

#### **GUIDELINE**

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# **EROSION GUIDELINE-**

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### 1. Scope and Purpose

The purpose of this guideline is to establish the principles to ensure appropriate gates to be used in Transmission servitudes, during the construction as well as the maintenance phase.

### 2. Applicability

This guideline shall be applicable to Eskom Transmission Division.

#### 3. Normative references

Fencing Act (Act 63 of 1963)
Access to Farms Guideline TRMPVACV2
TRANSMISSION LINE TOWERS AND LINE CONSTRUCTION- TRMSCAAC1

#### 4. Definitions and abbreviations

**Land owner:** A land owner is defined for the purposes of this document as the owner of the land, registered as such in the Deeds Office, his/her assignee, representative or the legal occupier, manager or lessee of the land.

**Contractor.** Any company or person that performs work for or on behalf of Eskom Transmission on the servitude or line.

Visitor: An Eskom employee or contractor

#### 4. Introduction

The Fencing Act (Act 63of 1963) regulates matters about fences between properties. Fences are used by the landowner to control the movement of animals as well as to safeguard the property. Transmission and its contractor use servitude gates to gain access to the line for repair, maintenance and inspection of the line. At no time will fences be dropped to gain access to land, except in an emergency or with the approval of the landowner.

Access to land by any visitor or contractor shall be gained observing the directions of the Guideline Access to Farms TRMPVACV2.

#### 5. Principles to be applied to the erection of gates

At all points where a Transmission line crosses a fence line and where no suitable gate exists, an applicable gate shall be installed. (Refer to TRMSCAAC1). During construction, gates with sufficient width are required to permit access to all terrain cranes. These gates are galvanised to provide similar life expectancies to the galvanised overhead line towers. Gates are installed according to the latest revisions of the following drawings:

Standard 5m gate: 0.00/10261 (Currently Rev.2) See figure 6 5m Game Gate: 0.00/10280 (Currently Rev.0) See figure 7

During the maintenance phase of the servitude, gates may require replacement due to theft, damage, or corrosion. The width of the gate shall always be sufficient to permit access during construction or during an emergency. Refer to figure 1 below. In cases where the crossing is at an oblique angle, the minimum width should be increased to ensure passage of large vehicles.

Gates, which are installed, shall be in keeping with the rest of the fence and shall be fit for purpose. Where appropriate, game gates or gates with jackal proofing may be required. The replacement gate should be appropriate to the type of fencing used, fit for service and affordable. Replacement of gates may be with or without posts. Where possible the use of standard commercial gates is recommended. Refer to figure 2 below. Each case will be decided on its own merit and should consider any reasonable request from landowners.

If a landowner wishes to upgrade his fence to a game fence, Eskom shall install an appropriate game gate.

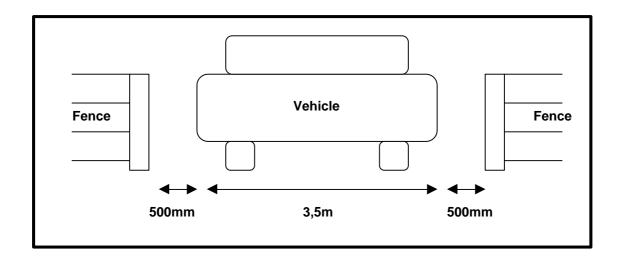


Figure 1. A schematic representation of the minimum dimensions applicable to servitude gates

#### 6. Standard Eskom Gates.

During construction, or if any gate falls into disrepair or is stolen, gates will be used in keeping with 5 above. The following types of gates may be used:

### 6.1 Standard Eskom gate.

This gate is constructed during the construction of the line. See figures 6 and 7 below.



Figure 2. Standard Eskom gate as was used on the Hydra- Droërivier No 3 Line.

#### 6.2 Game Gate

Where game farming is practised, gates that are appropriate for game shall be installed.



**Figure 3.** A game fence as used on the Matimba-Spitskop 1&2 lines. Note that the top section has been omitted as per the latest 5m game gate design.

