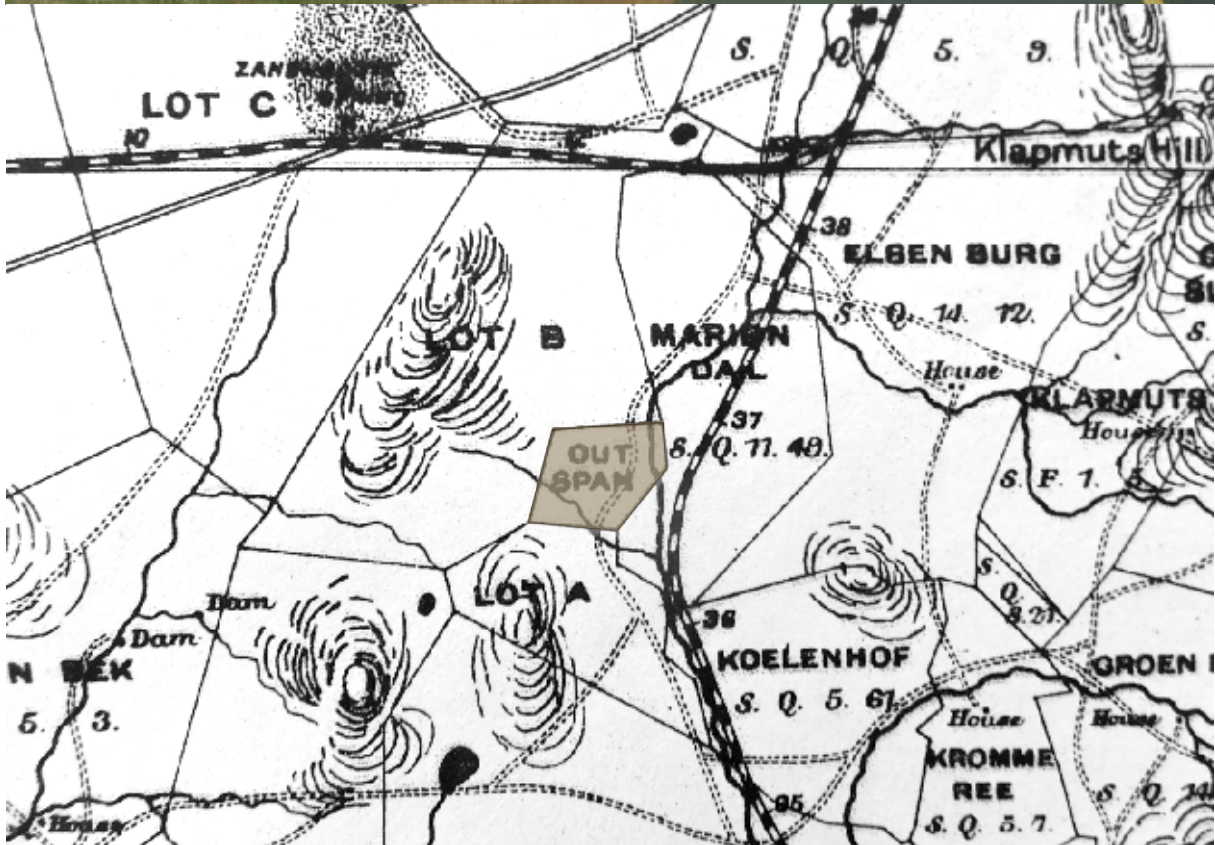




CALCUTTA BOS MEMORIAL PARK

HERITAGE IMPACT ASSESSMENT

On the Farm Calcutta 29, Stellenbosch

November 2018 & Photograph 1: View of the site from the R304/1890 Map

researched and produced by

New World Associates © for CK Rumboll & Vennote



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This report should be printed double sided if at all.

∞ Reflection

∞ At its simplest, a conservation plan is a document which sets out what is *significant* in a place and, consequently, what policies are appropriate to enable that significance to be retained in its future use and development.

James Kerr, *The Conservation Plan*

∞ Section 5 (7) (f) notes: “The identification, assessment and management of the heritage resources of South Africa must... be fully researched, documented and recorded.”

National Heritage Resources Act, 1999

∞ Life can only be grasped by looking backwards,
But must be lived forever forwards.

Søren Kierkegaard, early 19th century

NWA

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1 Executive Summary¹

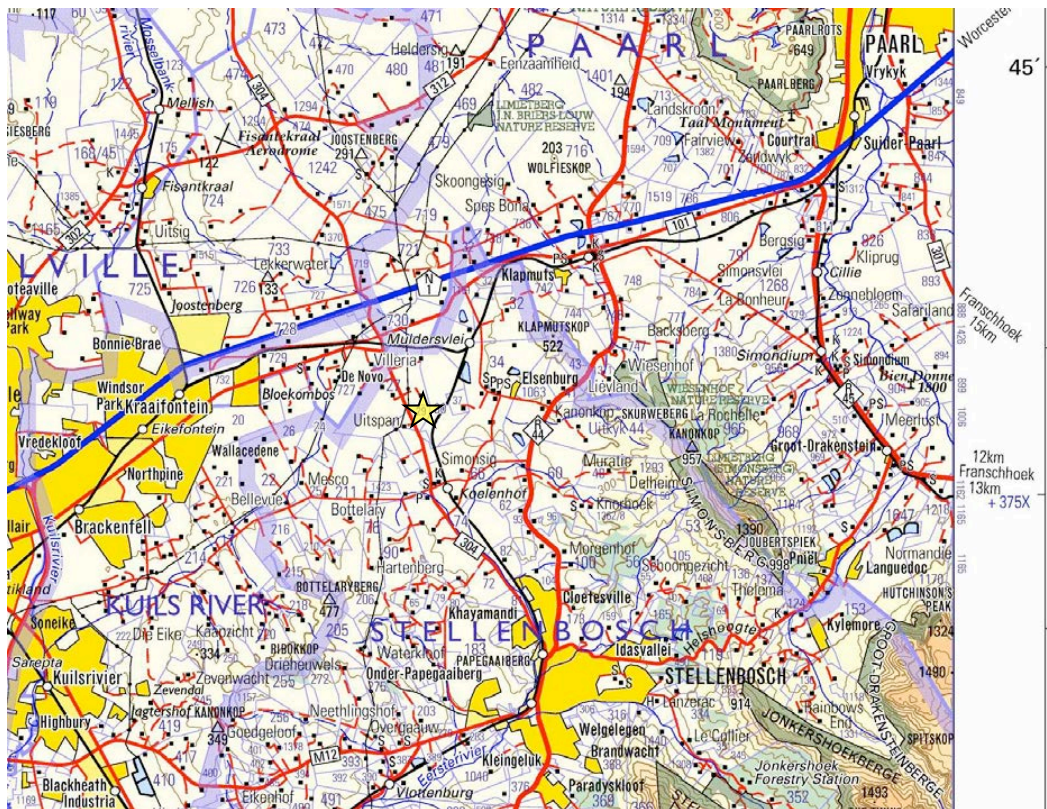
1.1 Site Name

1. The farm *Calcutta 29*, Stellenbosch.

1.2 Location

1. The entire property on the farm *Calcutta 29*, Stellenbosch on the R304 near Koelenhof.

1.2.1 Locality Plan



Source: Reproduced by permission of the Chief Directorate: Surveys and Mapping, State Copyright 2000.

Figure 1-1: Location Plan.

Portion of a 1:250,000 map of South Africa showing the site's location (3318 Cape Town, 9th Edition 2000). NTS.

¹ Formatted according to HWC Circular on Executive Summaries dated 12 March 2014 as required for submissions from 1 July 2014.

1.3 Description of Proposed Development (see page 63)

1. **Development Type:** The proposed cemetery at *Calcutta 29* is one of two regional cemeteries being planned for the Stellenbosch Municipality.
2. **Site Plan:** The cemetery concept plan prepared by OvP Landscape Architects (September 2018) is a first draft only. It shows a formal rectilinear layout with two axes, formal avenue planting, an informal parkland/open landscape zone to the south, and the main entrance to the north. It connects well with the surrounding landscape and is well conceived.

1.4 Heritage Resources Identified (see page 55)

1. **History:** The land on which “Calcutta”, farm No 29 Stellenbosch is situated today was part of a “Crown Grant” to the town of Stellenbosch registered in about 1810.
 - Between 1925 and 1939 several small portions of this property were alienated for road-, power- and pipe line servitudes.
 - The remaining land was transferred to the Divisional Council of Stellenbosch on 12 August 1939 as the title deed register shows (see Figure 4-6).
 - Portion 1 of the farm No 29, Stellenbosch (27 morgen out of the original 74 morgen) was sold to Lucia Christine Jones (born Hattingh) MOCP (Married in Community of Property) on 14 February 1941.
2. **Heritage:** The area is marginal to the Stellenbosch Winelands but still contained within them. More pasture can be found here although there are some vineyards.
 - **The local Landscape Unit: A11 Calcutta and wider open fallow** land has already been graded **Grade IIIb** by the Stellenbosch Heritage Survey & Management Plan (2018), as has the **Calcutta Outspan IIIb site** on the property’s southern tip.
 - **Graded Landscape Units** to the east around Elsenburg are Grade IIIa; while areas further east and south are graded Grade II.
 - **Graded Heritage Sites nearby include:** Elsenburg Pluimvee Proefplaas IIIa, Elsenburg x2 II, Elsenburg Pear Grove IIIc; Simonsig IIIc.
3. **Palaeontology:** No fossil remains were recorded on Farm Calcutta RE/29 during the short palaeontological site visit. It is concluded that the palaeontological sensitivity of the Memorial Park study area is very low.

- Late Caenozoic superficial deposits (sandy soils, ferricrete, stream gravels) as well as the underlying, deeply-weathered bedrocks of Malmesbury Group metasediments intruded by Cape Granite in the Memorial Park study area are all of low palaeontological sensitivity (Almond & Pether 2008).
4. **Archaeology:** “A field assessment of the subject property was undertaken on 18 October 2018, in which the following observations were made:
- No pre-colonial archaeological heritage was encountered during the study.
 - No buildings, structures or features were noted.

NB Archaeological visibility is extremely low due to dense vegetation cover, but indications are that the receiving environment is not a sensitive archaeological landscape.

5. **Visual-Aesthetic:** The following findings of the visual-aesthetic environment were observed.
- The site lies adjacent to the R304, which is not a designated scenic route. The route is of mixed scenic value, more so on the southbound journey with open views to the mountains.
 - The landscape is generally open and flat with a mixed agricultural feel of open pastures, vineyards and some agricultural technology developments.
 - The site itself is covered with dense, immature gum plantation making views into the site very short.
 - The site cannot be easily seen from other roads, if at all, and neighbouring farms alone would be able to access it on north, east and south boundaries.

1.5 Anticipated Impacts on Heritage Resources (see page 67)

1. **Heritage:** The potential impact of the proposed cemetery site on the old outspan is significant in that it is a wholesale change of land use from woodlot to cemetery. However, the draft concept plan has sensitively, if not, fortuitously, allowed for the conservation of the southern outspan site and surrounds in its overall framework. It would now be placed in the buffer informal parkland zone.
- At this time, there are no specific archaeological remains although considering the bushy plantation and invaded character this is not unsurprising. Careful

clearing of the area may uncover some faint traces of its 19th/20th century use as may mid 20th century aerial photographs reveal its last use as outspan.

- Were the outspan site and surrounds be carefully conserved and landscaped, this would retain a memory of its core purpose and allow for local associations to be retained of the site's outspan purpose and character thus mitigating associative impact and retaining landmark value.
2. **Palaeontology:** The proposed cemetery development is very unlikely to entail significant impacts on palaeontological heritage. There are therefore no objections on palaeontological heritage grounds to authorisation of the proposed development.
 3. **Archaeology:** The results of the study indicate that the proposed construction of a new municipal cemetery on Farm No. 29 Calcutta, will not impact of important archaeological heritage.
 4. **Visual-Aesthetic:** The VIA notes the following: The R304 is only moderately scenic, particularly southbound, and runs adjacent to the site's west boundary. The flatness of the site and its dense gum plantation blocks views into the site while indicating its location generally in the open landscape of fields and vineyards.
 - The proposed development will have a moderate impact on the landscape causing some change to the visual environment.
 - The development has moderate to high visual exposure, moderate visual absorption capacity, medium compatibility, and is moderately to highly visible (R304).
 - The development's visual impact has site-related to local extent, long term duration, medium intensity, definite probability, and medium significance on the landscape.

1.6 Recommendations (see page 68)

1.6.1 Palaeontology

It is recommended that, pending the exposure of significant new fossils (e.g. mammalian bones and teeth) during construction, exemption from further specialist palaeontological studies and mitigation be granted for this development.

1.6.2 Archaeology

- No archaeological mitigation is required prior to construction activities commencing.

- As a precaution, the site should be scanned for artefactual remains dating from the time of the Calcutta Bos Outspan, once vegetation has been cleared and removed from the site.
- It is recommended that, pending the exposure of significant new fossils (e.g. mammalian bones and teeth) during construction, exemption from further specialist palaeontological studies and mitigation be granted for this development.

1.6.3 Heritage

The following recommendations are therefore made to mitigate the potential associative and landmark impact of the cemetery development:

1. **Outspan Site Set Aside:** Set aside the southern portion of the site in a buffer zone as indicated but specifically the southwestern corner, say in a 50m radius, and designate this as the outspan site.
2. **Confirmation of Outspan Site Location:** This actual position should be confirmed if possible by further historical research and interview of locals.
3. **Review of Historical Aerial Photography:** to check the earliest 20th century imagery and layout of the site.
4. **Outspan Site Development and Interpretation:** Once all the facts about the outspan have been determined, a specific plan for the historic Outspan Site's development should be prepared including interpretive information and signage. This may include some traces of the route of the old Klapmuts Trekpath that once crossed the site being built into the overall cemetery plan and any other information or practices that were/are associated with the outspan.²
5. **Outspan Route Recognition/Declaration:** The memory of outspans does not seem to be remembered or celebrated in any cohesive or coordinated manner by heritage. As outspans formed such a significant role in the early Cape landscape, if not South African landscape, it seems appropriate that this be celebrated. The Calcutta Outspan site is largely intact and without knowledge of the status and condition of other outspans in Stellenbosch or Cape Town and surrounds, it may be that this outspan's grading might be upgraded to IIIa, if not Grade II as part of a provincial scheme without affecting the intention to use it as a cemetery which is fully within the power of the various Outspan Acts. The determination of the value of the vari-

² At this time of the first HIA draft, November 2018, feedback from the Stellenbosch Municipality and local heritage bodies had yet to be obtained. They may well have more information to hand than was available at the time of writing that can be used in these recommendations.

ous outspans' grading could only be made as part of a wider study of outspans and trekpaths. This 'recommendation' or suggestion is outside this HIAs mandate so is for consideration by the Stellenbosch Municipality as a separate study that could have both heritage and tourist value.

1.6.4 Visual and Aesthetic

The following recommendations were extracted from the VIA (pp 53-55). Construction, Operation and Decommissioning recommendations are made on p 56.

Mitigation Recommendation: Planning and Design

The plans presented to date is an initial concept only. Therefore it is well able to take on any mitigation recommendations.

1. **Site Development Plan:** As noted previously, the concept plan is well conceived and sensitively fit to the landscape already:
 - 1.1 Taller structures such as the central facilities should be set back from the road as they are currently indicated and should not be moved to the edges of the site or nearer the R304.
 - 1.2 The landscape buffer along the edges is important to retain and should be well planted to prevent views into the site except at strategic locations such as on-axis.
 - 1.3 The HIA refers to the old *trekpath* to Klapmuts and the possibility of finding any historical aerial or other photographs that could be used to inform and retain any traces of the old outspan.
 - 1.4 Sustainable site development and Green Building principles or standards should be employed to enhance the environmental aesthetic.
 - 1.5 Lighting must be carefully managed to minimise excessive lighting wherever possible (see Operation Phase below).
2. **Colouration:** Careful colouration of fences in particular needs to be made, as well as any other landscape furniture such as lighting, benches, water features. These should preferably be in a natural colour palette that will not stand out from the agricultural landscape nor draw attention to itself with bright colouration. Likewise, building colours, walls and roofs, should be subtle.
3. **Landscape Plan:** The Landscape Plan should retain its existing features overall and not be changed to something completely different such as a freeform design. The tradition-

al arrangement of cemeteries, the avenues and bounding walls will fit well into both the historical and cultural landscape.

- 3.1 Wherever possible the greening/ planting of the scheme needs to be maximised.
 - 3.2 Permeable paving and other sustainable practices should be incorporated into the landscape plan.
 - 3.3 Planting using indigenous and preferably endemic species from the area should be planned from the beginning; traditional exotic trees are acceptable.
 - 3.4 Large trees should be incorporated into the Landscape Plan to screen tall buildings or unsightly areas such as the nursery/ maintenance yard.
 - 3.5 Gum trees, pines and oaks, while not indigenous, are typically the only major trees that can survive the rugged environment and achieve the necessary scale. They are also traditional cultural elements and not out of place as a result.
 - 3.6 Indigenous/ endemic trees can also be used but are not as tall as gums.
4. **Perimeter Treatment:** As described above this may incorporate screening trees or fences. The treatment of perimeter fencing and any signage needs to be carefully considered.
 - 4.1 Unsightly massive walls are not appropriate but the traditional low Cape farm werf wall may suffice well on the boundary and help locate the site on the R304.
 - 4.2 Should fencing be required use clear-view fencing or similar is preferred, not palisade. It should be coloured a dull green to match the local environment and not black, silver, brown or other unnatural, standard commercial colours.
 5. **Biodiversity:** As noted above, where possible, endemic planting schemes should be used with the exception of traditionally planted trees, which are permissible for practical and cultural landscape reasons.
 6. **Maintenance:** Scheme maintenance both of buildings and landscape need to be undertaken with commercial maintenance projects with this intention from the outset for the duration of the project. Good site tidiness should be maintained at all times.
 7. **Visual Assessor Review:** The proposed Landscape Plan should be referred to the visual impact assessor, namely, New World Associates, for review before it is approved, to ensure that it meets the recommendations of this report.

1.7 Authors and Dates

1. **HIA:** Bruce Eitzen (November 2018).
2. **History:** Dr Ute Seemann (October 2018).
3. **PIA:** John Almond (November 2018).
4. **AIA:** Jonathan Kaplan (October 2018).
5. **VIA:** Bruce Eitzen (November 2018).

NWA

2 Introduction

New World Associates were appointed to prepare a Heritage Impact Assessment (HIA) for the Calcutta Bos Cemetery by CK Rumboll & Vennote. The proposed cemetery is one of three being developed by the Stellenbosch Municipality. A Notification of Intent to Develop (NID) has not yet been prepared. Bruce Eitzen is a registered Professional Landscape Architect and member of the Association of Professional Heritage Practitioners. Neither he nor any of the heritage specialists have any financial interest in the development.

2.1 Background

This *Heritage Impact Assessment (HIA)* is being prepared to fulfil requirements for Heritage Impact Assessment as required by the National Heritage Resources Act (25 of 1999) and as required by the National Environmental Management Act (107 of 1998).

2.2 Brief

New World Associates were appointed to prepare the Heritage Impact Assessment (HIA) for the above development by CK Rumboll & Vennote.

2.3 Methodology

The HIA was prepared using a combination of site visits, research and specialist studies into the relevant heritage attributes being impacted on by the proposed development.

2.3.1 Notification of Intent to Develop (NID)

At this time no submissions have been made to Heritage Western Cape (HWC). However, a Heritage Screening was prepared by CTS Heritage in March 2018 for the site.

As determined by the Heritage Screener report, archaeological and landscape/visual studies should be prepared; these can be found in the appendices. The depth of study was determined using the PGWC Guideline for Involving Heritage Specialists in EIA Processes (see section 3.3.4).

2.3.2 Record of Decision (ROD)

At this time there is likewise no ROD to consider.

2.4 Statement of Independence

Bruce Eitzen is an accredited Member of the Association of Professional Heritage Practitioners of the Western Cape (APHP) specialising in Visual and Landscape Heritage. None of the consultants engaged in this study nor any authors of reports present have any financial interest in the proposed development, nor in any other projects being undertaken by the developers.

Bruce Eitzen holds a BSc (Botany) from the University of Cape Town and a Masters in Landscape Architecture (ML) from the University of Pretoria. He is a registered Professional Landscape Architect (PrLArch) with thirty years experience in South Africa and Southern Africa in Landscape Architecture and Environmental Planning including the specialities of Visual Planning and Heritage Planning. He has 15 years experience in the SW Cape.

NWA

3 Legislative and Administrative Context

3.1 Summary

There is a long history of environmental protection and management in South Africa rooted in EIA and IEM, which have given rise to the current requirement for HIA. The latest document (June 2005) prepared by the Provincial Government of the Western Cape defines the scope and preparation of HIAs. Provision in the various Acts is made for special areas and landscapes that have an important effect on the ranking of heritage impact in these areas. HIA, while being controlled by Heritage Western Cape (HWC), ultimately falls under the provincial Department of Environmental Affairs and Development Planning (DEA&DP). The property is rural and currently zoned Agriculture.

3.2 Introduction

This chapter provides the important and necessary legislative and administrative background for the heritage impact study. A general overview of the relevant documents with specific reference to those applicable to visual planning is included. Particular mention is made of local planning guidelines that have the most direct bearing on the project such as the Spatial Development Framework (SDF) for the given area.

3.2.1 Background

The policy, legal and administrative framework for conservation, EIA and development in South Africa has long roots. Heritage Impact Assessment (HIA) is mentioned in the national requirements for EIA under the National Environmental Management Act (NEMA) and previously under the Environmental Conservation Act (ECA). Furthermore, the provincial government now endorsed its own guidelines for various EIA processes including HIA (PGWC, November 2005). Specific requirements for HIA may also be included in local Spatial Development Frameworks (SDF) and Integrated development Plans (IDP).

3.3 Legal Framework

This review of current documentation is made with specific reference to requirements for HIA in the Law and by National Guidelines.

3.3.1 Environmental Impact Management: A National Strategy for IEM in South Africa (April 1998)

This discussion document on Integrated Environmental Management (IEM) defines IEM as: “the coordinated planning and management of all human activities in a defined environmental system, to achieve and balance the broadest possible range of short- and long-term environmental objectives.” Further: “The overarching goal of IEM is to help ensure that South Africa’s developing economy is redirected (or reoriented) from environmentally unsustainable growth and development towards environmental sustainability” (p 14). “Activities that IEM should manage” include: land use zoning plans and schemes, new activities, existing activities, and activities undertaken in terms of a land use zoning plan or scheme that has already been approved through IEM.”

In terms of Scoping as it relates to the compilation of reports such as this HIA, the Main Aims of **Scoping** are “to focus the study on reasonable alternatives and relevant issues to ensure that the resulting *Impact Assessment* is useful to the decision-maker and addresses the concerns of interested and affected parties” (p 5, *IEM Guideline Series: 2 Guidelines for Scoping*, 1992).

3.3.2 National Environmental Management Act No. 107 of 1998 (NEMA)

This Act is “To provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state; and to provide for matters connected therewith.” Chapter 5: Integrated Environmental Management has among its general objectives: (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” (p 34).

3.3.3 South African National Heritage Resources Act, 1999 (NHRA)

NHRA regulations cover the protection of historic sites, objects, buildings and landscapes. It covers (ii) “archaeological items,” namely, “material remains resulting from human activity... older than 100 years;” rock art, wrecks and “features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are

found (2 Definitions). The Definitions also include the term “(vi) ‘**cultural significance**’ [which] means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.”

Further, (xxi) “‘living heritage’ means the intangible aspects of inherited culture, and may include: cultural tradition oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships.” (xxxi) “‘Palaeontological’ means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.” (xxxviii) “Public monuments and memorials” and (xviii) “victims of conflict” relating to wars are also defined.

Section 38(1) defines triggers for HIA as a linear development over 300m long, or a bridge 50m long, or any development over 5,000 square metres ($\frac{1}{2}$ Hectare), involving three or more erven, rezoning over 10,000 square metres (1 Hectare) requires an HIA to be submitted if a heritage resource is likely to be affected. A Notification of Intent to Develop (NID) must be submitted the Heritage Authority “at the very earliest stages of initiating such a development.”

The Act prescribes in section 38(3) that the HIA must include:

- The identification and mapping of all heritage resources in the area affected;
- An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6(2) or prescribed under section 7;
- An assessment of the impact of the development on such heritage resources;
- An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
- The results of consultations with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
- If heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
- Plans for mitigation of any adverse effects during and after the completion of the proposed development.”

The NHRA makes provision for two forms of protection, formal and informal, and sets up a three tier system of formal protection as:

1. Grade 1 or National Heritage Sites managed by SAHRA.
2. Grade 2 or Provincial Heritage Sites managed by HWC.
3. Grade 3 or Local Heritage Sites managed by the Local Authority.

Generally protected sites include:

- Human burials older than 60 years.
- Archaeological and palaeontological sites.
- Shipwrecks and associated remains older than 70 years.
- Structures older than 60 years.

3.3.4 PGWC Guideline for Involving Heritage Specialists in EIA Processes (Edition 1, June 2005)

Principles and Concepts

Continuing on from the NHRA (1999), this now legally adopted Provincial Guideline further records (p 3): “Types of heritage resources as defined in the relevant legislation may include the following:

- Places, buildings, structures and equipment of cultural significance
- Places to which oral traditions are attached or are associated with living heritage
- Historical settlements or townscapes
- Landscape and natural features of cultural significance
- Geological sites of scientific or cultural importance
- Archaeological and palaeontological sites
- Graves and burial grounds
- Sites related to the history of slavery (NHRA).”

These are the so-called “tangibles” of the heritage concept (p 5). Thus the “cultural landscape” is seen as having a range from Archaeology to Palaeontology to Historical Architecture to Social History to Public Memory and Natural Landscape (p 6).

Environmental Context for Specialist Input

Determining heritage context in terms of layering uses the following broad formative layers. The following table provides a brief description of the environmental context for heritage specialist input in the Western Cape. It relates to temporal, thematic and spatial aspects (see Figure 3-1).

The Western Cape is categorized by a temporal layering including a substantial pre-colonial, early contact and early colonial history as distinct from other regions. The following can be regarded as a useful categorization of these formative layers:	
Indigenous:	
<i>Palaeontological and geological:</i>	• Precambrian (1.2 bya to late Pleistocene 20 000 ya)
<i>Archaeological:</i>	• Earlier Stone Age (3 mya to 300 00ya) (ESA) • Middle Stone Age (c 300 000 to 30 000 ya) (MSA) • Later Stone Age (c 30 000 to 2000 ya) (LSA) • Late Stone Age Herder period (after 2000 ya) (LSA - Herder period) • Early contact (c 1500-1652)
Colonial:	• Dutch East India Company (1652-1795) • Transition British and Dutch occupation (1796-1814) • British colony (1814-1910) • Union of South Africa (1911-1961) • Republic of South Africa (1962-1994)
Democratic:	• Republic of South Africa (1994 to present)
It is also useful to identify specific themes, which are relevant to the Western Cape context. These include, <i>inter alia</i> , the following:	• Role of women • Liberation struggle • Victims of conflict • Slavery • Religion • Pandemic health crisis • Agriculture • Water
Specific spatial regions also reveal distinct characteristics, which are a function of the interplay between biophysical conditions and historical processes. Such broad regions include the following:	• West Coast • Boland • Overberg • Karoo
A large number and concentration of formally protected Grade 1, 2 and World Heritage Sites, also characterize the Western Cape. Such sites include:	• Table Mountain National Park • Robben Island

Source: DEA&DP Guideline for Involving Heritage Specialists in EIA Processes (p 13).

Figure 3-1: Environmental Context for Heritage Specialist Input in the Western Cape.

Triggers for Specialist Input

“A ‘trigger’ means a characteristic of either the receiving environment or the proposed project which indicates that heritage is likely to be a ‘key issue’ and may require the involvement of an appropriately qualified and experienced specialist.

“The primary legal trigger for identifying when heritage specialist involvement is required in the EIA process is the NHR Act. The Act identifies what is defined as a heritage resource, the criteria for establishing its significance and lists specific activities for which a heritage specialist study may be required (see Figure 3-2).

- The construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- The construction of a bridge or similar structure exceeding 50m in length;
- Any development or other activity which will change the character of the site:
- Exceeding 5000 m² in extent;
- Involving three or more existing erven or subdivisions thereof;
- Involving three or more subdivisions thereof which have been consolidated within the past five years;
- Costs of which will exceed a sum set in terms of regulations by SAHRA or HWC.
- The rezoning of a site exceeding 10 000 m².
- Any other category of development provided for in regulations by SAHRA or HWC

Source: DEA&DP Guideline for Involving Heritage Specialists in EIA Processes (p 16).

Figure 3-2: Categories of development listed in Section 38 (1) of the NHR Act.

Categories triggering HIA are as follows: “If the heritage authority is of the opinion that a heritage resource will be affected by a development listed in Section 38 (1) of the NHR Act, a heritage assessment is likely to be required either as a stand-alone HIA or as the heritage specialist component of an EIA.

“While the NHR Act specifically makes provision for heritage assessments for certain categories of development, heritage specialist involvement can also be requested by environmental and local authorities in terms of the provisions of ECA and NEMA. This may be the case where development is within a sensitive heritage context, e.g. a designated Urban Conservation Area in terms of Section 108 (Zoning Scheme).”³ While the NHR Act specifically makes provision for heritage assessments for certain categories of development, heritage specialist involvement can also be requested by environmental and local authorities in terms of the provisions of ECA and NEMA. This may be the case where development is within a sensitive heritage context, e.g. a designated Urban Conservation Area in terms of Section 108 (Zoning Scheme). This extensive list of sites include Grade I-III, National and Provincial Heritage Sites and Protected Areas, as well as Provisionally Protected Sites, Urban Conservation Areas, Nature Reserves, proclaimed Scenic Routes, etc as well as World Heritage Sites e.g. Robben Island and Cradle of Humankind (Sterkfontein). A very large list of landscapes is also included starting with Scenic/Historical Routes or Landscapes, Pristine Natural Areas e.g. Cedarberg and many other types of landscapes including Historic Farm *Werfs* e.g. *Boschendal*, *Morgenster*, *Alphen*, and historical farmlands e.g. Winelands, Swartland, Karoolands, and many more.

³ DEA&DP Guideline for Involving Heritage Specialists in EIA Processes (p 16).

Category 1: Formally protected heritage sites	This includes formally protected heritage sites in terms of NHR Act, LUPO or other relevant legislation. This includes National Heritage Sites (Grade 1), Provincial Heritage Sites (Grade 2), Protected Areas (Grade 1 or 2), Heritage Areas, sites listed in the Provincial Register (Grade 3) and Provisionally Protected Sites, Urban Conservation Areas, Nature Reserves, proclaimed Scenic Routes, etc. It also includes World Heritage Sites, e.g. Robben Island and Cradle of Humankind (Sterkfontein). Depending on the nature of the development within these contexts, this would more than likely require specialist heritage input at an early stage in the EIA process.
Category 2: Landscapes of recognized or potential significance or sensitivity (not yet formally protected)	The landscapes below are informed by UNESCO and NHR Act landscape typologies. They include the following: • Scenic/historical routes or landscapes. • Pristine natural areas, e.g. Cederberg • Landscapes with unique geological or palaeontological history, e.g. the Great Karoo • Landscapes characterised by rocky outcrops, shorelines, dune field conditions where a range of archaeological sites including shell middens and fish traps could be located. • Uncultivated landscapes of the arid areas that contain undisturbed archaeological sites. • Relic landscapes with evidence of past now discontinued human activities, • Historical townscape, e.g. Arniston coastal resort, Mossel Bay harbour town. • Mission settlements, e.g. Elim and Genadendal • Burial grounds and grave sites; i.e. older than 60 years. • Landscapes containing concentrations of historical structures; i.e. older than 60 years • Landscapes with potential for archaeological and palaeontological sites; i.e. containing remains of human activity older than 100 years. • Landscapes with maritime archaeological potential, including shipwrecks older than 70 years • Landscapes associated with displacement/contestation, e.g. Protea Village, "Trojan Horse" site, Langa Pass Office in Cape Town. • Landscapes associated with an historic event/person or grouping, e.g. Battle of Blaauwberg. • Landscapes associated with living heritage, e.g. use of indigenous vegetation within the Table Mountain National Park for medicinal purposes by traditional healers • Historical farm werfs e.g. Boschendal, Morgenster, Alphen • Historical farmlands e.g. Winelands, Swartland, Karoolands • Institutional landscapes, e.g. Drakenstein Prison, Valkenberg Hospital, Somerset Hospital • Designed landscapes, e.g. planned labourers village of Lanquedoc, Company Gardens • A range of heritage resources could occur within these contexts.
Category 3: Resilient contexts with the potential to accommodate substantial modification	• Highly transformed contexts where there is some evidence of past human activity and which have potential for rehabilitation/regeneration. • Urban environments of poor environmental quality. • Degraded landscapes due to extensive land transformation, which has obliterated physical traces of past human occupation and which have low aesthetic value, e.g. quarries, land fill sites, utility corridors. • Undeveloped land within a defined urban edge, e.g. an infill site or site designated for urban development purposes. This context can be contrasted with a greenfield site. In such contexts, it is unlikely that detailed heritage specialist input would be required.

Factors influencing the sensitivity of the heritage context	There are a number of factors influencing the sensitivity of a heritage context and thus the nature and intensity of assessment. These include the following: • Pristine/greenfield versus modified conditions • Intact versus damaged or disturbed conditions Reversible versus irreversible past damage; i.e. rehabilitation/restoration potential • Degree of contestation; i.e. wide variation in values attached to a heritage resource, potential conflict between value systems. • Degree of significance; i.e. representivity, rarity, authenticity, intactness, etc
--	--

Source: DEA&DP Guideline for Involving Heritage Specialists in EIA Processes (p 18).

Figure 3-3: Categories of Heritage Significance/Sensitivity to inform whether or not Heritage Specialist involvement is required.

This long list has been ordered into twelve types of Heritage Context in Table 1 (pp 21-27), namely:

- Palaeontological Landscape
- Archaeological Landscape
- Historical Built Urban Landscape
- Historical Farmland
- Historical Rural Town
- Pristine/Natural Landscape
- **Relic Landscape**
- Burial Ground and Grave Site
- **Associated Landscape**
- Historical Farm Werf
- Historical Institutional Landscape
- Scenic/Visual Amenity Landscape.

Many of these could be grouped under the broad term Regional Cultural Landscapes (p 31). Thus the Landscape is considered an integral component of Heritage Resources. As a heritage resource, Landscape or Cultural Landscape is a contextual concept and cannot be seen in isolation from the surrounding environment.

Endorsed in November 2005 is the most relevant document that now guides HIA in the Western Cape. It is a highly useful document and has been used to guide this report. They note in the Introduction (p 1) that:

The overall purpose of heritage specialist input is to:

- Identify any heritage resources which may be affected;
- Assess the nature and degree of significance of such resources;
- Establish heritage informants/constraints to guide the development process through establishing thresholds of impact significance;
- Assess the negative and positive impact of the development on these resources;
- Make recommendations for the appropriate heritage management of these impacts.

Heritage Management Principles and Concepts derived from international charters in the absence of a South African charter on heritage are given as (**bold added**): “need to acknowledge **a range of heritage values**; need for **integrated, inclusive and holistic approaches**; respect for **historical layering**; understanding of the concept of **cultural landscapes**; respect for **vernacular/local identity and distinctiveness**; **public consultation**; **authenticity and integrity**; **multidisciplinary approach**; respect for **context and scale**; positive role for **enabling development**; need for **education and training**; respect for **intangible elements of heritage**; respect for **living heritage**” (pp 3-4).

3.4 Administrative Framework

3.4.1 Western Cape Provincial Urban Edge Guideline (DEA&DP December 2005)

This document makes wide (14) mention of heritage resources recommending for cultural/heritage resources: “**Wide buffer to allow meaningful experience of the resource.**”

3.4.2 Stellenbosch SDF (2007)

An extract of the Stellenbosch SDF is shown below showing the location of the site. It shows the site located on the R304 just above Koelenhof. In the plan of December 2007 the site occurs just outside the northern boundary of the urban edge of Koelenhof.

The Stellenbosch SDF shows that Calcutta 29 occurs in the **hatched tan area = Agriculture (Transition) Bioregional Planning Zone** which covers most of the region in the West and NW of the Stellenbosch municipal area. Numerous **riverine courses** are also indicated as long green lines and one **Buffer Zone = light green hatch** near the Red Star.

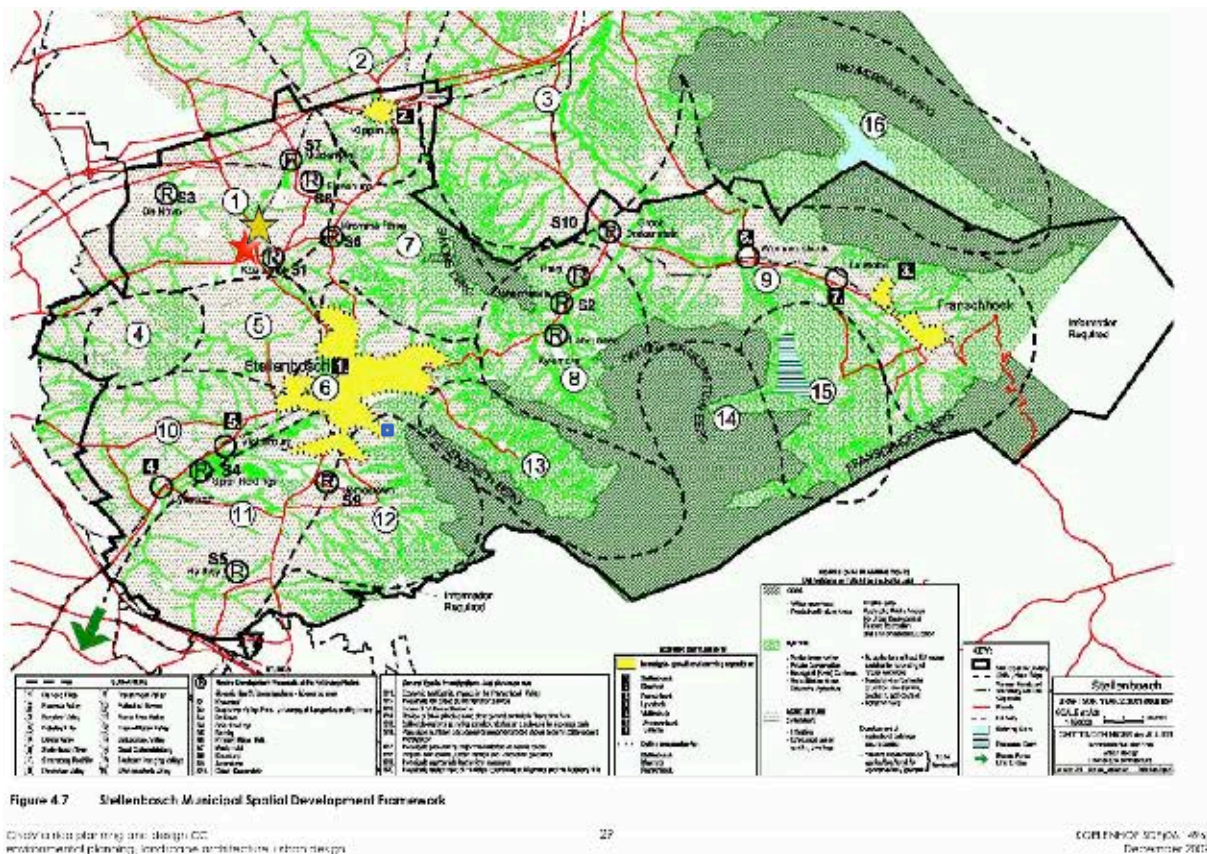


Figure 3-4: Stellenbosch Municipal SDF (2007) showing the site location (yellow star above red star).

The Stellenbosch SDF (p 9) *Synopsis: Heritage* notes the following (**bold added**):

HERITAGE

The sense of place of the Stellenbosch region is derived from a long agricultural and academic history coupled with well-preserved architecture and endemic biodiversity. Uncontrolled expansion of urban areas and industrialised agriculture into indigenous ecosystems threatens the unique fabric of the region, and may diminish the appeal of the area. **Several specific principles are proposed to protect the character of the area, including the use of guidelines for sensitive biodiversity areas, controls over building heights and architectural styles along major roads, and the determination of appropriate land use zoning according to view sheds.** The character of the rural area should be protected via various guidelines such as setting buildings along provincial roads back by at least 100m. Tourism that reinforces the municipality's sense of place should be encouraged and attractions should be developed that remain appropriate to the region's well-established themes.

Following the principles introduced in Section 2, Section 3 considers the 14 nodes that have been identified as the loci of future development in Stellenbosch Municipality in more detail. This includes a summary of the challenges and opportunities faced by each node and maps of the status quo and proposed developments that indicate how this could be translated into

more detailed spatial plans. Table 1 on page 12 summarizes the key infrastructure capacity issues that need to be addressed in each of the nodes, and can be used to prioritize infrastructure investments across the municipality in the short term.

