

LANDSCAPE GUIDELINES FOR KALAHARI GOLF AND JAG LANDGOED

A SECURE AND PEACEFUL "BUSHVELD" VILLAGE IN THE PROTECTED CAMEL THORN FORESTS OF KATHU.

All individual property owners of the of the Kalahari Golf en Jag Landgoed are legally bound to comply with the requirements of the Construction Environmental Management Plan (CEMP). Damage to the environment or failing to comply with any of the environmental specifications will result in paying a penalty fine. Payment of fines shall not absolve the offender from being liable for prosecution in terms of any law.

The following are some, but not all of the specifications as contained in the conditions of approval:

A. A method statement is to be submitted by the contractor (builder) and approved by the representative of the developer prior to any construction work on site. The document must address the following:

- Site fence
 - Clearing of vegetation
 - Handling of topsoil
 - Waste management
 - Deliveries to site
 - Management of all contaminated water (paint, cement & gout etc.) to protect ground water resources
 - Bulk supplies of concrete/cement
 - Fuel and oil spills
 - Dust control
 - Fires
1. All contractors to sign a declaration of understanding
 2. Construction site to be fenced with 1.8m high shade cloth
 3. Topsoil to be stripped & stockpiled for re-use on site
 4. Induction & awareness training to all workers and subcontractors (toolbox talks)
 5. Area outside fence to be regarded as **NO GO** area for all. Neighboring plots to be respected as well
 6. All deliveries to be supervised and ensure that delivery people are aware of the **NO GO** areas
 7. All machines & equipment must be in good working order and drip trays must be at hand to contain accidental fuel/oil spills
 8. No dumping of spoil will be allowed outside the defined building site.
 9. Provide toilets to a ratio of 1: 15 and secure from blowing over
 10. No open fires and burning of empty cement bags are allowed on the estate
 11. No cement/concrete mixing will be allowed on the ground. Trays to be used.
 12. Keep roads clean at all times
 13. Daily clean up of construction sites. Nothing allowed to spread unto adjoining neighboring plots or in open areas

B. Recommendations

1. Delivery vehicles can do extensive damage to the protected areas and to the golf course if they are not properly supervised. This has happened on all estates where the controls are not enforced.

2. Restrict vehicle size or tonnage will be imposed on construction transport trucks. Drop zones will be allocated at the entrance to the estate where all contractors will have to use single axel trucks to collect their materials. The roads, golf course and the Camel Thorn trees need to be protected at all times and sever penalties and fines will be implemented on any transgressions.
3. As part of the Contractors Code of Conduct all builders to sign a environmental declaration of understanding as well
 - a. All builders must have mandatory equipment as listed in the CEMP
 - b. An Area outside the estate should be allocated as a transitional area, where building material can be off loaded and loaded on smaller vehicles to be transported to the erven in the middle of the golf course
 - c. Explore the option of charging heavy trucks a fee for entering the estate

C. Trees and other plants

The landscape architect guidelines to provide a species list of trees, shrubs and grasses that may be planted on the estate within the boundaries of the erven

1. All individual property owners have to comply with the relevant legislation in protecting the Camel Thorn trees
2. No other trees than endemic to the Northern Cape should be planted for shade or decoration on the erven
3. No invasive shrubs and grass like Kikuyu should be allowed.
4. As Camel thorn trees inside the plots will be subjected to extra water through irrigation of the gardens, the compaction for pavers and cement work under the drip line area is not that critical. However the compaction by vibrating rollers should not be allowed within the drip line

D. Other

1. Run off water from hard surfaces and roofs will not caused serious erosion problems because the topography and sandy conditions.
2. **Backwash water from pools, whether it is salt or chlorinated must be pumped into the sewer system to be recycled. No such water must be allowed to soak away into the soil.**
3. Outside lights should be off low watts and positioned only at entrances of houses and not all around. No spotlights.
4. **Nature, when left on its own without us interfering always does a better job in healing itself.**

Golf Course Residential erven landscape guidelines:

It is at the discretion of each home owner to choose the extent of their landscape architecture within the parameters of these landscape guidelines. The areas of the estate around the golf course can be treated in a slightly more manicured fashion than the erven in the "Wildkamp" which must be totally natural and tie in with the existing bushveld.

The macro element of the estate is without doubt the *Acacia erioloba* or the “Kameeldoring”. These trees should be planted so as to continue the already existing and natural theme of the bushveld from surrounding areas into ones garden.

It is critically important that the “feeding area” within the drip zone of the trees remain essentially undeveloped or undisturbed. Development of hard and impermeable cover in this area results in a deterioration of the tree and eventual death of the tree. The drip zone of the tree must be indicated on the architectural plans submitted to COA Architects and Home Owners Association for approval.

Disturbance of root zones of all indigenous plant material, especially *A. erioloba*, is essentially detrimental. Should any hard surface be required under these trees, the use of biddim with an overlay of broken stone of different sizes would be permissible. Wooden decking materials would also be permissible.

Golf Course erven:

1. Only indigenous trees that are endemic to the area must be used to maintain the theme of the area. Shrubs and groundcovers may be used; more exotic species must be used directly and adjacent to the dwelling, with more indigenous species toward the boundaries. No **conifers or palms** are allowed to be used with this estate.
2. Indigenous lawns must be used as they are not very water intensive.
3. The landscaping of the erven connecting to the golf course must be handled with care. The estate is a bushveld theme and this minimalistic approach must be maintained through these transition areas.
4. As per the architectural guidelines, screen walls or solid walls are permitted, however they must be submitted for approval with the plans. From the road the front gardens are to be open and not screened off. Lawn and paving of good quality will be acceptable.
5. Vaalbos can be used as a screening plant where necessary.
6. Encourage garden birds by being a reliable food and water source.
7. Watering must be done only with great discretion in times of sever drought.

