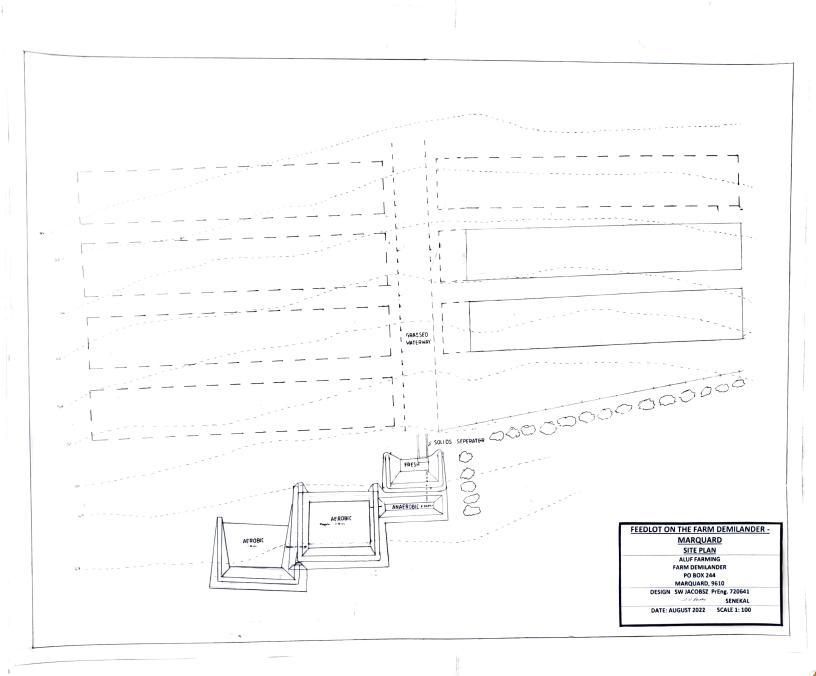
S24G Application for A Feedlot Development, Marquard, Free State Province for Aluf Farming (PTY) Ltd. Environmental Impact Report	
APPENDIX 1	
ENGINEERING DRAWINGS	



## SW JACOBSZ ENGINEERING CONSULTANTS

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25 August 2022

**ALUF FARMING** 

**PO BOX 244** 

**DEMILANDER** 

**MARQUARD** 

9610

To whom it may concern

## **FEEDLOT DESIGN:**

A feedlot is planned to accommodate 8000 head of cattle of which 2 sections have already been completed.

The design of the feedlot pens and the placing of the holding pens were done according to a site survey to ensure effective drainage from the holding pens toward the centre from the back row of holding pens. Down the centre the drainage waste flows downstream over well established and cut grass lawns. The soil is well protected by the grass therefore minimum erosion can be expected in the water course in the centre of the feedlot.

Drainage takes place to a set of lagoons including a solid waste separator and catchment lagoon for storms, after which water trickles through to an anaerobic dam with a minimum depth of 3m. The trickle -flows through the anaerobic lagoon, takes place along the length of the anaerobic pond towards the aerobic lagoon where the oxidation process takes place. This lagoon has a maximum depth of 1.5m.

At this stage of the design only one oxidation pond is necessary but according to future need a second one can be introduced.

Water from the oxidation dam will not be allow to enter the natural water course downstream. Water from the oxidation dam will be pumped and utilised as enriched irrigation water for fertilization.

For any further questions don't hesitate to call or e-mail us on contact details mentioned above.

Kind regards

SW Jacobsz

S.W. Jacobs