Furthermore, *Section 7: Heritage* (pages 32-33) later notes more completely (**bold added**):

7. HERITAGE

Stellenbosch's sense of place is derived primarily from its historic architecture, endemic biodiversity and the views from its main arterial routes. Its main attractions include wine farms, natural areas, historic sites and museums, sports and recreational facilities, and tight-knit urban street character in many of the historic urban cores (e.g. Stellenbosch, Franschhoek). Approximately 169,000 tourists visited the municipality's tourism bureau in 2005, of which over 80% were foreign. Growth in domestic tourism is seen as an opportunity to expand the tourism economy. The establishment of Stellenbosch 360 in 2012 clearly marks the start of a new era in tourism promotion and business involvement in development in general.

Stellenbosch is home to some of the rarest and most diverse vegetation on earth, but this is coming under pressure from the uncontrolled expansion of urban areas and industrialized agriculture into indigenous ecosystems. As pockets of untouched ecosystems get smaller and the spaces between them get wider, they lose their ability to function and reproduce, and species become extinct. Combined with climate change, uncontrolled conversion of rare ecosystems could result in the loss of beneficial ecosystem services and significantly diminish the appeal of the area unless decisive action is taken to protect and nurture endemic biodiversity.

There is increasing importance of telecommunications to the growth of the economy. This is especially the case in Stellenbosch that has a strong emphasis on business services and information communication technology. Rapid expansion of the telecommunications industry in recent years has resulted in an increasing demand for radio telecommunication services, and new technologies in the cellular phone industry. The location, siting and development of TMI continues to be an issue of particular interest to both local communities and local government alike, with debate focusing on adequate availability of connectivity, visual amenity and public health. With the nature of technology it must be accepted that the future need for TMI sites will increase in the short to medium term.

PRINCIPLES

- Sensitive biodiversity areas should be mapped, and clear and appropriate guidelines introduced to conserve them.
- Crest lines should be kept free of buildings and intensive agriculture to protect biodiversity.
- Ridge lines should be used for properly managed walking trails to increase recreational potential, tourism and income.

- The boundaries of view sheds along major routes should be determined by a visual resource management exercise.
- Land within these view sheds and outside of existing or proposed settlement nodes should be classified as either “Buffer” or “Intensive Agriculture” Spatial Planning Categories (SPCs) depending on the underlying land’s suitability and use.
- Development for agricultural or agri-tourism activities within these view sheds and outside of existing or proposed settlement nodes should be limited to 1 du per 10 ha (or equivalent).
- Buildings along provincial roads should be set back at least 100m from these roads to preserve the character of rural areas.
- **Building heights and architectural styles should be controlled within 200m of any prominent road so as to preserve the heritage of the built environment.**
- Outside of formal conservation areas, land owners should be encouraged to conserve vegetation classified by SANBI as Endangered or Critically Endangered (particularly along ridge lines) and to link to existing conservancies (e.g. through the Cape Nature Stewardship Program). These land uses should be classified in the Core SPC.
- Adopt a telecommunication mast infrastructure policy that will facilitate the growth of new and existing telecommunications systems and facilitate the provision of TMI in an efficient, cost-effective, environmentally appropriate and sustainable way.
- Tourism that reinforces the municipality’s sense of place (e.g. agri-tourism, wine tourism and eco-tourism) should be encouraged in the settlements and on rural land outside the urban edge.
- Variety in the region’s tourism offerings should be preserved rather than focused on one unique resource (e.g. wine tourism), but attractions must remain appropriate to the region’s tourism themes.
- Restaurants, wine tasting and holiday accommodation should be encouraged, but must be within the parameters of the rural housing guidelines and provincial resort guidelines.

The location of the Calcutta site is just north of the 1km urban boundary on the road to Cape Town and the N2 (see Figure 3-5). Nothing is planned outside Koelenhof around Calcutta 29 leaving it rural-agricultural. Its heavily wooded nature is distinctive in the otherwise open agricultural field landscape.



Figure 1.3 Study Area

CNdV Africa Planning & Design CC
environmental planning, landscape architecture, urban design

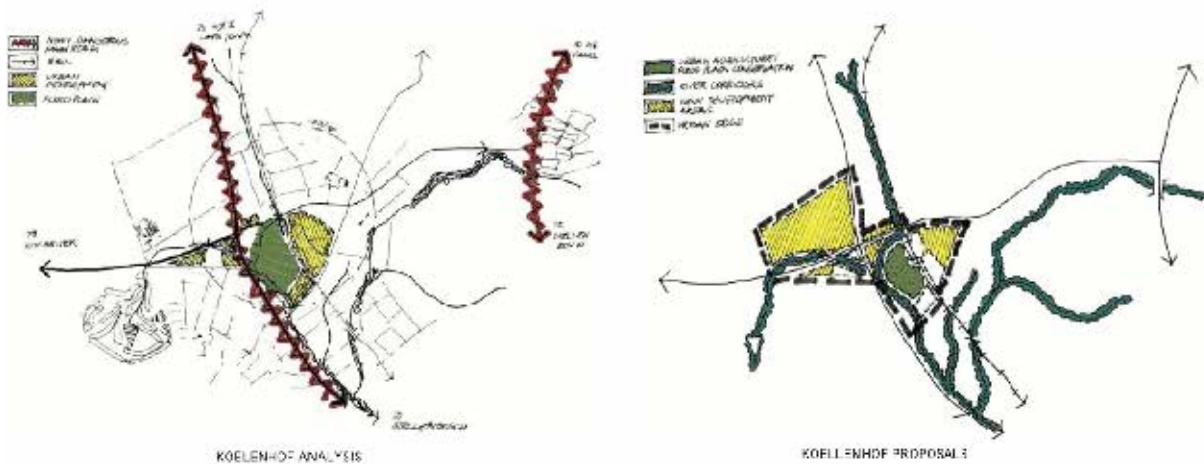
6

Koelenhof SDF and Urban Edge (06.1496)
December 2007

Source: Reproduced courtesy of CNdV Africa Planning and Design CC.

Figure 3-5: Koelenhof SDF study area (2007) showing the site location (yellow star).

The Koelenhof proposals do not affect the *Calcutta 29* site.



Source: Reproduced courtesy of CNdV Africa Planning and Design CC.

Figure 3-6: 3.9 Koelenhof Analysis and Proposals (Stellenbosch SDF 2007:55).

NWA

4 Heritage Environment

4.1 Summary

The farm *Calcutta 29* lies 10km NW of Stellenbosch on the R304. The property is covered with immature gum plantation and stands out from the open farm fields of the area. Elsenburg Agricultural College lies just east of the site and numerous wine farms are found in the general area but only a few locally. The property is owned by Stellenbosch Municipality and was previously Crown Land. The Calcutta Outspan has significant local landmark and associative heritage significance and both the property Landscape Unit and Heritage Site itself are graded IIIb. Nearby Elsenburg's 4 heritage sites and landscape unit are graded II, IIIa and IIIc, while Simonsig is also graded IIIc. No significant palaeontological or archaeological remains were uncovered during field inspections. The most tangible heritage feature of the environment is landscape.

4.2 Introduction

Combined with Section 2, this chapter presents the relevant heritage information required for HIA. This is a strongly historical chapter well illustrated with maps, plans and photographs. Heritage impact is all about our appreciation of the past as an inheritance of tangible and intangible elements. This chapter records what we know about the affected environment's heritage.

4.2.1 Background

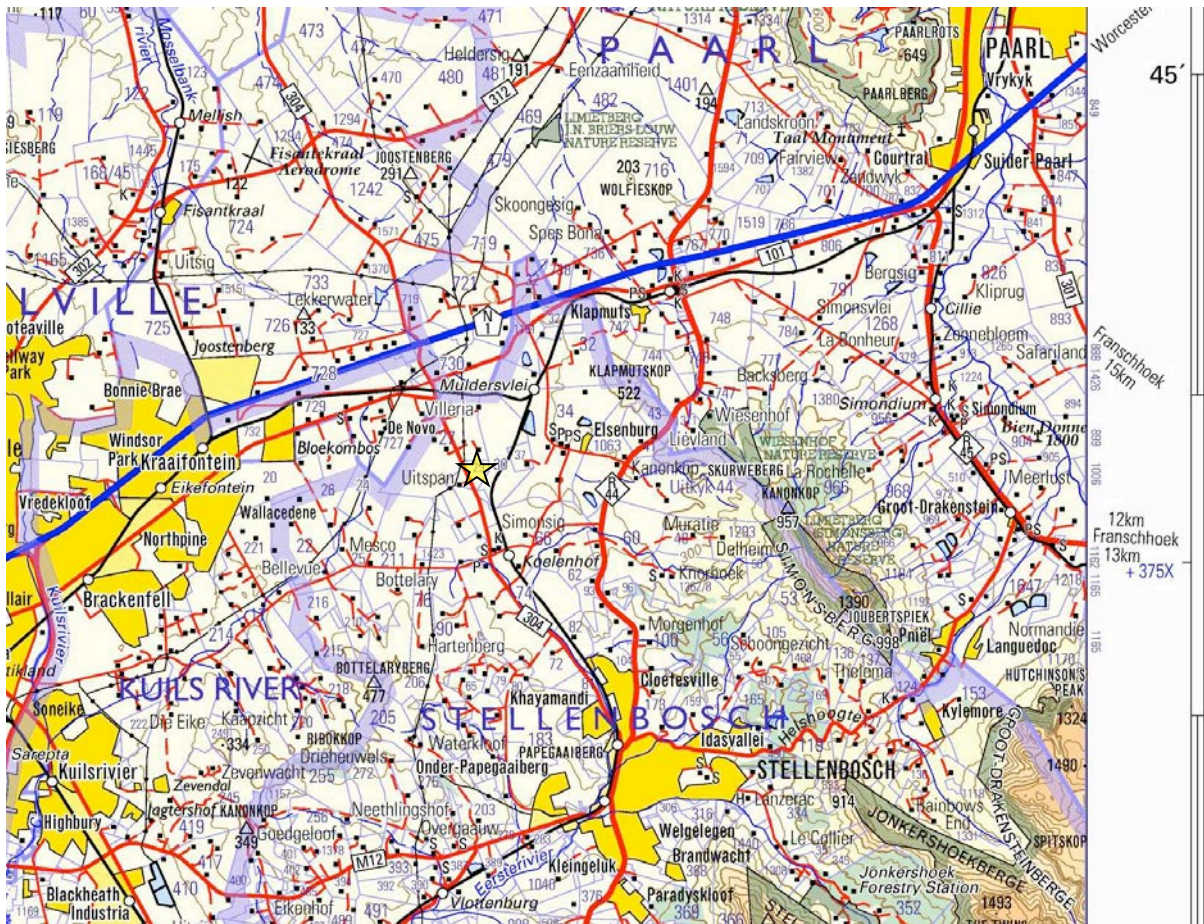
The description of the environment is undertaken with a view to presenting basic information for the Heritage Impact Assessment.

4.2.2 Key Issues

1. *Calcutta 29* lies 10km NW of Stellenbosch on the R304 just north of Koelenhof in the Stellenbosch Winelands.
2. The property is rural, zoned Agricultural, and lies just west of Elsenburg Agricultural College.

3. The land is largely flat and covered with immature gum plantation of mixed ages, invaded, in places heavily, with alien Acacia.
4. The landscape is generally scenic in a mixed agricultural setting against the backdrop of the Stellenbosch Mountains.
5. The area is marginal to the Stellenbosch Winelands but still contained within them. More pasture can be found here although there are some vineyards.
6. **The local Landscape Unit: A11 Calcutta and wider open fallow** land has already been graded **Grade IIIb** by the Stellenbosch Heritage Survey and Management Plan (2018), **as has the Calcutta Outspan IIIb site** on the property's southern tip.
7. **Graded Landscape Units** to the east around Elsenburg are Grade IIIa; while areas further east and south are graded Grade II.
8. **Graded Heritage Sites nearby include:** Elsenburg Pluimvee Proefplaas IIIa, Elsenburg x2 II, Elsenburg Pear Grove IIIc; Simonsig IIIc.

4.3 Location



Source: Reproduced by permission of the Chief Directorate: Surveys and Mapping, State Copyright 2000.

Figure 4-1: Regional Context.

Portion of a 1:250,000 map of South Africa showing the site's location (3318 Cape Town, 9th Edition 2000). NTS.

The site occurs near Koelenhof between Stellenbosch, Kraaifontein and Paarl adjacent to the R304. *Uitspan* is noted to the left of which the Calcutta 29 portion once formed a part. Its gum trees stand out from the surrounding countryside, which tends to be open fields and vineyards. The R304 connects Stellenbosch and Malmesbury directly. A railway line also follows the R304 to the east but veers off to the NE just south of the site in the direction of Klapmuts.

4.4 Natural Environment

4.4.1 Topography

The site is basically flat but falls away to the east where the adjacent river flows. The area's backdrop is dominated by the Hottentot Holland Mountains in the distance with Simonsberg in the mid distance. A small river tributary is shown running through the site.

4.4.2 Vegetation

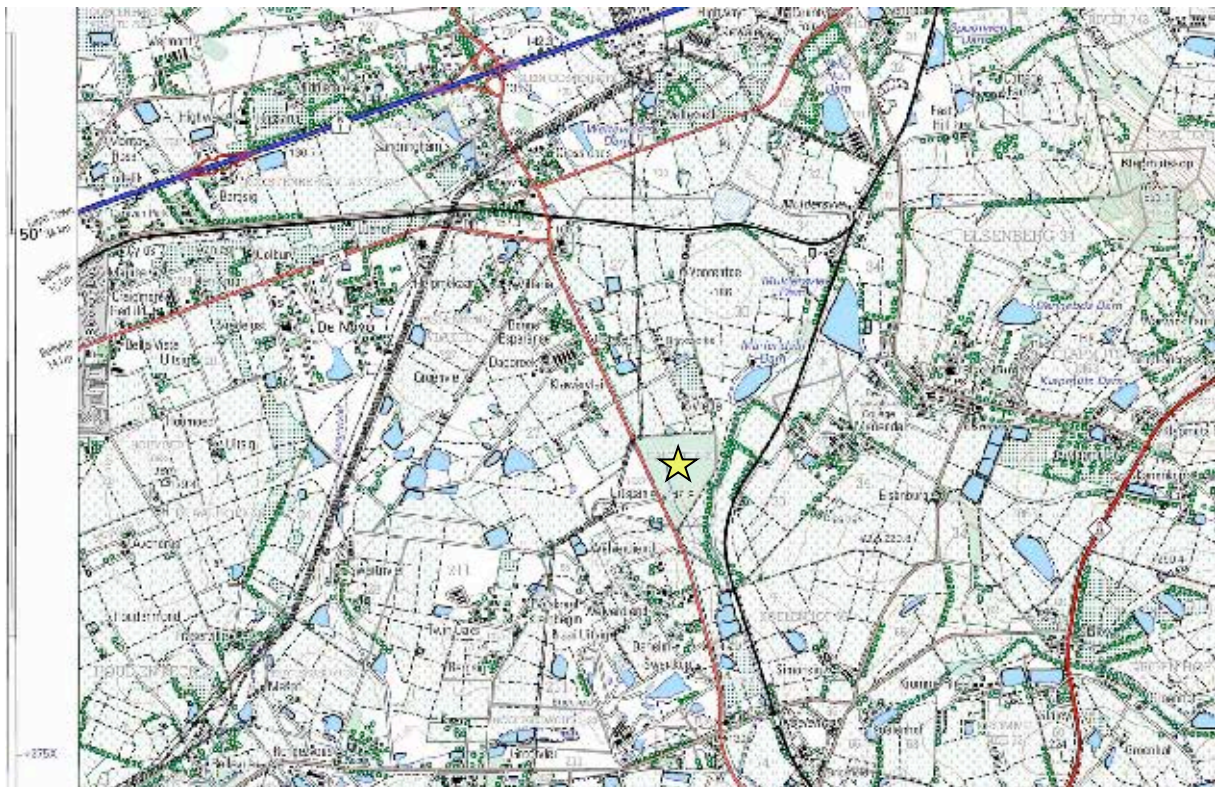
The vegetation on site is mostly artificial and derived from agricultural activities, gum plantation, not too old (perhaps less than 10 years) and, presumably, a history of pasturage previously, if the adjacent southern site is anything to go by.

4.5 Social Environment

4.5.1 Land Use

The site and general area is currently zoned Agricultural.

4.5.2 Rural Context



Source: Reproduced by permission of the Chief Directorate: Surveys and Mapping, State Copyright 2000.

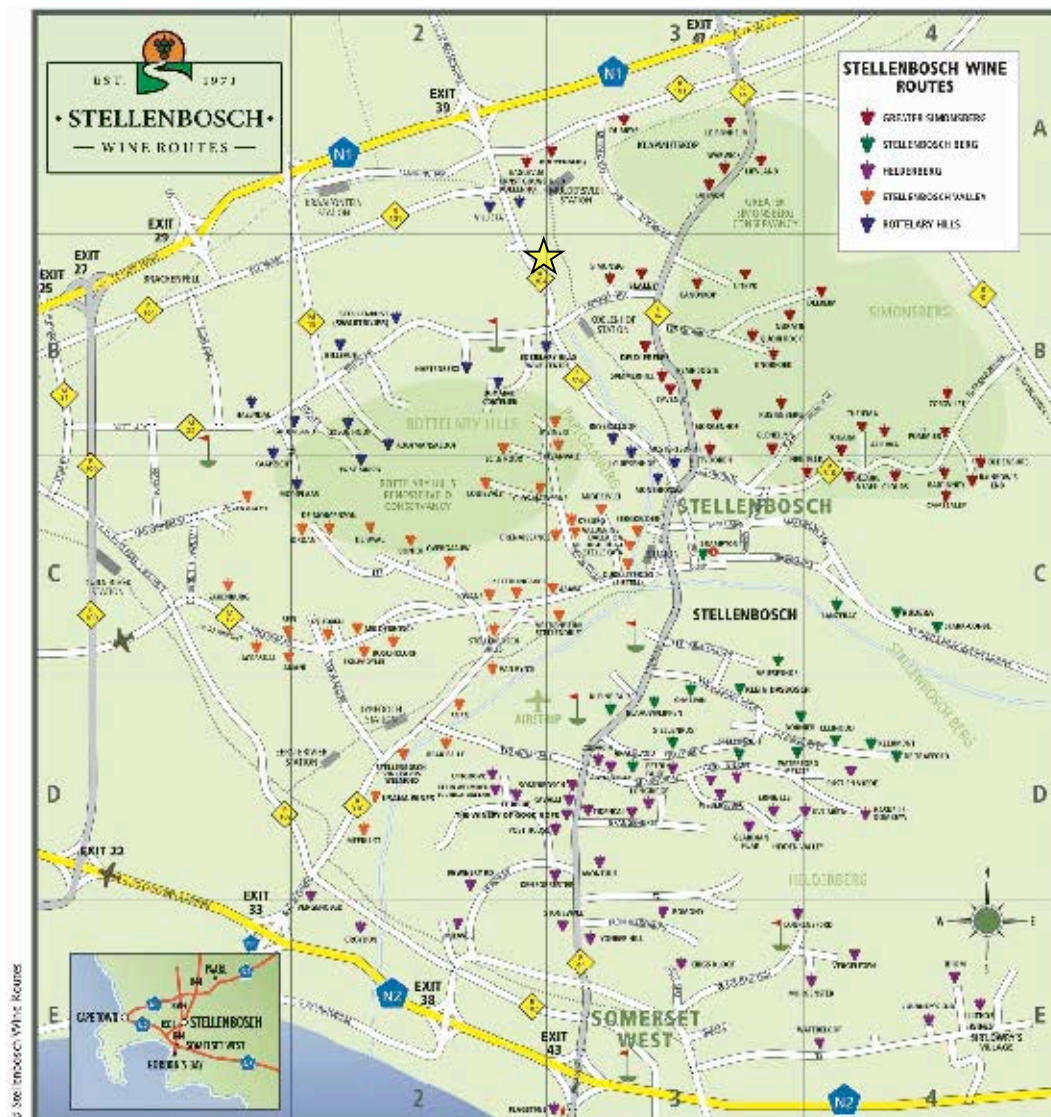
Figure 4-2: Rural Context.

Portion of a 1:50,000 map of South Africa showing the site's location (3318 DD Stellenbosch, 5th Edition 2000). NTS.

The site lies in an extensive area of farmland in the NW region of the Stellenbosch Winelands. There are numerous well-known wine farms in the area. Elsenburg Agricultural College lies to the east of the site over the railway line.

4.6 Cultural Environment

4.6.1 Cultural Landscape



Source: Stellenbosch Wine Routes.

Figure 4-3: Stellenbosch Wine Routes (June 2017).

Stellenbosch Wine Route Map (June 2017) showing the entire Stellenbosch area.

The Cape Winelands are world renowned and are a UNESCO World Heritage Site. The development of the Winelands into a cultural landscape occurred historically during the colonial period of South Africa from the seventeenth to nineteenth centuries. The twentieth century saw expansion and further development of the winelands and the development of the region's famous Wine Routes. There are numerous well-known Stellenbosch wine farms in the area including *Koelenhof* and *Simonsig*. As such this rural landscape is highly transformed with farms either given over to vineyards or pasturage. There are also numerous farm dams.

Calcutta 29 occurs in the NW portion of the area falling between the **Bottelary Hills Wine Route** and the **Greater Simonsberg Wine Route**. While there are no major wine farms noted in the immediate area on the map, which shows *Simonsig* and *Villiera* as the two nearest wine farms. However, Villiera does occur very near the site and not as indicated on the map. *Vrede* also occurs nearby and *Koelenhof*.

The natural landscape is typically transformed from the fynbos and renosterveld that naturally occurs in the area. Most of the visible landscape appears to be either a degraded type of grassland for pasturage or vineyards with some gum plantations and avenues in the general area. While much of the area is gently rolling, this particular area is relatively flat forming part of the Joostenberg or Krom River Vlaktes/Flats of the local wetlands.

Popular activities in the area are primarily associated with visiting and touring the winelands and their farms, although the area is also highly scenic and there are various scenic routes in the area. This particular stretch of the R304 is rather ordinary. Many farms have overnight accommodation for tourists.

4.6.2 Visual and Aesthetic Environment

As noted above, the Winelands are world famous and generally situated in a highly scenic region. This particular area is a highly transformed agricultural landscape with numerous vineyards, pastures and occasional farmsteads, hamlets and other agricultural buildings.

The site itself used as a gum plantation with mostly young, possibly regrowth/*opslag* gums near the R304. The aerial photographs show older trees deeper in the site, while immediately to the south there is a particularly scenic piece of rolling countryside with scattered mature European Oaks.

The R304 is a very busy road and traffic along it occurs at high speed on this rather straight stretch making the properties along the road rather prone to its high speed feel and a sense of danger and noise from speeding cars and trucks.

To the rear or east of the site and not obvious/visible from the R304 are various local scenic routes around Elsenburg as shown in the Stellenbosch Municipality Heritage Survey (2018).

4.7 Heritage Environment

4.7.1 Historical Context⁴

Introduction

The farm No 29 “Calcutta”, Stellenbosch is situated some 10km to the north west of the historical town of Stellenbosch along the R304. The basic co-ordinates are approximately 33°51’11”S and 18°48’28”E (see Figure 4-4).



Source: Google Earth 2018/Dr Ute Seemann.

Figure 4-4: Google view, farm No 29 Stellenbosch, “Calcutta”.

The triangular orange marked property on the left of the road, the R304, the old – and the yellow marked the new proposed cemetery site.

The property is at present zoned ‘agricultural’. It is surrounded by a mixed use area: to the west the Cape Town suburbs and industrial areas of Kraaifontein and Bellville, to the north and north west small scale mixed farming properties, further to the east a small Boland town, Klapmuts and even further south the historic town of Stellenbosch with the domineering mountain background.

Traditional farmlands still dominate the vistas all round; and within a radius of less than 20km any number of historic wine estates⁵ are situated. These together with sprawling suburbs still dominate the mental image of the Stellenbosch administrative district.

Historic Notes

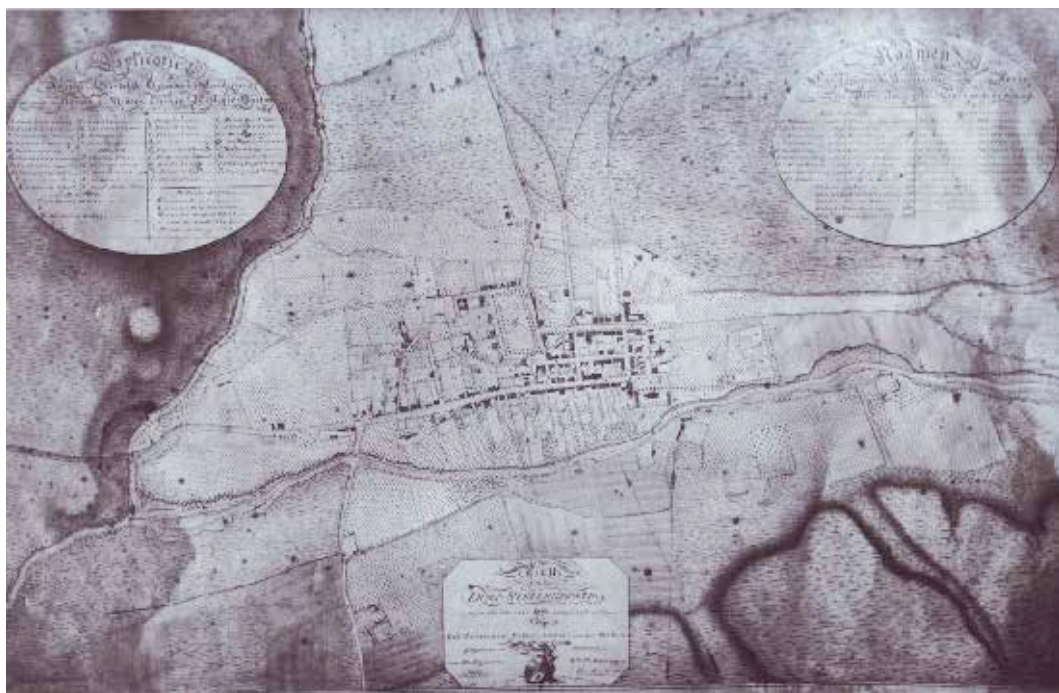
Before Europeans reached Table Bay to settle permanently in 1652, two groups of indigenous people, the Khoi-San and the Khoi-Khoi herders peopled the Cape Peninsula and its *hinterland*. The Khoi kept fat-tailed sheep and indigenous cattle and adhered to a fixed

⁴ Dr Ute Seemann (31 October 2018). Historical Background Report: The Farm 29 Stellenbosch “Calcutta”.

⁵ Fransen, Hans. 2004. *The Old Buildings of the Cape*. Johannesburg and Cape Town: Jonathan Ball Publishers, pp 199-211.

yearly transhumance migration. Wagon routes followed these cattle tracks, and later contemporary roads may well have been constructed along the same routes.

Shortly after the founding of the outpost in Table Bay in 1652 the Dutch East India Company (VOC) committed itself to a permanent settlement policy. Some twenty years later the district and town of Stellenbosch were founded on the banks of the Eerste River. Fertile lands along this and several rivulets descending from the Hottentot Hollands Mountains had been allocated to VOC employees, who established prosperous vineyards. From historical maps it appears that the area under investigation has been continuously cultivated since then. Almost all material traces of the nomadic earlier inhabitants – the Khoi-Khoi – have therefore been obliterated.



Source: Fransen, Hans. 2006. *Old Towns and Villages at the Cape*, page 68.

Figure 4-5: Plan of Stellenbosch, dated to 1817.

The farm “Calcutta” would be located off map to the left as North is to the left while East is up.

The town of Stellenbosch was established in 1679, properly surveyed, the properties recorded in a locally held register.⁶ The road from Cape Town, as well as the one to The Strand (now the R44) and the R304 to the north, have been landmarks since earliest times (see Figure 4-5).

Deeds Office and Surveyor General Records

The land on which “Calcutta”, farm No 29 Stellenbosch is situated today was part of a “Crown Grant” to the town of Stellenbosch registered in about 1810, when a title deed regis-

⁶ Fransen, Hans. 2006. *Old Towns and Villages of the Cape*. Johannesburg and Cape Town: Jonathan Ball Publishers, pp 65-75.

ter was introduced by the British colonial government, who had taken over the Cape of Good Hope from the Dutch. A “crown” grant was a certain piece of land, belonging to and yielding its revenues to the British “Crown”, i.e. the reigning monarch, and was not to be alienated without the British monarch’s consent.⁷ After South Africa became a republic in 1910 “crown” land became the property of the state. Between 1925 and 1939 several small portions of this property were alienated for road-, power- and pipe line servitudes.

The remaining land was transferred to the Divisional Council of Stellenbosch on 12 August 1939 as the title deed register shows (see Figure 4-6).

Portion 1 of the farm No 29, Stellenbosch (27 morgen out of the original 74 morgen) was sold to Lucia Christine Jones (born Hattingh) MOCP (Married in Community of Property) on 14 February 1941.

The Divisional Council of Stellenbosch proposes to establish a cemetery on the property.

Heritage Resources According to the CTS Heritage Report

The heritage resources of Stellenbosch Municipality have recently been identified and assessed for heritage significance during a municipal-wide survey.

The site, farm No 29 “Calcutta”, Stellenbosch is described as having “... agricultural land character. The portion of land proposed for development forms the southern corner of the land unit and has an historic *outspan* area⁸ that features a remnant plantation on a distinctive triangular-shaped piece of land called Calcutta Bos. This *outspan* has landmark and associative significance and is highly regarded by people living in the area.

Highlights of this land unit are the ... remnant Oak trees found on open fallow land and the small stream next to the historic *outspan* area. This landscape unit has historic and associative significance in an area with a valued rural quality, and any development will compromise its inherent rural character. As such, this heritage resource in particular has been graded as having Grade IIIb heritage significance.

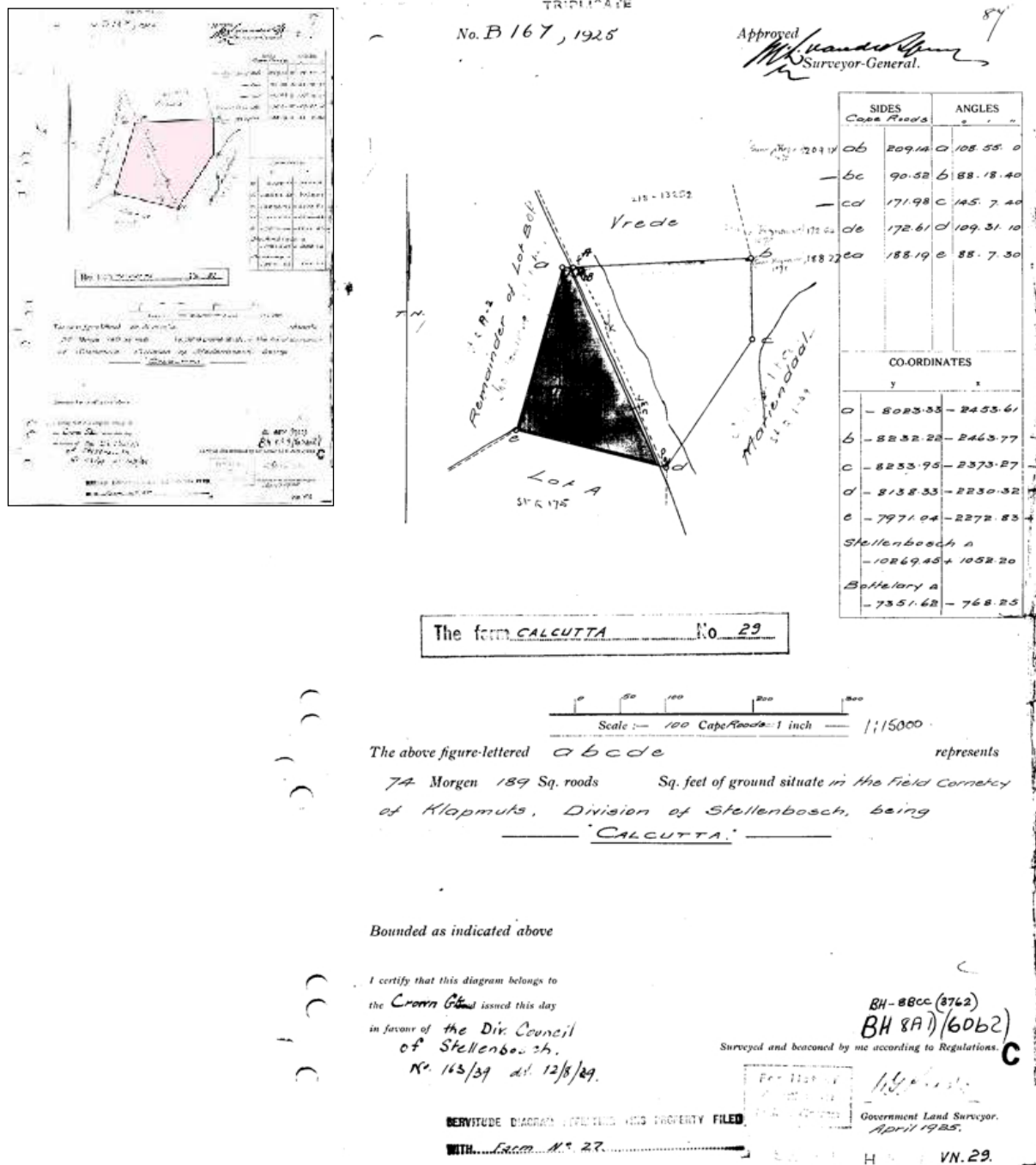
According to some historians, historically, places of *outspan* were often sites of contact between indigenous people and colonialists.... Some material remains from this time may be located beneath the soil surface.... Additionally, once *outspan* places were no longer essential to transportation in the region, they were often used for forestry, with some remnants of that activity on this site. The site therefore has historical, social and community significance.”

⁷ An example of a well-known “crown” land (property) to this day is the Rondebosch Common in Cape Town.

⁸ CTS Heritage (2018). *Heritage Screener, proposed development of a cemetery on Farm Calcutta No. 29, Stellenbosch*. Prepared for EnviroAfrica. Cape Town.

Recommendation by CTS

"Based on the available information, the proposed development is likely to impact on heritage resources and as such, it is recommended that a complete Heritage Impact Assessment is required that assesses impacts to archaeological resources and landscape character..."



Source: Surveyor General Cape Town, Survey Diagram 167/1925.

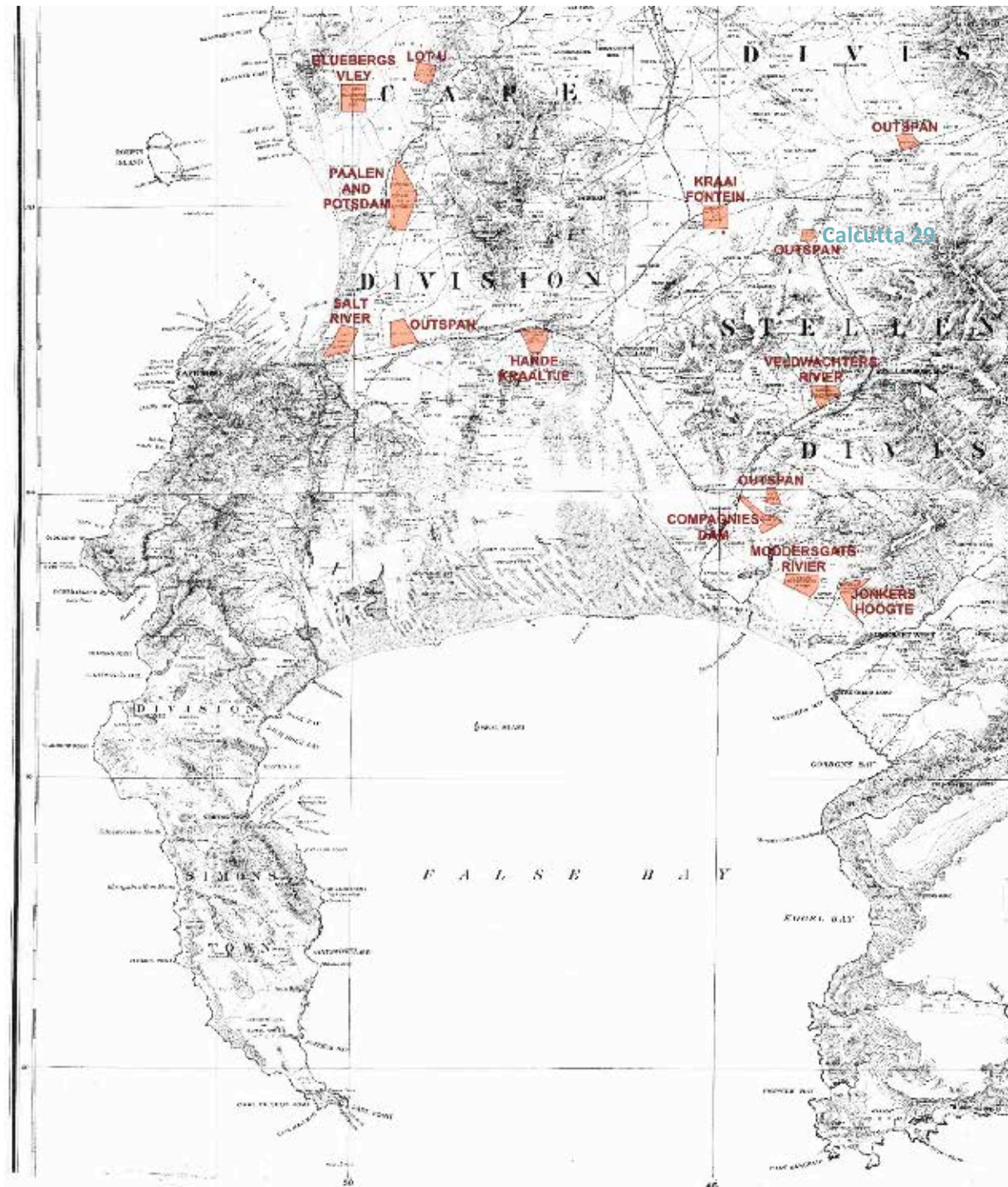
Figure 4-6: The farm No 29, Stellenbosch, "Calcutta" Survey Diagram.
Situating in the Field Cornetcy of Klappmuts, Division of Stellenbosch.

4.7.2 The 1890 Survey Showing Outspan Sites

The 1890 Survey Maps undertaken in the latter part of the 19th century show the status quo of OUTSPAN sites in the Cape and Stellenbosch Divisions.

The network of outspans every 10-15km is still intact with three outspans shown north of Stellenbosch: **Kraai Fontein** near Kraai Fontein Station; one near **Klapmuts Station** outside Bennetsville; and the one on the road south to Stellenbosch near **Marion Dal**, then unnamed but later becoming *Calcutta 29*. Outspans are situated at regular intervals although the size of each varies. There are three main routes:

1. **North:** up the West Coast (today's N7 route).
2. **Northeast:** to the interior and Diamond Fields (today's N1 route).
3. **Southeast:** to the Boland, known as the Eastern Highway (today's N2 route).



Source: New World Associates.

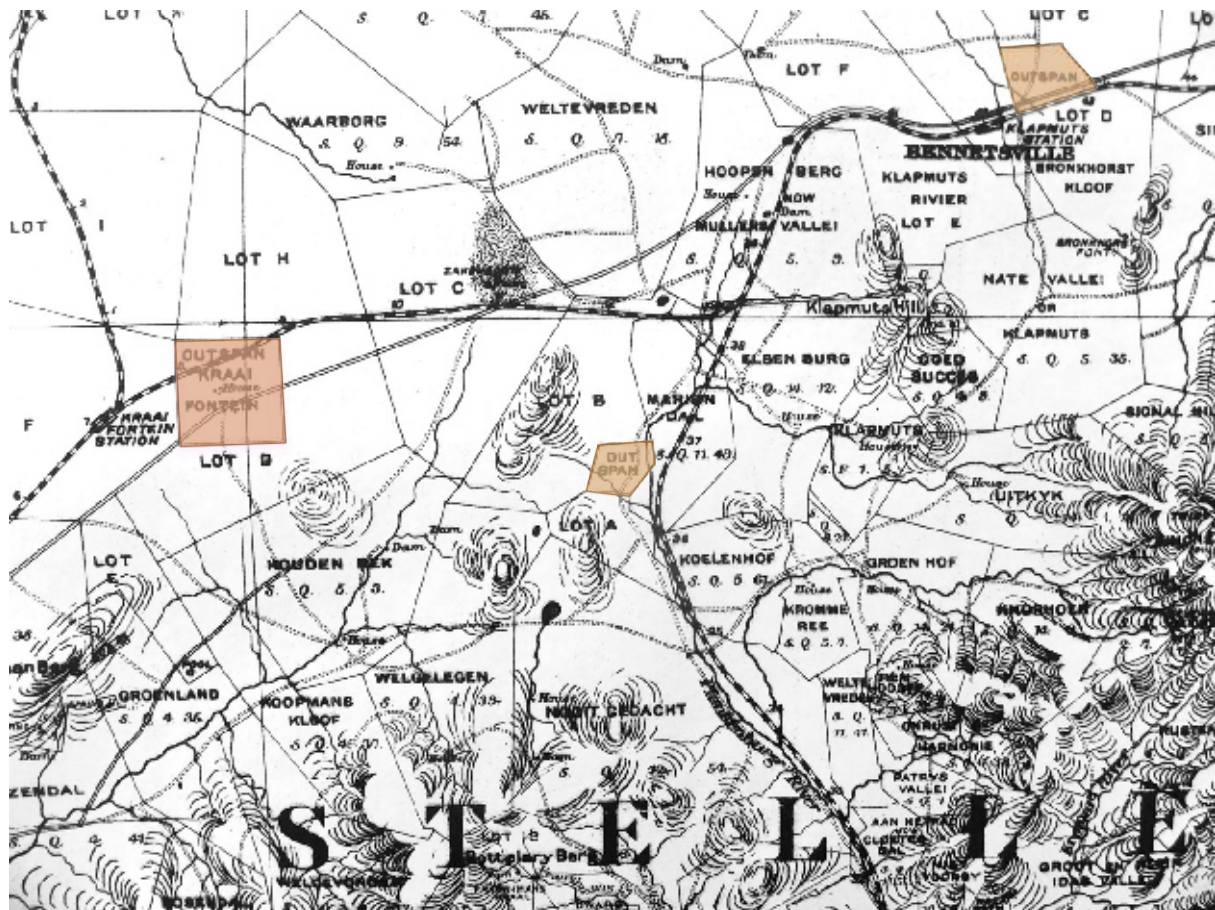
Figure 4-7: Outspans in the Cape and Stellenbosch Divisions (1890).

