Maluti A Phofung Local Municipality	IWUL application/ECO for the installation of a bulk water pipeline, Kestell to Qwa Qwa	Assistant EAP
	Dr. Ruth Segomotsi Mompoti District Municipality	BAR and IWUL applications for the upgrading of the Waste Water Treatment Works in Stella	Lead EAP
	Dr. Ruth Segomotsi Mompoti District Municipality	Environmental Screening/EMP/IWULA/ECO for the construction of a water provision project for the village of Reivilo, Shaleng, Madipelesa, Karelstad, Mothlako, Molelema, Lykso, Pitsong and Kameelputs, North-West Province.	Lead EAP
	Dr. Ruth Segomotsi Mompoti District Municipality	Environmental Screening/ EMP/IWULA/ECO for the construction of a water provision project for the village of Schweizer-reneke, Piet Plessis, Konke, Broedersput, Geduldspan, Louwna, Mabone and Maeng, North-West Province.	Lead EAP
	Department of Rural Development and Land Reform	Scoping EIA, WULA and Air Emission License for the development of a Brick factory in Thaba-Nchu	Lead EAP
	Dr. Ruth Segomotsi Mompoti District Municipality	Section 24G for the development of a pump station in the Wentzel Dam, Schweizer-reneke, North-West Province.	Lead EAP
	AURECON	ECO for the upgrading of 12 Bridges in the De Aar and Upington Areas,	Lead EAP



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	EUROMID AFRICA Development	EIA/Scoping/IWULA and ECO for MATJHABENG PRECINCT IDP PROJECT 201621, Free State Province.	Lead EAP
	Umfundu Professional Services CC.	IWULA and EIA/Scoping for the Mmamahabane cemetery establishment, Free State	Review of reports
	LMV (PTY) LTD.	Environmental Screening for the school development in Maokeng (Kroonstad) - Erwe 1500 & 24628, Free State Province	Lead EAP
	AURECON	Environmental Screening/BAR/WULA/ECO for Lindley Water Treatment Works and Pipeline route, Free State Province	Lead EAP
Residential Developments	Greater Taung Local Municipality	BAR application for Boipela Residential Development Extension in Reivilo	Lead EAP
Agriculture	VS Kunsmis	Scoping/EIA application for expansion of storage of a dangerous good at Vrede	Assistant EAP
	Linheim	BAR/ECO for the expansion of the Linheim Sheep Feedlot, Free State Province	Lead EAP
	Wildeklaar	BAR application for the expansion of pivot systems near Barkley West	Assistant EAP
	Department of Rural Development and Land Reform	Environmental Screening/BAR and WULA application for the development of an Agri-Park in Parys, Free State	Lead EAP
	Department of Rural Development and Land Reform	Environmental Screening/S24G and WULA application for the development of an Agri-Park in Springfontein, Free State	Lead EAP
	Department of Rural Development and Land Reform	S24G and WULA application for the development of an Agri-Park in Thaba-Nchu, Free State	Lead EAP
	Department of Rural Development and Land Reform	Environmental Screening for the development of an Agri-Park in Tsiame, Free State	Lead EAP
	Department of Rural Development and Land Reform	Environmental Screening/BAR and WULA application for the development of an Agri-Park in Wesselsbron, Free State	Lead EAP



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	Department of Rural Development and Land Reform	Environmental Screening/BAR and WULA application for the development of a Farmer Production Support Unit in Koffiefontein, Free State	Lead EAP
	Department of Rural Development and Land Reform	Environmental Screening/BAR and WULA application for the development of a Farmer Production Support Unit in Odendalsrus, Free State	Lead EAP
	Department of Rural Development and Land Reform	Environmental Screening for the development of a Farmer Production Support Unit in Sediba, Free State	Lead EAP
	Department of Rural Development and Land Reform	Environmental Screening/BAR application for the development of a Farmer Production Support Unit in Kroonstad, Free State	Lead EAP