Wildkamp erven:

1. This unique setting must be maintained.
2. No gardening, except with shrubs, trees, grasses and stones from the area.
3. No gardening that creates an impression of a garden
4. Consider yourself a guest to nature.

Attached below are some suggested plant species. This list is not inclusive of all possible species.

<u>Scientific Name</u>	<u>Common Name</u>
Trees	
<i>Acacia erioloba</i>	Common Camel Thorn Tree
<i>Acacia erioloba</i> X.A. <i>haematoxylon</i>	Bastard Camel Thorn Tree
<i>Acacia haematoxylon</i>	Grey Camel Thorn
<i>Acacia luederitzii</i> var. <i>luederitzii</i>	Bastard Umbrella Thorn (Acacia)
<i>Albizia anthelmintica</i>	Arub Wormcure Albizia
<i>Boscia albitrunca</i> van. <i>albitrunca</i>	Shepherd's Tree
<i>Terminalia sericea</i>	Silver Terminalia

<u>Shrubs</u>	
<i>Acacia hebeclada</i> subsp. <i>hebeclada</i>	Candle Acacia
<i>Acacia mellifera</i> subsp. <i>detinens</i>	Black Thorn
<i>Boscia foetida</i> subsp. <i>foetida</i>	Old Woman's Bush
<i>Catophractes alexandri</i>	Gabbabos
<i>Crotalaria spartioides</i>	Besembos
<i>Ehretia rigida</i>	Puzzle Bush
<i>Eriocephalus aspalathoides</i>	Doringkapokbossie
<i>Galenia africana</i> var. <i>africana</i>	Kraalbos
<i>Grewia flava</i>	Rosyntjebos
<i>Hermannia burchellii</i>	Heuningbossie
<i>Hermannia tomentosa</i>	Kalahari Vaallusern
<i>Lebeckia linearifolia</i>	Blue Pea Bush
<i>Lycium bosciifolium</i>	Bruinstamkareedoring
<i>Lycium cinereum</i>	Kareedoring
<i>Monechma genistifolium</i> subsp. <i>australe</i>	Perdebos
<i>Monechma incanum</i>	Blue Pea
<i>Plinthus sericeus</i>	Sandganna
<i>Rhigozum trichotomum</i>	Driedoring
<i>Salsola rabieana</i>	Grootganna
<u>Forbs</u>	
<i>Acanthosicyos naudinianus</i>	Gemsbok Cucumber
<i>Boophane disticha</i>	Nerine
<i>Cleome angustifolia</i>	Yellow Mouse Whiskers
<i>Coronopus integrifolius</i>	Pepper Bush
<i>Crinum foetidum</i>	Duinelelie
<i>Cucumis africanus</i>	Bitter Apple
<i>Cullen obtusifolia</i>	Wild Cucumber
<i>Elephantorrhiza elephantina</i>	Elephant's Root
<i>Gethyllis spiralis</i>	Koekemakranka
<i>Gisekia pharnacioides</i> var. <i>pharnacioides</i>	Ostrich Grape
<i>Gnidia polycephala</i>	January Bush
<i>Harpagophytum procumbens</i> subsp. <i>procumbens</i>	Devil's Claw
<i>Helichrysum argyrosphaerum</i>	Wild Everlasting
<i>Heliotropium lineare</i>	Hamelstertjie
<i>Hermbstaedtia odorata</i> var. <i>odorata</i>	Cat's Tail
<i>Indigofera alternans</i> var. <i>alternans</i>	Springbok Cucumber
<i>Nerine laticoma</i>	River Lilly
<i>Oxygonum alatum</i> var. <i>alatum</i>	Menssuring
<i>Protasparagus laricinus</i>	Fynkatbos
<i>Radyera urens</i>	Wild Calabash
<i>Senna italica</i>	Black Storm
<i>Sesamum triphyllum</i>	Thunderbolt Flower
<i>Tribulus zeyheri</i> subsp. <i>zeyheri</i>	Devil's Thorn
<u>Grasses</u>	
<i>Aristida meridionalis</i>	Hay Grass
<i>Centropodia glauca</i>	Ghagras
<i>Chloris virgata</i>	Blue Grass
<i>Enneapogon desvauxii</i>	Rabbit Grass
<i>Eragrostis bicolor</i>	Fine River Grass

<i>Eragrostis lehmanniana</i>	Lehmann's Love Grass
<i>Schmidtia kalahariensis</i>	Bushman Grass
<i>Setaria verticillata</i>	Cat's Tail Grass
<i>Stipagrostis amabilis</i>	Duinriet
<i>Stipagrostis uniplumis</i>	Silky Bushman Grass
<i>Panicum coloratum</i>	Small Buffalo Grass
<i>Stipagrostis obtusa</i>	Small Bushman Grass
<i>Stipagrostis ciliata</i>	Tall Bushman Grass

More traditional/garden type planting:

Agapanthus africanus
Crassula ovata
Drosanthemum bicolor
Plectranthus neochilus
Portulacaria afra 'Prostrata'
Agapanthus praecox
Aloe dichotoma
Aptenia cordifolium
Carpobrotus aciniformis

Crassula multicava
Cotyledon orbiculata
Lampranthus spp.
Portulacaria afra
Sanseveria trifasciata
Aloe arborescens
Aloe ferox
Bulbine frutescens
Carpobrotus edulis