Overlain on the 1890 Divisional Survey Map, all **OUTSPAN** sites are highlighted and named where a name is given; some are only referred to as OUTSPAN including the one on what would become known as Calcutta 29, SE of the KRAAI FONTEIN OUTSPAN.

The Outspan at Calcutta 29

There are various unnamed farms labelled alphabetically with *Calcutta 29's* outspan being situated between Lot A and Lot B west of *Marion Dal*. It is sited between two tributaries of the upper Plankenburg River providing ample water for livestock and human consump-

tion. Even today, the area just SE of the SE boundary is very picturesque with rolling pasture and a scattering of mature European Oaks, providing a picture of what it may have been like when the outspan was in use. It also lies on a track that travels NW-SE up the Plankenburg valley which then turns NE through Marion Dal towards *Elsen Burg*, *Mullers Vallei* and *Hoopen Berg* towards *Klapmuts Rivier* and Klapmuts Station at Bennetsville.



Source: Surveyor General Cape Town, Divisional Councils Survey (1890).

Figure 4-8: Survey Plan of the Division of Stellenbosch (1890).

Calcutta 29 is diagrammed as **OUTSPAN** between KOELENHOF and MARION DAL. Portion 1 of 1949 forms the left/western triangle of the property, leaving Calcutta 29 to the east of today's R304. A track is shown running through the eastern portion towards MARION DAL and ELSEN BURG en route to the next outspan at BENNETSVILLE/KLAPMUTS. The outspan closer to Cape Town is at KRAAI FONTEIN.

In the century since these outspan site were mapped, some have fallen under suburban expansion, while others remain open ground in the vicinity of a more developed semi-agricultural landscape. Generally speaking, the further out of town they are, the more unchanged they remain, while those nearer towns/cities have become transformed and developed, notably *Salt River*, *Paalen* and *Potsdam*, and *Harde Kraaltje*, if not *Windermere* also (see Figure 4-9).

Klapmuts, Calcutta 29 and Verwachter's Rivier in the northern Stellenbosch district remain largely rural, as do the two at *Compagnies Dam* to the SW, while *Moddersgat* and *Jonkershoek* at Somerset West are now suburban.



Source: New World Associates.

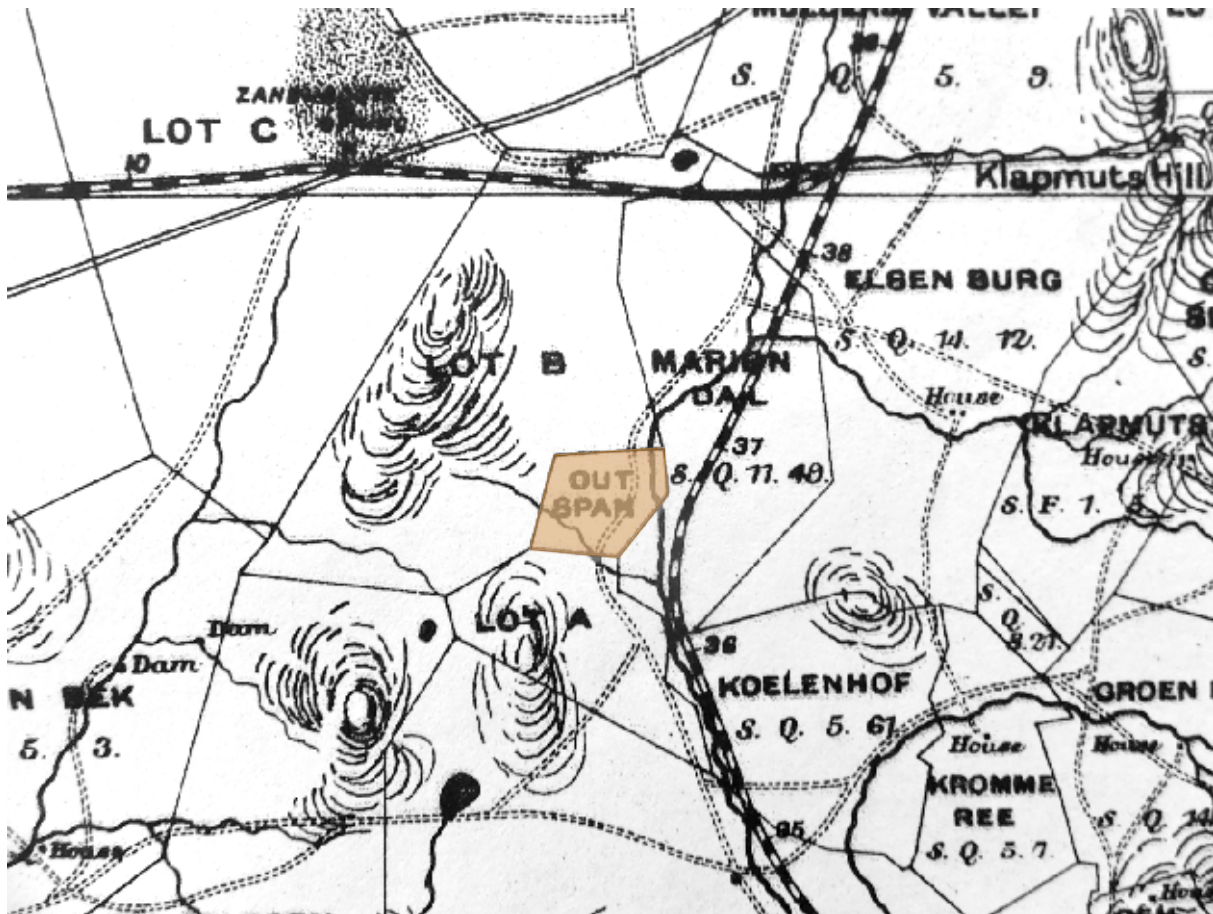
Figure 4-9: Outspans in the Cape and Stellenbosch Divisions (1890) versus today (2000).

Overlain on both the 1890 Divisional Survey Map and the 1:250,000 map (3318 Cape Town, 9th Edition 2000), all original 1890 **OUTSPAN** sites are shown as they relate to the 20th century (map overlay approximate only). The KRAAI FONTEIN OUTSPAN has become part of today's Kraaifontein, while the KLAPMUTS OUTSPAN now lies to the NE of today's Klapmuts. The MARION DAL OUTSPAN now is divided between Portion 1 west of the R304 and the remaining outspan site now used for gum lot to the east on *Calcutta 29*.

Overall, the suburban expansion of Cape Town, Bellville and Mitchell's Plain have stopped at the Winelands around Kuil's River, leaving the *Kraai Fontein Outspan* at the outer boundary of the Cape Town Metro with the *Calcutta Outspan* nearly 'midway' towards Stellenbosch. As a largely untransformed site still firmly situated in an agricultural area, the old Calcutta/Marion Dal Outspan retains much of its original character in that the area is not transformed to urban or any other land use. The main change being its planting for a gum plantation at a date unknown but probably late 20th century.

A review of the aerial photographs available from the 1940s onwards would show the changes but this has not been done yet. It would help complete the 20th century history of the site as it transformed from 19th century outspan to 20th century gum plantation. The

1890 map is the best plan available of its original condition showing its location and the track that once led through it. It may still be there hidden amongst the gum trees.



Source: Surveyor General Cape Town, Divisional Councils Survey (1890).

Figure 4-10: Survey Plan Enlargement of the Division of Stellenbosch (1890).

Calcutta 29 is diagrammed as **OUTSPAN** between KOELENHOF and MARION DAL. Portion 1 of 1949 forms the left/western triangle of the property, leaving Calcutta 29 to the east of today's R304. A track is shown running through the eastern portion towards MARION DAL and ELZENBURG en route to the next outspan at BENNETSVILLE/KLAPMUTS. The outspan closer to Cape Town is at KRAAI FONTEIN.

4.7.3 Stellenbosch Heritage Survey and Management Plan (SHS&MP) (2018)

Further information about the area generally can now be gleaned from this excellent survey recently completed and published online. It is referred to by abbreviation SHS&MP in this report. This is powerful and invaluable resource provides at long last an authoritative and comprehensive survey of heritage resources in this heritage rich municipality, making it easier to determine the heritage context of developments.

Appendix 1: An Archaeological, Archival, Oral and Spatial History

This appendix provides some useful background information on outspans. Initially, in the 18th century, outspans were informally in use around freehold properties, developing with time into rental/quitrent property. Few survived by the late 19th century, much public

land having been privatised. The situation of outspans had to be regular and they needed to provide both water and shade for the users, livestock and human alike.

4.1.5 Early Freehold Land Grants⁹

In 1813 perpetual quitrents were introduced by the British government. The resulting flurry of land grants allocated during this period attests to how the open land surrounding freehold grants came to be more formally carved up. **The so called ‘open land’ surrounding freehold properties had actually been informally used throughout the 18th century by farmers and as Company and public outspans**, and as the 18th century had worn on it was increasingly utilized as rental or quitrent property. By the early 19th century increasing numbers of these quitrents became permanent leaseholds that could be purchased and transferred the same as freehold property.

4.5.1 Outspans and Commonage, Wire Fencing and Wind Pumps

“The surveys of 1860-90 show the few outspans and doordrifts that still survived after the big disposal of Crown land earlier in the 19th century. State land was further privatised at the end of the century. The outspan at Franschhoek remained intact until 1897 when a substantial portion was subdivided and sold.

Outspans were for travellers and drovers on the roads. The ox wagons travelled at between four and six kilometres per hour on the level. **The traveller needed regular outspans with shade, water and grazing. These were usually provided 10 to 15km apart.** In the early 19th century the faster horse-drawn carts and coaches started to replace the ox wagons and saddle horses. There was a call for better roads and a lesser demand for outspans. Outspans also accommodated animals in towns and villages, for example on market days or for churchgoers.”

Appendix 5: Landscape Character Study¹⁰

Graded Landscape Units

SHS&MP’s *Appendix 5: Landscape Character Study* is invaluable to appreciating the heritage significance of landscape sites such as that at *Calcutta 29*. The Stellenbosch Inventory divides the region up into various zones (see Figure 4-11).

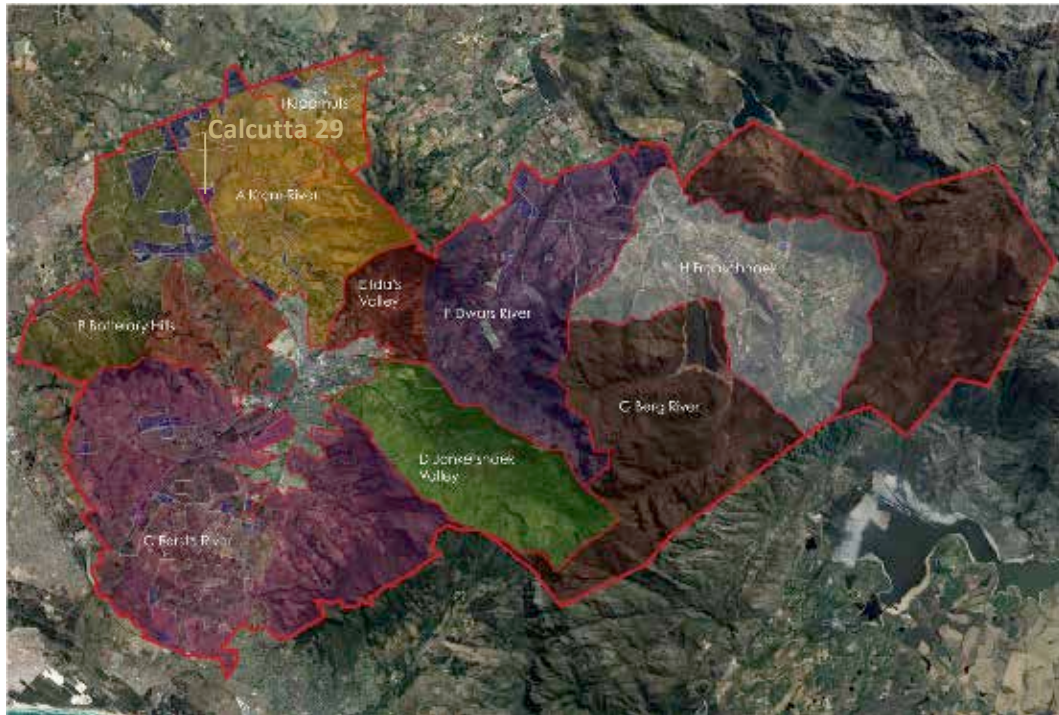
Calcutta 29 occurs in the NW Landscape Character zone **A Krom River**. The site lies on its NW boundary with the next zone **B Bottellary Hills** (see Figure 4-12).

The grading of this area, on Landscape Units **A11 Calcutta and open fallow ground** and **A12 Cultivated Vineyards** is **Grade IIIb**, which abuts onto the **Grade IIb Landscape Unit: A09 Elsenburg**. Further east and south of Elsenburg, are **Grade IIa Landscape Units A14 Groenhof, Muratie and Knorhoek** and **A16 Gateway to Krom River**. With **Grade IIb**

⁹ Antonia Malan (April, 2018). *Appendix 1: An Archaeological, Archival, Oral and Spatial History in Stellenbosch Heritage Survey and Management Plan (2018)*. Stellenbosch Municipality.

¹⁰ Liana Jansen and Fabio Todeschini (2018). *Appendix 5: Landscape Character Study in Stellenbosch Heritage Survey and Management Plan (2018)*. Stellenbosch Municipality.

A15 Skurweberg Footslopes in between. Land over the R304 to the west is not graded but zoned **NCW Land Parcels in the Stellenbosch Winelands** (see Figure 4-13).



Source: Appendix 5 in SHS&MP (2018).

Figure 4-11: Landscape Character Zones showing Calcutta 29.

Calcutta 29 occurs in A Krom River zone and is clearly visible in its wooded character (to the left of the label A Krom River).

The Stellenbosch Municipality Heritage Inventory Map is shown in Figure 4-12 below.

Graded Heritage Sites

While there are numerous **Grade IIIc** sites in the Krom River Valley, there are also a number of **Grade IIb** sites. These are not named on the maps but have to be found on the interactive online map.¹¹ There are 4 sites at Elsenburg:

- **The nearest is Elsenburg Pluimvee Proefplaas, Grade IIIa**
- **Elsenburg itself, Grade II**
- **Immediately adjacent, Elsenburg Pear Grove, Grade IIIc**
- **Elsenburg, Grade II to the south.**

The nearest graded wine farm is:

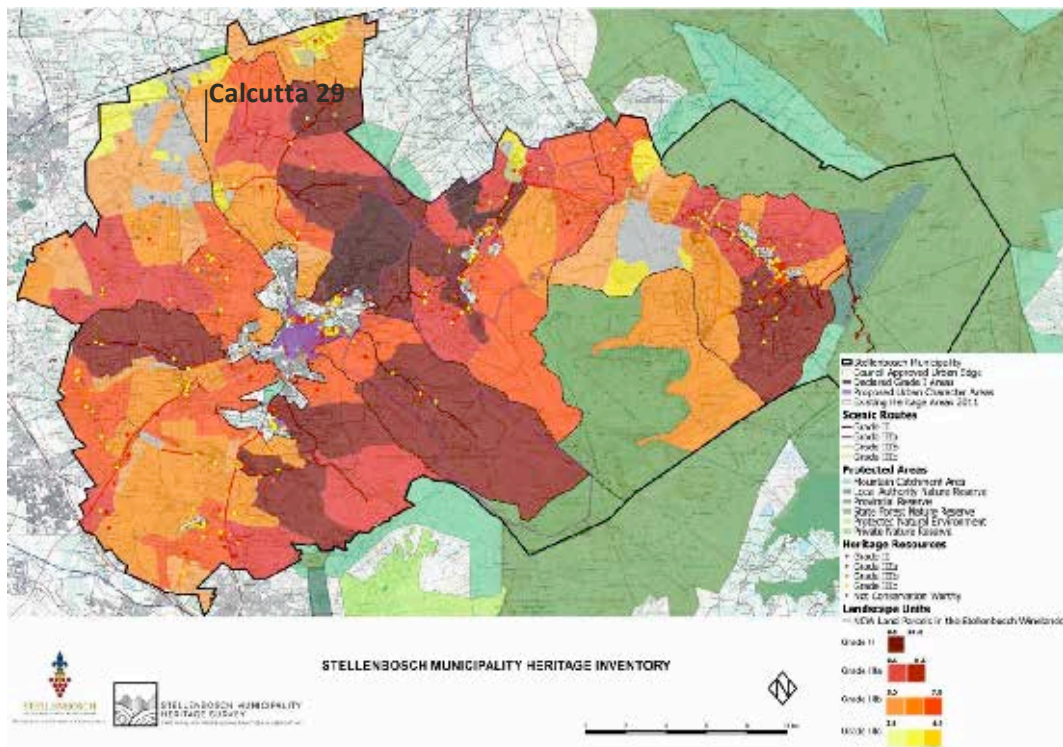
- **Simonsig, Grade IIIc.**

Ungraded resources over the R304 northwards include:

- **Wild Clover**
- **Pete's Adventure Farm Cottages**

¹¹ <http://stellenboschheritage.co.za/smhs/map/#13/-33.8508/18.8097>.

- Koelenhof Wynkelder.



Source: Appendix 5 in SHS&MP (2018).

Figure 4-12: Stellenbosch Municipality Heritage Inventory Map (2018).

This map shows the overall context of heritage sites and landscapes and their grading. **Calcutta and surrounds are ranked Grade IIIb.**

Graded Scenic Routes

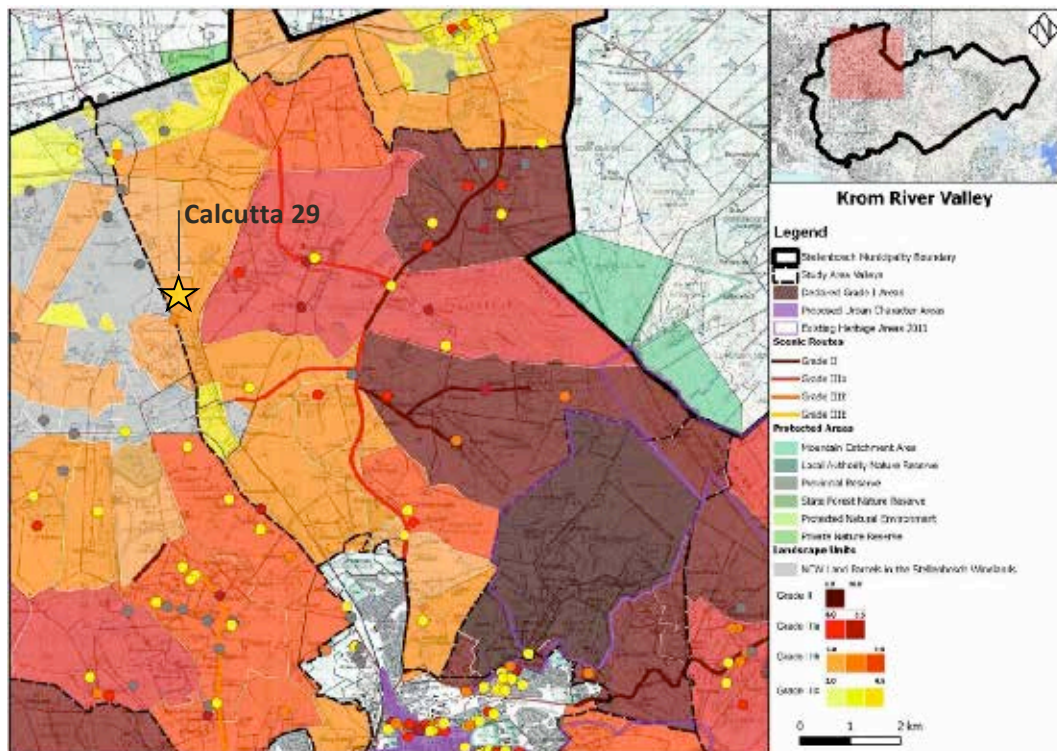
The R304 running on *Calcutta 29*'s western boundary has no ranking as a scenic route, however, the network of roads to the east behind Elsenburg are given **Grade IIIa** and even **Grade II** rankings. They are not visible from the site.

Landscape Character Areas: Krom River Vlakte

The Landscape Character Zones of the SHS&MP are further divided into **Landscape Character Areas**. *Calcutta 29* falls into **A11 Krom River Vlakte**. They are described in the following extract from Appendix 5 (see Figure 4-14). While it is an area with “development potential” due to low overall grading, “some of its highlights include the **Calcutta Outspan with attractive open fallow land and large remnant oak trees next to it (A11)**” (ibid). They also note “it has expansive views back towards the Stellenbosch mountains” (ibid).

The Krom River Vlakte are mostly characterised by low undulating plains on the northern boundary of the Stellenbosch Municipal area. This landscape unit scored low in the evaluation process and presents an area with development potential. It is close to the N1 and has expansive views back towards the Stellenbosch mountains. Some of the highlights include the Calcutta outspan with attractive open fallow land and large remnant Oak trees next to it (A11).

The smaller blocks of well-maintained vineyards in land unit A12 are an important transition area into and out of the Stellenbosch winelands.



Source: Appendix 5 in SHS&MP (2018).

Figure 4-13: Stellenbosch Municipality Heritage Inventory Map: A Krom River Valley (2018).

This map shows the overall context of heritage sites and landscapes in the Krom River zone and their grading. **Calcutta 29** is zoned as a **Grade IIIb Landscape with a Grade IIIb Heritage Site on the southern corner at the old Outspan site**. They are both ranked as 6 (medium orange), the mid Grade IIIb forming part of the grading of that area.

A Krom River Landscape Unit Rating				A11		A12		A13	
Item	Item Weight	Value	Weighted value	Value	Weighted value	Value	Weighted value	Value	Weighted value
Ecological	Protected areas 10 Critical Biodiversity area 9 Ecological support areas 7 agriculture 4 Urban 1	20%	8	1.6	8	1.6	7	1.4	
Aesthetic	Viewscape, Scene, Diversity, enclosure, unity, colour, texture, balance, proportion, form	20%	8	1.6	7	1.4	4	0.8	
Historic	Age, Pattern representivity and association, rarity, condition	25%	6	1.5	3	0.75	4	1	
Social	Meaning and cultural associations, Church, School, Creche, recreational, community	10%	3	0.3	3	0.3	5	0.5	
Economical	Tourism and agricultural potential High soil suitability 9 medium soil suitability 7 Fragmented 5 Disturbed 2	25%	5	1.25	5	1.25	5	1.25	
Degree of acceptable		100%		6.25		5.3		4.95	
NCW		0-2							
Grade 3c		2 to 4.9							
Grade 3b		5 to 7.9							
Grade 3a		8 to 10							
Grade 2		9.5 to 10							

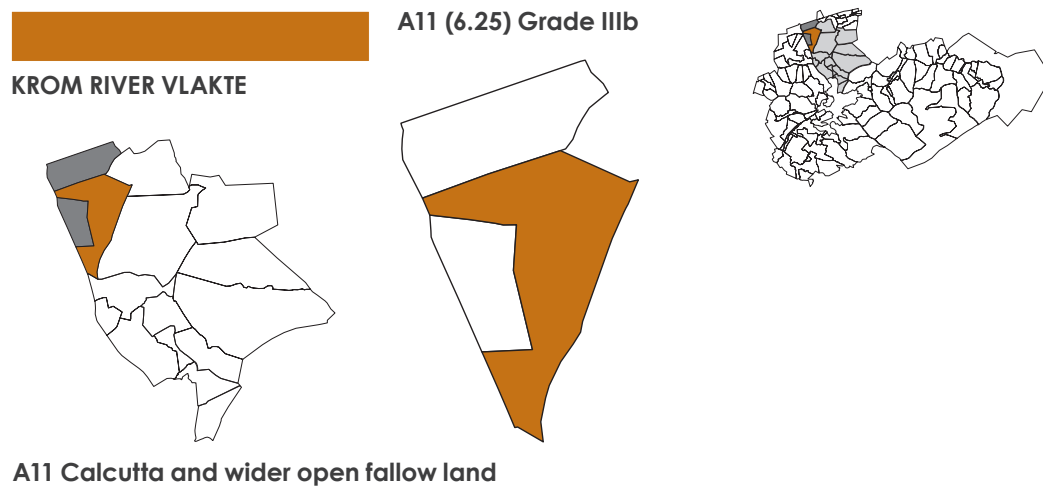
Source: Appendix 5 in SHS&MP (2018).

Figure 4-14: Stellenbosch Municipality Heritage Inventory Map: Krom River Vlaktes (2018).

A11 Krom River Vlaktes scores 6.25 points = Grade IIIb.

A11 Calcutta and Wider Open Fallow Land

The specific detail for Calcutta is noted in unit A11 with the map area found below (see Figure 4-15).



Source: Appendix 5 in SHS&MP (2018).

Figure 4-15: Stellenbosch Municipality Heritage Inventory Map: A11 Calcutta etc (2018). A11 Krom River Vlaktes scores 6.25 points = Grade IIIb.

The description of A11 Calcutta and surrounds is as follows (**bold added, ibid**):

A11 Calcutta and wider open fallow land

An active railway line and Muldersvlei station are located in the northern section of this landscape unit with another railway line forming the eastern border. Its presence, however, does not have an adverse impact on the rolling, fallow agricultural land character of most of the unit. The R101 represents the northern border, and two businesses are located along it. The Giraffe House on the corner of the R101 and R310 features some small camps with wild animals such as giraffe, ostriches and antelope species. It has a negative influence on the visual character of the area. A chicken farm is located adjacent to this property. **The southern corner of the land unit has an historic outspan area that features a remnant plantation on a distinctive triangular-shaped piece of land called Calcutta Bos. This outspan has landmark and associative significance and is highly regarded by people living in the area. Highlights of this land unit are the beautiful remnant Oak trees found on open fallow land and the small stream next to the historic Outspan area.**

This landscape unit has historic and associative significance in an area with a valued rural quality, and any development will compromise its inherent rural character.

4.7.4 Outspans

As the CTS Heritage Scanner referred to the Stellenbosch Heritage Survey and Management Report (2018) (SHS&MP) identified an Outspan on the property with a proposed Grade IIIb status, and that any HIA required should focus on Archaeological and Landscape

Heritage, it is appropriate, to amplify the role and place of *outspans* in Cape history. They are, indeed, highly significant in South Africa's history and landscape, having formed a great role in the everyday life and making of South Africa, particularly in the colonial period from the 17th to 19th centuries.

However, they remained in use at least until the mid-20th century depending on the users and the survival of the outspan e.g. families who could not afford motor vehicles still used ox wagons or horse and traps to travel to town. As the journey could be quite long, a relatively long stay at any outspan outside town of a matter of days could result. Thus rural farm folk would still have their memories of the use of these sites for meeting their relatives and/or for their outspan camps on market days, holidays and other social occasions. The author's own in-laws have told me of their memories of such events.

Therefore, the SHS&MP's Appendix 5's statement about: **"This outspan has landmark and associative significance and is highly regarded by people living in the area"** rings true and that local residents could well have such historic and associative memories of the outspan at *Calcutta 29*.

Outspan Definition

A quintessential South African term, *outspan* is integral to the history and development of the country. Rhodes University's *A Dictionary of South African English on Historical Principles* (DSAE)¹² provided the following definition and literary references:

1. In full *outspan place*: **a. hist.** In the days of waggon transport: land near a public road, set aside for public use, on which travellers broke their journey or camped while allowing their draught-animals to rest and graze. **b. transf.** [COMMONAGE](#). **c. fig.** Any place at which one may break a journey (see Prance quot. at 1937). **d.** In recent times: any piece of land formerly designated as an outspan place. Also *attrib.* In all senses formerly also called [UITSPAN](#) *n.*

[1812 A. Plumptre tr. of H. Lichtenstein's Trav. in Sn Afr. (1928) I. 19 One of the many stations to which the name of Auspannplatze was given, because they 'were established by the Government for the benefit of travellers as resting-places.']

1821 C.I. Latrobe Jrnl of Visit 167 A team or set of oxen or horses put to a waggon, is called by the Dutch a Spann, and those places in the wilderness, where halt is made and the oxen unyoked, an Outspann-place.

A partial listing is provided in the Appendices to amply illustrate the vast repertoire of the word and usage in South African literature and everyday life, and gives a flavour of its changing usage from the earlier Dutch period through the British and into the Apartheid pe-

¹² *A Dictionary of South African English on Historical Principles*. Dictionary Unit for South African English: Associated Institute for Rhodes University. <http://dsae.co.za/#!/searchword/5458> (accessed 31 October 2018).

riod. Famous writers using the word include: WJ Burchell, LG Green, OEA Schreiner, H Rider Haggard, *et al.*

The most significant work on a Cape outspan is probably **Edmund H Burrow's *Overberg Outspan: Overberg Outspan: A Chronicle of People and Places in the South Western Districts of the Cape* (1952)**, Maskew Miller: Cape Town. Regrettably not seen at the time of the HIA.

Outspan History

The outspan was a place particularly related to the transport system of early times related to draught animals such as horses and oxen which were used to haul wagons around the country. The placement of such facilities might have started informally in the Dutch period when they were known from the Dutch *uitspan*. However, these were formalised during the British period such that by the time of the late Victorian period in the late 19th century, a network of Outspan sites were located around the country. These were strategically placed along major routes and, apparently, their frequency varied according to the ease or difficulty of the terrain, more outspan points being required when the going was more difficult on the animals. By the time of the Apartheid Period, the Afrikaans *Uitspan* often appears instead.

Outspan Sites

The 1890 map of the Stellenbosch area shows numerous Outspan sites. These became *Uitspan* on later maps of the 20th century. Regardless of the linguistic history, outspan/*uitspan* sites developed in their own way as modern forms of motorised transport developed leaving behind obsolete pieces of land, the remnants of the 19th century transport outspan system. The literature references in the Appendix trace the amazing history of outspan points from its early Dutch days to its high point under colonial British administration.

Outspans and Outdoors

Outspans could perhaps by misnomer be thought to be related to the outdoors based on the *out-* prefix. However, as the definitions show, *out-* was derived from *uit-*, the negative *un-* as in unyoke. Nevertheless, by their very nature, outspans were indeed outdoor facilities used for the resting and unyoking of draught animals, be they horses and donkeys, or teams of oxen pulling wagons. Simultaneously, they were places of rest for the people riding them.

Outspans and Transport

These were often transport riders travelling the rough routes to the interior, but they also included farmers travelling to town and people travelling in the untamed country generally. The modern road network and high speed nature of motorised travel and before that, the railways, made these places highly habituated and regularly in use by all and sundry. Therefore, they formed key places of socialisation by those on the road, if not relaxation at the end of a hard day's travel or in-between. Depending on the going, draught animals

might have to stop up to three times in a day so they would have formed key points to stop and have a drink/meal break.

Outspans and Lay-bys

As the ancient way of animal transport gave way to rail and vehicle, these places remained in the community and were often reused in a similar vein for ongoing social events and meeting places outside town. Their names continued on the maps. Gradually, they became leased out for other purposes, sometimes not for related activities, such as Calcutta, but very often they continued to be used as picnic and campsites. Indeed, sometimes they were retained, where the road network remained unchanged, as lay-by points, or, at least, formed the basis for the 20th century lay-by system.

Outspans and Recreation

Therefore, outspans/*uitspan* sites and properties, often quite extensive, as in Calcutta at some 30 hectares, formed a highly significant open space recreational facility in South African and colonial history. While the memory of them might only remain as traces on maps and place names, local rural societies might have stronger memories of them, as in the case of Calcutta, where the reference was noted in the SHS&MP (2018).

In the modern sense, we might think of pit stops to refuel and ablutions, garages and one-stop stations, KFC and W Store snacks, but their ancient origins are beautifully illustrated below.

Outspan and Related Acts

Acts relating to Outspans are numerous and give an idea of the extent of this now-forgotten aspect of life at the Cape and into the 20th Century. Extracts can be found in the Appendices taken mostly from the 3,300 plus page tome *Statutes of the Cape of Good Hope, 1652-1905*.¹³ They cover aspects related to the powers of the Divisional Councils, Trespass, Forests, Exemptions, Public Outspans, Animal Diseases, Disposal of Crown Lands, Pounds & Trespasses, Montagu Railway, Fencing and Wild Ostriches. This plethora of Acts regulating outspans was eventually consolidated in **The Public Outspans Act, 1893** which consolidated four earlier Acts, namely, The Divisional Councils Act, 1889; The Fencing Act, 1883; The Fencing Law Amendment Act, 1891; and the Pounds Act, 1892.

In the early 20th Century various Acts continued to regulate **Public Outspans** and associated **Trekpaths**:

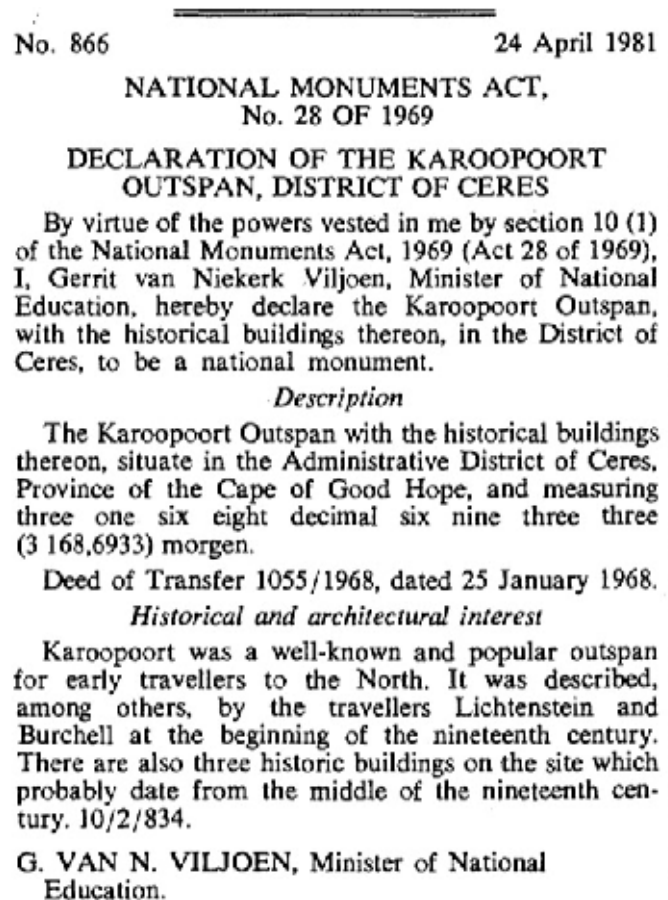
¹³ H. Tennant and E.M. Jackson (1895). Revised and Edited by E.M. Jackson (1905). *Statutes of the Cape of Good Hope, 1652-1905*. Cape Town: Cape Times Limited, Government Printers. Digitised by the University of Pretoria, Library Services, 2013.

- The Outspans Act (1902, 1906, 1909)
- The Leasing of Outspans Act (1909)
- The Trekpaths Act (1908)
- The Trekpaths Amendment Act (1909).
- The Cape Outspans Acts (1937).

These were updated in the 1937 Act and amended/updated in 2011.

Outspan Monuments

The Karooport Outspan was declared in 1981.



Source: <https://www.sahra.org.za/sahris/node/30991>.

Figure 4-16: Declaration of the Karooport Outspan, District of Ceres (1981).

The Karooport Outspan is the only outspan formerly recognised as a National Monument, now a Provincial Monument.

4.8 Heritage Contexts

The following heritage contexts are relevant to this site in terms of the provincial guideline for heritage studies (pp 21-27, see our report section 3.3.4), namely, palaeontological, archaeological and scenic/visual landscapes. All three have been assessed for likely heritage impact issues associated with the proposed development.

4.8.1 Palaeontological Landscape

John Almond of Natura Viva cc prepared a Palaeontological Impact Assessment (PIA) in November 2018.¹⁴ The full text of the PIA can be found in the Appendices.

The PIA notes (p 8) as follows:

No fossil remains were recorded on Farm Calcutta RE/29 during the short palaeontological site visit. It is concluded that the palaeontological sensitivity of the Memorial Park study area is very low.

CONCLUSIONS & RECOMMENDATIONS

Late Caenozoic superficial deposits (sandy soils, ferricrete, stream gravels) as well as the underlying, deeply-weathered bedrocks of Malmesbury Group metasediments intruded by Cape Granite in the Memorial Park study area are all of low palaeontological sensitivity (Almond & Pether 2008). The proposed cemetery development is very unlikely to entail significant impacts on palaeontological heritage. There are therefore no objections on palaeontological heritage grounds to authorisation of the proposed development.

It is recommended that, pending the exposure of significant new fossils (e.g. mammalian bones and teeth) during construction, exemption from further specialist palaeontological studies and mitigation be granted for this development.

4.8.2 Archaeological Landscape

Jonathan Kaplan conducted an Archaeological Impact Assessment (AIA) of the project site in October 2018.¹⁵ The full text of the AIA can be found in the Appendices.

Extracts of the study results are summarised as follows (**bold added**):¹⁶

Results of the Study

“A field assessment of the subject property was undertaken on 18 October 2018, in which the following observations were made:

- **No pre-colonial archaeological heritage was encountered during the study.**
- **No buildings, structures or features were noted.**
- **No remains associated with the historic Calcutta Bos Outspan were found.**

Archaeological visibility is extremely low due to dense vegetation cover, but indications are that the receiving environment is not a sensitive archaeological landscape.

¹⁴ John E Almond, PhD (November 2018). *Proposed Memorial Park on Farm Calcutta RE/29 near Stellenbosch, Cape Winelands District Municipality, Western Cape*. Nature Viva, Cape Town.

¹⁵ Jonathan Kaplan (November 2018). *Archaeological Impact Assessment: Proposed Municipal Cemetery on Farm No 29 Calcutta, near Stellenbosch, Western Cape*. Agency for Cultural Resource Management: Rondebosch.

¹⁶ Executive Summary (ibid, page 1).

Impact Statement

The results of the study indicate that the proposed construction of a new municipal cemetery on Farm No. 29 Calcutta, will not impact of important archaeological heritage.

Conclusion

The study has identified no significant impacts to archaeological heritage that will need to be mitigated prior to the proposed development commencing.