- *EIA *Environmental Impact Assessment*
- *BAR *Basic Assessment Report*
- *EMP *Environmental Management Plan*
- *S24G *Section 24G (Application for rectification)*
- *IWULA *Integrated Water Use License Application*
- *ECO *Environmental Control Officer*
- *EAP *Environmental Assessment Practitioner*

EMG



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Ecological Specialist Reports

Fauna Habitat Assessment Specialist Reports:

- **Johannesburg**
 - Clubview extension 95 & 91: Mixed use Development
 - Fairlands: Road Interchange
- **Pretoria**
 - Knoppieslaagte: Industrial Development
 - Lanseria: Mixed Use Development
 - Lanseria extension 56: Mixed Use Development
 - Pretoria Gardens: Residential Development
 - Wattle Springs: Residential Development
 - PWV 17: Proposed Road Construction
 - Sunderland Ridge extension 24: Industrial Development
- **Boksburg**
 - Leeuwpoot: Residential Development
- **Randburg**
 - Land Parcel 9: Mixed Use Development
 - Land Parcel 10: Mixed Use Development
 - Waterfall Kikuyu: Mixed Use Development
- **Brits**
 - Winterveld: Residential Development

Flora Habitat Assessment Specialist Reports:

- **Johannesburg**
 - Clubview extension 95 & 91: Mixed use Development
 - Fairlands: Road Interchange
- **Pretoria**
 - Knoppieslaagte: Industrial Development
 - Lanseria extension 51 & 53: Mixed Use Development
 - Mogale extension 5: Mixed Use Development
 - Lanseria extension 56: Mixed Use Development
 - Pretoria Gardens: Residential Development
 - Wattle Springs: Residential Development
 - PWV 17: Proposed Road Development
 - Sunderland Ridge extension 24: Industrial Development
 - Randjiesfontein: Residential Development
 - Rooihuiskraal: Mixed Use Development
 - Garsfontein: Residential Development
 - Knoppieslaagte extension 73: Industrial Development
 - Knoppieslaagte extension 95: Industrial Development



ENVIRONMENTAL MANAGEMENT GROUP

Specialists in Environmental Management
Integrating Industry and Infrastructure with the Environment

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Email: ckruger@envmgrp.com
Postal Address:
P.O.Box 37473,
Langenhoven Park 9330

- Swartkoppies: Mixed Use Development
- Waterfall fields: Residential Development
- Waterfall Ridge: Mixed Use Development
- **Boksburg**
 - Leeuwpoot: Residential Development
- **Randburg**
 - Land Parcel 9: Mixed Use Development
 - Land Parcel 10: Mixed Use Development
 - Waterfall Kikuyu: Mixed Use Development
 - Greystone: Mixed Use Development
- **Brits**
 - Winterveld: Residential Development
- **Vereeniging**
 - K 47: Proposed Road Development
 - K 77: Proposed Road Development
- **Limpopo**
 - Steelpoort: Industrial Development
- **Bloemfontein**
 - Section 16 N1 Road: Road Development
- **Kimberley**
 - Erf 11920: Residential Development
 - Wildeklaver: Agricultural Development
- **Parys**
 - Parys Agri-Park: Mixed Use Development
- **Springfontein**
 - Springfontein Agri-Park: Mixed Use Development

EMG

“JWALE KE NAKO YA KOTULO, RE A KUBELETSA”

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Appendix I: Specialist's declaration of interest

"JWALE KE NAKO YA KOTULO, RE A KUBELE TSA"

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DETAILS OF SPECIALIST AND DECLARATION OF INTEREST

Application for authorisation in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) amended and the Environmental Impact Assessment Regulations, 2014