### 7.3 Replacement of gates with standard Co-op gates

Where gates need to be replaced, cost effective solutions are required. The use of standard co-op gates as well as alternatives are described below.

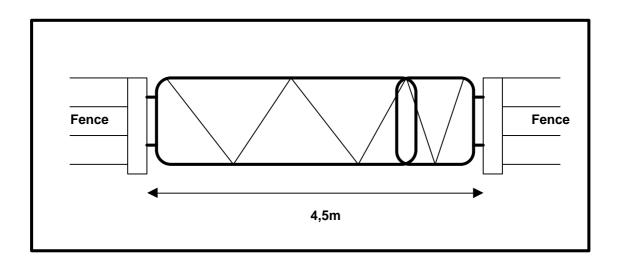
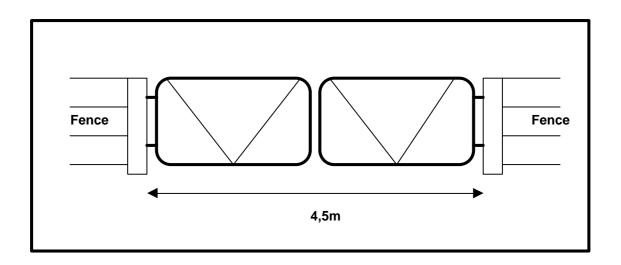


Figure 2. A schematic showing the use of two standard "Co-op" gates to cover the 4,5m gap.



**Figure 2a.** A schematic showing an alternative use of two standard "Co-op" gates to cover the 4,5m gap.

### 7.4 Alternative gates.

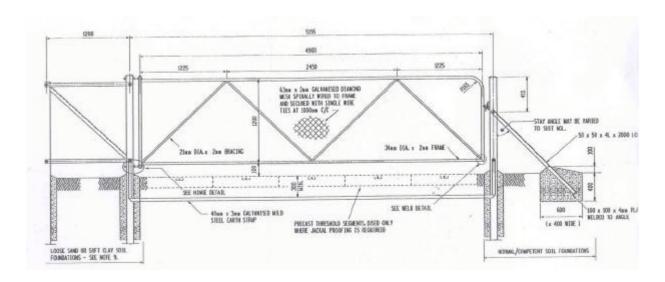
In areas where the theft of gates is particularly prevalent, use can be made of concertina gates. These gates are very cheap to manufacture and experience has shown that they are not affected by theft.



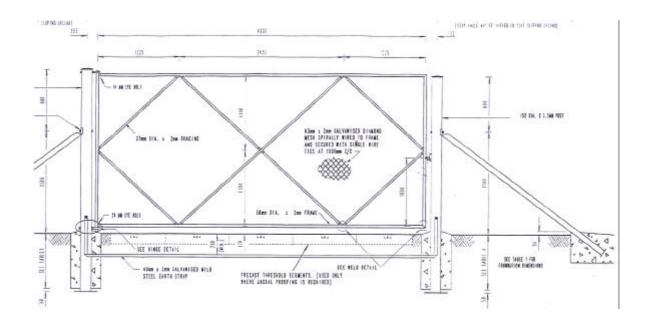
**Figure 5.** An example of a "concertina gate" that is being used as a servitude gate. Also note quality of fencing used adjacent to the gate. (Photo Jorge Correia)

The gate is made from wooden droppers and barbed wire and is very inexpensive. This type of gate is widely used throughout South Africa.

### 8. Drawings of gates



**Figure 6.** 5m standard gate (as per dwg. 0.00/10261 Rev.2), indicating a double pole gate post option for weak soils (left) and single braced pole gate post option for normal soils (right)



**Figure 7.** 5m game gate (as per dwg 0.00/10280 Rev.0)

# 9. Acknowledgement

The author wishes to acknowledge the contributions made by the Line and servitude managers and Pierre Marais and Willem Combrinck of TAP in the compilation of this document.