Recommendations

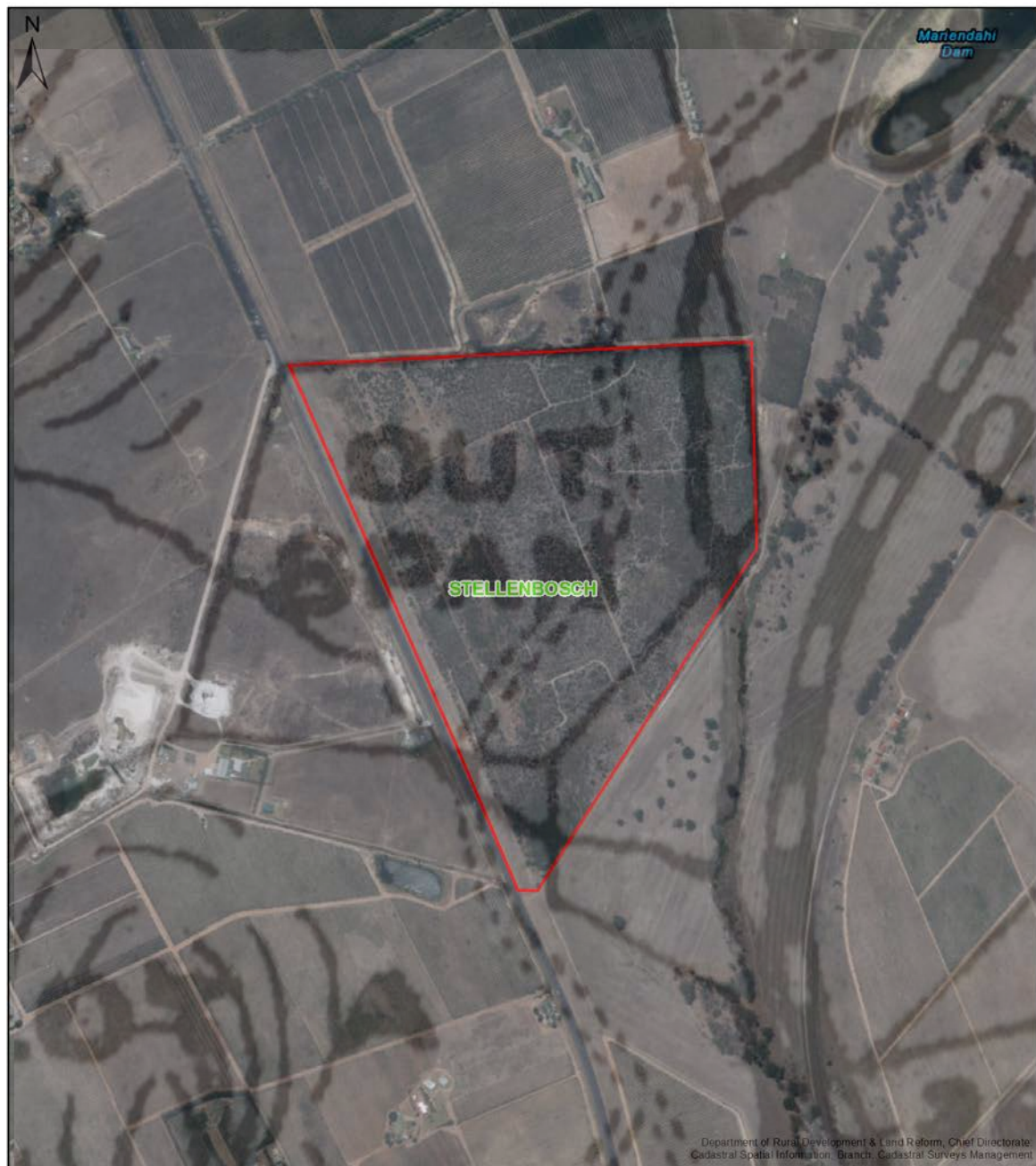
The following recommendations are made: 1. No archaeological mitigation is required prior to construction activities commencing.

4.8.3 Historical Map Comparison

The following figure (see Figure 4-17) is an approximation of the 1890 survey versus today's satellite imagery and cadastral mapping. The overlay shows that the 1890 map is not entirely accurate in its outline. This may account for the old river course shown as going through the upper NE/top right sector versus today where the river now runs on a straight course towards Mariendahl Dam. Alternatively, the river course was altered subsequently sometime in the 20th century, possibly associated with the dam's construction. However, not knowing the facts, river course can change, especially during flooding events.

On the face of it, it does not seem to be possible to discern any of the old track which meandered along the river to the west in terms of any contemporary tracks remaining in the gum plantation, not at this scale anyway. It may still be possible to find this old track, however, if the land was ever ploughed prior to planting with gum plantation then all surface traces will now be lost. A reference to the earliest 1940s aerial photograph may help determine the exact old track/trekpath once noted. This would help to unlock and reveal the 19th century history in any future development and provide a meaningful peg for any planning framework.

Farm Calcutta 29 STB Local 1:10,000



Legend

- Provinces
- District Municipalities
- Local Municipalities
- Administrative Registration
- Allotment Township

0 0.125 0.25 0.5 km

Scale: 1:10 000

Date created: October 23, 2018



Western Cape Government
Agriculture

Source: New World Associates / WC Government: Agriculture.

Figure 4-17: 1890 Plan on 2018 Aerial Photograph.

Showing an approximation of the 1890 map details over today's aerial image. NTS.

4.8.4 Visual-Aesthetic & Landscape

A Visual Impact Assessment¹⁷ was prepared and can be found in the Appendices. Visual and scenic issues relate to the likely impact of this cemetery development on the Grade IIIb agricultural landscape and the R304. Some preliminary remarks follow:

1. The site lies adjacent to the R304, which is not a designated scenic route. The route is of mixed scenic value, more so on the southbound journey with open views to the mountains.
2. The landscape is generally open and flat with a mixed agricultural feel of open pastures, vineyards and some agricultural technology developments.
3. The site itself is covered with dense, immature gum plantation making views into the site very short.
4. The site cannot be easily seen from other roads, if at all, and neighbouring farms alone would be able to access it on north, east and south boundaries.

Visual-Aesthetic & Landscape Significance

Calcutta Bos has high significance as a local historic outspan site and is clearly marked on the 1890 map. Its current character as a woodlot or gum plantation is of more recent nature and is unlike the surrounding grassy fields, pastures and vineyards. In its present condition, it does not seem well suited to its current purpose as a woodlot, possibly fire damaged in recent years and the great drought of 2015-2018, and is out of character with its original purpose as outspan grazing and camping. Therefore it has low significance as a woodlot in its current condition but high significance if it were to restore pastoral landscape suitably equipped with shade and other facilities. Its rural setting makes it well suited to the purposes of a cemetery with easy access from the R304.

4.9 Heritage Significance

The proposed development of a large cemetery will have various types of impact on the heritage environment, **primarily landmark, associative and visual-aesthetic**, but also possibly archaeological from the outspan period once the site is cleared.

4.9.1 Historic Significance

Beyond the history outlined in the sections previously, it has not come to light that there is a significant local history with this portion of land as an outspan, originally established in the colonial period and formalised under British administration of the Stellenbosch

¹⁷ New World Associates (November 2018). *Calcutta 29, Stellenbosch Visual Impact Assessment*.

Divisional Council (see the Acts in the Appendices). As far as has been ascertained in the time available for study, there are no written histories of its use as an outspan but references to it surely exist as it is quite prominent being one of only seven or eight outspans in the Stellenbosch District. The SHS&MP (2018) refers to the Calcutta Bos Outspan as follows (Appendix 5):

“This outspan has landmark and associative significance and is highly regarded by people living in the area.”

This does not apply to the entire site, however, but only to the southern portion, currently heavily invaded with Acacia. The use of the entire site as an outspan, less Portion 1 west of the R304 sold off in 1941, is part of the entire outspan site and history. Cattle were ‘let loose’ to graze on the site during outspan journeys, hence, its size and shading, not to mention, location for watering cattle, horses and people alike. These all-together form part of *Calcutta* outspan’s collective heritage.

4.9.2 Aesthetic Significance

The property has reduced aesthetic significance in the wider agricultural landscape of the area. The land is mostly flat to slightly undulating down to the river to the east. The condition of the gum plantation on site is poor, uneven and bushy. This could be greatly improved if it were restored to a better-looking open landscape condition with shade trees such as those found adjacent/south of it.

4.9.3 Scientific Significance

The potential scientific significance of the site lies in the possibility of uncovering any significant archaeological or palaeontological remains. This will not be known until such time as excavation or development occurs but it is unlikely that anything would be recovered until such time as it is densely covered and transformed by, at the very least, gum plantation. It could have been ploughed prior to gum planting.

4.9.4 Heritage Grading

There are no structures on the site to grade but the area landscape has already been graded IIIb in the SHS&MP (2018) (see section 4.7.3 above), as has the outspan site on the southern portion been graded IIIb. This report would be inclined to agree with this as a minimum grading but the grading of outspan sites and other historic landscape/landmark features has not been undertaken systematically. As a very much forgotten feature of the landscape, except perhaps to locals, they are overlooked in their significance and might attract a

higher, even provincial Grade II grading, if more thoughtfully considered. Perhaps at the very least, in this case, a Grade IIIa grading might be considered if the criteria were clearer.

4.10 Site Photographs

The following photographs show the site as it is today (taken 30 October 2018).



Source: All photographs in this report by Bruce Eitzen © 2018.

Photograph 2: View of the site southbound on the R304.

The above photograph shows largely flat nature of the area and site at left. Views of Stellenbosch's mountains are in the distance. The mixed sized gum tree plantation can be seen, which is also heavily invaded in places with Acacia.

Adjacent are rolling pastures with mature Oaks, Gums and some Pine. Their situation is picturesque and possibly gives an idea of the 19th century landscape, which would have been considerably less developed at the time but quite possibly fenced.



Photograph 3: View of the site from the R304 showing the length of the southern boundary.



Photograph 4: View of the site from the R304 at its southern corner, site of the old outspan.



Photograph 5: View of the neighbouring picturesque rolling fields with mature trees and workers cottages.

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5 Project Description

5.1 Summary

The proposed cemetery at Calcutta 29 is one of two regional cemeteries being planned for the Stellenbosch Municipality. The Memorial Park concept plan prepared by OvP Landscape Architects (September 2018) is a first draft only. It shows a formal rectilinear layout with two axes, formal avenue planting, an informal parkland/open landscape zone to the south, and the main entrance to the north. It connects well with the surrounding landscape and is well conceived.

5.2 Introduction

Combined with Section 3, this chapter presents the relevant project data required to develop an HIA of the development for EIA or other application purposes. This chapter reviews the relevant basic aspects of the proposed development and includes plans and diagrams as appropriate to this end.

5.2.1 Reporting Requirements

This report is generally based on South African environmental management procedures and, more specifically, on the latest provincial guideline endorsed by the Provincial Government of the Western Cape (PGWC) on 3 November 2005: *Guideline for Involving Heritage Specialists in EIA Processes* (June 2005, PGWC).

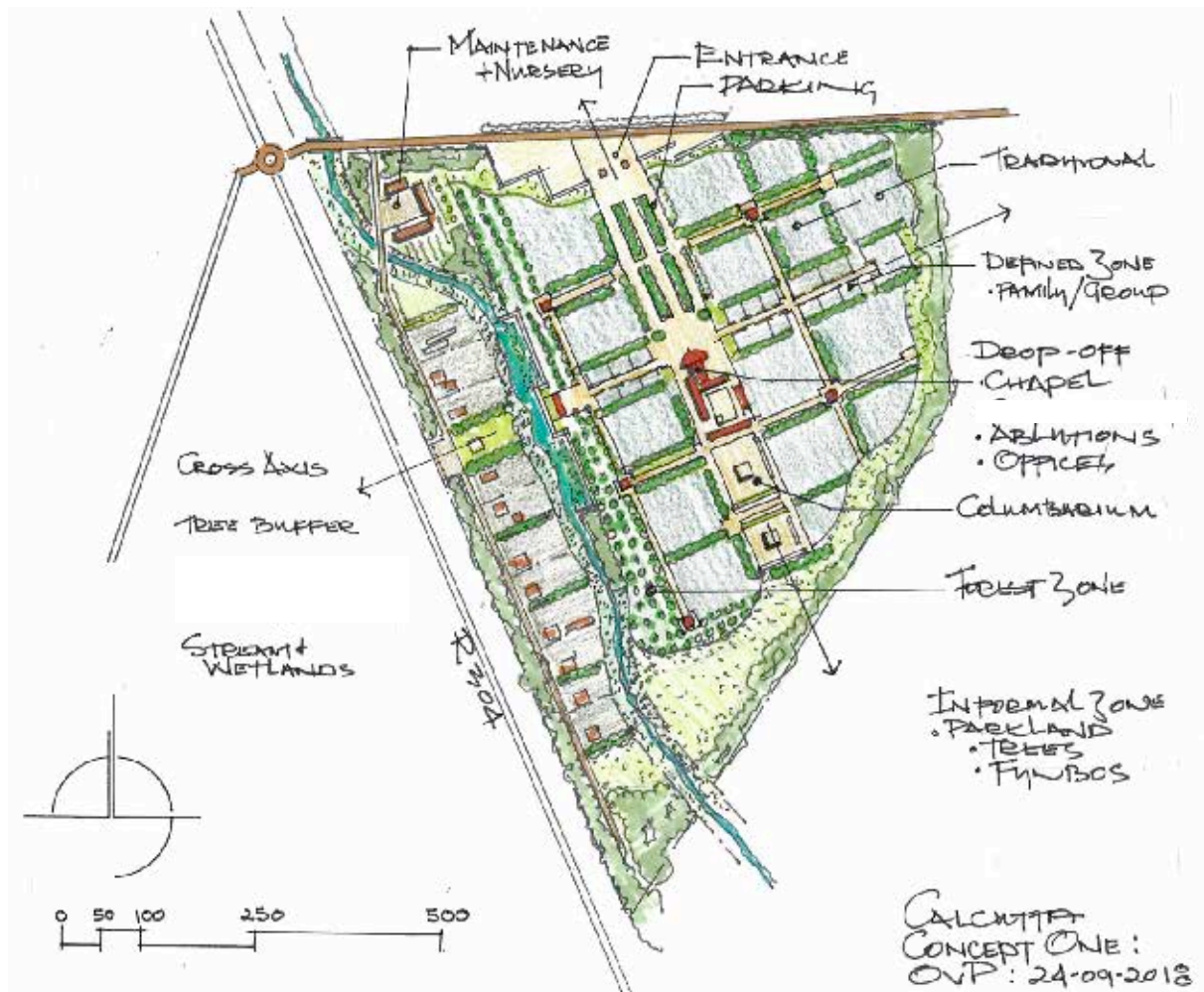
5.3 Development Proposal

5.3.1 Town Planning Application

The applicant wishes to develop a Memorial Park for the Stellenbosch Municipality on the site.

5.3.2 Memorial Park Concept

An initial First Draft has been prepared by OvP Landscape Architects (see Figure 5-1).



Source: OvP Landscape Architects.

Figure 5-1: OvP Draft Concept Plan One (24 September 2018).

This first draft is an initial concept only and was not intended for public consumption. No heritage informants were available at the time, such as the outspan site, but the site was walked.¹⁸

The plan indicates a stream running near the western/R304 boundary with a layout of small areas adjacent to it. The site is laid out on a grid parallel to the R304 with a central facility: chapel, ablutions, offices. Two axes expand off this central point, one east-west towards the road and one north-south. These are developed into various formal features including a 'columbarium'. A 'forest zone' separates the cemetery from the stream, smallholdings and R304 leaving it largely unseen from the road behind it. There is also a nursery. This extends into an open landscape to the south that would connect into the adjacent pasture. Formal avenue planting is indicated along the boundaries of the cemetery plot and special use areas. There are also formal avenue features along the main entrance axis with an entrance and new road off the R304 indicated on the northern boundary.

¹⁸ Johan van Papendorp (OvP), personal communication (7 November 2018).

5.3.3 Landscape and Environment

The landscape is detailed in the above plan and integrates well into the agricultural landscape. At this early concept stage, no specific details are known.

5.4 Alternatives

The Calcutta Memorial Park site is one of two final cemetery sites for the Stellenbosch Municipality, chosen out of a long process of selection from an initial 50 sites! This is the final choice in this area of the municipality and seems well chosen.

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6 Heritage Impact Assessment

6.1 Summary

The Heritage Impact Assessment shows that while there are potential archaeological impacts that may arise during construction, the most significant above ground impact will be associative-landmark and visual-aesthetic. Due to the disturbed nature of the site significant archaeological impacts are unlikely; however, if archaeological finds are recovered and conserved the impact could be positive. A potential high level of overall heritage impact is indicated due to the high Category D ranking of the project type and Context 2 medium to high heritage value of this Grade IIb Landscape and Site requiring a Level 4 HIA. At this time, the potential identified tangible heritage impacts are landmark and visual/aesthetic, which has been ranked as having a moderate visual and aesthetic impact. The intangible heritage impact is associative. Recommendations to mitigate the various potential heritage impacts are made.

6.2 Introduction

This chapter uses the information collected in the previous chapters to determine the likely significant heritage impacts of the proposed project on the heritage environment.

There are four possible areas of heritage identified in the study that could be affected by the development: archaeological, associative-landmark and visual-aesthetic landscape.

6.2.1 Key Issues

1. *Calcutta 29* belongs to the Stellenbosch Municipality; prior to that it was Crown Land and was set aside as a Public Outspan.
2. No fossil remains were recorded on Farm Calcutta RE/29 during the short palaeontological site visit. It is concluded that the palaeontological sensitivity of the Memorial Park study area is very low.

3. The Archaeologist found no archaeological remains or any structures on site during the field inspection but the possibility remains that some may be found during construction.
4. The site history specifics are not known but it is currently used for a gum plantation with trees currently being immature and of mixed age, under 10 years old.
5. The site is largely flat and wet, at least in parts, falling on river flats/*vlaktes* of the upper Krom/Plankenburg River.
6. The western portion of the site is highly visible from the R304 that connects from the N1 into Stellenbosch.
7. The first draft concept plan is well suited to the site and is well fit to the local context making some allowance for the outspan site.

6.3 Heritage Impact Assessment

6.3.1 Significance of Heritage Impacts Expected

The following table helps identify the likely level of heritage impact. The result may vary once field trips and impact assessments have been prepared.

HERITAGE CONTEXT	TYPE OF DEVELOPMENT			
	CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D
CONTEXT 1 High heritage value	Moderate heritage impact expected	High heritage impact expected	Very high heritage impact expected	Very high heritage impact expected
CONTEXT 2 Medium to high heritage value	Minimal heritage impact expected	Moderate heritage impact expected	High heritage impact expected	Very high heritage impact expected
CONTEXT 3 Medium to low heritage value	Little or no heritage impact expected	Minimal heritage impact expected	Moderate heritage impact expected	High heritage impact expected
CONTEXT 4 Low to no heritage value	Little or no heritage impact expected	Little or no heritage impact expected	Minimal heritage impact expected	Moderate heritage impact expected

Source: DEA&DP Guideline for Involving Heritage Specialists in EIA Processes (p 28).

Figure 6-1: The relationship between the Significance of a Heritage Context, the Intensity of Development and the Significance of Heritage Impacts to be expected.

Based on the above table, the overall heritage context can be described as Context 2 being “of medium to high intrinsic, associational or contextual heritage value within a national, provincial and local context, i.e. potential Grade 3B heritage resources” combined with a Category D development (highest project order), a **Very High Heritage Impact** is predicted (PGWC Heritage Specialist Guideline, p 28). This requires a **Level 4 Heritage Impact Assessment** (*ibid*, p 39).

Heritage Contexts

The following table describes the features of the various heritage contexts.

Context 1:	Of high intrinsic, associational and contextual heritage value within a national, provincial and local context, i.e. formally declared or potential Grade 1, 2 or 3A heritage resources
Context 2:	Of moderate to high intrinsic, associational and contextual value within a local context, i.e. potential Grade 3B heritage resources.
Context 3:	Of medium to low intrinsic, associational or contextual heritage value within a national, provincial and local context, i.e. potential Grade 3C heritage resources
Context 4:	Of little or no intrinsic, associational or contextual heritage value due to disturbed, degraded conditions or extent of irreversible damage.

Source: DEA&DP Guideline for Involving Heritage Specialists in EIA Processes (p 28).

Figure 6-2: Key to Heritage Contexts.

Categories of Development

The following table describes the various development categories.

Category A: Minimal intensity development	No rezoning involved; within existing use rights. - No subdivision involved. - Upgrading of existing infrastructure within existing envelopes - Minor internal changes to existing structures - New building footprints limited to less than 1000m²
Category B: Low-key intensity development	- Spot rezoning with no change to overall zoning of a site - Linear development less than 100m - Building footprints between 1000m²-2000m² - Minor changes to external envelop of existing structures (less than 25%) - Minor changes in relation to bulk and height of immediately adjacent structures (less than 25%).
Category C: Moderate intensity development	- Rezoning of a site between 5000m²-10 000m² - Linear development between 100m and 300m - Building footprints between 2000m² and 5000m² - Substantial changes to external envelop of existing structures (more than 50%) - Substantial increase in bulk and height in relation to immediately adjacent buildings (more than 50%)
Category D: High intensity development	- Rezoning of a site in excess of 10 000m² - Linear development in excess of 300m - Any development changing the character of a site exceeding 5000m² or involving the subdivision of a site into three or more erven - Substantial increase in bulk and height in relation to immediately adjacent buildings (more than 100%)

Source: DEA&DP Guideline for Involving Heritage Specialists in EIA Processes (p 29).

Figure 6-3: Key to Categories of Development.

Heritage resources are conserved, firstly, by identifying their location on site and their significance; and, secondly, by making recommendations to retain that significance and mitigate potential impacts. Extracts and discussion from the PIA, AIA and VIA follows with particular reference to potential heritage impacts and recommendations to mitigate them.

6.4 Palaeontology

6.4.1 Conclusions

Late Caenozoic superficial deposits (sandy soils, ferricrete, stream gravels) as well as the underlying, deeply-weathered bedrocks of Malmesbury Group metasediments intruded by Cape Granite in the Memorial Park study area are all of low palaeontological sensitivity (Almond & Pether 2008). The proposed cemetery development is very unlikely to entail significant impacts on palaeontological heritage. There are therefore no objections on palaeontological heritage grounds to authorisation of the proposed development.

6.4.2 Recommendations

It is recommended that, pending the exposure of significant new fossils (e.g. mammalian bones and teeth) during construction, exemption from further specialist palaeontological studies and mitigation be granted for this development.

6.5 Archaeology

6.5.1 Impact Statement

The results of the study indicate that the proposed construction of a new municipal cemetery on Farm No. 29 Calcutta, will not impact of important pre-colonial archaeological heritage.

Artefactual remains associated with the historic Calcutta Bos Outspan may, however, be revealed or exposed during preparation of the site for development.

6.5.2 Conclusion

The study has identified no significant impacts to archaeological heritage that will need to be mitigated prior to the proposed development commencing.

6.5.3 Recommendations

The following recommendations are made:

1. No archaeological mitigation is required prior to construction activities commencing.
2. As a precaution, the site should be scanned for artefactual remains dating from the time of the Calcutta Bos Outspan, once vegetation has been cleared and removed from the site.

6.6 Associative-Landmark

The associative and landmark status of the Calcutta Outspan landscape and site has already been identified and graded IIIb by the SHS&MP (2018). The old outspan site is held in high regard by locals and memories of the use of outspans are still current today as they remained in use until the mid-20th century.

The review of the history and layout of outspans in the Cape Town – Stellenbosch area showed that as of the late 19th century, there were only a handful of official outspans in the Stellenbosch Division; eight to be precise. There were three in the northern area between Klapmuts – Kraaifontein, of which the Calcutta site is the only one remaining, more or less intact as a purely rural site.

6.6.1 Impact Assessment

The potential impact of the proposed cemetery site on the old outspan is significant in that it is a wholesale change of land use from woodlot to cemetery. However, the draft concept plan has sensitively, if not, fortuitously, allowed for the conservation of the southern outspan site and surrounds in its overall framework. It would now be placed in the buffer informal parkland zone. At this time, there are no specific archaeological remains although considering the bushy plantation and invaded character this is not unsurprising. Careful clearing of the area may uncover some faint traces of its 19th/20th century use as may mid 20th century aerial photographs reveal its last use as outspan. Were the outspan site and surrounds be carefully conserved and landscaped, this would retain a memory of its core purpose and allow for local associations to be retained of the site's outspan purpose and character thus mitigating associative impact and retaining landmark value.

6.6.2 Recommendation

The following recommendations are therefore made to mitigate the potential associative and landmark impact of the cemetery development:

1. **Outspan Site Set Aside:** Set aside the southern portion of the site in a buffer zone as indicated but specifically the southwestern corner, say in a 50m radius, and designate this as the outspan site.
2. **Confirmation of Outspan Site Location:** This actual position should be confirmed if possible by further historical research and interview of locals.
3. **Review of Historical Aerial Photography:** to check the earliest 20th century imagery and layout of the site.
4. **Outspan Site Development and Interpretation:** Once all the facts about the outspan have been determined, a specific plan for the historic Outspan Site's development should be prepared including interpretive information and signage. This may include some traces of the route of the old Klapmuts Trekpath that once

crossed the site being built into the overall cemetery plan and any other information or practices that were/are associated with the outspan.¹⁹

5. **Outspan Route Recognition/Declaration:** The memory of outspans does not seem to be remembered or celebrated in any cohesive or coordinated manner by heritage. As outspans formed such a significant role in the early Cape landscape, if not South African landscape, it seems appropriate that this be celebrated. The Calcutta Outspan site is largely intact and without knowledge of the status and condition of other outspans in Stellenbosch or Cape Town and surrounds, it may be that this outspan's grading might be upgraded to IIIa, if not Grade II as part of a provincial scheme without affecting the intention to use it as a cemetery which is fully within the power of the various Outspan Acts. The determination of the value of the various outspans' grading could only be made as part of a wider study of outspans and trekpaths. This 'recommendation' or suggestion is outside this HIAs mandate so is for consideration by the Stellenbosch Municipality as a separate study that could have both heritage and tourist value.

6.7 Visual-Aesthetic

The greatest likely impact is on the visual environment being rural and partially scenic along this route.

6.7.1 Summary Visual Impact Assessment²⁰

- **Visual Impact:** The proposed development will have a moderate impact on the landscape causing some change to the visual environment.
- **Visibility:** The development has moderate to high visual exposure, moderate visual absorption capacity, medium compatibility, and is moderately to highly visible (R304).
- **Nature of Impact:** The development's visual impact has site-related to local extent, long term duration, medium intensity, definite probability, and medium significance on the landscape.
- **Recommendations** are made to minimise visual and aesthetic impact."

¹⁹ At this time of the first HIA draft, November 2018, feedback from the Stellenbosch Municipality and local heritage bodies had yet to be obtained. They may well have more information to hand than was available at the time of writing that can be used in these recommendations.

²⁰ Bruce Eitzen (November 2018). *Calcutta 29, Stellenbosch Visual Impact Assessment*. New World Associates, Landscape Architects, Fish Hoek.

6.7.2 VIA Recommendations

The following recommendations were extracted from the VIA (pp 53-55). Construction, Operation and Decommissioning recommendations are made on p 56.

Mitigation Recommendation: Planning and Design

The plan presented to date is an initial concept only. Therefore it is well able to take on any mitigation recommendations.

1. **Site Development Plan:** As noted previously, the concept plan is well conceived and sensitively fit to the landscape already:
 - 1.1 Taller structures such as the central facilities should be set back from the road as they are currently indicated and should not be moved to the edges of the site or nearer the R304.
 - 1.2 The landscape buffer along the edges is important to retain and should be well planted to prevent views into the site except at strategic locations such as on-axis.
 - 1.3 The HIA refers to the old *trekpath* to Klapmuts and the possibility of finding any historical aerial or other photographs that could be used to inform and retain any traces of the old outspan.
 - 1.4 Sustainable site development and Green Building principles or standards should be employed to enhance the environmental aesthetic.
 - 1.5 Lighting must be carefully managed to minimise excessive lighting wherever possible (see Operation Phase below).
2. **Colouration:** Careful colouration of fences in particular needs to be made, as well as any other landscape furniture such as lighting, benches, water features. These should preferably be in a natural colour palette that will not stand out from the agricultural landscape nor draw attention to itself with bright colouration. Likewise, building colours, walls and roofs, should be subtle.
3. **Landscape Plan:** The Landscape Plan should retain its existing features overall and not be changed to something completely different such as a freeform design. The traditional arrangement of cemeteries, the avenues and bounding walls will fit well into both the historical and cultural landscape.
 - 3.1 Wherever possible the greening/planting of the scheme needs to be maximised.
 - 3.2 Permeable paving and other sustainable practices should be incorporated into the landscape plan.

- 3.3 Planting using indigenous and preferably endemic species from the area should be planned from the beginning; traditional exotic trees are acceptable.
- 3.4 Large trees should be incorporated into the Landscape Plan to screen tall buildings or unsightly areas such as the nursery/maintenance yard.
- 3.5 Gum trees, pines and oaks, while not indigenous, are typically the only major trees that can survive the rugged environment and achieve the necessary scale. They are also traditional cultural elements and not out of place as a result.
- 3.6 Indigenous/endemic trees can also be used but are not as tall as gums.
- 4. **Perimeter Treatment:** As described above this may incorporate screening trees or fences. The treatment of perimeter fencing and any signage needs to be carefully considered.
 - 4.1 Unsightly massive walls are not appropriate but the traditional low Cape farm werf wall may suffice well on the boundary and help locate the site on the R304.
 - 4.2 Should fencing be required use clear-view fencing or similar is preferred, not palisade. It should be coloured a dull green to match the local environment and not black, silver, brown or other unnatural, standard commercial colours.
- 5. **Biodiversity:** As noted above, where possible, endemic planting schemes should be used with the exception of traditionally planted trees, which are permissible for practical and cultural landscape reasons.
- 6. **Maintenance:** Scheme maintenance both of buildings and landscape need to be undertaken with commercial maintenance projects with this intention from the outset for the duration of the project. Good site tidiness should be maintained at all times.
- 7. **Visual Assessor Review:** The proposed Landscape Plan should be referred to the visual impact assessor, namely, New World Associates, for review before it is approved, to ensure that it meets the recommendations of this report.

This concludes the Heritage Impact Assessment.

A select Bibliography follows.

NWA

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Appendices

Containing various appendices as referred to in the text.

- A. A Dictionary of South African English: outspan
- B. Outspan Acts
- C. Palaeontological Impact Assessment (PIA)
- D. Archaeological Impact Assessment (AIA)
- E. Visual Impact Assessment (VIA)
- F. Local Heritage Body Comment

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Appendix A: A Dictionary of South African English: outspan

Rhodes University's *A Dictionary of South African English on Historical Principles* (DSAE)²¹ provided the following definitions and references (only a selection included here, **bold** added to emphasise the main features of outspan/s and outspanning and **orange for the more poetic/aesthetic**):

outspan /'aʊtspæn/ *n.* Also **outspaan**, **outspann**.

ORIGIN: fr. **OUTSPAN** *v.*

1. In full outspan place: a. hist. In the days of waggon transport: land near a public road, set aside for public use, on which travellers broke their journey or camped while allowing their draught-animals to rest and graze. b. transf. COMMONAGE. c. fig. Any place at which one may break a journey (see Prance quot. at 1937). d. In recent times: any piece of land formerly designated as an outspan place. Also attrib. In all senses formerly also called UITSPAN *n.*

[1812 A. PLUMPTRE tr. of *H. Lichtenstein's Trav. in Sn Afr.* (1928) l. 19 One of the many stations to which the name of *Auspannplatze* was given, because they 'were established by the Government for the benefit of travellers as resting-places.']

1821 C.I. LATROBE *Jrnl of Visit* 167 A team or set of oxen or horses put to a waggon, is called by the Dutch a **Spann**, and those places in the wilderness, where halt is made and the oxen unyoked, an **Outspann-place**.

1822 W.J. BURCHELL *Trav.* l. 92 These *uitspan* or *outspan* places, are, in fact, the caravan-serays of the Cape.

1835 H.I. VENABLE in D.J. Kotze *Lett. of American Missionaries* (1950) 70 Outspan places are established by law for the accommodation of travellers.

1836 Ordinance for Defining Limits of Injury to Cape Flats & Downs in *Stat. Law of Cape of G.H.* (1862) 369 Licence to graze horned cattle...upon the aforesaid crown lands not being outspan-places.

1872 *E. London Dispatch & Shipping & Mercantile Gaz.* 19 Nov. 2 Government notice 405, of 1859, provided for the establishment of well-conducted houses of accommodation on outspans.

1884 G.C. CATO in *Natal Mercury* (letter) I must leave out a lot of matter that took place between the Surveyor-General and myself about roads, outspans, seaboard, reserves.

1898 W.C. SCULLY *Vendetta* 129 Its owner's intention being to wait for his travelling companion at the next outspan place, where water and pasturage were known to be good.

1903 E.F. KNIGHT *S. Afr. after War* 162 According to the old Free State law, each farm has to provide a public outspan where sheep and cattle can graze and water when travelling.

²¹ *A Dictionary of South African English on Historical Principles*. Dictionary Unit for South African English: Associated Institute for Rhodes University. <http://dsae.co.za/#!/searchword/5458> (accessed 31 October 2018).

1913 C. PETTMAN [Africanderisms](#) 355 At intervals along the roads in South Africa spaces are beacons off, **some public, others private**, where animals may be allowed to be outspanned and allowed to graze; these spaces are known as ‘outspans’.

1936 E. ROSENTHAL [Old-Time Survivals](#) 9 By an ancient law, virtually every settlement in the country has its ‘outspan’... where passing travellers are allowed to spend the night.

1936 E. ROSENTHAL [Old-Time Survivals](#) 10 Smaller towns possess outspans, which also serve as the market squares.

1937 C.R. PRANCE [Tante Rebella’s Saga](#) 28 A shilling a day per team for outspan-fee.

1948 [George & Knysna Herald](#) 21 May 8 Several more outspans falling under the control of the Divisional Council are to be advertised for lease.

1951 L.G. GREEN [Grow Lovely](#) 206 **The old outspans are appreciated by picnic and braai-vleis parties.** If you have travelled not less than five miles you are legally entitled to outspan facilities, including the right to pitch a tent for twenty-four hours.

1952 B. DAVIDSON [Report on Sn Afr.](#) 58 Along the roadside at frequent intervals, now, there were crescent-shaped notices set on posts with the word *outspan* written on the crescent — the traditional camping sites for trek wagons.

1958 F.G. BUTLER in R.M. Macnab [Poets in S. Afr.](#) 12 I stopped at the outspan place to watch... A little fire leaping near a wagon.

1970 [S. Afr. Panorama](#) June 31 The transport-riders gradually disappeared from the scene and with them the game at the outspan places also disappeared.

1971 [Grocott’s Mail](#) 27 July 3 The days of the voortrekkers are gone, and divisional councils no longer need outspans.

1985 [S. Afr. Panorama](#) Feb. 33 The two caravan parks were formerly outspans for grazing horses and cattle.

2. *hist.* In the days of waggon transport: the occasion or period of breaking a journey, unhitching the draught animals, and resting or camping.

1822 W.J. BURCHELL *Trav.* I. 87 Finding some waggons at *outspan*, we asked the favor of one of the boors to leave my bundle at Fortuintje, which lay in his road.

1824 *S. Afr. Jrrn* No.1, 28 The ennui²² of a dreary journey or an evening outspan in the interior.

1838 J.E. ALEXANDER [Exped. into Int.](#) I. 18 We journeyed onward,... enjoying our gipsy outspan in the middle of the day.

1897 J.P. FITZPATRICK [Outspan](#) 45 In our routine there was as a rule no eating during the night outspan.

²² Boredom!

1900 F.D. BAILLIE [Mafeking Diary](#) 288 Towards dark, after an outspan that was like a picnic, we reached Mr Wright's farm.

1924 G. BAUMANN in Baumann & Bright [Lost Republic](#) (1940) 130 On our way home, at one of our outspans, we bought a fowl.

1960 G. LISTER [Reminisc.](#) 1 The long treks, the outspans and all the excitement of pitching tents and cooking meals.

3. *Fig. and transf.* a. A stop-over, a break in a journey; a rest; a pause or digression. b. A place at which one breaks a journey; a resting-place.

outspan /'aʊtspæn/ v.²³

ORIGIN: Calque formed on Du. *uitspan*, *uit* out, from + *spannen* to yoke, hitch.

In all senses also [UITSPAN](#) v. Cf. [INSPAN](#), [OFF-SADDLE](#) v.

1. a. *intrans. obs.* To unyoke or unharness oxen or other draught animals and allow them to rest; to *span out*, see [SPAN](#) v. sense 3 a.

b. *trans.* To unyoke or unharness (oxen or other draught animals) from a wagon or plough; *rare*, to unhitch (a waggon) from its draught animals.

1878 T.J. LUCAS *Camp Life & Sport* 45 At night the oxen were outspanned and allowed to scatter whither they would in search of grass.

1926 P.W. LAIDLER [Tavern of Ocean](#) 184 Riebeeck Square was originally Boeren Plein, or Farmer's Plain, where the countrymen outspanned their wagons.

2. *intrans.* a. *hist.* To rest or camp at the side of the road while travelling by wagon; to *span out*, see [SPAN](#) v. sense 3 b. b. *transf. and fig.* To break a journey; to relax, take a break.

1811 J.G. CUYLER in G.M. Theal [Rec. of Cape Col.](#) (1901) VIII. 91 The rovers passed Scheepers at night who lay close to the road outspanned with his waggon.

[a1862 J. AYLIFFE [Jrnl of 'Harry Hastings'](#) (1963) 77 'You go in then you ask for permission to outspan — that's Dutch' said he 'it means that you want to stop there to trade'.]

1870 R. RIDGILL in A.M.L. Robinson [Sel. Articles from Cape Monthly Mag.](#) (1978) 23 It was not until we outspanned for the night, near Stellenbosch, that the last farewell was spoken.

1878 [Argus](#) 13 Apr. This was the half-way place, and we 'outspanned' here all day.

1883 M.A. CAREY-HOBSON [Farm in Karoo](#) 140 It is customary in the country,... when travellers wish to outspan upon a farm to ask the farmer's permission to do so.

1883 O.E.A. SCHREINER *Story of Afr. Farm* 246 We always travelled all night, and used to 'outspan' for five or six hours in the heat of the day to rest.

²³ A Dictionary of South African English on Historical Principles. Dictionary Unit for South African English: Associated Institute for Rhodes University. <http://dsae.co.za/#!/word/5459/outspan>, v.

1885 H. RIDER HAGGARD [*King Solomon's Mines*](#) 16 He outspanned alongside of me for a fortnight to rest his oxen.

1971 H. ZEEDERBERG [*Veld Express*](#) 24 Gone were the days when they could 'outspan' at the home of a farmer or relative, and spend a few days on a hunting expedition.

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Appendix B: Outspan Acts

STATUTES
OF THE
CAPE OF GOOD HOPE,
1652-1905.

BEING A REVISED REPRINT OF THE AUTHORISED
EDITION ISSUED IN 1895

BY

H. TENNANT AND E. M. JACKSON,

TO WHICH HAVE BEEN ADDED THE ACTS OF
PARLIAMENT PASSED IN THE SESSIONS HELD DURING
THE PERIOD 1896-1905.

REVISED AND EDITED

BY

E. M. JACKSON.

VOL. II., 1880-1893.

PAGES 1663-3313.

CAPE TOWN :

CAPE TIMES LIMITED, GOVERNMENT PRINTERS.

1906.

P. 4516.

Source: University of Pretoria, Library Services, 2013.

Figure 0-1: *Statutes of the Cape of Good Hope, 1652-1905.*

Acts relating to Outspans are numerous and give an idea of the extent of this now forgotten aspect of life at the Cape and into the 20th Century. The following extracts are taken from the 3,300 plus page tome *Statutes of the Cape of Good Hope, 1652-1905*²⁴ and some from 1907-1909.

²⁴ H. Tennant and E.M. Jackson (1895). Revised and Edited by E.M. Jackson (1905). *Statutes of the Cape of Good Hope, 1652-1905*. Cape Town: Cape Times Limited, Government Printers. Digitised by the University of Pretoria, Library Services, 2013.

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DISPOSAL OF CROWN LANDS.

No. 15—1887. Conditions of sale.	4. The said conditions of sale, together with the description of the situation and extent of the land, and such special servitudes, conditions and regulations as may be annexed thereto, shall be printed in the English and Dutch languages and affixed at some convenient place at or near the place of sale; and before putting up any lot the auctioneer shall read, or cause to be read, in both these languages, the terms, conditions, stipulations, and servitudes on or under which the said land shall be sold, and shall also exhibit a plan showing the extent and position of the said land in relation to adjacent or neighbouring lands.
General conditions of sale.	5. (1) The said lands shall in addition to any special servitudes, conditions and stipulations as aforesaid be sold subject to the following general conditions, viz.:
Roads preserved.	(a) All roads and thoroughfares being or existing on the land, described in the plan or diagram of the same, shall remain free and uninterrupted: unless the same be closed or altered by competent authority.
Roads of necessity.	(b) If at any time it should appear to the Governor upon petition of any adjacent or neighbouring proprietor that such adjacent or neighbouring proprietor requires a way or road of necessity to or from the land of such adjacent or neighbouring proprietor, the owner of land purchased under this Act, upon which such road is required, shall be bound to grant such way or road of necessity, and to point out the direction and width thereof: Provided that in case of a dispute or difference regarding such road, or its sufficiency, the direction and width of the road shall be decided upon by the Divisional Council of the division in which the land is situated: Provided further that the said owner shall not be bound to allow such road or thoroughfare across land which shall at the time be in a state of cultivation or improvement, and that compensation for the right of way and any damage done shall be paid for by the person or persons for whose benefit and upon whose application the said road is made according to determination by arbitration.
Right of Governor to make roads, &c.	(c) The Governor shall at all times have the right to make roads, railways, dams, aqueducts, drains, and to conduct telegraphs over the land for the benefit of the public, and to take materials for these purposes, also to establish convenient outspans for the use of travellers, on payment to the proprietors of such sum of money as compensation as may be determined by arbitration: Provided that the arbitrators may set off against the loss or damage caused to the proprietor, the benefit, instant or prospective, which he shall or may derive in consequence of the construction of any of the said works.

¹ See § 18, Act 40, 1895 (p. 3569) and 46, 1899 (p. 4230).

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-2: Act 15—1887: Crown Lands Disposal Act, 1887.

4 (c) The Governor shall... also to **establish convenient outspans for the use of travellers**, on payment to the proprietors of such sum of money as compensation as may be determined by arbitration:

This is the Act governing the great unbundling and privatisation of Crown Lands referred to in SHS&MP Appendix 1 (see p 46).