PROJECT TITLE

Ostrich Feedlot: Petrusburg - Thusanong Ostrich Enterprise

Specialist:	Lloyd Rossouw		
Company Name:	Palaeo Field Services		
Contact person:	Lloyd Rossouw		
Postal address:	PO Box 38806 Langenhoven Park		
Postal code:	9330	Cell:	0842505992
Telephone:	-	Fax:	0864010679
E-mail:	lloyd.rossouw@gmail.com		
Professional affiliation(s) (if any)	Archaeology and Cultural Anthropology Specialist		

Project Consultant:	Environmental Management Group (PTY) LTD		
Contact person:	Sampie van Rooyen/ Matshego keikelame		
Postal address:	P.O Box 37473 Langenhoven Park		
Postal code:	37473	Fax:	051 412 6351
Telephone:	051 412 6350	Cell:	083 678 3032/0730361385
E-mail:	svr@envmgrp.com / mk@envmgrp.com		

The specialist appointed in terms of the Regulations.

I, Lloyd Rossouw, declare that:

General declaration:

- I act as the independent specialist in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;
- I have expertise in conducting the specialist report relevant to this application, including knowledge of the Act, regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, regulations and all other applicable legislation;
- I have no, and will not engage in, conflicting interests in the undertaking of the activity;
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;
- all the particulars furnished by me in this form are true and correct; and
- I realise that a false declaration is an offence in terms of Regulation 71 and is punishable in terms of section 24F of the Act.



Signature of the specialist:

Paleo Field Services

Name of company (if applicable):

13/08/2019

Date:

Appendix J: Title Deeds

“JWALE KE NAKO YA KOTULO, RE A KUBELETSA”

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“JWALE KE NAKO YA KOTULO, RE A KUBELETSA”

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SEARCH INFORMATION

Summary

Search Type	DEEDS OFFICE PROPERTY FARM
Search Description	908 BOSHOF RD, P:0 (BLOEMFONTEIN)
Reference	CHRISTIEN
Date	28/05/2019

FARM INFORMATION

Summary

Deeds Office	BLOEMFONTEIN
Property Type	FARM
Farm Name	LANGGENOEG
Farm Number	908
Portion Number	0 (REMAINING EXTENT)
Previous Description	-
Registration Division	BOSHOF RD
Municipality	LETSEMENG LOCAL MUNICIPALITY
Province	FREESTATE
Diagram Deed	T34583/1911
Size	171.3064 H
LPI Code	F00400000000090800000

OWNER SUMMARY

Owner Name	ID / Reg. Number	Purchase Price	Purchase Date
THUSANANG COMMUNAL TRUST	IT 1533/96	R 100 000,00 *	07/02/1997

OWNER INFORMATION

Owner 1 of 1

Owner Name	THUSANANG COMMUNAL TRUST
ID / Reg. Number	IT 1533/96
Owner Type	TRUST
Title Deed	T26993/1997
Purchase Date	07/02/1997
Registration Date	14/11/1997
Purchase Price	R100000.00 *
Multiple Owners	YES
Multiple Properties	YES
Share	*
Microfilm Reference No.	-

ENDORSEMENT(S)

Document Number	Microfilm Reference Number	Institution	Value
I-1843/1996C-960419	-	-	UNKNOWN
I-8360/1991C-B175/19	-	85	UNKNOWN
BOSHOF RD,908	-	-	UNKNOWN

HISTORY INFORMATION

Document Number	Microfilm Reference Number	Owner	Value
T14697/1991	-	-	UNKNOWN
T7103/1978	-	PLESSIS GERT JOHANNES DU	UNKNOWN
T26993/1997	-	-	UNKNOWN
T7103/1978	-	REPUBLIEK VAN SA T14697/91	R 16,00

INTERNAL ENQUIRY HISTORY

Company Name	Contact Person	Contact Number	E-mail Address	Enquiry Date
No information available.				

REPORT INFORMATION

Date of Information	28/05/2019 11:45	
Print Date	28-05-2019 11:45	
Generated By	CHRISTIEN KRUGER	
Reference	CHRISTIEN	
Report Type	DEEDS OFFICE PROPERTY FARM	

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