DIVISIONAL COUNCILS.

2763

SUB-DIVISION II.

No. 40—1889.

PART I.

PUBLIC OUTSPANS.

207. All public outspans in any division shall be under the management and control of the divisional council of such division. A divisional council may, with the consent of the Governor, let a portion of any outspan ⁽¹⁾ over which it has control, not exceeding in extent one morgen, with a limited right of grazing over the remainder, subject to conditions for the erection of buildings for the accommodation of travellers, the making, or keeping in repair of dams, the eradication of burr-weed or noxious plants or otherwise, such as the Governor shall approve: Provided that before submitting any application and conditions for the Governor's approval, notice thereof shall be given in the newspapers in which the notices of such council are usually published, for one month, and if any objections be made such objections shall be forwarded to the Governor together with the council's remarks thereon. No such letting shall be for a period longer than seven years.

Control of public outspans.

SUB-DIVISION III.

PART I.

PUBLIC HEALTH.

208. [Repealed by Act 23, 1897.]

209. The council of every division is hereby empowered as occasion may require, to levy special rates upon all property situated within such division, exclusive of any municipality or community under the Villages Management Act, and liable to be rated by such council, for the purpose of defraying any expenses incurred or to be incurred under the provisions of the "Public Health Act, 1883,"

Special rates to be levied as occasion may require for health purposes.

¹ Cannot lease any portion of any private land which shall be subject to a registered servitude of outspan, § 3, Act 11, 1893 (p. 3151).

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-3: Act—40, 1889: The Divisional Councils Act, 1889: Sub-Division II, Part I Public Outspans.

207. All public outspans in any division shall be under the management and control of the divisional council of such division. A divisional council may, with the consent of the Governor, let a portion of any outspan (²⁵) over which it has control, not exceeding in extent, one morgen, with a limited right of grazing over the remainder, subject to conditions for the erection of build-

²⁵ Cannot lease any portion of any private land which shall be subject to a registered servitude of outspan, § 3, Act 11, 1893 (p. 3151).

ings for the accommodation of travellers, the making, or keeping in repair or dams, the eradication of burr-weed or noxious plants or otherwise, such as the Governor shall approve: ... No such letting shall be for a period longer than seven years.

At this time, Outspans and aspects relating to Outspans, such as Fencing, or Impounding Animals grazing on Outspans, were contained in other Acts, largely under the massive Divisional Councils Act, 1889 regulating council control of the Cape's Divisions.

SUB-DIVISION IX.

PART I.

BYE-LAWS OR REGULATIONS.

279. Every council may from time to time make, alter, and revoke bye-laws or regulations for all or any of the following purposes:—

General provision as to bye-laws or regulations.

- (1) Regulating the proceedings of the council and the duties of their officers and servants and preserving order at council meetings;
- (2) For preventing injury to any dams or the pollution of any water over which the council may have control;
- (3) For planting and preserving (1) trees and shrubs and preventing injury thereto;
- (4) For regulating the use of and generally controlling outspan (2) places;
- (5) For regulating traffic upon, over, or in, and preventing injury to roads, bridges, pontoons, ferry boats, or any other property, movable or immovable, vested in the council;
- (6) For the more effectual eradication or destruction or prevention of the spread from adjoining divisions of *Xanthium Spinosum* or any other noxious weed or plant;
- (7) Generally for the purposes of this Act.

But no such bye-law or regulation shall be contrary to the provisions of this Act or of any other law in force in this Colony.

280. After any resolution for passing any bye-law or regulation has been agreed to by the council, and not less than seven days before the same is confirmed by further and final resolution of the council, a copy of such bye-law or regulation shall be deposited at the office of the council, and shall be there open to the inspection of any person at all reasonable times, and a notice shall be published in some newspaper generally circulating in the neighbourhood, setting forth the

Notice of and opportunity to inspect intended bye-law, &c.

¹ See also Act 4, 1876 (p. 1400).

² See Acts 11, 1893 (p. 3151), and 41, 1902 (p. 4518).

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-4: Act 40—1889: The Divisional Councils Act, 1889 Sub-Division IX, Part I Bye-Laws or Regulations.

(4) For regulating the use of and generally controlling outspan (2) places.²⁶

Bye-Law 279 (4), 1889 was specifically “for regulating the use of and generally controlling outspan places”.

²⁶ As an aside, (3) For planting and preserving (1) trees and shrubs and preventing injury thereto

PUBLIC HOLIDAY.

2683

found in or upon such land, and any person who shall be convicted of a contravention of this section shall be liable to a fine not exceeding twenty pounds sterling, and in default of payment to imprisonment with or without hard labour for any term not exceeding six months.

No. 34—1889.

4. The provisions of the last preceding section shall *mutatis mutandis* apply to every person who shall, without a licence under this Act, kill, catch, capture, hunt, wound, or shoot at any wild ostrich upon any unoccupied land belonging to the Crown, or take, remove, interfere with, or disturb the eggs of any wild ostrich, found in or upon such land: Provided, however, that all fines under this section shall be recovered for the benefit of the Colonial Treasury, subject to the payment of an amount not exceeding one-half of such fine to any informer through whose information any offender shall be convicted.

Similar offence by unlicensed person in respect of unoccupied Crown lands: fine paid to treasury, subject to payment of portion to informer.

5. For the purposes of this Act the Secretary of every Divisional Council, acting under the authority of the said Council, shall be deemed to be the occupier of every main and divisional road and of every public outspan place in each division, the Secretary of every Municipal Council or Board of Commissioners acting under the authority of the said Council or Board shall be deemed to be the occupier of all land vested in such Council or Board, or to the use or occupation of which the inhabitants in the municipality have acquired a common right, and the Secretary of every Board of Management constituted under the Villages Management Act, 1881, shall when acting under the authority of the said Board, be deemed to be the occupier of all lands to the use or occupation of which the inhabitants within the local limits under the management of such Board have acquired a common right.

Secretaries to represent Divisional and Municipal Councils, & Boards of Management, for the purposes of this Act.

6. This Act may be cited as the "Wild Ostriches Act, 1889."

Effect and short title of Act.

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-5: Act 34—1889: Wild Ostriches Act, 1889.

5. For the purposes of this Act the Secretary of every Divisional Council, ... shall be deemed be the occupier of every main and divisional road **and of every public outspan place in each division...**

In this Act 13, 1889, the relationship between divisional roads and public outspans is inherently recognised. The Wild Ostriches Act, 1889 replaced The Wild Ostriches Act, 1875 and Act 12, 1870. It regulated the protection of Wild Ostriches on Crown Land which were only allowed to be hunted with a license (ibid, p 2682):

2. The several Civil Commissioners throughout the Colony are hereby authorised to issue to any person applying therefor, a licence to kill wild ostriches upon unoccupied lands belonging to the Crown, which licence—

This included protection and hunting of Wild Ostriches on Divisional Council Outspans.

Liability of divisional council as to fencing of public outspans, &c., in its occupation.

Advances for fencing to divisional councils or municipalities, or village management boards.

(d) The divisional council of every division, in respect of every public outspan or baiting place, duly surveyed or marked off by beacons, and situated upon or near any public road within such division.

3. Every divisional council shall, in respect of any public outspan or baiting place whereof it shall be an occupier in accordance with the last preceding section of this Act, be liable to join in (2) or contribute to the construction of fences dividing such outspan or baiting place from other land; provided that

(a) the amount which such divisional council shall contribute shall in all cases, notwithstanding anything to the contrary contained in the said Act, be one half of the cost of construction of any such fences, to be paid in manner provided by the said Act and this Act;

and (b) such divisional council shall be liable to all the obligations of an occupier in respect of the maintenance and repair of any such fence when constructed.

4. It shall be lawful for the Governor, on the application of the council, board of commissioners, or other governing body of any municipality or corporate town, the board of management of any place wherein “The Villages Management Act, (3) 1881,” is in force, or the divisional council of any division, to grant, subject to the provisions of “The Local Works Loan Act, (4) 1882,” and out of such funds as Parliament shall have provided or may hereafter

¹ And in respect of all Crown lands. See § 1. Act 42, 1905 (p. 4963).

² Divisional Council not entitled to require any occupier to join in or submit to the fencing of land in respect of which a servitude of outspan is registered—§ 5. Act 11, 1893, p. 3151.

³ No. 29.

⁴ No. 11.

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-6: Act 15—1891: The Fencing Law Amendment Act, 1893.

Liability of divisional council as to **fencing of public outspans**, etc in its occupation.

At this time, Divisional Councils were required to fence or contribute to fencing public outspans and baiting places; **thus the connection between public outspans and baiting place is also recognised (3).**

TRESPASS ON OUTSPANS AND GOVERNMENT PROPERTY.

Who may im-
pound for trespass
on outspan

50. Every justice of the peace, field-cornet, and member of the council, and every road inspector, and secretary in the service of the council in any division, and also any person authorised in writing by any of the said persons, may impound any animals found upon any outspan place or vacant Crown land in the said division.

But this section shall not apply to animals in the possession of travellers who have outspanned for a period not greater than twenty-four hours, or for any period during which they may be detained by stress of weather or other sufficient cause upon the said outspan place.⁽¹⁾

Pound to which
such animals sent.

51. All animals impounded under the preceding section shall be sent to the same pound as would have been the case had the outspan or vacant Crown land been private property, and they had trespassed thereon; and the same mileage and trespass money shall be payable as if the said outspan were private property. But the mileage shall be paid to the person taking the animals to the pound, and the trespass money shall be paid to the secretary of the council of the division or to some person entitled to receive it for him.

Trespass upon
dam or tank, the
property of Govern-
ment.

52. Any animal not belonging to, or in the possession of a traveller which is found trespassing upon any dam or tank belonging to the Government, or to some council, and intended for the use of travellers and their cattle only, may be impounded by any of the persons in the fiftieth section mentioned, or by any persons

¹ Shall not extend to any animals being in the lawful custody of the occupier of any land which is subject to a registered servitude of outspan. § 4, Act 11, 1893. (p 3151).

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-7: Act 15—1892: The Pounds and Trespasses Act, 1892.

Who may impound for **trespass on outspan** (50) ... may impound any animals found upon any outspan place or vacant Crown land in the said division. But this section shall not apply to animals in the possession of travellers who have outspanned for a period not greater than twenty-four hours, or for any period during which they may be detained by stress of weather or other sufficient cause upon the said outspan place. (1²⁷)

²⁷ Shall not extend to any animals being in the lawful custody of the occupier of any land which is subject to a registered servitude of **outspan**, § 4, Act 11, 1893 (p 3151).

No. 11—1893.]

[August 29, 1893.

ACT (5)

To Exempt private land in respect of which there shall be Registered Servitudes of Outspan, from the provisions of certain Laws.

BE it enacted by the Governor of the Cape of Good Hope, with the advice and consent of the Legislative Council and House of Assembly thereof, as follows:—

1. So much of “The Divisional Councils Act, (1) 1889,” “The Fencing Act, (2) 1883,” “The Fencing Law Amendment Act, (3) 1891,” “The Pounds Act, (4) 1892,” or of any other Law as may be repugnant to or inconsistent with the provisions of this Act, is hereby repealed.

Repeal of repugnant laws.

2. For the purposes of this Act the term “occupier” shall mean any person, company, or co-partnership in actual occupation, or entitled as owner, to occupy any land alienated from the Crown.

Meaning of occupier.

3. It shall not be lawful for any Divisional Council to let or lease any portion of any private land which shall be subject to a registered servitude of outspan.

No lease of public outspan subject to servitude.

4. The powers of impounding conferred by section fifty of “The Pounds Act, (4) 1892,” shall not extend to any animals belonging to or in the lawful custody or possession of the occupier of any land which is subject to a registered servitude of outspan.

Impounding of animals belonging to occupier of land subject to servitude of outspan.

5. Nothing in the “Fencing Law Amendment Act, (3) 1891,” contained shall be deemed to entitle any Divisional Council to require any occupier to join in or submit to the fencing of land in respect of which a servitude of outspan is registered.

Fencing of land in respect of which a servitude of outspan is registered.

6. This Act may be cited as “The Public Outspans Act, 1893.”

Short title.

¹ No. 40 (p. 2781).

² No. 30 (p. 2142).

³ No. 15 (p. 2859).

⁴ No. 15 (p. 3018).

⁵ See also Act 41, 1902 (p. 4518).

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-8: Act 11—1893: The Public Outspans Act, 1893.

1. So much of “The Divisional Councils Act, (1) 1889,” “The Fencing Act, (2) 1883,” “The Fencing Law Amendment Act, (3) 1891,” “The Pounds Act, (4) 1892,” or of any other Law as may be repugnant to or inconsistent with the provisions of this Act, is hereby repealed. (3) No lease of public land subject to a servitude. (4) Impounding of animals belonging to occupier of land subject to servitude of outspan. (5) Fencing of land in respect of which a servitude of outspan is registered.

The first specific Act governing Outspans was **The Public Outspans Act, 1893** replaced four earlier Acts in whole, and others, where relevant, in part, namely:

1. The Divisional Councils Act, 1889
2. The Fencing Act, 1883
3. The Fencing Law Amendment Act, 1891
4. The Pounds Act, 1892
5. or of any other Law as may be repugnant to or inconsistent with the provisions of this Act.

CAPE TOWN MUNICIPALITY.

3255

- (30) For supervising and licensing pleasure boats and vessels and prescribing the fees to be paid; No. 26—1893.
- (31) For granting licences or permits for the making of bricks and for digging or removing sand, clay or gravel and for quarrying stone, and for cutting firewood, brushwood or grass upon municipal lands, and to prescribe the fees (if any) to be paid for the same;
- (32) For regulating traffic and processions;
- (33) For regulating, supervising and licensing hackney carriages and cabs, for fixing the amount of licence fees to be paid, the number of passengers to be carried, the fares to be charged, amount of luggage allowed to passengers, for regulating disputes as to fares, the position of cabs on stands to be appointed by the Council, and for the safety and convenience of passengers and the public;
- (34) For regulating, supervising and licensing wagons, carts and other conveyances or vehicles drawn by any horse, mule, donkey or ox kept or used within the Municipality or plying for hire or profit, and for fixing the licence fees to be paid;
- (35) For regulating the supervising and licensing of tramcars and omnibuses and for fixing the licence fees to be paid, the number of passengers to be carried, precautions to be taken and provisions to be made against accidents, and regulating for the safety and convenience of the public;
- (36) For regulating the keeping in repair and paving of tramway and railway lines running over public streets or roads and the keeping in repair and paving by tramway and railway companies and owners of tramcars and railways of the roadway between and adjacent to their rails;
- (37) For regulating the use of bicycles, tricycles and velocipedes in streets, squares, thoroughfares and public places;
- (38) For regulating or prohibiting the cleaning and training of animals, repairing, cleaning and outspanning of vehicles in streets and public places;
- (39) For regulating the conditions upon which and the locality where noisome and offensive trades may be carried on and for prohibiting if deemed desirable the establishment of and for restraining the same;
- (40) For planting and preserving trees and shrubs;
- (41) For regulating and registering houses let or occupied as common lodging houses and sub-let tenement houses, boarding-houses and hotels, and inspecting such houses and hotels, and the keeping the same in a cleanly and wholesome state.
- (42) For maintaining generally the good rule and government of the Municipality, and the safety, convenience and

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-9: Act 26—1893: The Cape Town Municipal Act, 1893.

170. The Council may also from time to time make, alter or revoke or amend rules (1) and regulations for all or any of the following purposes: (38) For regulating or prohibiting the cleaning and training of animals, repairing, cleaning and **outspanning of vehicles in streets and public places**.²⁸

²⁸ (37) For regulating the use of bicycles, tricycles and velocipedes in streets, squares, thoroughfares and public places; – **it is hard to imagine a world where tricycles were regulated** – but then they were much bigger! Just to say that

ANIMALS DISEASES.

3261

other law as may be repugnant to or inconsistent with the provisions hereof are hereby repealed: Provided that the repeal of any of the aforesaid laws shall not affect any proceedings commenced before the passing of this Act.

No. 27—1893.

2. For the purposes of this Act the following terms shall bear the following meanings:

Interpretation clause.

“Animal (1) shall mean any horse, gelding, mare, mule, ass, bull, ox, cow, heifer, calf, sheep, goat, pig or ostrich, and shall, for the purposes of sections three, four, five, six and seven, include “dogs” and “cats.”

“Occupier” shall mean:—

- (a) Any person, company or co-partnership occupying or in possession of land other than Crown land, in respect of such land.
- (b) The Field-cornet in respect of public roads, outspans and waste Crown lands within his field-cornetcy.
- (c) The inspector of native locations, in respect of locations on Government land, and in respect of locations on private land the owner or person in charge of such land.
- (d) The Chairman or, in his absence, the Town Clerk or Secretary of a Municipality or Village Management Board, in respect of lands, other than private property, roads and outspans, within the limits of such Municipality or Village.

“Scab Inspector” (2) shall mean any inspector appointed under the provisions of Act No. 28 of 1866 (2), or of Act No. 33 of 1888. (3)

Source: Digitised by the University of Pretoria, Library Services, 2013.

Figure 0-10: Act 27—1893: The Animal Diseases Act, 1893.

(a) The Field-cornet in respect of public roads, **outspans** and waste Crown lands within his field-cornetcy. (d) The Chairman... in respect of lands, other than private property, roads and **outspans**, within the limits of such Municipality or Village.

The control of Animal Diseases Act, 1893 also covered Outspans, which are here associated with public road and waste Crown lands, all under the jurisdiction of the Field-cornet.

the 19th century was a very different world to the 20th! We might expect, perhaps, a by-law, or Act even, on the regulation of mobile phones. As an aside: (40) For planting and preserving trees and shrubs; – all regulated.

No. 43—1908.]

[September 18, 1908.

ACT

To Provide for the Control and Protection of
Trekpaths and other Servitudes in favour of
the Public.

[Assented to 11th September, 1908.]

Be it enacted by the Governor of the Cape of Good Hope, Preamble.
with the advice and consent of the Legislative Council and
House of Assembly thereof, as follows :—

1. The term “animals” shall in this Act have the meaning Definition of
assigned to it in the third section of “The Pounds and Tres- terms.
passes Act, 1892.”

“Minister” shall mean the Minister to whom the Governor
has assigned the administration of this Act.

2. So much of “The Divisional Councils Act, 1889” or any Repeal of
other Law as may be inconsistent with or repugnant to this Act repugnant
is hereby repealed. Laws.

3. From and after the date of this Act all trekpaths, resting Divisional
places, watering rights and other servitudes in favour of the Councils ves-
public, existing over private property, whether such servitudes ted with con-
have been or may be established by long usage or by any instru- trol of public
ment in writing, shall be under the control of the Divisional servitudes.
Council of the division in which the property burdened with
such servitudes is situate.

4. Every Divisional Council within the Colony shall publish, Divisional
within six months of the taking effect of this Act, in the *Gazette* Councils to
and in one or more newspapers circulating in the division a com- publish lists
plete descriptive list of all such servitudes on private property of public ser-
and all such servitudes, outspans and doordrifts upon Crown vitudes.
Land so far as such servitudes, public outspans and doordrifts
are known, but the omission from such lists of any servitude
shall not in any degree prejudice the rights of the public thereto.
Every Divisional Council shall also give notice in writing to the
owners or occupants and other parties known to be interested
that such servitudes are claimed against the property and are
included in the list aforesaid.

5. Any owner of a private property or his lawful agent who Owner of
shall dispute the existence of any servitude contained in the list property may
Dispute servi-

Digitised by the Open Scholarship & Digitisation Programme, University of Pretoria, 2016

Source: Digitised by the University of Pretoria, Library Services, 2016.

Figure 0-11: Act 43—1908: The Trekpaths Act, 1908.

4. Every Divisional Council within the Colony shall publish, within six months of the taking effect of this Act, in the *Gazette* and in one or more newspapers circulating in the division a **complete descriptive list of all such servitudes, outspans and doordrifts upon Crown Land** so far as such servitudes, public outspans and doordrifts are known, but the omission from such lists of any servitude shall not in any degree prejudice the rights of the public thereto.

By 1908, lists of all public servitudes, outspans and doordrifts on Crown Lands had to be published where known. There is a degree of uncertainty allowed for to cover ‘unknown’ servitudes.

11. Every Divisional Council within the Colony shall furnish each field-cornet within the division with a similar list to that mentioned in the last preceding section of such servitudes, public outspans and doordrifts within his ward, and it shall be the duty of every field-cornet if instructed thereto by the Divisional Council to make himself thoroughly acquainted with every such servitude within his ward, to ascertain its position, extent and boundaries, and to periodically inspect it. He shall also, if instructed thereto by the Divisional Council, warn offenders and shall, upon any infringement or encroachment taking place, forthwith advise the Divisional Council thereof in writing. The costs of inspections or other services rendered by field-cornets under this Act shall be defrayed by the Divisional Council concerned.

12. It shall be the duty of every Divisional Council to protect and enforce the rights of the public against the owner or occupier of a private property, burdened with any such servitude and to notify him in writing of any infringement of any such right, and warn him to desist from such infringement: and any owner or

Field - cornets to periodically inspect public servitudes and report encroachments to Divisional Councils.
Penalty for infringing public servitudes.
Digitised by the Open Scholarship & Digitisation Programme, University of Pretoria, 2016

Source: Digitised by the University of Pretoria, Library Services, 2016.

Figure 0-12: Act 43—1908: The Treckpaths Act, 1908 § 11.

11. Every Divisional Council within the Colony shall furnish each field-cornet with the division with a similar list to that mentioned in the last preceding section of such servitudes, public outspans and doordrifts within his ward, and it shall be the duty of every field-cornet if instructed thereto by the Divisional Council to make himself thoroughly acquainted with every such servitude within his ward, to ascertain its position, extent and boundaries, and to periodically inspect it.

Furthermore, responsible field-cornets were to be acquainted with all such details relating to servitudes, public outspans and doordrifts in his ward, including periodic inspections.

15. Any person hunting or shooting upon Crown Land, being either a public outspan, resting place or door-drift, without a special permit from an officer duly authorized by Government to issue such permit shall be liable upon conviction to a fine not exceeding ten pounds, or in default of payment to imprisonment, with or without hard labour for any term not exceeding fourteen days. When found upon such Crown Land, any animals not *bona fide* trekking or travelling or in actual employment for drawing vehicles shall be liable to impoundment by the field-cornet, or by any person deputed by the Divisional Council therefor.

Penalty for hunting on outspans and doordrifts on Crown Lands. Field - cornet may impound animals found on such land except when trekking.
Digitised by the Open Scholarship & Digitisation Programme, University of Pretoria, 2016

Source: Digitised by the University of Pretoria, Library Services, 2016.

Figure 0-13: Act 43—1908: The Treckpaths Act, 1908 § 15.

15. Any person hunting or shooting upon Crown Land, being either a public outspan, resting place or door-drift, without a special permit from an officer duly authorized by Government to issue such permit shall be liable upon conviction to a fine not exceeding ten pounds, or in default of payment to imprisonment, with or without hard labour for any term not exceeding fourteen days. When found upon such Crown Land, any animals not *bona fide* trekking or travelling or in actual employment for trekking or travelling or in actual employment for drawing vehicles shall be liable to impoundment by the field-cornet, or by any person deputed by the Divisional Council therefor.

The Treckpaths Act, 1908 also covered **animal trespass on public outspans, resting places or door-drifts with a stiff fine of ten pounds or fourteen days!**

THE TREKPATHS ACT, 1908.

5461

16. From and after the date of this Act, it shall be lawful for the Governor on the recommendation of the Divisional Council, and with the consent of the owner in the case of private property, or if no agreement can be come to with the owner, as may be decided by arbitration in accordance with the provisions of "The Lands and Arbitration Clauses Act, 1882," and "The Arbitrations Act, 1898," read together, to close, reduce in width, deviate and alter the positions of trekpaths and to modify or cancel other public servitudes when it shall not be opposed to the public interests to do so, provided that a fair and reasonable sum of money—to be fixed, in case of disagreement by arbitration in the manner aforesaid, shall be paid into the general revenue of the Colony by the owner of any property released from such servitude in consideration of such release, or such other servitude as may be approved by the Governor shall be granted. Before taking action under this section notice of the intention of the Governor to do so shall be published in the *Gazette*, and in one or more newspapers published or circulating in the division in which the servient property is situated; and no such action shall be taken unless and until the Governor shall be satisfied that no sufficient reason has, within two months of the first publication of such intention, been adduced against such action: provided that the provisions of this section shall, where they may be opposed to the provisions of "the Outspans Act, 1902," or "the Outspans Act, 1906," not apply to outspans: provided that in case the divisional council shall have legally incurred any expenditure in connection with any outspan sold under this section, the amount so expended shall be refunded out of the amount realized by the disposal of such outspan.

No. 43—1908.

The Governor may close and deviate trekpaths, and modify and cancel public servitudes.

Source: Digitised by the University of Pretoria, Library Services, 2016.

Figure 0-14: Act 43—1908: The Trekpaths Act, 1908 § 16.

The Governor may close and deviate Trekpaths, and modify and cancel public servitudes. ... provided that the provisions of this section shall, where they may be opposed to the provisions of this section shall, where they may be opposed to **the provisions of "the Outspans Act, 1902" or "the Outspans Act, 1906," not apply to outspans:** provided that in case the divisional council shall have legally incurred any expenditure in connection with any outspan sold under this section, the amount so expended shall be refunded of the amount realized by the disposal of such outspan.

The Trekpaths Act, 1908 was intimately related to The Outspans Act, here enumerated as those earlier Acts of 1902 and 1906. These Acts not located yet for this study.

THE LEASING OF OUTSPANS ACT, 1909.

5619

No. 38—1909.]

[December 7, 1909.

ACT

To Make further Provision for the Leasing of
Public Outspans.

[Assented to 3rd December, 1909.]

BE it enacted by the Governor of the Cape of Good Hope with the advice and consent of the Legislative Council and the House of Assembly thereof, as follows :—

Preamble.

1. Notwithstanding anything to the contrary contained in the Divisional Councils Act No. 40 of 1889 or any other law it shall be lawful for any Divisional Council, with the consent of the Governor to let the whole or any portion of any outspan on Crown land over which it has control, subject to such conditions as to the right of grazing on the portion let, or on the remainder (if any) of the outspan, as the Divisional Council with the approval of the Governor may determine; and subject further to such other conditions as to the cultivation of the land, the right to compensation for improvements, the watering of stock, the erection of buildings, and the like, as such Council may similarly determine; provided that before submitting any application and conditions for the Governor's approval, notice thereof shall be given in the newspapers in which the notices of such Council are usually published, for one month, and if any objections be made such objections shall be forwarded to the Governor with the Council's remarks thereon. No such letting shall be for a period longer than seven years.

Leasing of
Public Out-
spans.

2. The Government shall not be liable to either the lessee or the Divisional Council for payment of compensation for improvements effected on any outspan during any lease entered into under the provisions of this Act save as provided in section four of this Act.

Government
not liable in
certain cases.

3. The proceeds of any lease under the provisions of section two hundred and seven of Act No. 40 of 1889 or of this Act shall from and after the 1st of January, 1910, be applied to improvements on or other expenses in connection with outspans, and in the event of a Divisional Council not requiring the proceeds of such lease for such purpose the lease rent so accruing shall be paid into the revenue of the Colony.

Proceeds of
lease for im-
provements.

4. The Government shall have the right to terminate any outspan lease which may in future be effected under the provisions of section two hundred and seven of Act No. 40 of 1889, or of this Act, upon six months' notice given to the Divisional Council, in case the land is required for public purposes, provided that compensation be paid to the lessee at a valuation to be fixed

Government
to determine
right to ter-
minate lease,

Source: Digitised by the University of Pretoria, Library Services, 2016.

Figure 0-15: Act 38—1909: The Leasing of Outspans Act, 1909.

TO MAKE FURTHER PROVISION FOR THE LEASING OF PUBLIC OUTSPANS. Leasing of Public Outspans.

Further provisions were made in 1909 for leasing out outspans.

In the following Act regarding the Zanddrift Outspan near Paarl, substantial fines for grazing on Public Outspans comes to mind even for significant landowners accustomed to longstanding grazing rights on perpetual quitrents on Crown Land adjacent to Outspan sites.

5490

THE DAL-WEIDING GRANT ACT, 1909.

No. 8—1909.]

[October 22, 1909.]

ACT

To Provide for the grant of certain land known as “Dal-Weiding,” to the present proprietors of certain adjacent properties in Division of Paarl.

[Assented to 20th October, 1909.]

Preamble

WHEREAS in the year 1829 the owners of the farms “Rust en Werk,” “Vlakkeland,” “Goede Rust,” “Nonpareille,” “Rogge-land,” “Schoongezigt,” “De Hoop,” “Calais,” “St. Omer,” “Nederburg” and “Orleans,” in the Division of the Paarl, applied in conformity with Government advertisement of the 23rd July, 1813, for the grant on perpetual quitrent of certain Crown land situated between their properties and the “Zanddrift Outspan”:

And whereas an objection was raised by the townspeople of the Paarl to the above application being acceded to on the ground that they claimed grazing rights over the said land:

And whereas the rival claimants allowed the final date prescribed by Government Notice of the 7th September, 1843, to pass without arriving at a settlement and the further petition of the said owners, presented in the year 1845, was rejected in terms of Government Notice, dated 15th March, 1844:

And whereas, although a further application in 1849 was also not entertained by the Government, the applicants and their successors in title have nevertheless continued jointly with the townspeople of the Paarl to graze their stock on the said land:

And whereas an agreement has been arrived at between the Town Council of the Paarl and the Village Management Board of Huguenot on behalf of the townspeople, and the present owners of the aforesaid farms, in terms of which the said owners are to have the exclusive right to graze over a certain portion of the land originally applied for, on condition that they give up all rights they may possess over the remainder:

Be it therefore enacted by the Governor of the Cape of Good Hope with the advice and consent of the Legislative Council and House of Assembly thereof, as follows:—

Governor
may grant
land to suc-
cessors in title
of 1829 owners
in Dal Josaphat.

1. Notwithstanding anything to the contrary contained in the “Crown Lands Disposal Act, 1887” (No. 15 of 1887), or any other law, it shall be lawful for the Governor to grant to the present registered owners of the following farms as they were held in 1829, viz.:—The farms “Rust en Werk,” “Vlakkeland,” “Goede Rust,” “Nonpareille,” “Roggeland,” “Schoongezicht,” “De Hoop,” “Calais,” “St. Omer,” “Nederburg” and “Orleans,” being situate in the Division of the Paarl, certain land situated near to the said farms, namely:—

Source: Digitised by the University of Pretoria, Library Services, 2016.

Figure 0-16: Act 8—1909: The Dal-Weiding Grant Act, 1909.

TO PROVIDE FOR THE GRANT OF CERTAIN LAND KNOWN AS “DAL-WEIDING,” TO THE PRESENT PROPRIETORS OF CERTAIN ADJACENT PROPERTIES IN DIVISION OF PAARL. ... **situated between their properties and the “Zanddrift Outspan”:** ... And whereas an objection was raised by the townspeople of the Paarl to the above application being acceded to on the ground that they claimed grazing rights over the said land:

No. 17, 1937.]

ACT

To provide for the issue of deeds of grant to divisional and municipal councils in respect of outspans consisting of Crown land situated in the Province of the Cape of Good Hope.

BE IT ENACTED by the King's Most Excellent Majesty, the Senate and the House of Assembly of the Union of South Africa, as follows :—

- | | |
|--|---|
| Issue of deeds of grant of outspans to divisional or municipal councils. | 1. Upon application by any divisional council or municipal council, the Governor-General may, in his discretion, and without payment of any consideration, cause a deed of grant, containing such conditions as he may think fit, to be issued to that council in respect of the whole or any portion of the land of which any outspan consists, being Crown land, situated within the area of jurisdiction of that council, and in the case of a divisional council, not situated within the area of jurisdiction of any other local authority. |
| Exemption from transfer duty. | 2. Every deed of grant issued under section one shall be exempt from transfer duty, but the council in whose favour it is issued shall pay stamp duty and registration fees and the costs of survey of the land granted. |
| Resumption for public purposes. | 3. (1) While any land which has been granted to any council under section one remains the property of that council, the Governor-General may resume for public purposes the whole or any portion thereof, subject to the payment to the council of compensation.
(2) If the amount of compensation to be paid under subsection (1) is not settled by agreement between the Minister of Lands and the council concerned, the amount shall be fixed by arbitration under the provisions of the Arbitrations Act, 1898 (Act No. 29 of 1898) of the Cape of Good Hope, and for that purpose it shall be presumed that the said Minister and the council concerned agreed to refer the fixing of the amount to a single arbitrator. |
| Council to whom land granted not to alienate or burden it without administrator's consent. | 4. The council to which any land has been granted under section one shall not sell, exchange or donate or otherwise alienate, or let or mortgage or otherwise burden, the land or any portion thereof, without the consent of the Administrator of the Province of the Cape of Good Hope, and except upon conditions approved by him. |
| Application of Act. | 5. This Act shall not apply to any land situated outside the Province of the Cape of Good Hope. |
| Short title. | 6. This Act shall be called the Cape Outspans Act, 1937. |

Source: www.gov.za/documents/cape-outspans-act-1-apr-1937-0000.

Figure 0-17: Act 17—1937: The Cape Outspans Act, 1937.

This final outspan act of the Union of South Africa was recommended for amendment only in 2011 where the various outdated Acts and provinces referred to were corrected.²⁹

²⁹ South African Law Reform Commission (December 2011). *Report on Legislation Administered by the Department of Public Works. Project 25: Statutory Law Revision.*

As this Act shows, outspans were still in operation in the Cape of Good Hope in 1937 but after this and the increasing level of motorisation and personal motorisation from WWII onwards, their use began to fall away. The 1937 Act appears to still remain in force albeit amended to current terminology.

NWA

Appendix C: Palaeontological Impact Assessment (PIA)

NWA

Proposed Memorial Park on Farm Calcutta RE/29 near Stellenbosch, Cape Winelands District Municipality, Western Cape

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November 2018

EXECUTIVE SUMMARY

Late Caenozoic superficial deposits (sandy soils, ferricrete, stream gravels) as well as the underlying, deeply-weathered bedrocks of Malmesbury Group metasediments (possibly intruded by Cape Granite) in the Farm Calcutta RE/29 Memorial Park study area are all of low to very low palaeontological sensitivity. No fossil remains were recorded here during a short palaeontological site visit. The proposed cemetery development is very unlikely to entail significant impacts on palaeontological heritage. There are therefore no objections on palaeontological heritage grounds to authorisation of the proposed development.

It is recommended that, pending the exposure of significant new fossils (e.g. mammalian bones and teeth) during construction, exemption from further specialist palaeontological studies and mitigation be granted for this development.

If fossil material is discovered during construction, this should be safeguarded, preferably *in situ*, and the ECO should alert Heritage Western Cape (Contact details: Protea Assurance Building, Green Market Square, Cape Town 8000. Private Bag X9067, Cape Town 8001. Tel: 086-142 142. Fax: 021-483 9842. Email: hwc@pgwc.gov.za) so that appropriate mitigation (*i.e* recording, sampling or collection) can be taken by a professional palaeontologist. A tabulated Chance Fossil Finds Protocol is appended to this report. These recommendations should be incorporated into the Environmental Management Plan for the proposed developments.

1. PROJECT OUTLINE

It is proposed to establish a new Memorial Park on the farm Calcutta No. 29, situated on the eastern side of the R304 tar road some c. 8.75 km NW of Stellenbosch in the Cape Winelands District Municipality, Western Cape (Figs. 1 & 2). The proposed cemetery development footprint will occupy 30 ha of the 39,64 ha property. As part of the development of the cemetery and memorial park, it is proposed to promote the rehabilitation and conservation of the watercourse running through the property. Associated infrastructure includes one or more bridges to cross the watercourse and access the site, access roads leading to and within the site, an entrance wall and perimeter fencing, parking, a memorial wall, ablutions and a possible borehole.

A desktop Heritage Screener for the development has been submitted by CTS Heritage, Plumstead (5 March 2018). The present combined desktop and field-based palaeontological heritage comment has been commissioned by CK Rumboll & Partners, Malmesbury (Contact details: Mr Ruben Bower. CK Rumboll & Partners, PO Box 221, 16 Rainiersstraat, Malmesbury 7299. Tel: 022 482 1845. E-mail: leap@rumboll.co.za). A short palaeontological site visit was undertaken by the author on 7 November 2018 to supplement the desktop study.

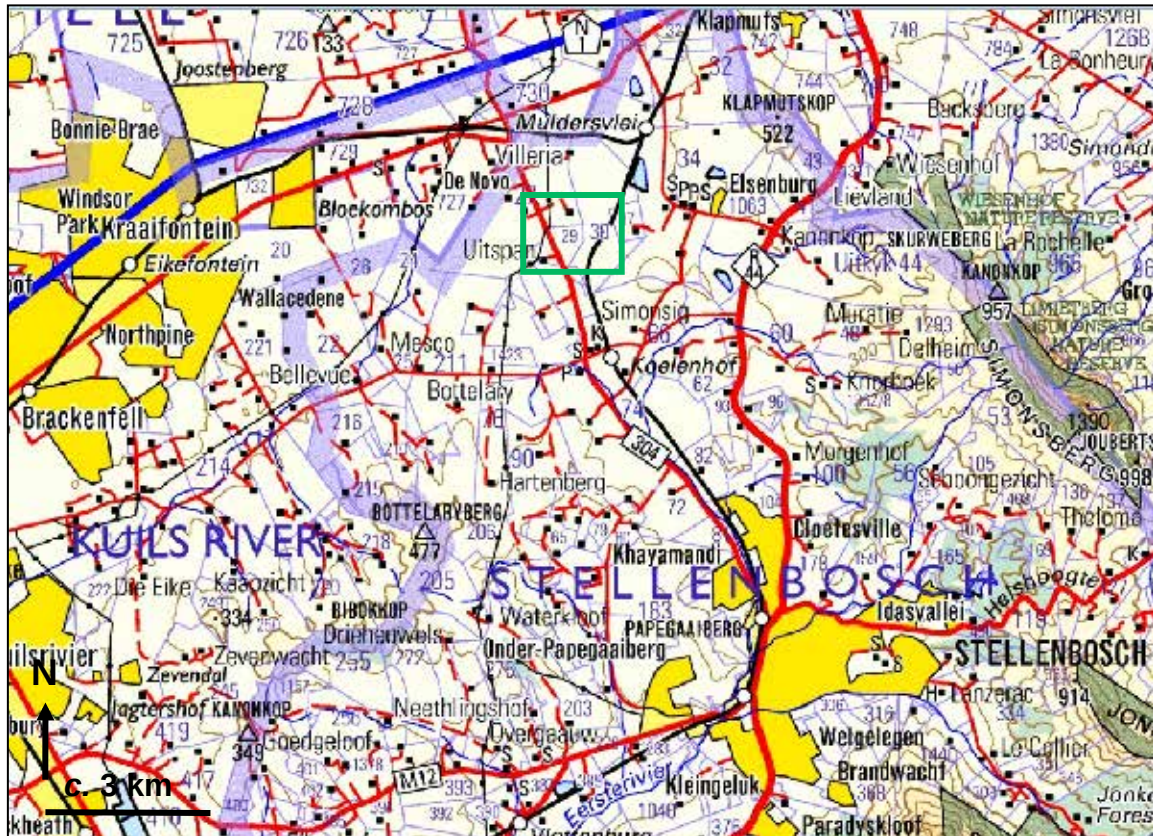


Figure 1. Extract from 1: 250 000 topographical sheet 3318 Cape Town (Courtesy of the Chief Directorate: National Geo-Spatial Information, Mowbray) showing the approximate location of the proposed Memorial Park on Farm 29 Calcutta near Stellenbosch, Western Cape (green rectangle).



Figure 2. Google Earth© satellite image of Farm 29 Calcutta located on the eastern side of the R304 tar road c. 8.75 km NW of Stellenbosch showing the almost flat-lying terrain overgrown with eucalyptus and acacia trees with no obvious bedrock exposure. Pale bedrocks – probably clays derived from weathered Malmesbury Group metasediments – are

visible in the shallow quarry at Uitspan, some 0.5 km SW of the study site. Scale bar = 500 m.

2. GEOLOGICAL CONTEXT

The study site on Farm 29 Calcutta comprises flat to gently SW-sloping sandy terrain at between 150-170 m amsl that is largely overgrown by former eucalyptus plantations and alien acacias (Figs. 2 & 4). The terrain at surface is highly disturbed and bedrock exposures are apparently not present.

The geology of the study area near Stellenbosch is shown on 1: 250 000 geology sheet 3318 Cape Town (Fig. 3) (Theron *et al.* 1992). The bedrocks beneath the Memorial Park study site comprise low-grade marine metasediments of the **Malmesbury Group** of Late Precambrian (Ediacaran) age. These greywackes, quartzites and phyllites are assigned to the **Tygerberg Formation** (Nt, pale brown in Fig. 3) and were deposited in a turbidite fan depositional setting (Von Veh 1983, Rosendal *et al.* 1999, Gresse *et al.* 2006, Belcher & Kisters 2003). The Malmesbury Group country rocks to the northwest of Stellenbosch are intruded by Late Precambrian to Early Cambrian granites of the **Cape Granite Suite** – in this case the coarse-grained, porphyritic **Kuilsrivier – Helderberg Pluton** (N-Ck, orange in Fig. 3) but Cape Granite is not mapped within the study area itself. Surface exposures of the Tygerberg Formation metasediments are not apparent on satellite images of the study area itself (Fig. 2), and were not encountered during the site visit. Pale bedrocks visible in the shallow quarry at Uitspan, some 0.5 km SW of the study site, are probably clays derived from deeply-weathered Malmesbury Group metasediments.

The Precambrian basement rocks are mantled with a range of Late Caenozoic (probably Quaternary for the most part) superficial sediments including gravelly alluvium (with an admixture of building rubble) along shallow water courses, **sparsely gravelly, loamy and sandy soils** (Qg in Fig. 3) (Figs. 5, 7 & 8) as well as a locally by well-developed **ferricrete hardpan** (Fig. 6). The ferricrete hardpan has probably developed above a thick profile of deeply-weathered Malmesbury Group (and perhaps also granite) bedrocks. Test excavations outlined in the geotechnical report also encountered stiff clay (weathered Malmesbury or granite saprolite), sandstone, calcrete and sand.

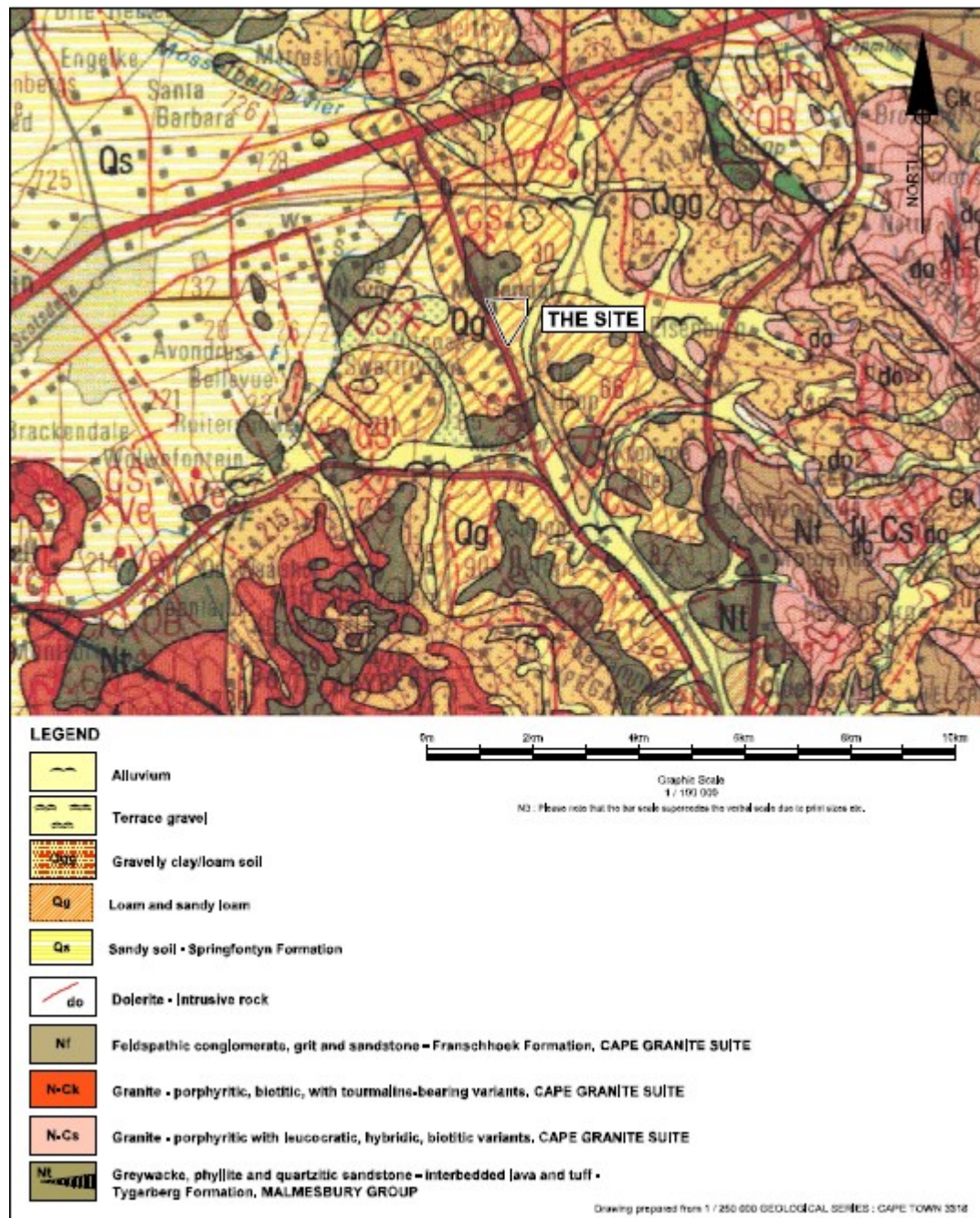


Figure 3. Geological map of the Calcutta 29 Memorial Park study site based on 1: 250 000 geological sheet 3318 Cape Town (Council for Geoscience, Pretoria) (Image abstracted from 2018 geotechnical report by Gondwana Geo Solutions (Pty) Ltd, Durbanville). The study site is underlain at depth by Late Precambrian metasediments of the Tygerberg Formation (Malmesbury Group) (Nt, grey) that are mantled by Late Caenozoic loamy and sandy soils (Qg, yellow with orange cross-hatch).



Figure 4. Typical view of abandoned, overgrown eucalyptus plantations in the Calcutta 29 Memorial Park study area.



Figure 5. Open areas with disturbed sandy soils.



Figure 6. Laterally-persistent, rusty-brown ferricrete hardpan overlying pale, clay-rich saprolitic subsoils, western edge of the study area adjoining the R304 tar road.



Figure 7. Test-pit area showing pale sandy soils with sparse, dispersed gravels of rusty sandstone, kaolinitised granite, weathered Tygerberg Formation wackes and quartzites as well as pale calcrete (Hammer = 30 cm).



Figure 8. Test pit area showing pale sandy soils.

3. PALAEOLOGICAL HERITAGE

Given their low metamorphic grade and Ediacaran age, the **Malmesbury Group** metasediments are *potentially* fossiliferous where levels of tectonic deformation are low (Belcher & Kisters 2003, Gresse *et al.* 2006). There is an unconfirmed report of bioturbation by sand-infilled invertebrate burrows within sandstone facies of the Tygerberg Formation on Robben Island (Nakashole 2004) as well as other unconfirmed reports of small-scale traces - some of which may be faecal pellet arrays - within Tygerberg rocks at Bloubergstrand (A. Kisters & C. de Beer, pers. comm., 2018). Groups of fossils that may have originally been preserved within siliciclastic or minor carbonate sediments of the Malmesbury Group include trace fossils, stromatolites, organic-walled microfossils (e.g. acritarchs) as well as the enigmatic vendobiontans. However, extensive deformation, including intense folding, faulting, quartz veining and cleavage development, as well as regional metamorphism during the Late Proterozoic to Cambrian Saldanian Orogeny (mountain-building event) have probably obliterated most organic remains, with the possible exception of some trace fossils and microfossils. Micropalaeontological analysis of these difficult rocks is now in progress (G. Germs, pers. comm. 2008). The more pelitic (clay-rich) Malmesbury rocks have additionally suffered extensive chemical weathering under humid tropical conditions during Cretaceous and Tertiary times so that away from the coast fresh bedrock is almost universally covered with a deep mantle of multi-hued, kaolinitic and ochreous saprolite (*in situ* weathered rock) and surface gravels (sometimes silcretized). This certainly applies to the Tygerberg Formation bedrocks beneath the present study area where fresh, potentially-fossiliferous Tygerberg bedrocks are very unlikely to be encountered near-surface.

The **Cape Granites** - if also represented at depth beneath the study area - are entirely unfossiliferous igneous rocks.

The **Late Caenozoic alluvial deposits and soils** underlying the study area are generally of low palaeontological sensitivity. They might locally contain sparse remains of transported plant material (e.g. peats, subfossil wood), calcretized rhizoliths (root casts), termitaria and other burrows, freshwater invertebrates (e.g. molluscs such as unionid bivalves, gastropods), tortoise remains or rare mammalian bones, horn cores and teeth (*cf* Klein 1983, 1984). To the author's knowledge, fossils have not been recorded from within the widespread Late Caenozoic ferricretes of the

interior Western Cape. However, at near-coastal fossil dune sites (e.g. Elandsfontein near Saldanha) mammalian bones and teeth as well as stone artefacts of Pleistocene and younger age may be deflated down onto the upper surface of ferricrete hardpans. These were often formed in areas of high water tables, such as around vleis and streams, that would have attracted game animals as well as humans, amphibians and freshwater molluscs in the past (cf Roberts 1996, Klein *et al.* 2006). There are no fossil records of Tertiary or Quaternary vertebrates from the study region mentioned in the key reviews by Hendey (1984) and Klein (1984).

No fossil remains were recorded on Farm Calcutta RE/29 during the short palaeontological site visit. It is concluded that the palaeontological sensitivity of the Memorial Park study area is very low.

4. CONCLUSIONS & RECOMMENDATIONS

Late Caenozoic superficial deposits (sandy soils, ferricrete, stream gravels) as well as the underlying, deeply-weathered bedrocks of Malmesbury Group metasediments intruded by Cape Granite in the Memorial Park study area are all of low palaeontological sensitivity (Almond & Pether 2008). The proposed cemetery development is very unlikely to entail significant impacts on palaeontological heritage. There are therefore no objections on palaeontological heritage grounds to authorisation of the proposed development.

It is recommended that, pending the exposure of significant new fossils (e.g. mammalian bones and teeth) during construction, exemption from further specialist palaeontological studies and mitigation be granted for this development.

If fossil material is discovered during construction, this should be safeguarded, preferably *in situ*, and the ECO should alert Heritage Western Cape (Contact details: Protea Assurance Building, Green Market Square, Cape Town 8000. Private Bag X9067, Cape Town 8001. Tel: 086-142 142. Fax: 021-483 9842. Email: hwc@pgwc.gov.za) so that appropriate mitigation (*i.e.* recording, sampling or collection) can be taken by a professional palaeontologist. The specialist involved in mitigation work would require a collection permit from Heritage Western Cape. Fossil material must be curated in an approved repository (e.g. museum or university collection) and all fieldwork and reports should meet the minimum standards for palaeontological impact studies developed by SAHRA (2013). A tabulated Chance Fossil Finds Protocol is appended to this report. These recommendations should be incorporated into the Environmental Management Plan for the proposed developments.

Please note that:

- All South African fossil heritage is protected by law (South African Heritage Resources Act, 1999) and fossils cannot be collected, damaged or disturbed without a permit from Heritage Western Cape or SAHRA;
- The palaeontologist concerned with potential mitigation work will need a valid fossil collection permit from HWC or SAHRA and any material collected would have to be curated in an approved depository (e.g. museum or university collection);
- All palaeontological specialist work should conform to international best practice for palaeontological fieldwork and the study (e.g. data recording fossil collection and curation, final report) should adhere as far as possible to the minimum standards for Phase 2 palaeontological studies developed by HWC (2016) and SAHRA (2013).

5. KEY REFERENCES

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QUALIFICATIONS & EXPERIENCE OF THE AUTHOR

Dr John Almond has an Honours Degree in Natural Sciences (Zoology) as well as a PhD in Palaeontology from the University of Cambridge, UK. He has been awarded post-doctoral research fellowships at Cambridge University and in Germany, and has carried out palaeontological research in Europe, North America, the Middle East as well as North and South Africa. For eight years he was a scientific officer (palaeontologist) for the Geological Survey / Council for Geoscience in the RSA. His current palaeontological research focuses on fossil record of the Precambrian - Cambrian boundary and the Cape Supergroup of South Africa. He has recently written palaeontological reviews for several 1: 250 000 geological maps published by the Council for Geoscience and has contributed educational material on fossils and evolution for new school textbooks in the RSA.

Since 2002 Dr Almond has also carried out palaeontological impact assessments for developments and conservation areas in the Western, Eastern and Northern Cape, Limpopo, Gauteng, KwaZulu-Natal, Mpumalanga, Northwest and Free State under the aegis of his Cape Town-based company *Natura Viva cc*. He has been a long-standing member of the Archaeology, Palaeontology and Meteorites Committee for Heritage Western Cape (HWC) and an advisor on palaeontological conservation and management issues for the Palaeontological Society of South Africa (PSSA), HWC and SAHRA. He is currently compiling technical reports on the provincial palaeontological heritage of Western, Northern and Eastern Cape for SAHRA and HWC. Dr Almond is an accredited member of PSSA and APHP (Association of Professional Heritage Practitioners – Western Cape).

Declaration of Independence

I, John E. Almond, declare that I am an independent consultant and have no business, financial, personal or other interest in the proposed development project, application or appeal in respect of which I was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances that compromise the objectivity of my performing such work.



Dr John E. Almond
Palaeontologist
Natura Viva cc

CHANCE FOSSIL FINDS PROCEDURE: Proposed Memorial Park on Farm Calcutta RE/29 near Stellenbosch		
Province & region:	WESTERN CAPE, Cape Winelands District Municipality	
Responsible Heritage Resources Authority	Heritage Western Cape (Contact details: Protea Assurance Building, Green Market Square, Cape Town 8000. Private Bag X9067, Cape Town 8001. Tel: 086-142 142. Fax: 021-483 9842. Email: hwc@pgwc.gov.za)	
Rock unit(s)	Weathered Tygerberg Formation (Malmesbury Group); Late Caenozoic soils, ferricretes, alluvium	
Potential fossils	Calcretized rhizoliths (root casts), termitaria and other burrows, freshwater molluscs, ostrich egg shells, sparse bones, teeth and horn cores of mammals, and tortoise remains	
ECO protocol	1. Once alerted to fossil occurrence(s): alert site foreman, stop work in area immediately (<i>N.B.</i> safety first!), safeguard site with security tape / fence / sand bags if necessary.	
	2. Record key data while fossil remains are still <i>in situ</i> : - Accurate geographic location – describe and mark on site map / 1: 50 000 map / satellite image / aerial photo - Context – describe position of fossils within stratigraphy (rock layering), depth below surface - Photograph fossil(s) <i>in situ</i> with scale, from different angles, including images showing context (e.g. rock layering)	
	3. If feasible to leave fossils <i>in situ</i> : - Alert Heritage Resources Authority and project palaeontologist (if any) who will advise on any necessary mitigation - Ensure fossil site remains safeguarded until clearance is given by the Heritage Resources Authority for work to resume	3. If <i>not</i> feasible to leave fossils <i>in situ</i> (emergency procedure only): - Carefully remove fossils, as far as possible still enclosed within the original sedimentary matrix (e.g. entire block of fossiliferous rock) - Photograph fossils against a plain, level background, with scale - Carefully wrap fossils in several layers of newspaper / tissue paper / plastic bags - Safeguard fossils together with locality and collection data (including collector and date) in a box in a safe place for examination by a palaeontologist - Alert Heritage Resources Authority and project palaeontologist (if any) who will advise on any necessary mitigation
	4. If required by Heritage Resources Authority, ensure that a suitably-qualified specialist palaeontologist is appointed as soon as possible by the developer.	
	5. Implement any further mitigation measures proposed by the palaeontologist and Heritage Resources Authority	
Specialist palaeontologist	Record, describe and judiciously sample fossil remains together with relevant contextual data (stratigraphy / sedimentology / taphonomy). Ensure that fossils are curated in an approved repository (e.g. museum / university / Council for Geoscience collection) together with full collection data. Submit Palaeontological Mitigation report to Heritage Resources Authority. Adhere to best international practice for palaeontological fieldwork and Heritage Resources Authority minimum standards.	

Appendix D: Archaeological Impact Assessment (AIA)

NWA

ARCHAEOLOGICAL IMPACT ASSESSMENT

**PROPOSED MUNICIPAL CEMETERY ON FARM No. 29
CALCUTTA NEAR STELLENBOSCH, WESTERN CAPE**

Assessment conducted under Section 38 (3) of the National Heritage Resource
Act (No. 25 of 1999)

Prepared for:

CKR & Partners
16 Rainier Street, Malmesbury
Att: Ms Anelia Coetzee
Email: leap@rumboll.co.za

Applicant:

STELLENBOSCH MUNICIPALITY

By



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**OCTOBER
2018**

Executive summary

1. Introduction

ACRM was appointed by CKR to conduct an Archaeological Impact Assessment (AIA) for a proposed new municipal cemetery on Farm No. 29 near Stellenbosch in the Western Cape.

The site for the proposed Calcutta Cemetery, located alongside the R304, is infested with invasive Blue Gum trees, grasses and weeds. Leaf litter is thick on the ground. Several old gravel roads, tracks and barely visible footpaths cross the site, which is severely degraded. Dumping is also widespread.

The extent of the proposed development site is about 35ha, of which $\pm$ 30ha will be developed.

2. Aim of the study

The overall purpose of the study is to assess the sensitivity of archaeological resources in the proposed development site, to determine the potential impacts on such resources, and to avoid and/or minimise such impacts by means of management and/or mitigation measures.

The AIA forms part of a wider Heritage Impact Assessment (HIA) that will be conducted by Bruce Eitzen (New World Associates, Landscape Architects).

3. Results of the study

A field assessment of the subject property was undertaken on 18 October 2018, in which the following observations were made:

- No pre-colonial archaeological heritage was encountered during the study.
- No buildings, structures or features were noted.
- No remains associated with the historic Calcutta Bos Outspan were found.

Archaeological visibility is extremely low due to dense vegetation cover, but indications are that the receiving environment is not a sensitive archaeological landscape.

4. Impact statement

The results of the study indicate that the proposed construction of a new municipal cemetery on Farm No. 29 Calcutta, will not impact of important pre-colonial archaeological heritage.

Artefactual remains associated with the historic Calcutta Bos Outspan may, however, be revealed or exposed during preparation of the site for development.

5. Conclusion

The study has identified no significant impacts to archaeological heritage that will need to be mitigated prior to the proposed development commencing.

6. Recommendations

The following recommendations are made:

1. No archaeological mitigation is required prior to construction activities commencing.
2. As a precaution, the site should be scanned for artefactual remains dating from the time of the Calcutta Bos Outspan, once vegetation has been cleared and removed from the site.

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1. INTRODUCTION

ACRM was appointed by CKR Town Planners to conduct an Archaeological Heritage Impact Assessment (AIA) for a proposed new municipal cemetery on the Farm Calcutta No. 29 on the outskirts of Stellenbosch in the Western Cape (Figures 1-4).

The proposed cemetery and memorial park will occupy a footprint area of about 30ha of the 35ha property. Associated infrastructure includes internal access roads, perimeter fencing, parking, a memorial wall, ablutions and a possible borehole.

The AIA forms part of a wider Heritage Impact Assessment (HIA) that will be conducted by Bruce Eitzen (New World Associates, Landscape Architects).



Figure 1. Locality map (3318DD Stellenbosch). Red polygon indicates the location of the site

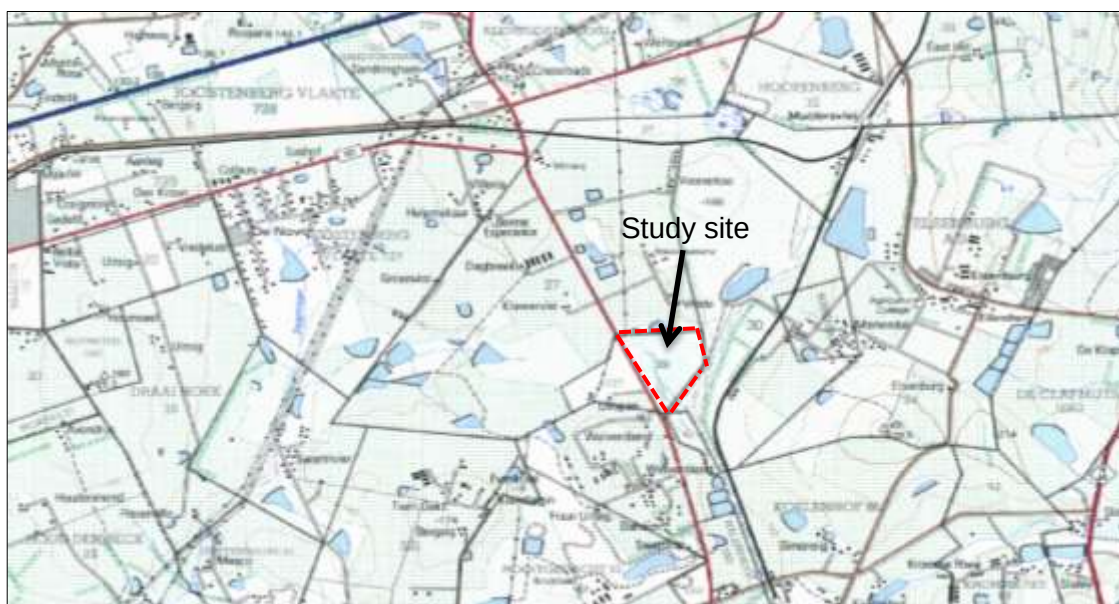


Figure 2. Close up of the proposed cemetery site on Farm Calcutta No. 29, near Stellenbosch

AIA proposed Calcutta Cemetery near Stellenbosch

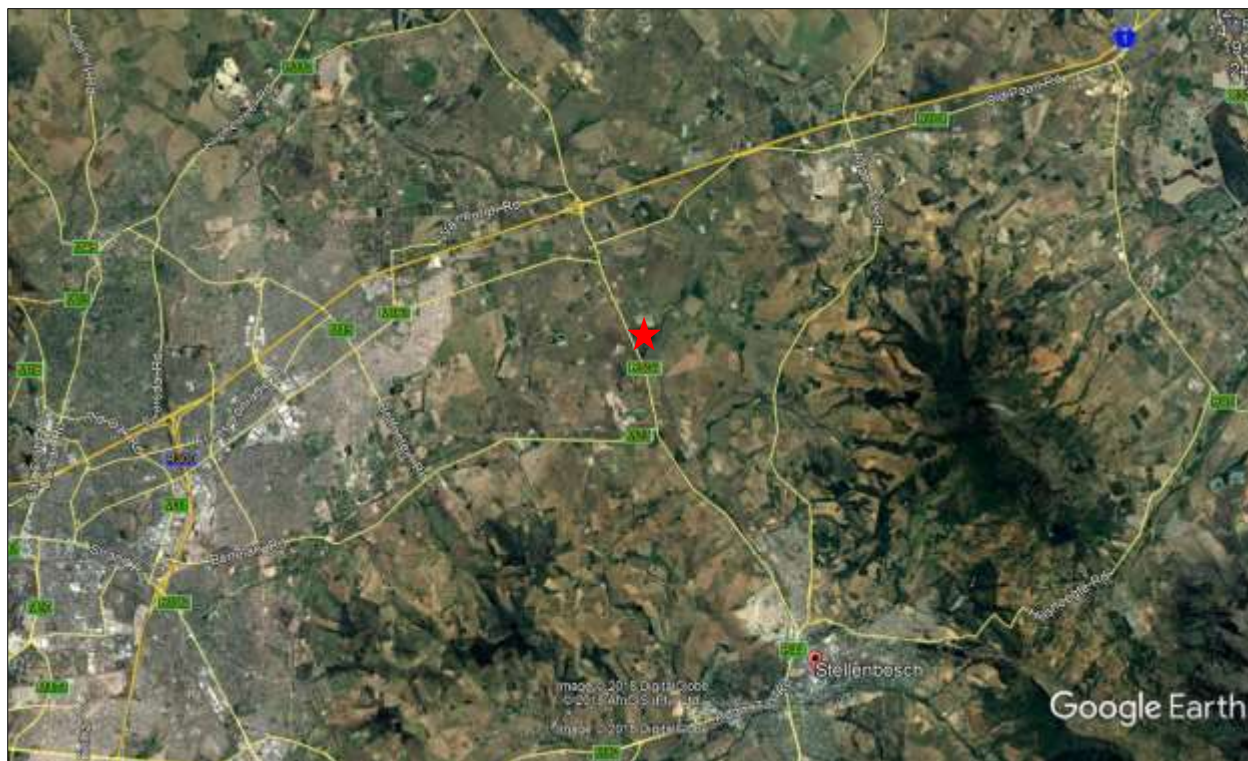


Figure 3. Google aerial map indicating the location of the proposed development site (red polygon).



Figure 4. Close up Google satellite map of the proposed Calcutta Cemetery site on Farm 29

2. HERITAGE LEGISLATION

The National Heritage Resources Act (Act No. 25 of 1999) makes provision for a compulsory Heritage Impact Assessment (HIA) when an area exceeding 5000 m² is being developed. This is to determine if the area contains heritage sites and to take the necessary steps to ensure that they are not damaged or destroyed during development.

3. DESCRIPTION OF THE RECEIVING ENVIRONMENT

The proposed development site is located on the Farm Calcutta 29, just off the R304, about 10kms northwest of Stellenbosch. The proposed cemetery site is infested with invasive Blue Gum trees, thick Kikuyu grass, natural grasses (such as Restio), and weeds. Leaf litter lies thick on the ground. There are a number of small gravel roads, tracks and barely visible footpaths that crisscross the site. A small unnamed stream drains into the site from the southwest. Dumping of rubble and domestic waste is widespread. Current land use is small scale wood harvesting. There are no significant landscape features on the proposed development site, which is irrevocably transformed (Figures 5-16). Surrounding land use is agriculture (vineyards & grazing) and roads (R304).



Figure 5. View of the proposed development site facing north. Note the R304 to the left of the plate



Figure 6. View of the proposed development site facing north
Figure



Figure 7. View of the proposed development site facing south



Figure 8. Panoramic view taken from the south eastern corner.



Figure 9. Panoramic view of the proposed cemetery site facing north east



Figure 10. Panoramic view of the proposed cemetery site. View facing south east



Figure 11. View of the proposed cemetery site facing east



Figure 12. View of the proposed cemetery site facing south



Figure 13. View of the proposed cemetery site facing east



Figure 14. View of the proposed cemetery site facing south



Figure 15. View of the proposed cemetery site facing south



Figure 16. View of the proposed cemetery site facing east

4. STUDY APPROACH

4.1 Method

The overall purpose of the study is to assess the sensitivity of archaeological resources in the proposed development site, to determine the potential impacts on such resources, and to avoid and/or minimise such impacts by means of management and/or mitigation measures.

A field assessment was undertaken by ACRM on 18th October, 2018. All gravel roads, and small tracks/footpaths were walked and the surrounding area searched for archaeological resources. A track path of the survey was also captured. A literature survey was carried out to assess the heritage context surrounding the proposed development site.

4.2 Constraints and limitations

The proposed development site is infested with invasive Blue Gum trees, winter grasses, weeds and dense leaf litter, resulting in very low/poor archaeological visibility.

4.3 Identification of potential risks

The results of the study have shown that there are no archaeological risks associated with the proposed development.

Artefactual remains dating to the time of the historic Calcutta Bos outspan may be uncovered during vegetation clearing of the site at the Construction Phase

4.4 Archaeology of the study area

Very little archaeological work has taken place along this stretch of road (R304) between Stellenbosch and the N1. Early Stone Age (ESA) and Middle Stone Age (MSA) have been recorded near Kayamandi and Papagaaiberg (Kaplan 2010, 2005) while ESA and

MSA tools have been recorded on the Farm Nooitgedacht, about 1.5kms south west of the proposed development site (Kaplan 2006). ESA tool particularly, are very common in old exposed, colluvial gravels, slope and gravel washes ((Peringuey 1902, 1911; Seddon 1966). The area is known for its wine farms, while a few smallholdings, brick quarry and some light industry are located nearby. The cultural landscape however, is dominated by agriculture where the receiving environment is almost completely transformed.

According to CTS Heritage (2018), the historic Outspan known as Calcutta Bos, is located on the proposed development site.

5. RESULTS OF THE STUDY

- No pre-colonial archaeological resources were located during the study.
- No buildings, structures, features, or any old equipment was noted.
- No artefactual remains associated with the historic Calcutta Bos Outspan were found.



Figure 17. Trackpaths in red.

6. IMPACT STATEMENT

The results of the study indicate that development of a new municipal cemetery on Farm No. 29 Calcutta will not have an impact of great significance on pre-colonial, archaeological heritage. Archaeological visibility was very low due to extremely dense vegetation cover, but indications are that the receiving environment is not a sensitive or threatened archaeological landscape.

Artefactual remains associated with the historic Calcutta Bos Outspan may, however, be revealed or exposed during preparation of the site for development.

7. CONCLUSION

The study has identified no significant impacts to archaeological heritage that will need to be mitigated prior to the proposed development commencing.

8. RECOMMENDATIONS

With regard to the proposed Calcutta Municipal Cemetery on Farm No. 29 near Stellenbosch, the following recommendations are made:

1. No mitigation is required prior to construction activities commencing.
2. As a precaution, the site should be scanned for artefactual remains dating from the time of the Calcutta Bos Outspan, once vegetation has been cleared and removed from the site.

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Appendix E: Visual Impact Assessment (VIA)

NWA



CALCUTTA BOS MEMORIAL PARK

VISUAL IMPACT ASSESSMENT

NOVEMBER 2018 ☞ PHOTOGRAPH 1 VIEW OF THE SITE FROM THE R304

researched and produced by
New World Associates © for CK Rumboll & Vennote



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New World Associates, Landscape Architects—newworld@telkomsa.net.

This report should be printed double sided if at all!

Reflection

“The term ‘**visual and aesthetic**’ is intended to cover the broad range of visual, scenic, cultural, and spiritual aspects of the landscape. However, for the purpose of brevity, the term ‘**visual**’ is used in the text’ (p 1). **Thus it includes aspects of “the area’s sense of place, ... natural and cultural landscapes, ... the identification of all scenic resources, protected areas and sites of special interest, together with their relative importance in the region, ... the need to include both *quantitative* criteria, such as ‘visibility’, and *qualitative* criteria, such as landscape or townscape ‘character’ (pp 1-2).”**

This report (p 19) from the *PGWC Guideline for Involving Visual and Aesthetic Specialists in EIA Processes (November 2005)*

“**Visual impact. The value of the environment is often under-estimated from a visual perspective.** It is the visual quality of the environment that, to a large degree, generates the attraction for the tourism industry and draws people to certain areas as desired locations for living a lifestyle outside of the large cities and densely developed urban areas. **The visual resources of rural areas, such as scenic landscapes and the cultural streetscapes and farmsteads,** and environments such as the Garden Route [Swartland], constitute major tourist attractions. ...

Each area has its own unique visual character and atmosphere, which plays an important role in the quality of any tourist experience. The diversity of the landscapes makes it essential to consider all development **and more particularly the expansion of urban areas, an issue that requires special consideration.** The intention is to manage urban development in such a way that no development would detract from the visual quality of the environment **and that all development conform to a characteristic style and urban form that suits the character of the area.”**

This report (p 21) from the *PGWC Urban Edge Guideline (December 2005)*

☞ Beauty is in the eye of the beholder.

What the eye doesn't see, the heart doesn't grieve over.

English Proverbs

☞ Do not seek revenge or bear a grudge against one of your people,
but love your neighbour as yourself. I am the LORD.

Mosaic Law, Leviticus 19.18, The Holy Bible (NIV)

NWA

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1 Executive Summary

1.1 Recommendation

The proposed Stellenbosch municipal cemetery on farm Calcutta 29 shows a well-conceived concept plan well integrated into the landscape. The site and area is generally flat with an open landscape while the site itself is densely planted with immature gum plantation. Visibility is high only along its western boundary that runs along the R304 while views into the site are blocked by the bushy gum plantation. The visual and aesthetic sensitivity of the area is generally moderate and the anticipated impact on scenic resources is moderate but can be mitigated to low with continued sensitive site planning. Recommendations are made to minimise these visual and aesthetic impacts.

1.2 Project Description (see page 12)

1. The proposed development of a cemetery for Stellenbosch Municipality on the farm Calcutta 29, Stellenbosch is one of three municipal cemeteries planned.
2. The draft Concept Plan shows a formal layout with area for cemetery plots set amongst formal avenue tree planting.
3. A pair of cross axes elegantly divides the site into quadrants creating separate areas and long views and access into the site.
4. A stream is indicated and a natural buffer, informal zone to the south. The high level of planting and grid layout fits neatly into the overall winelands matrix.

1.3 Legal and Administrative Requirements (see page 16)

1. There is a long history of environmental protection and management in South Africa rooted in EIA and, later, IEM, which has given rise to the current requirement for VIA. The latest document (November 2005) prepared by the Provincial Government of the Western Cape defines the scope and preparation of VIAs and has now been approved and adopted.

2. Provision in the various Acts is made for special areas and landscapes that have an important effect on the ranking of visual impact in these areas.
3. The SHS&MP (2018)¹ provides graded heritage and landscape character information for the Stellenbosch Municipality. VIA is integral to assessing heritage impact in scenic heritage areas like the winelands.

1.4 Visual Environment Description (see page 33)

1. The site lies adjacent to the R304, which is not a designated scenic route. The route is of mixed scenic value, more so on the southbound journey with open views to the mountains.
2. The landscape is generally open and flat with a mixed agricultural feel of open pastures, vineyards and some agricultural technology developments.
3. The site itself is covered with dense, immature gum plantation making views into the site very short.
4. The site cannot be easily seen from other roads, if at all, and neighbouring farms alone would be able to access it on north, east and south boundaries.

1.5 Visual Impact Assessment (see page 42)

1. The R304 is only moderately scenic, particularly southbound, and runs adjacent to the site's west boundary.
2. The flatness of the site and its dense gum plantation blocks views into the site while indicating its location generally in the open landscape of fields and vineyards.
3. The proposed development will have a moderate impact on the landscape causing some change to the visual environment.
4. The development has moderate to high visual exposure, moderate visual absorption capacity, medium compatibility, and is moderately to highly visible (R304).
5. The development's visual impact has site-related to local extent, long term duration, medium intensity, definite probability, and medium significance on the landscape.
6. Recommendations are made to minimise visual and aesthetic impact.

1.6 Visual Management and Monitoring Plan (see page 57)

1. Sound Visual Management is the ultimate aim of the VIA process. The Mitigation Recommendations developed in the report need to be implemented.

¹ Cape Winelands Professional Practices in Association (2018). *Stellenbosch Heritage Survey & Management Plan*. Stellenbosch Municipality.

2. This process of implementation will occur throughout the lifetime of the project, hence, the need for a Monitoring Plan. Institutions, individuals and organisations referred in the Monitoring Plan must develop a means of achieving the monitoring otherwise this report serves no purpose.
3. Once the VIA Report has been approved, the Developers must seek the implementation of the recommendations as soon as possible.

NWA

2 Project Description

2.1 Summary

The proposed development of a cemetery for Stellenbosch Municipality on the farm Calcutta 29, Stellenbosch is one of three municipal cemeteries planned. The draft Concept Plan shows a formal layout with area for cemetery plots set amongst formal avenue tree planting. A pair of cross axes elegantly divides the site into quadrants creating separate areas and long views and access into the site. A stream is indicated and a natural buffer, informal zone to the south. The high level of planting and grid layout fits neatly into the overall winelands matrix.

2.2 Introduction

Combined with Section 3, this chapter presents the relevant project data required to develop a Visual Impact Assessment (VIA) of the development for Environmental Impact Assessment (EIA) purposes, in particular, Heritage Impact Assessment (HIA). This chapter reviews the relevant basic aspects of the proposed development and includes plans and diagrams as appropriate to this end.

2.2.1 Background

New World Associates was commissioned by the Town and Regional Planners CK Rumboll & Vennote to prepare the VIA for this project. EnviroAfrica is undertaking the environmental application. Developments of this scale and nature in scenic and historic environments, within or without the Urban Edge, require Visual Assessments in accordance with the PGWC Guideline for Specialist Visual Studies (pp 11-12).

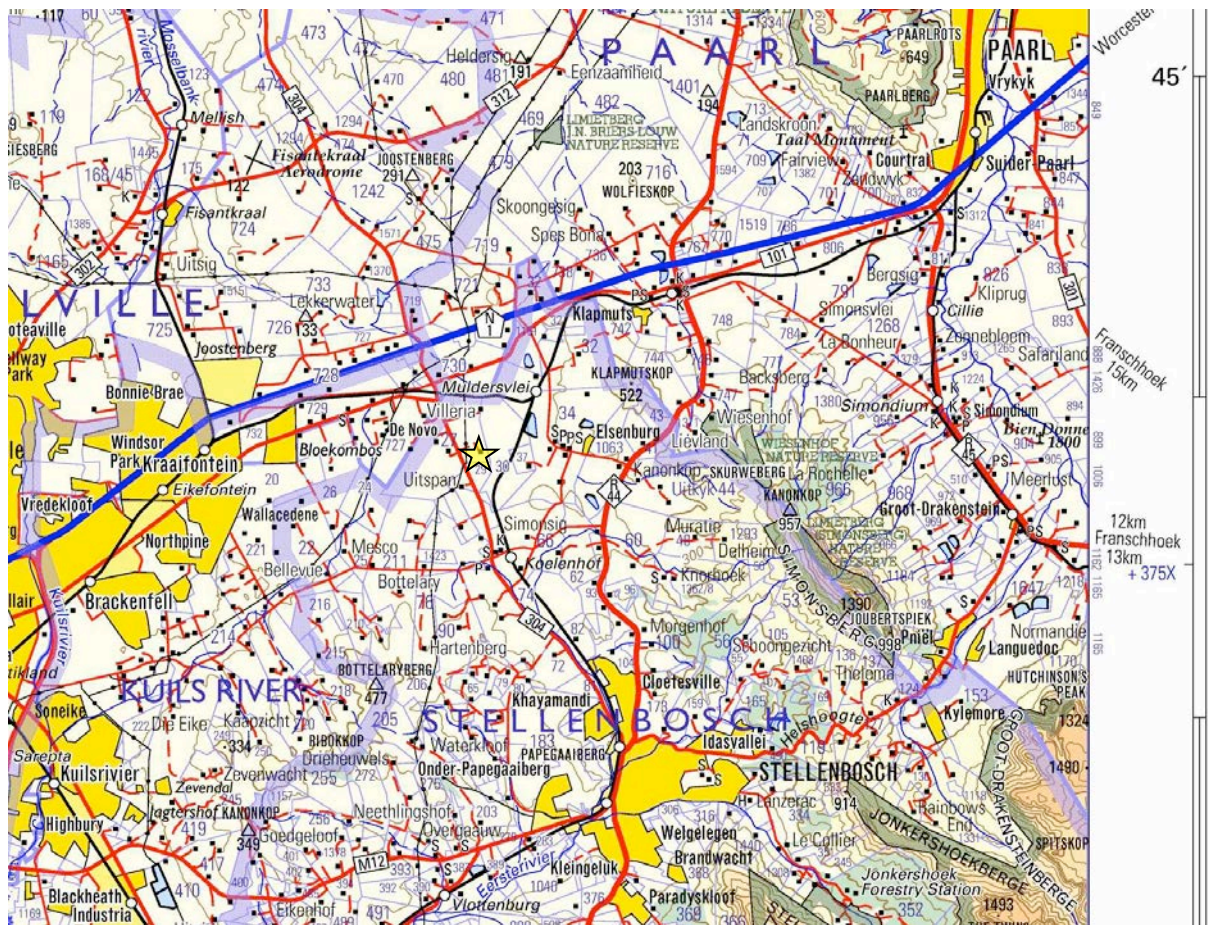
2.2.2 Accreditation

Bruce Eitzen ML BSc PrLArch MEMBER ILASA AHP conducted this assessment. He is a registered Landscape Architect and Environmental Planner with the South African Council of Landscape Architecture Professionals (SACLAP), and Specialist Practitioner in Visual and Landscape Heritage. He has thirty years experience across the board of Landscape Architecture and Envi-

ronmental Planning and has practised in South Africa, Central Africa and East Africa. He holds a BSc (Botany) from the University of Cape Town and a Masters in Landscape Architecture from the University of Pretoria. His public service includes serving for three years on the Association of Heritage Practitioners Executive Committee chairing Professional Practice. He also served on the National Executive Committee of the Institute for Landscape Architects in South Africa and was the Chair of ILASA Cape for four years.

2.2.3 Statement of Independence

New World Associates is an independent consulting firm practising in the abovementioned fields. None of its members have any financial interest in the proposed development nor are involved in any other projects being undertaken by the developer.



Source: Reproduced by permission of the Chief Directorate: Surveys and Mapping, State Copyright 2000.

Figure 2-1: Regional Context.

Portion of a 1:250,000 map of South Africa showing the site's location (3318 Cape Town, 9th Edition 2000). NTS.

2.2.4 Reporting Requirements

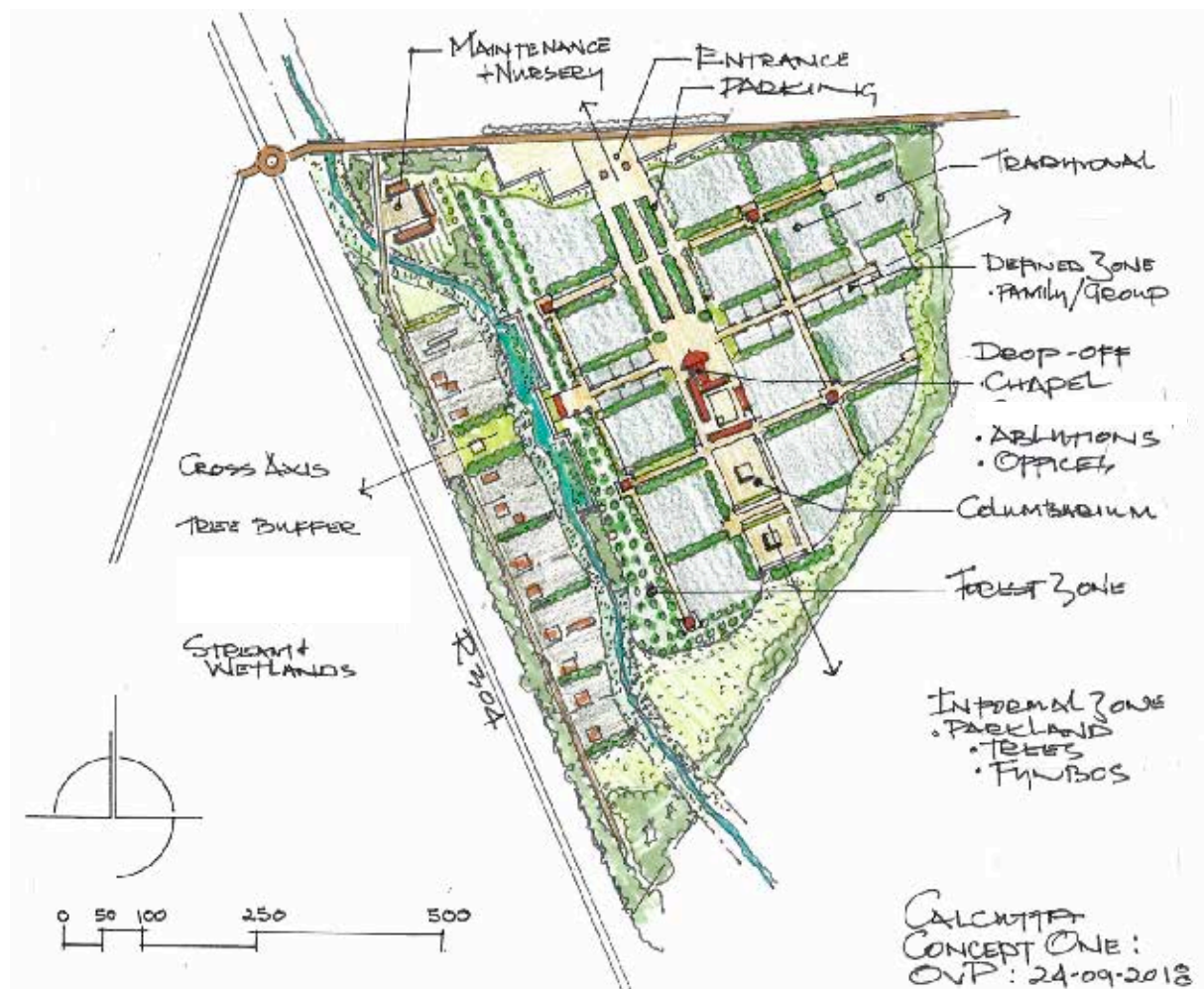
This report is generally based on South African environmental management procedures and, more specifically, on the latest provincial guideline was endorsed by the Provincial Gov-

ernment of the Western Cape (PGWC) on 3 November 2005: *Guideline for Involving Visual and Aesthetic Specialists in EIA Processes* (November 2005, PGWC).

2.3 Project Proposal

2.3.5 Location

The site occurs near Koelenhof between Stellenbosch, Kraaifontein and Paarl adjacent to the R304 (see Figure 2-1). *Uitspan* is noted to the left of which the Calcutta 29 portion once formed a part. Its gum trees stand out from the surrounding countryside, which tends to be open fields and vineyards. The R304 connects Stellenbosch and Malmesbury directly. A railway line also follows the R304 to the east but veers off to the NE just south of the site in the direction of Klapmuts.



Source: OvP Landscape Architects.

Figure 2-2: OvP Draft Concept Plan One (24 September 2018).

This first draft is an initial concept only and was not intended for public consumption. No heritage informants were available at the time, such as the outspan site, but the site was walked.²

² Johan van Papendorp (OvP), personal communication (7 November 2018).

2.3.6 Town Planning Application

The applicant wishes to develop regional cemetery on the site as indicated in the concept plan. It is one of three such new cemeteries proposed by the Stellenbosch Municipality.

2.3.7 Landscape and Environment

The layout (Figure 2-2) developed by the OvP Landscape Architects is rooted in landscape design principles. The gridiron layout and cross axes elegantly divide the site, allowing for different use areas while integrating landscape and tree planting throughout. A substantial informal landscape buffer zone to the south and the overall layout integrates the proposal neatly into the landscape of vineyards and pastures.

2.4 Alternatives

There are no alternative concept plans at this time, however, the site choice has been made from an initial set of some 50 sites of which 2 have been chosen. This site and general layout with integrated landscaping seems well suited to the purpose.

NWA

3 Legal and Administrative Requirements

3.1 Summary

There is a long history of environmental protection and management in South Africa rooted in EIA and, later, IEM, which has given rise to the current requirement for VIA. The latest document (November 2005) prepared by the Provincial Government of the Western Cape defines the scope and preparation of VIAs and has now been approved and adopted. Provision in the various Acts is made for special areas and landscapes, which has an important effect on the ranking of visual impact in these areas. The SHS&MP³ (2018) provides graded heritage and landscape character information for the Stellenbosch Municipality. VIA is integral to assessing heritage impact in scenic heritage areas like the winelands.

3.2 Introduction

This chapter provides the important and necessary policy, legal and administrative background for the visual impact study. A general overview of the relevant documents with specific reference to those applicable to visual planning is included. Particular mention is made of local planning guidelines that have the most direct bearing on the project such as the Spatial Development Framework (SDF) for the given area.

3.2.1 Background

The policy, legal and administrative framework for conservation, EIA and development in South Africa has long roots. Visual Impact Assessment (VIA) is mentioned in the national requirements for EIA under the National Environmental Management Act (NEMA) and the Environmental Conservation Act. Furthermore, the provincial government now endorsed its own guidelines for various EIA processes including VIA (PGWC, November 2005). Specific require-

³ Cape Winelands Professional Practices in Association (2018). *Stellenbosch Heritage Survey & Management Plan*. Stellenbosch Municipality.

ments for VIA may also included in local Spatial Development Frameworks (SDF) and Integrated development Plans (IDP).

3.3 Policy Framework

3.3.1 Environment Conservation Act No. 73 of 1989 (ECA), Part I: Policy for Environment Conservation

The policy for environmental protection and management is found in the Environment Conservation Act (ECA) No. 73 of 1989, Part I: Policy for Environment Conservation and is well established in South African environmental policy and law.

3.3.2 IEM Guideline Series (1992)

This Guideline Series issue by the DEA in 1992 is the foundation of the current IEM procedure and contains highly useful information on IEM and EIA in South Africa including the preparation of EIA reports and the typical outline used in this VIA. *IEM Guideline Series: 3 Guidelines for Report Requirements* included “Cultural and historic environment (e.g. site of architectural and cultural interest, visual impact).” This is the first specific reference to Visual Impact in the national legislation and documentation covering EIA.

3.4 Legal Framework

This review of current documentation is made with specific reference to requirements for VIA in the Law and by National Guidelines.

3.4.1 Environmental Impact Management: A National Strategy for IEM in South Africa (April 1998)

This discussion document on Integrated Environmental Management (IEM) defines IEM as: “the coordinated planning and management of all human activities in a defined environmental system, to achieve and balance the broadest possible range of short- and long-term environmental objectives.” Further: “The overarching goal of IEM is to help ensure that South Africa’s developing economy is redirected (or reoriented) from environmentally unsustainable growth and development towards environmental sustainability” (p 14). “Activities that IEM should manage” include: land use zoning plans and schemes, new activities, existing activities, and activities undertaken in terms of a land use zoning plan or scheme that has already been approved through IEM.”

In terms of Scoping as it relates to the compilation of reports such as this VIA, the Main Aims of Scoping are “to focus the study on reasonable alternatives and relevant issues to ensure that the resulting *Impact Assessment* is useful to the decision-maker and addresses the concerns of interested and affected parties” (p 5, *IEM Guideline Series: 2 Guidelines for Scoping*, 1992).

3.4.2 National Environmental Management Act No. 107 of 1998 (NEMA)

This Act is “To provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state; and to provide for matters connected therewith.” Chapter 5: Integrated Environmental Management has among its general objectives: (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” (p 34). The Act also allows for Chapter 7: Compliance, Enforcement and Protection of Part 1: Environmental Hazards and the Duty of Care and Remediation of Environmental Damage (28). Chapter 9: Administration of Act allows for Model Environmental Management Bylaws (46), “aimed at establishing measures for the management of environmental impacts of any development with the jurisdiction of a municipality. ... (4) The purpose of the model bylaws...must be to—

1. (a) mitigate adverse environmental impacts;
2. (b) facilitate the implementation of decisions taken, and conditions imposed as a result of the authorisation of new activities and developments, or through the setting of norms and standards in respect of existing activities and developments; and
3. (c) ensure effective environmental management and conservation of resources and impacts within the jurisdiction of a municipality in co-operation with other organs of state.
5. ...must include measures for environmental management, which may include—(a) auditing, monitoring and ensuring compliance; and (b) reporting requirements and the furnishing of information.”

3.4.3 National Environmental Management: Biodiversity Bill, 2003 (BB)

This Bill is: “To provide for the management and conservation of South Africa’s biodiversity within the framework of the National Environmental Management Act, 1998; the protection of species and ecosystems that warrant national protection; the sustainable use of indigenous biological resources, the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; the establishment and functions of a South African National Biodiversity Institute; and for matters connected therewith.” Of particular interest here is Chapter 3: Biodiversity Planning and Monitoring; Chapter 4: Threatened or Protected Ecosystems and

Species; and Chapter 5: Species and Organisms Posing Potential Threats to Biodiversity, notably Part 1: Alien Species and Part 2: Invasive Species.

3.4.4 PGWC Guideline for Involving Visual and Aesthetic Specialists in EIA Processes (Edition 1, June 2005)

This newly endorsed guideline (November 2005) is the most relevant document that now guides VIA in the Western Cape. It is a highly useful document and has been used to guide this report. While lacking a definition of VIA, it states in the Introduction: “This visual guideline document is therefore an attempt to develop a ‘best practice’ approach for visual specialists, EIA practitioners and authorities involved in the EIA process. The term **‘visual and aesthetic’** is intended to cover the broad range of visual, scenic, cultural, and spiritual aspects of the landscape; however, for the purpose of brevity, the term **‘visual’** is used in the text” (p 1). **Thus it includes aspects of “the area’s sense of place, ... natural and cultural landscapes, ... the identification of all scenic resources, protected areas and sites of special interest, together with their relative importance in the region, ... the need to include both *quantitative* criteria, such as ‘visibility’, and *qualitative* criteria, such as landscape or townscape ‘character’** (pp 1-2).

3.4.5 South African National Heritage Resources Act, 1999 (NHRA)

NHRA regulations cover the protection of historic sites, objects, buildings and landscapes. It covers (ii) “archaeological items,” namely, “material remains resulting from human activity... older than 100 years;” rock art, wrecks and “features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found (2 Definitions). The Definitions also include the term “(vi) ‘cultural significance’ [which] means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance.” Further, (xxi) “‘living heritage’ means the intangible aspects of inherited culture, and may include: cultural tradition oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships.” (xxxi) “‘Palaeontological’ means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.” (xxxviii) “Public monuments and memorials” and (xviii) “victims of conflict” relating to wars are also defined. A linear development over 300m long, or a bridge 50m long, or any development over 5,000 square metres (½ Hectare), or rezoning over 10,000 square metres (1 Hectare) requires an HIA to be submitted if a heritage resource is likely to be affected.

A Heritage Impact Assessment is being undertaken in terms of the provisions of Section 38 (8) of the NHRA.

3.4.6 PGWC Guideline for Involving Heritage Specialists in EIA Processes (Edition 1, June 2005)

Continuing on from the NHRA (1999), this now legally adopted Provincial Guideline further records (p 3): “Types of heritage resources as defined in the relevant legislation may include the following:

- Places, buildings, structures and equipment of cultural significance
- Places to which oral traditions are attached or are associated with living heritage
- Historical settlements or townscape
- Landscape and natural features of cultural significance
- Geological sites of scientific or cultural importance
- Archaeological and palaeontological sites
- Graves and burial grounds
- Sites related to the history of slavery (NHRA).”

These are the so-called “tangibles” of the heritage concept (p 5). Thus the “cultural landscape” is seen as having a range from Archaeology to Palaeontology to Historical Architecture to Social History to Public Memory and Natural Landscape (p 6). Two categories of heritage significance/sensitivity are used: Category 1: Formally protected heritage sites and Category 2: Landscapes of recognised or potential significance or sensitivity (not yet formally protected) (p 18). This extensive list of sites include Grade I-III, National and Provincial Heritage Sites and Protected Areas, as well as Provisionally Protected Sites, Urban Conservation Areas, Nature Reserves, proclaimed Scenic Routes, etc as well as World Heritage Sites e.g. Robben Island and Cradle of Humankind (Sterkfontein). A very large list of landscapes is also included starting with Scenic/Historical Routes or Landscapes, Pristine Natural Areas e.g. Cedarberg and many other types of landscapes including Historic Farm *Werfs* e.g. *Boschendal*, *Morgenster*, *Alphen*, and historical farmlands e.g. Winelands, Swartland, Karoolands, and many more.

This long list has been ordered into twelve types of Heritage Context in Table 1 (pp 21-27), namely:

1. Palaeontological Landscape
2. Archaeological Landscape
3. Historical Built Urban Landscape
4. Historical Farmland
5. Historical Rural Town

- 6. Pristine/Natural Landscape
- 7. Relic Landscape**
- 8. Burial Ground and Grave Site
- 9. Associated Landscape**
- 10. Historical Farm *Werf*
- 11. Historical Institutional Landscape
- 12. Scenic/Visual Amenity Landscape.

Many of these could be grouped under the broad term Regional Cultural Landscapes (p 31). **Thus the Landscape is considered a vital part or domain of Heritage Resources.** As a visual resource, Landscape is very much seen and perceived in every human sense.

3.4.7 Other Documents

Other documents that refer to visual aspects of EIA include *Aide Memoir for the Preparation of Environmental Management Programme Reports for Prospecting and Mining* 5.2.13 Sensitive Landscapes and 5.2.14 Visual Aspects which states: “Describe the impact the project will have when viewed from scenic views, tourist routes and existing residential areas” (pp 17-18). The SAMOAC (South African Manual for Outdoor Advertising Control) controls also specifically define visual impact with particular reference to signage in natural, urban and rural landscapes.

3.5 Administrative Framework

3.5.1 Western Cape Provincial Urban Edge Guideline (DEA&DP December 2005)

This document notes the following on visual impact that has special reference to this and all similar types of development, bold added (p 30):

“Visual impact. The value of the environment is often under-estimated from a visual perspective. It is the visual quality of the environment that, to a large degree, generates the attraction for the tourism industry and draws people to certain areas as desired locations for living a lifestyle outside of the large cities and densely developed urban areas. **The visual resources of rural areas, such as scenic landscapes and the cultural streetscapes and farmsteads,** and environments such as the Garden Route, constitute major tourist attractions. Visual qualities of the environment also forms the backdrop to most other tourist activities, such as 4 x 4 routes, hiking trails, camping and recreational activities and even sporting facilities that sustain local economic activity. The growth of golf resorts in the Garden Route serve as examples of the attraction of the environment and more particularly the visual environment for interest in sporting facilities. Added thereto, the experience of reserves and resorts in the Cedarberg and Karoo are as much in the visual quality of the environment as it is in the attraction of the facilities.

Each area has its own unique visual character and atmosphere, which plays an important role in the quality of any tourist experience. The diversity of the landscapes makes it essential to consider all development **and more particularly the expansion of urban areas, an issue that requires special consideration.** The intention is to manage urban development in such a way that no development would detract from the visual quality of the environment **and that all development conforms to a characteristic style and urban form that suits the character of the area.”**

This implies that edge development should not only be limited to certain areas through inclusion or exclusion, **but that edge development should also be subject to urban design guidelines, architectural consideration and general aesthetic treatment.** The visual quality of the environment is not limited to the natural environment. **The built environment has as much of an effect on the aesthetic appeal of an area as has the natural environment.”**

3.5.2 Western Cape Provincial Spatial Development Framework

A Draft Interim Report to Council is available on the web dated November 2005 as prepared by CNDV Africa. The Western Cape Provincial SDF (WCPsDF) makes no specific discussion of the area around Hermanus as pertains visual impact, however, the following general issues apply.

The report's section 4.1.4 Topography, Visual Amenity and Architectural Style (Scenery), notes in their introduction (p 4-23): **“The impact of human activity has had a pronounced impact on the natural landscape and the need to manage and control such impacts are key to protecting the scenic qualities and visual resources of the Province.”** They further note that visual carrying capacity is higher in undulating landscapes and we could add, in areas with numerous valleys and local ridgelines that screen off one area from the next. However, flat ground, or titled ground that offers a sweeping view is the most visible. Their report goes on to say in the section Visual Impact, Layout and Style (p 4-24):

The visual impact of urban settlements, structures and activities within different environments should enhance and respond to the natural environment and built heritage in which they are located. **This raises the issue of appropriate layout and architectural character within the Province.**

As much as they lament the concern about the impact of globalised styles such as Tuscan that is so foreign to the Cape, the lack of due care to traditional planning forms can also be endorsed. Scenic routes including the N1, N2, N7 and N12 along with mountain passes are broadly accepted as provincial and national assets. In their Spatial Summary they finally note the following:

- The topography and settlement patterns of the Western Cape resulted in a unique matrix of Romantic, Cosmic, Classical and Complex landscapes, ranging from the complex landscape of the City of Cape Town to the cosmic landscape of the Central Karoo. Human settlement needs to be understood in the context of the natural place that ‘contains’ them and therefore it is important that **more emphasis is put on defining guidelines for the appropriateness of different forms of human settlement within different landscapes;**
- **Areas with exposure to large numbers of people, especially passing tourist traffic, require special consideration; and,**
- **The preparation of guidelines for site planning and choice of building materials and their implementation, including settlement on farms need to be prioritized, especially in areas identified as pure cosmic, romantic or classic landscape areas (for example the Tulbagh Valley) and Scenic Routes.**

3.5.3 Western Cape Provincial Urban Edge Guideline (DEA&DP December 2005)

This document makes wide (14) mention of heritage resources recommending for cultural/heritage resources: **“Wide buffer to allow meaningful experience of the resource.”**

3.5.4 Stellenbosch SDF (2007)

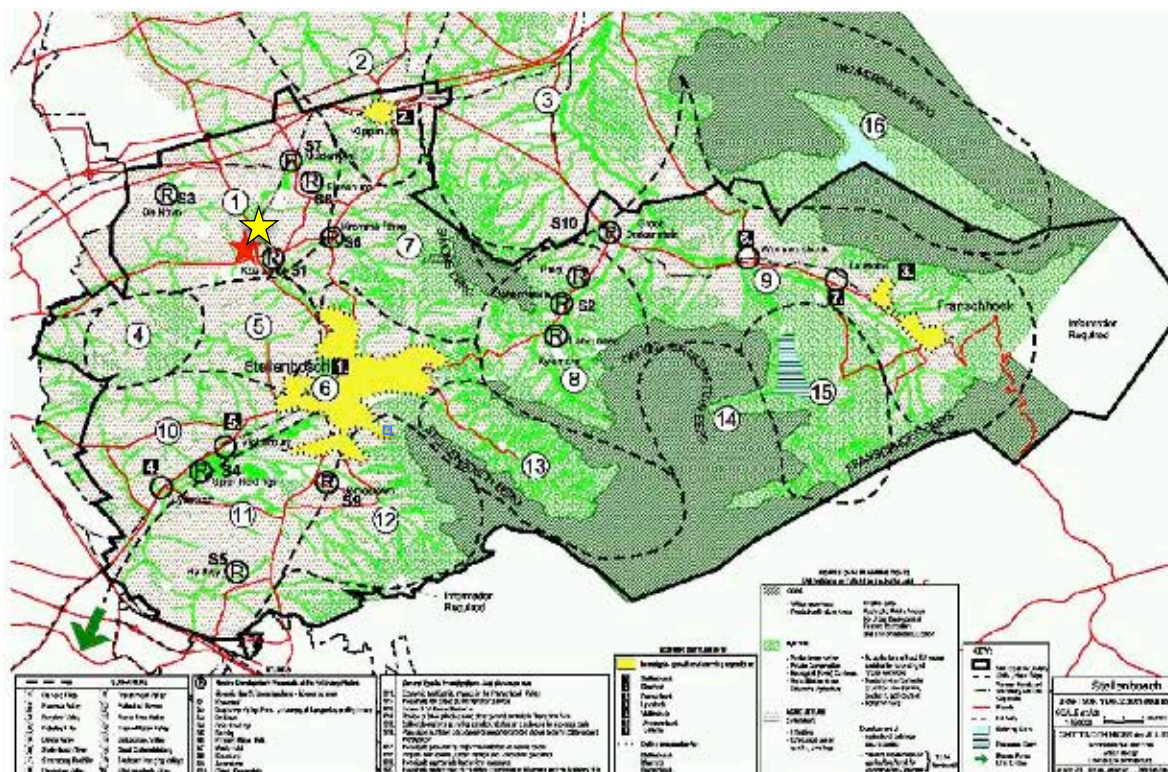


Figure 4.7 Stellenbosch Municipal Spatial Development Framework

Created by this planning and design CC
environmental planning, landscape architecture, urban design

22

STELLENBOSCH SDF (2007)
December 2007

Source: Reproduced courtesy of CnDV Africa Planning and Design CC.

Figure 3-1: Stellenbosch Municipal SDF (2007) showing the site location (yellow star above red star).

An extract of the Stellenbosch SDF is shown below showing the location of the site. It shows the site located on the R304 just above Koelenhof. In the plan of December 2007 the site occurs just outside the northern boundary of the urban edge of Koelenhof.

The Stellenbosch SDF shows that Calcutta 29 occurs in the **hatched tan area = Agriculture (Transition)** Bioregional Planning Zone which covers most of the region in the West and NW of the Stellenbosch municipal area. Numerous **riverine courses** are also indicated as long green lines and one **Buffer Zone = light green hatch** near the Red Star.

The Stellenbosch SDF (p 9) *Synopsis: Heritage* notes the following (**bold added**):

HERITAGE

The sense of place of the Stellenbosch region is derived from a long agricultural and academic history coupled with well-preserved architecture and endemic biodiversity. Uncontrolled expansion of urban areas and industrialised agriculture into indigenous ecosystems threatens the unique fabric of the region, and may diminish the appeal of the area. **Several specific principles are proposed to protect the character of the area, including the use of guidelines for sensitive biodiversity areas, controls over building heights and architectural styles along major roads, and the determination of appropriate land use zoning according to view sheds.** The character of the rural area should be protected via various guidelines such as setting buildings along provincial roads back by at least 100m. Tourism that reinforces the municipality's sense of place should be encouraged and attractions should be developed that remain appropriate to the region's well-established themes.

Following the principles introduced in Section 2, Section 3 considers the 14 nodes that have been identified as the loci of future development in Stellenbosch Municipality in more detail. This includes a summary of the challenges and opportunities faced by each node and maps of the status quo and proposed developments that indicate how this could be translated into more detailed spatial plans. Table 1 on page 12 summarizes the key infrastructure capacity issues that need to be addressed in each of the nodes, and can be used to prioritize infrastructure investments across the municipality in the short term.

Furthermore, *Section 7: Heritage* (pages 32-33) later notes more completely (**bold added**):

7. HERITAGE

Stellenbosch's sense of place is derived primarily from its historic architecture, endemic biodiversity and the views from its main arterial routes. Its main attractions include wine farms, natural areas, historic sites and museums, sports and recreational facilities, and tight-knit urban street character in many of the historic urban cores (e.g. Stellenbosch, Franschhoek). Approximately 169,000 tourists visited the municipality's tourism bureau in 2005, of which over 80% were foreign. Growth in domestic tourism is seen as an opportunity to expand the tourism

economy. The establishment of Stellenbosch 360 in 2012 clearly marks the start of a new era in tourism promotion and business involvement in development in general.

Stellenbosch is home to some of the rarest and most diverse vegetation on earth, but this is coming under pressure from the uncontrolled expansion of urban areas and industrialized agriculture into indigenous ecosystems. As pockets of untouched ecosystems get smaller and the spaces between them get wider, they lose their ability to function and reproduce, and species become extinct. Combined with climate change, uncontrolled conversion of rare ecosystems could result in the loss of beneficial ecosystem services and significantly diminish the appeal of the area unless decisive action is taken to protect and nurture endemic biodiversity.

There is increasing importance of telecommunications to the growth of the economy. This is especially the case in Stellenbosch that has a strong emphasis on business services and information communication technology. Rapid expansion of the telecommunications industry in recent years has resulted in an increasing demand for radio telecommunication services, and new technologies in the cellular phone industry. The location, siting and development of TMI continues to be an issue of particular interest to both local communities and local government alike, with debate focusing on adequate availability of connectivity, visual amenity and public health. With the nature of technology it must be accepted that the future need for TMI sites will increase in the short to medium term.

PRINCIPLES

- Sensitive biodiversity areas should be mapped, and clear and appropriate guidelines introduced to conserve them.
- **Crest lines should be kept free of buildings and intensive agriculture to protect biodiversity.**
- **Ridge lines should be used for properly managed walking trails to increase recreational potential, tourism and income.**
- **The boundaries of view sheds along major routes should be determined by a visual resource management exercise.**
- **Land within these view sheds and outside of existing or proposed settlement nodes should be classified as either “Buffer” or “Intensive Agriculture” Spatial Planning Categories (SPCs) depending on the underlying land’s suitability and use.**
- Development for agricultural or agri-tourism activities within these view sheds and outside of existing or proposed settlement nodes should be limited to 1 du per 10 ha (or equivalent).
- Buildings along provincial roads should be set back at least 100m from these roads to preserve the character of rural areas.
- **Building heights and architectural styles should be controlled within 200m of any prominent road so as to preserve the heritage of the built environment.**

- Outside of formal conservation areas, land owners should be encouraged to conserve vegetation classified by SANBI as Endangered or Critically Endangered (particularly along ridge lines) and to link to existing conservancies (e.g. through the Cape Nature Stewardship Program). These land uses should be classified in the Core SPC.
- Adopt a telecommunication mast infrastructure policy that will facilitate the growth of new and existing telecommunications systems and facilitate the provision of TMI in an efficient, cost-effective, environmentally appropriate and sustainable way.
- Tourism that reinforces the municipality's sense of place (e.g. agri-tourism, wine tourism and eco-tourism) should be encouraged in the settlements and on rural land outside the urban edge.
- Variety in the region's tourism offerings should be preserved rather than focused on one unique resource (e.g. wine tourism), but attractions must remain appropriate to the region's tourism themes.
- Restaurants, wine tasting and holiday accommodation should be encouraged, but must be within the parameters of the rural housing guidelines and provincial resort guidelines.

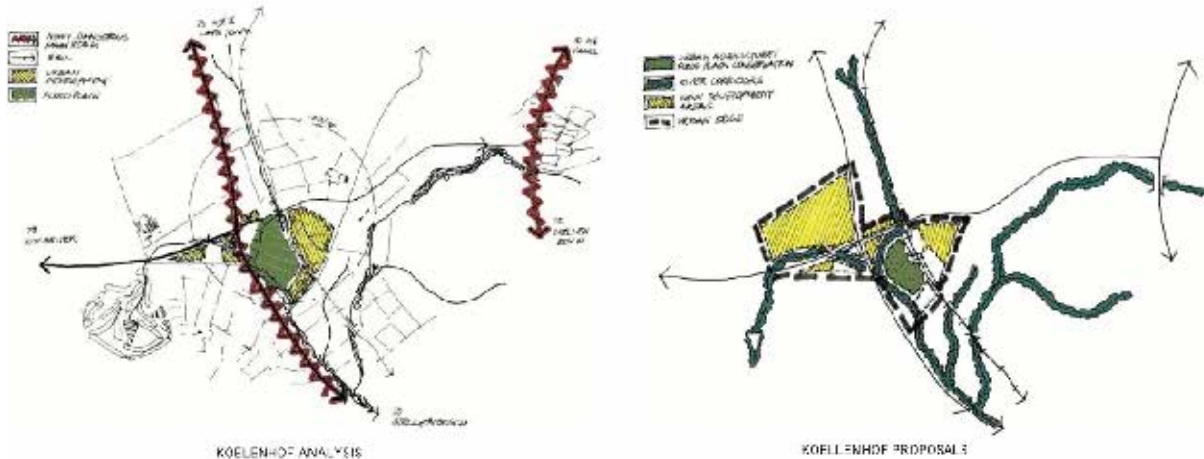


Source: Reproduced courtesy of CNDV Africa Planning and Design CC.

Figure 3-2: Koelenhof SDF study area (2007) showing the site location (yellow star).

The location of the Calcutta site is just north of the 1km urban boundary on the road to Cape Town and the N2 (see Figure 3-2). Nothing is planned outside Koelenhof around Calcutta 29 leaving it rural-agricultural. Its heavily wooded nature is distinctive in the otherwise open agricultural field landscape.

The Koelenhof proposals do not affect the *Calcutta 29* site.



Source: Reproduced courtesy of CNdV Africa Planning and Design CC.

Figure 3-3: 3.9 Koelenhof Analysis and Proposals (Stellenbosch SDF 2007:55).

3.5.5 Stellenbosch Heritage Survey and Management Plan (SHS&MP) (2018)

Further information about the area generally can now be gleaned from this excellent survey recently completed and published online. It is referred to by abbreviation SHS&MP in this report. This is powerful and invaluable resource provides at long last an authoritative and comprehensive survey of heritage resources in this heritage rich municipality, making it easier to determine the heritage context of developments.

Appendix 5: Landscape Character Study⁴

Graded Landscape Units

SHS&MP's *Appendix 5: Landscape Character Study* is invaluable to appreciating the heritage significance of landscape sites such as that at *Calcutta 29*. The Stellenbosch Inventory divides the region up into various zones (see Figure 3-4).

Calcutta 29 occurs in the NW Landscape Character zone **A Krom River**. The site lies on its NW boundary with the next zone **B Bottelary Hills** (see Figure 3-5).

The grading of this area, on Landscape Units **A11 Calcutta and open fallow ground** and **A12 Cultivated Vineyards** is **Grade IIIb**, which abuts onto the **Grade IIb Landscape Unit: A09 Elsenburg**. Further east and south of Elsenburg, are **Grade IIa Landscape Units A14 Groenhof**,

⁴ Liana Jansen and Fabio Todeschini (2018). *Appendix 5: Landscape Character Study* in *Stellenbosch Heritage Survey and Management Plan (2018)*. Stellenbosch Municipality.

Muratie and Knorhoek and **A16 Gateway to Krom River**. With **Grade IIb A15 Skurweberg Footslopes** in between. Land over the R304 to the west is not graded but zoned **NCW Land Parcels in the Stellenbosch Winelands** (see Figure 3-6).



Source: Appendix 5 in SHS&MP (2018).

Figure 3-4: Landscape Character Zones showing Calcutta 29.

Calcutta 29 occurs in A Krom River zone and is clearly visible in its wooded character (to the left of the label A Krom River).

The Stellenbosch Municipality Heritage Inventory Map is shown in Figure 3-5 below.

Graded Heritage Sites

While there are numerous **Grade IIIc** sites in the Krom River Valley, there are also a number of **Grade IIb** sites. These are not named on the maps but have to be found on the interactive online map.⁵ There are 4 sites at Elsenburg:

- **The nearest is Elsenburg Pluimvee Proefplaas, Grade IIIa**
- **Elsenburg itself, Grade II**
- **Immediately adjacent, Elsenburg Pear Grove, Grade IIIc**
- **Elsenburg, Grade II to the south.**

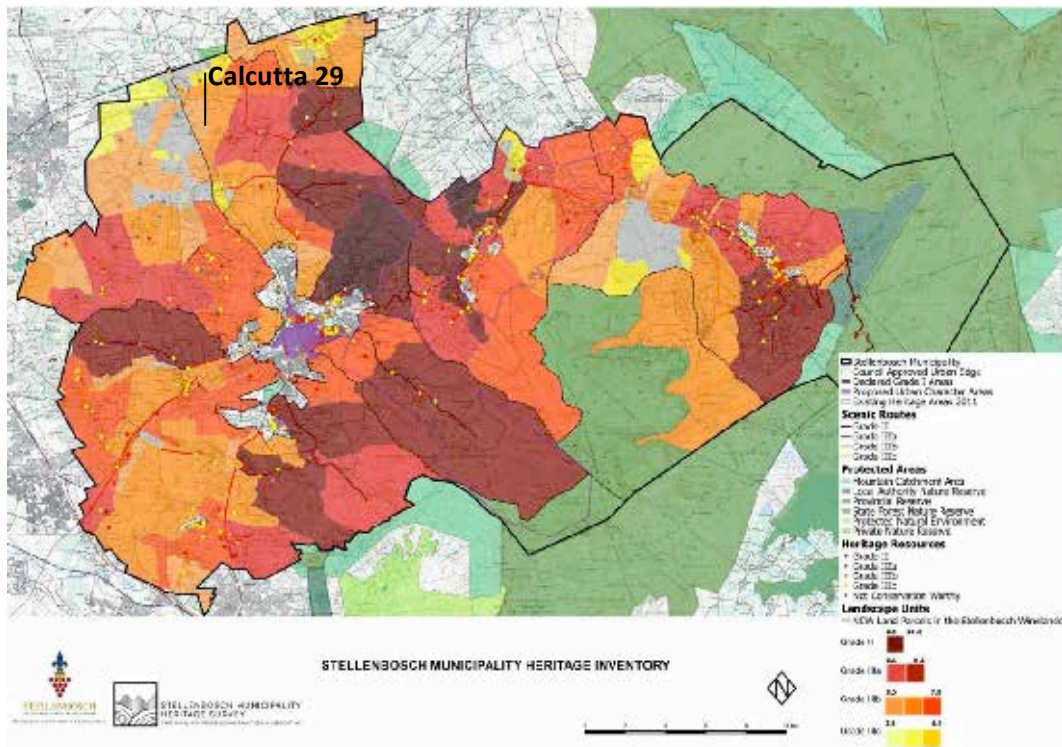
The nearest graded wine farm is:

- **Simonsig, Grade IIIc.**

Ungraded resources over the R304 northwards include:

⁵ <http://stellenboschheritage.co.za/smhs/map/#13/-33.8508/18.8097>.

- Wild Clover
- Pete's Adventure Farm Cottages
- Koelenhof Wynkelder.



Source: Appendix 5 in SHS&MP (2018).

Figure 3-5: Stellenbosch Municipality Heritage Inventory Map (2018).

This map shows the overall context of heritage sites and landscapes and their grading. **Calcutta and surrounds are ranked Grade IIIb.**

Graded Scenic Routes

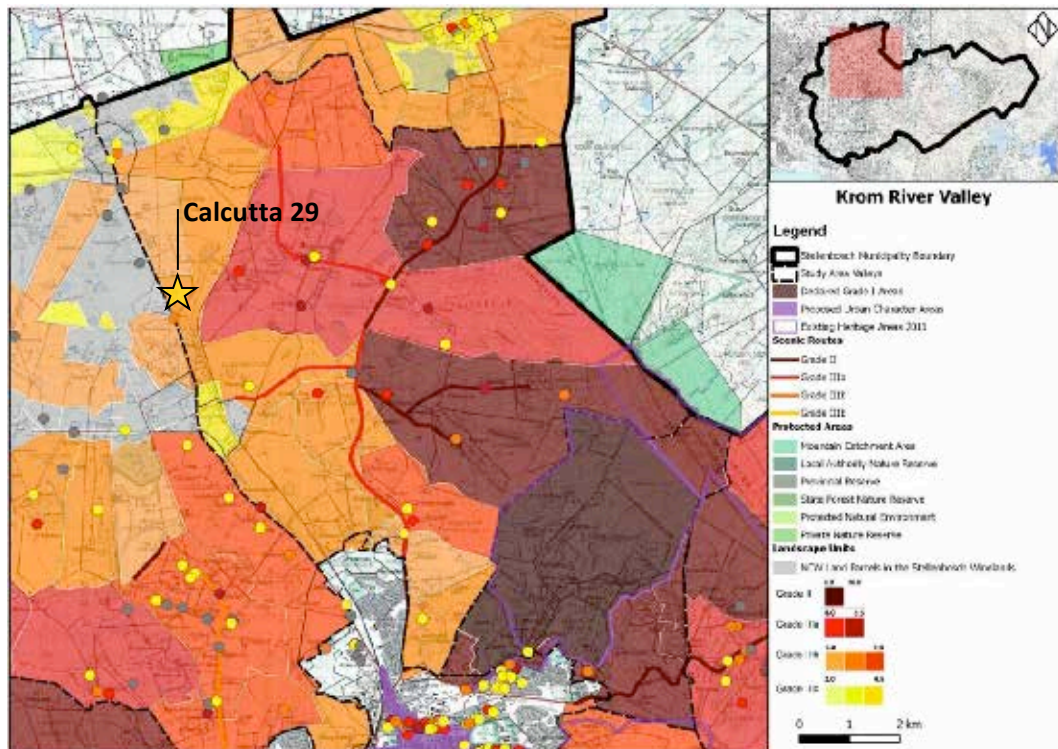
The R304 running on *Calcutta 29*'s western boundary has no ranking as a scenic route, however, the network of roads to the east behind Elsenburg are given **Grade IIIa** and even **Grade II** rankings. They are not visible from the site.

Landscape Character Areas: Krom River Vlakte

The Landscape Character Zones of the SHS&MP are further divided into **Landscape Character Areas**. *Calcutta 29* falls into **A11 Krom River Vlakte**. They are described in the following extract from Appendix 5 (see Figure 3-7). While it is an area with “development potential” due to low overall grading, “some of its highlights include the **Calcutta Outspan with attractive open fallow land and large remnant oak trees next to it (A11)**” (ibid). They also note “it has expansive views back towards the Stellenbosch mountains” (ibid).

The Krom River Vlakte are mostly characterised by low undulating plains on the northern boundary of the Stellenbosch Municipal area. This landscape unit scored low in the evaluation process and presents an area with development potential. It is close to the N1 and has ex-

pansive views back towards the Stellenbosch mountains. **Some of the highlights include the Calcutta outspan with attractive open fallow land and large remnant Oak trees next to it (A11).** The smaller blocks of well-maintained vineyards in land unit A12 are an important transition area into and out of the Stellenbosch winelands.



Source: Appendix 5 in SHS&MP (2018).

Figure 3-6: Stellenbosch Municipality Heritage Inventory Map: A Krom River Valley (2018).

This map shows the overall context of heritage sites and landscapes in the Krom River zone and their grading. **Calcutta 29** is zoned as a **Grade IIIb Landscape** with a **Grade IIIb Heritage Site** on the southern corner at the old Outspan site. They are both ranked as 6 (medium orange), the mid Grade IIIb forming part of the grading of that area.

A Krom River Landscape Unit Rating		A11		A12		A13	
Item	Item Weight	Value	Weighted value	Value	Weighted value	Value	Weighted value
Ecological Protected areas 10 Critical Biodiversity area 9 Ecological support areas 7 agriculture 4 Urban 1	20%	8	1.6	8	1.6	7	1.4
Aesthetic Viewshed, Scene, Diversity, enclosure, unity, colour, texture, balance, proportion, form	20%	8	1.6	7	1.4	4	0.8
Historic Age, Pattern representivity and association, rarity, condition	25%	6	1.5	3	0.75	4	1
Social Meaning and cultural associations, Church, School, Creche, recreational, community	10%	3	0.3	3	0.3	5	0.5
Economical Tourism and agricultural potential High soil suitability 9 medium soil suitability 7 Fragmented 5 Disturbed 2	25%	5	1.25	5	1.25	5	1.25
Degree of acceptable	100%		6.25		5.3		4.95

NCW	0-2
Grade 3c	2 to 4.9
Grade 3b	5 to 7.9
Grade 3a	8 to 10
Grade 2	9.5 to 10

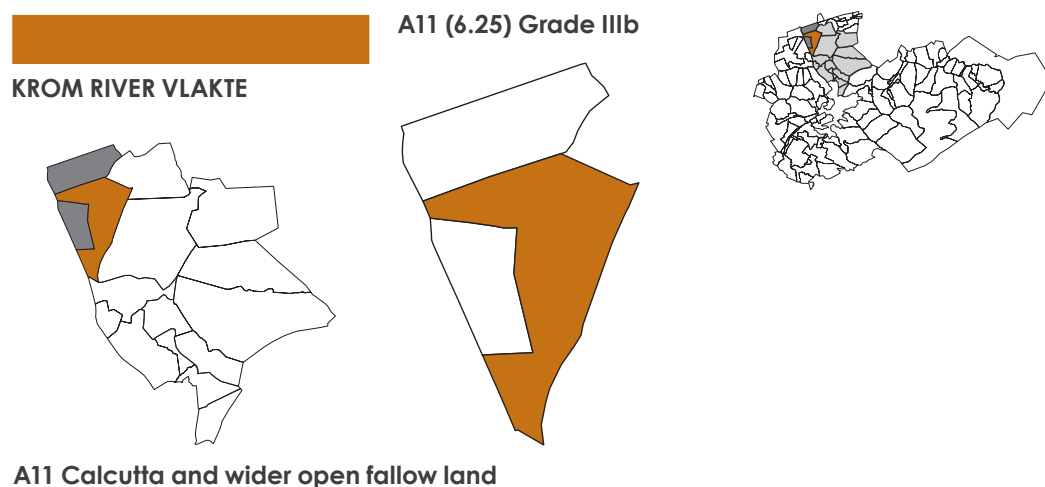
Source: Appendix 5 in SHS&MP (2018).

Figure 3-7: Stellenbosch Municipality Heritage Inventory Map: Krom River Vlaktes (2018).

A11 Krom River Vlaktes scores 6.25 points = Grade IIIb.

A11 Calcutta and Wider Open Fallow Land

The specific detail for Calcutta is noted in unit A11 with the map area found below (see Figure 3-8).



Source: Appendix 5 in SHS&MP (2018).

Figure 3-8: Stellenbosch Municipality Heritage Inventory Map: A11 Calcutta etc (2018).

A11 Krom River Vlaktes scores 6.25 points = Grade IIIb.

The description of A11 Calcutta and surrounds is as follows (**bold added, ibid**):

A11 Calcutta and wider open fallow land

An active railway line and Muldersvlei station are located in the northern section of this landscape unit with another railway line forming the eastern border. Its presence, however, does not have an adverse impact on the rolling, fallow agricultural land character of most of the unit. The R101 represents the northern border, and two businesses are located along it. The Giraffe

House on the corner of the R101 and R310 features some small camps with wild animals such as giraffe, ostriches and antelope species. It has a negative influence on the visual character of the area. A chicken farm is located adjacent to this property. **The southern corner of the land unit has an historic outspan area that features a remnant plantation on a distinctive triangular-shaped piece of land called Calcutta Bos. This outspan has landmark and associative significance and is highly regarded by people living in the area. Highlights of this land unit are the beautiful remnant Oak trees found on open fallow land and the small stream next to the historic Outspan area.**

This landscape unit has historic and associative significance in an area with a valued rural quality, and any development will compromise its inherent rural character.

3.6 Strategic Issues

3.6.6 Strategic Assessment

One of the difficulties of assessing visual impact at present is the lack of strategic Provincial or Municipal EIA, VIA or HIA studies which provide guidance on how the individual project fits into the overall context of development in any region. While an individual project seems to have an acceptable level of mitigatable impact, when viewed collectively, their sum total can well exceed the sum of the parts. That is, the impact of a single scheme such as this development may seem to be minimal when considered in isolation; however, when seen collectively with other developments also proposed in the area or region but as unknown to the assessor, or as not considered over the long term, the overall impact can become unsustainable. These are cumulative impacts.

There are no strategic visual studies done of the area that we are aware of but the SHS&MP's *Appendix 5: Landscape Character Study* (2018) (see section 3.5.5 above) has gone some way to informing the value of the landscape from a scenic and heritage perspective. However, it is not possible to consider strategic issues in detail at the project level as the information is generally not available and it is outside the scope of project assessments to do so.

NWA

4 Visual Environment Description

4.1 Summary

The site lies adjacent to the R304, which is not a designated scenic route. The route is of mixed scenic value, more so on the southbound journey with open views to the mountains. The landscape is generally open and flat with a mixed agricultural feel of open pastures, vineyards and some agricultural technology developments. The site itself is covered with dense, immature gum plantation making views into the site very short. The site cannot be easily seen from other roads, if at all, and neighbouring farms alone would be able to access it on north, east and south boundaries.

4.2 Introduction

Combined with Section 2, this chapter presents the relevant visual data required to develop a Visual Impact Assessment. This is a strongly visual chapter well illustrated with site and regional photographs. Visual impact is all about what can we see and how this affects us. This chapter shows us what we can see.

4.2.1 Background

The description of the environment is undertaken with a view to presenting basic data for the VIA. A full presentation is made of the visual information collected and analysed as required for a Level 4 VIA.

4.2.2 Key Issues

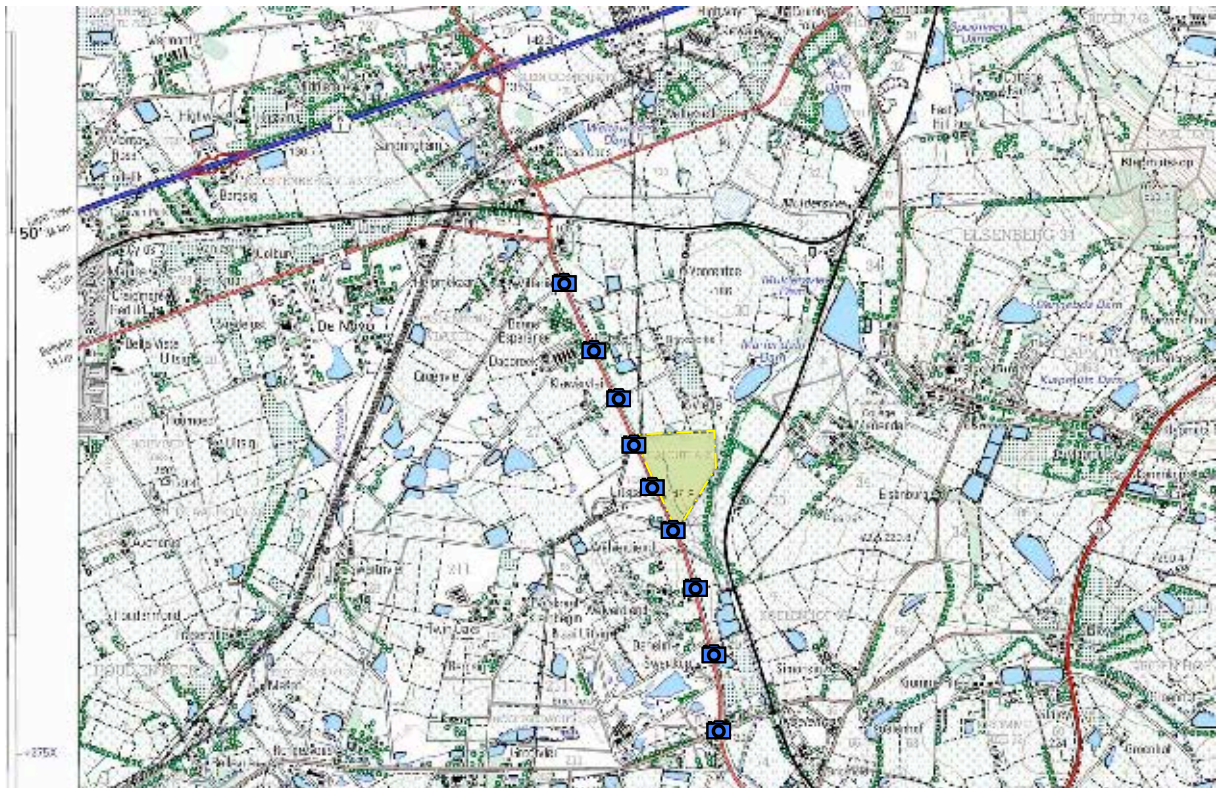
1. The R304 is a semi-scenic but non-graded route from the N1 into Stellenbosch.
2. The site occurs on the Krom River Vlaktes/Flats and is flat to gently sloping away to the Plankenburg River.
3. The vegetation in the area is highly transformed from its original fynbos/renosterveld leaving a degraded grassy pasture landscape and vineyards.

4. The site itself is covered with gum plantation of mixed ages, possibly burnt out and re-sprouting, and is very bushy compared to the generally open grassland around.
5. The site itself is some 30 hectares and sight of it is soon lost by the dense gum trees as you near its boundaries be they fields or the highly trafficked R304.

4.3 Physical Environment

4.3.1 Location

The site lies in an extensive area of farmland in the NW region of the Stellenbosch Wine-lands. There are numerous well-known wine farms in the area. Elsenburg Agricultural College lies to the east of the site over the railway line.



Source: Courtesy of Chief Directorate: Surveys and Mapping, State Copyright 2000 / New World Associates.

Figure 4-1: Site and Photographic Locations 1:50,000.

Portion of a 1:50,000 map of South Africa (3318 DD Stellenbosch, 5th Edition 2000) showing the site's location (yellow colour) and photographic locations (blue cameras). NTS.

4.3.2 Landform

The landform on site is flat to gently sloping away to the east down to the Plankenburg River. The landscape becomes more gently rolling to the south towards Stellenbosch.

4.4 Biological Environment

4.4.1 Vegetation, Wildlife and Ecology

The vegetation on site is classified as FRs 9 **Swartland Shale Renosterveld**. This is probably highly degraded now into pasture land by overgrazing and fire.⁶ Whatever remains of the natural vegetation is obscured by the gum plantation. There is also dense invasive *Acacia saligna*, especially in the south.



Source: VEGMAP 2012 (SANBI, 2006-).

Figure 2: Vegetation Map of the site Calcutta 29 in the NW Stellenbosch area (NTS).

4.4.2 Conservation and Management

Swartland Shale Renosterveld is ranked as Critically Endangered.⁷

⁶ **Conservation:** This is a critically endangered vegetation unit. Target 26%, but since 90% of the area has been totally transformed (mainly for cropland), the target remains unattainable. The remnants are found in isolated pockets, usually on steeper ground. So far only a few patches have been included in conservation schemes (e.g. Elandsberg, Paardenberg). Aliens include *Acacia saligna* (very scattered over 65%), *A. mearnsii* (very scattered over 62%) as well as several species of *Prosopis* and *Eucalyptus*. Alien annual grasses of the genera *Avena*, *Briza*, *Bromus*, *Lolium*, *Phalaris* and *Vulpia* are a primary problem in remnant patches. Other serious aliens include herbs such as *Erodium cicutarium*, *E. moschatum*, *Echium plantagineum* and *Petrorhagia prolifera*. Erosion very low and low. (VegMap online accessed 12 November 2018).

⁷ South African National Biodiversity Institute (2006-). *The Vegetation Map of South Africa, Lesotho and Swaziland*, Mucina, L., Rutherford, M.C. and Powrie, L.W. (Editors), Online, <http://bgis.sanbi.org/SpatialDataset/Detail/18>, Version 2012.

4.5 Social Environment

4.5.1 Heritage

The Cape Winelands are world renown and are a UNESCO World Heritage Site. The development of the Winelands into a cultural landscape occurred historically during the colonial period of South Africa from the seventeenth to nineteenth centuries. The twentieth century saw expansion and further development of the winelands and the development of the region's famous Wine Routes. There are numerous well-known Stellenbosch wine farms in the area including *Koelenhof* and *Simonsig*. As such this rural landscape is highly transformed with farms either given over to vineyards or pasturage. There are also numerous farm dams.

4.5.2 Land Use

As noted in the WCPSDF previously, the site falls is zoned rural Agricultural.

4.5.3 Rural Context

The site occurs in the rural landscape of NW Stellenbosch Municipality, an area of the winelands.

4.6 Cultural Environment

4.6.1 Aesthetics

The area's aesthetic is mixed agricultural with a combination of vineyards and pasturage. There is more pasturage in this area than vineyards. However, the greater landscape is the historical winelands of Stellenbosch.



Source: All photographs in the report by Bruce Eitzen and are copyright ©.
 Photograph 4-1: View across the rolling pastures towards Elsenburg with Klapmuts Kop behind, the site at left.

4.6.2 Visual

The site has been the subject of a photographic survey that looks at the site itself, the local area and views from local roads. The bulk of the visual description is to be found in the photographs that are self explanatory and accompanied by descriptions. **According to the PGWC Guidelines “the term ‘visual and aesthetic’ is intended to cover the broad range of visual, scenic, cultural and spiritual aspects of the landscape; however, for the purpose of brevity, the term ‘visual’ is used in the text” (p 1).** Thus it is within the technical gambit of VIA to

comment on all the varied aspects that make up the visual environment which is the aim of this study. The photographic survey is presented as if one were to visit the site for the first time, covering views from the approach road, scenic routes, local roads, views of and from the site then views from the neighbourhood.

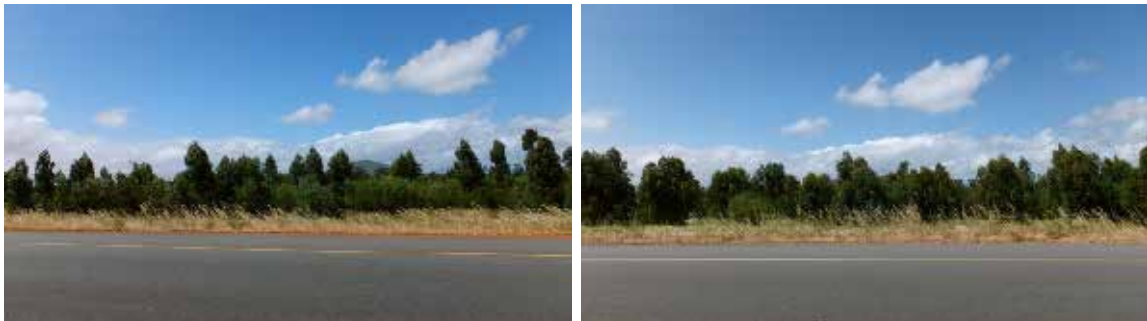
4.6.3 Views of the Site from the R304

The following view sequence is taken travelling north from Koelenhof towards the N1.

The northbound route is less scenic coming out of the mixed landscape around Koelenhof and Stellenbosch with nothing on the horizon of interest as the ground climbs to the north.



Photograph 4-2: Northbound on the R304 from Koelenhof intersection (left) and passing the site (right).



Photograph 4-3: Northbound on the R304 past the gum trees on site mixed with alien *Acacia saligna*.



Photograph 4-4: Northbound on the R304 past the northern end of the site (left) then past a vineyard (right).



Photograph 4-5: Northbound on the R304 north of the site past nearby farms.



Photograph 4-6: Northbound on the R304 past Westcape Biotech (Pty) Ltd.

The site occurs on an open plain known as the Krom River Vlakte. Its bushy gum plantation stands out from the generally open landscape.



Photograph 4-7: Northbound on the R304 and the open Krom River Vlakte landscape, Klapmuts Kop behind.



Photograph 4-8: Southbound on the R304 looking towards Simonsberg and the Stellenbosch winelands.



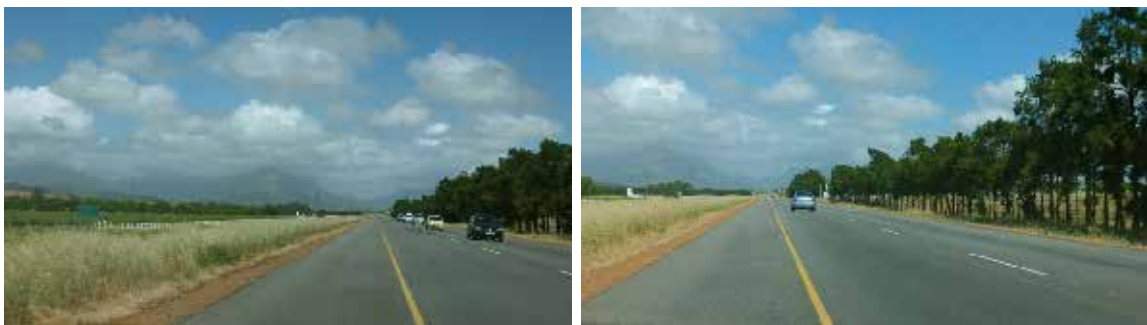
Photograph 4-9: Southbound on the R304 from Westcape Biotech (left) and the lunch time traffic (right).



Photograph 4-10: Southbound on the R304 past vineyards towards the Stellenbosch mountains.

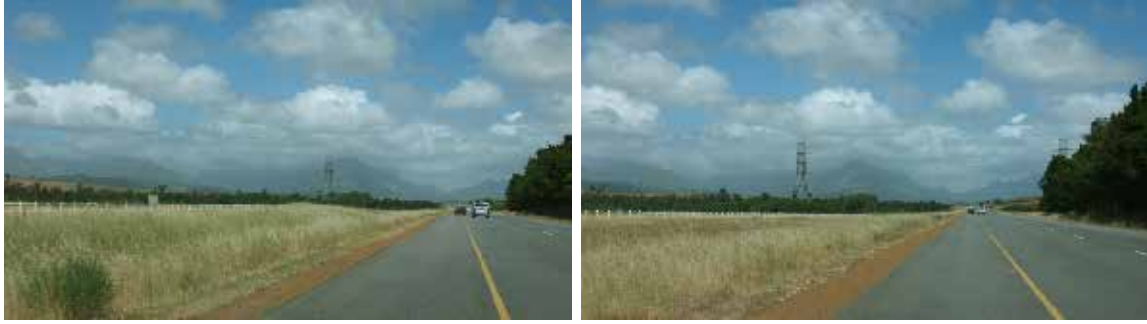


Photograph 4-11: Southbound on the R304 with the site just coming into view at left past the Vrede vineyards.

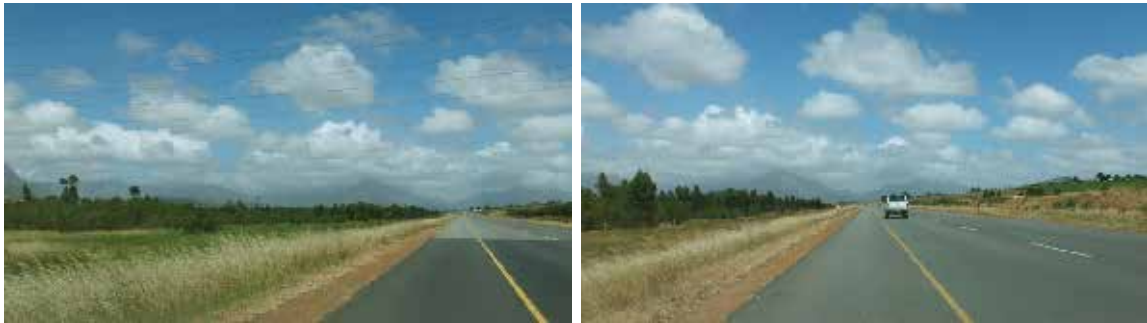


Photograph 4-12: Southbound on the R304 past Vrede Winery (left) with boundary trees (right).

The views along the R304 are more scenic on the southbound route as the mountains around Stellenbosch form the backdrop and the landscape falls away into the Stellenbosch valley.



Photograph 4-13: Southbound on the R304 past Vrede Winery and the site coming into view.



Photograph 4-14: Southbound on the R304 approaching (left) and passing the site's gums (right).



Photograph 4-15: Southbound on the R304 passing the site's gums (left) and neighbouring open field (right).



Photograph 4-16: Southbound on the R304 passing the site's southern boundary (right) with open fields (left).

4.6.4 Views of the Site

The following views are taken adjacent to the site from the R304, the most significant views for visual impact assessment. Views from neighbouring farms on other boundaries were not accessible.



Photograph 4-17: View of the southern boundary of the site from the R304 showing the old outspan location.



Photograph 4-18: View of the western boundary of the site from the R304 showing the typical view from the road.

The Calcutta Bos site is heavily wooded though only semi-mature gum plantation. The neighbouring landscapes are mostly open pasture. Visibility into the site is low.

This concludes the visual description of the study area. A visual assessment of the site follows in the next chapter.

NWA

5 Visual Impact Assessment

5.1 Summary

The R304 is only moderately scenic, particularly southbound and runs adjacent to the site's west boundary. The flatness of the site and its dense gum plantation blocks views into the site while indicating its location generally in the open landscape of fields and vineyards. The proposed development will have a moderate impact on the landscape causing some change to the visual environment. The development has moderate to high visual exposure, moderate visual absorption capacity, medium compatibility, and is moderately to highly visible (R304). The development's visual impact has site-related to local extent, long term duration, medium intensity, definite probability, and medium significance on the landscape. Recommendations are made to minimise visual and aesthetic impact.

5.2 Introduction

This chapter uses the information collected in the previous chapters in an analysis that identifies and then describes the preliminary visual and aesthetic impacts of the project on the environment presented in tabular form due to the extent of the project.

DEFINITION: "Visual impact is defined as a change in the appearance of the landscape as a result of development which can be positive (improvement) or negative (detraction)" (IEA and the Landscape Institute, 1995).

5.2.1 Key Issues

1. *Calcutta 29* is unusual in that its dense gum plantation stands out from the generally open fields and neat vineyards of the area.
2. The landform of the site is flat sloping gently to the east; the area is generally flat also.
3. Only the nearest western boundary is visible to the road on the R304. All other boundaries occur on private land.

4. While the woodlot helps to identify this farm from the rest, it also makes views into impossible.
5. There are no major ridgelines in the area although there are subtle ones on these extensive flats.

5.3 Methodology

A table is being used to scope the issues relating to visual and aesthetic impact of the wind turbines on the landscape.

5.3.1 The Visual Assessment

The visual environment can be structured into the following components:

1. **Natural Environment:** comprising the *Geomorphology* (geology, soil, land form), *Climate* (atmosphere and water), and *Nature* (vegetation and wildlife).
2. **Cultural Environment:** comprising *Land Use* (urban, rural, agricultural, recreational, etc), the *Structures* (architecture, engineering, lighting, services), and *History* (ancient, colonial, modern, contemporary).
3. **Visual Environment:** comprising *Views* (aesthetics), *Routes* (scenic, transport), and *Landscapes* (town, country, cultural, natural, mountainous, coastal, etc).

5.3.2 Triggers for Visual Assessment

These have been extracted from the PGWC (November 2005) list of triggers (p 5) with potential aspects relevant to this project noted in **bold**:

The nature of the receiving environment:

1. **Areas with protection status, such as national parks or nature reserves;**
2. **Areas with proclaimed heritage sites or scenic routes;⁸**
3. Areas with intact wilderness qualities, or pristine ecosystems;
4. Areas with intact or outstanding rural or townscape qualities;
5. **Areas with a recognized special character or sense of place;**
6. **Areas lying outside a defined urban edge line;**
7. **Areas with sites of cultural or religious significance;**
8. **Areas of important tourism or recreation value;**
9. Areas with important vistas or scenic corridors;
10. Areas with visually prominent ridgelines or skylines.

⁸ The R304 is not scenic while the scenic routes around Elsenburg do not approach the site closely. The winelands are recognized heritage areas and there are variously graded heritage landscapes and sites in the general area, mostly at Elsenburg.

The nature of the project:

1. High intensity type projects including large-scale infrastructure;
2. **A change in land use from the prevailing use;**
3. A use that is in conflict with an adopted plan or vision for the area;
4. A significant change to the fabric and character of the area;
5. A significant change to the townscape or streetscape;
6. **Possible visual intrusion in the landscape;**
7. Obstruction of views of others in the area.

As can be seen, the various sites could be described as falling within at least 6 of the 10 listed receiving environments (60%), and 2 out of 7 project types (29%) that may cause visual impact giving a combined total of 45%; the receiving environment is moderately sensitive while the project character is low impact. **Thus the factors triggering potential impact suggest that impact will be moderate while their scope suggests low.** Regarding “the nature of the receiving environment,” categories apply to both the site and the area generally.

5.3.3 Key Issues Requiring Specialist Input

The following table helps identify the likely level of impact:

TYPE OF ENVIRONMENT: High to Low Sensitivity	TYPE OF DEVELOPMENT: Low to High Intensity				
	Category 1 development	Category 2 development	Category 3 development	Category 4 development	Category 5 development
Protected/wild areas of international, national, or regional significance	Moderate visual impact expected	High visual impact expected	High visual impact expected	Very high visual impact expected	Very high visual impact expected
Areas or routes of high scenic, cultural, historical significance	Minimal visual impact expected	Moderate visual impact expected	High visual impact expected	High visual impact expected	Very high visual impact expected
Areas or routes of medium scenic, cultural or historical significance	Little or no visual impact expected	Minimal visual impact expected	Moderate visual impact expected	High visual impact expected	High visual impact expected
Areas or routes of low scenic, cultural, historical significance / disturbed	Little or no visual impact expected. Possible benefits	Little or no visual impact expected	Minimal visual impact expected	Moderate visual impact expected	High visual impact expected
Disturbed or degraded sites / run-down urban areas / wasteland	Little or no visual impact expected. Possible benefits	Little or no visual impact expected. Possible benefits	Little or no visual impact expected	Minimal visual impact expected	Moderate visual impact expected

Figure 3: Table of Visual Impacts ex DEA&DP Guidelines.

Furthermore, the PGWC “Categorisation of issues to be addressed by the visual assessment” (Table 1, p 6) identifies the project as **Category 3 development**: e.g. low density resort / residential type development, golf or polo estates, **low to medium-scale infrastructure**.⁹

⁹ **Category 1 development**: e.g. nature reserves, nature-related recreation, camping, picnicking, trails and minimal visitor facilities.

Category 2 development: e.g. low-key recreation / resort / residential type development, small-scale agriculture / nurseries, narrow roads and small-scale infrastructure.

Terms are defined as follows (p 7): *Medium density development* – generally 1 to 3-storey structures, including cluster development, usually with more than 25% of the area retained as green open space.¹⁰ In the list of “Type of environment” this would be defined as a mix of “**areas or routes of medium scenic, cultural, historical significance.**” This would result in a theoretical possible outcome: **moderate visual impact** expected. When considering the following descriptions, we find that the visual impact is perhaps best described as **moderate**:

“High visual impact expected:

1. Potential intrusion on protected landscapes or scenic resources;
2. Noticeable change in visual character of the area;
3. Establishes a new precedent for development in the area.

“Moderate visual impact expected:

1. Potentially some affect on protected landscapes or scenic resources;
2. Some change in the visual character of the area;
3. Introduces new development or adds to existing development in the area.

“Minimal visual impact expected:

1. Potentially low level of intrusion on landscapes or scenic resources;
2. Limited change in the visual character of the area;
3. Low-key development, similar in nature to existing development.”

“Little or no visual impact expected:

1. Potentially little influence on scenic resources or visual character of the area;
2. Generally compatible with existing development in the area;
3. Possible scope for enhancement of the area.”

Category 3 development: e.g. low density resort / residential type development, golf or polo estates, low to medium-scale infrastructure.

Category 4 development: e.g. medium density residential development, sports facilities, small-scale commercial facilities / office parks, one-stop petrol stations, light industry, medium-scale infrastructure.

Category 5 development e.g. high density township / residential development, retail and office complexes, industrial facilities, refineries, treatment plants, power stations, wind energy farms, power lines, freeways, toll roads, large-scale infrastructure generally. Large-scale development of agricultural land and commercial tree plantations. Quarrying and mining activities with related processing plants.

¹⁰ *Low-key development* – generally small-scale, single-storey domestic structures, usually with more than 75% of the area retained as natural (undisturbed) open space.

Low density development – generally single or double-storey domestic structures, usually with more than 50% of the area retained as natural (undisturbed) open space.

Medium density development – generally 1 to 3-storey structures, including cluster development, usually with more than 25% of the area retained as green open space.

High density development – generally multi-storey structures, or low-rise high density residential development.

The following terms are used in the above assessments (p 8):

1. *“Fundamental change* – dominates the view frame and experience of the receptor;
2. *Noticeable change* – clearly visible within the view frame and experience of the receptor;
3. ***Some change*** – **recognisable feature within the view frame and experience of the receptor;**
4. *Limited change* – not particularly noticeable within the view frame and experience of the receptor;
5. *Generally compatible* – Practically not visible, or blends in with the surroundings.”

SUMMARY ASSESSMENT—VISUAL IMPACT: The proposed development will have a moderate impact on the landscape causing some change to the visual environment.

This assessment of the impact is confirmed by the following descriptions of the categories of issues:

5.3.4 Level of Assessment

PGWC (November 2005) defines the selection of the appropriate approach to VIA for a moderate visual impact expected as a **Level 3** Visual Assessment (p 13). This is defined as follows:

Approach Type A Assessment: which are relatively large in extent, and involve natural or rural landscapes.

Visual impact assessment report by visual specialist qualified in landscape architecture or environmental planning; preferably affiliated to SACLAP.

Method:

1. Identification of issues raised in scoping phase, and site visit;
2. Description of the receiving environment and the proposed project;
3. Establishment of view catchment area, view corridors, viewpoints and receptors;
4. Indication of potential visual impacts using established criteria;
5. Inclusion of potential lighting impacts at night;
6. Description of alternatives, mitigation measures and monitoring programmes;
7. Review by independent, experienced visual specialist (if required);

A Level 4 VIA for High Impact would require “Complete 3D modelling and simulations, with and without mitigation” in addition to the above.

5.4 Visual Analysis

5.4.1 Visual Mapping

This has been mapped in Figure 4 and shows the site's visibility as defined by its Viewshed, Zones of Visual Influence and Viewpoint Analysis. Visual Absorption Capacity (or Visual Sensitivity) is not mapped but discussed below. The mapping technique is a traditional, *reflective* mapping or viewshed mapping, which shows where, and to what extent, the site is visible from its surroundings. *Projective* mapping, that is, from viewpoints within the site (inside out) is not required but site views can be seen in the photographs.

5.4.2 Key to the Visual Analysis Map

The Visual Catchment is shown as thick brown lines and approximately follows the ridgelines of the mountains and hills. Areas *theoretically* visible to the site (Zone of Visual Influence or ZVI) are indicated in **yellow** overlain on a radiating circle centred on the site graded from **solid blue** on the site being most visible to no shading beyond 5km visibility. Combined with the yellow ZVI this produces a **blue-green** to **yellow** colour where the site is visible. Areas with no yellow colouring are those where the site is not visible (the view shadow). **It should be noted that the term *theoretically* is significant as it is neither possible nor necessary to physically check all these locations. However, strategic views have been checked according to site inspection and analysis.** Some views that would theoretically be possible are not possible due to ground level screening and the hilly terrain. Urban and suburban buildings and orientation are also important factors in visibility. Radiating circles of concentric rings encompass the site at 1km intervals but including a 250m and 500m circle.

5.4.3 Viewshed

The **viewshed** is indicated by the edge of the yellow zones on the map and either is terminated by **ridgelines** shown in brown or diminishes with distance. The impact of nearby ridgelines is minimal as they tend to be quite subtle changes. The ridgeline about 500m to the south and east is probably the nearest most significant ridgeline limiting views and another one to the north at *Vorentoe* likewise. The top of Klapmuts Kop at 4km distance can also overlook the site on the facing sides at about 400-500m altitude but this is far distant.



Source: New World Associates.

Figure 4: Zone of Visual Influence.

Portion of a 1:50,000 map of South Africa (3318 DD Stellenbosch, 5th Edition 2000) showing the approximate Zone of Visual Influence (ZVI).

5.4.4 Zone of Visual Influence

The **Zone of Visual Influence (ZVI)** is shown in various shades of blue-green and reveals a moderate area of visibility for the site, while the visibility tends to fade into the distance rather than being blocked by landform. However, there are significant avenue/boundary plantings of mostly gum trees to the east, which would tend to block views on that side. The gum plantation on the site itself mostly screens views into the site much beyond the boundary. The corners of the site fall within about 500m of the site's centre so views up to 1km from the boundary are on the 1.5km radius approximately.

5.4.5 Visual Absorption Capacity

The Visual Absorption Capacity (VAC) of the landscape is typically defined by landform, land use and vegetation. In this case, landform applies locally while local vegetation also is a factor.

VAC of the Land Form

Landform is not highly significant in this generally flat landscape of the *vlaktes*/flats. However, subtle local landforms north and south are a minor factor.

VAC of the Land Use

Land Use VAC is also a factor in places mainly due some fencing in places although this is often planted so see below.

VAC of the Vegetation

The area has some significant vegetation VAC as a result of the old gum avenues to the east at/near Elsenburg and along the river there. The site's own dense gum plantation is a major factor affecting visibility on the site beyond its boundaries.

5.4.6 Visual Sensitivity

The area has mixed sensitivity due to the mixed and intensifying land use. While the site and area is predominantly rural with an open landscape of fields and vineyards, the site's gum plantation tends to be rather bushy and unkempt making it less sensitive in itself. Also, there are some semi-industrial/technological buildings in the landscape and an increasing scale of infrastructural intensity such as higher road standards and farm boundary fences and walls.

5.4.7 VIA Criteria and Assessment

The PGWC Guideline (June 2005, pp 18-19) defines Visual Impact Assessment Criteria as outlined following. We have included our assessment of the visual impact here along with the assessment criteria for ease of relating to the complex of terminology:

Specific Criteria for VIAs¹¹—Visibility

The following analysis presents the specific criteria findings in bold for the project.

Visual exposure of the area: the geographic area from which the project will be visible, or view catchment area.

1. **High visual exposure** – covers a large area (e.g. several square kilometres).
2. **Moderate visual exposure** – covers an intermediate area (e.g. several hectares).
3. **Low visual exposure** – covers a small area around the project site.

¹¹ Note 1: These, as well as any additional criteria, need to be customised for different project assessments. Note 2: Various components of the project, such as the structures, lighting or power lines, may have to be rated separately, as one component may have fewer visual impacts than another. This could have implications when formulating alternatives and mitigations.

Visual absorption capacity (VAC): the potential of the landscape to conceal the proposed project, i.e.

1. *High VAC* – e.g. effective screening by topography and vegetation;
2. ***Moderate VAC*** – e.g. **partial screening by topography (and vegetation);**
3. *Low VAC* – e.g. little screening by topography (or vegetation).

Landscape integrity: the compatibility or congruence of the project with the qualities of the existing landscape or townscape, or the ‘sense of place.’

1. *Low compatibility* – visually intrudes, or is discordant with the surroundings;
2. ***Medium compatibility*** – **partially fits into the surroundings, but clearly noticeable;**
3. *High compatibility* – blends in well with the surroundings.

Visibility of the project: based on distance from the project to selected viewpoints i.e.:

1. ***Highly visible*** – **dominant or clearly noticeable (e.g. 0 to 1km)¹²**
2. ***Moderately visible*** – **recognisable to the viewer (e.g. 1 to 2km);¹³**
3. *Marginally visible* – not particularly noticeable to the viewer (e.g. 2km+);

SUMMARY ASSESSMENT—VISIBILITY: The development has moderate to high visual exposure, moderate visual absorption capacity, medium compatibility, and is moderately to highly visible (R304).

The PGWC Guideline further notes: “To aid decision-making, the assessment and reporting of possible impacts requires consistency in the interpretation of impact assessment criteria. Various criteria are defined in the EIA Regulations, such as ‘nature’, ‘extent’, ‘duration’, etc. The interpretation of these criteria for visual assessments is given in Box 11” repeated below:

Criteria Used for the Assessment of Visual Impacts—Visual Impact Assessment

Once again, the following analysis presents the specific criteria findings in bold for the project.

Nature of the impact: an appraisal of the visual effect the activity would have on the receiving environment. This description should include visual and scenic resources that are affected, and the manner in which they are affected, (both positive and negative effects).

¹² The site is highly visible to the general public on the R304 up to 500m from the site boundary; it is otherwise only easily visible on neighbouring farms in the 0-1km range.

¹³ The site is only moderately visible from Elsenburg about 2km distant, the nearest significant heritage location, if it is visible at all.

Extent: the spatial or geographic area of influence of the visual impact, i.e.:

1. **site-related:** extending only as far as the activity;
2. **local:** limited to the immediate surroundings;
3. *district:* affecting a smaller urban/rural area;¹⁴
4. *regional:* affecting a larger metropolitan or regional area;
5. *national:* affecting large parts of the country;
6. *international:* affecting areas across international boundaries.

Duration: the predicted life-span of the visual impact:

1. *short term*, (e.g. duration of the construction phase);
2. *medium term*, (e.g. duration for screening vegetation to mature);
3. **long term, (e.g. lifespan of the project);**
4. *permanent*, where time will not mitigate the visual impact.

Intensity: the magnitude of the impact on views, scenic or cultural resources.

1. *low*, where visual and scenic resources are not affected;
2. **medium, where visual and scenic resources are affected to a limited extent;**
3. *high*, where scenic and cultural resources are significantly affected.

Probability: the degree of possibility of the visual impact occurring:

1. *improbable*, where the possibility of the impact occurring is very low;
2. *probable*, where there is a distinct possibility that the impact will occur;
3. *highly probable*, where it is most likely that the impact will occur; or
4. **definite, where the impact will occur regardless of any prevention measures.**

Significance: The significance of impacts can be determined through a synthesis of the aspects produced in terms of their nature, extent, duration, intensity and probability, and be described as:

1. *low*, where it will not have an influence on the decision;
2. **medium, where it should have an influence on the decision unless it is mitigated; or**
3. *high*, where it would influence the decision regardless of any possible mitigation.

¹⁴ We have added the term "*district*" as it better describes the range of most visual impacts.

SUMMARY ASSESSMENT—NATURE OF IMPACT: The development's visual impact has site-related to local extent, long term duration, medium intensity, definite probability, and medium significance on the landscape.

5.4.8 Plomp Methodology

Visual impact assessment using the Plomp (2004) methodology (see Appendix for key):

Activity	Impact	Phase	Probability		Duration		Scale		Magnitude / Severity		Significance ¹⁵		
			Score	Magni- tude	Score	Magni- tude	Score	Magni- tude	Score	Magni- tude	Score	WOM	WM
Visual Significance Score Calculation = Probability x (Duration + Scale + Magnitude) = 5 x (4 + 1.5 + 6) = 5 x 11.5 = 57.5													
Construction activities, operational infrastructure and lighting, decommissioning of infrastructure	Visual impact of development on surrounding landscape	Construction, operations and closure	5	Definite	4	Long Term	1.5	Local	6	Medium	57.5	Moderate	Low

5.4.9 Distribution of Impacts

"Beneficiaries and losers"¹⁶ (PGWC, p 21) of the project's visual impacts are mainly local as the development will only have high visual impact to the local environment.

5.4.10 Photomontages

Photomontages were not prepared as they are not necessary in a Level 3 VIA.

5.5 Analysis of Alternatives

An analysis of alternatives was by others but not in the visual assessment. Only one site is under consideration here.

5.6 Planning Phase Impacts

This is potentially the most significant phase of a Project as it is here that crucial planning and design decisions are taken. **Critical Mitigation Recommendations are noted in bold.**

5.6.1 Planning and Design

While there is a conflict between the need to densify urban areas within the urban edge at the same time as maintaining rural character along the urban edge, there is a similar conflict in

¹⁵ **Significance:** Score calculation = Probability x (Duration + Scale + Magnitude); WOM Without Mitigation; WM With Mitigation.

¹⁶ Possible better designations are "winners and losers" or "beneficiaries and adversaries" as, so often objectors become opponents in environmental and visual impact.

rural areas in the need to locate industrial type activities that are often unsightly. This has to be managed and mitigated.

As the WC Provincial Urban Edge Guideline has referred to the need **“to manage urban development in such a way that no development would detract from the visual quality of the environment and that all development conform to a characteristic style and urban form that suits the character of the area,”** further stating that **“this implies that edge development should not only be limited to certain areas through inclusion or exclusion, but that edge development should also be subject to urban design guidelines, architectural consideration and general aesthetic treatment”** for both natural and built environment (see section 3.5.1).

Furthermore, the WC Provincial SDF noted *inter alia* the following (see section 3.5.2):

- It also proposes “to ensure effective management of all municipal functions and facets to ensure equitable and affordable services and amenities and a safe **and aesthetically pleasing urban environment....”**.
- **Cultural resources acknowledged and protected as the fundamental link with the historical past and a basis for planning and shaping of future urban and rural environments.**
- **A safe, healthy and aesthetically pleasing urban environment, with the architectural and spatial character depicting the historical and cultural background of the habitat community.**

Many of these components such as the mountains, farms and historical structures are irreplaceable national assets and accentuate the region’s unique character. For this reason, policy guidelines and actions must be formulated to emphasize, protect and promote these components. **The character, the detail of the towns and any planned changes should thus be carefully considered.”**

As in any development, it is the character and layout determined by the visual-aesthetic-landscape analysis that will achieve the balance as best as possible.

Mitigation Recommendation: Planning and Design

The plans presented to date is an initial concept only. Therefore it is well able to take on any mitigation recommendations.

1. **Site Development Plan:** As noted previously, the concept plan is well conceived and sensitively fit to the landscape already:
 - 1.1 Taller structures such as the central facilities should be set back from the road as they are currently indicated and should not be moved to the edges of the site or nearer the R304.

- 1.2 The landscape buffer along the edges is important to retain and should be well planted to prevent views into the site except at strategic locations such as on-axis.
 - 1.3 The HIA refers to the old *trekpath* to Klapmuts and the possibility of finding any historical aerial or other photographs that could be used to inform and retain any traces of the old outspan.
 - 1.4 Sustainable site development and Green Building principles or standards should be employed to enhance the environmental aesthetic.
 - 1.5 Lighting must be carefully managed to minimise excessive lighting wherever possible (see Operation Phase below).
2. **Colouration:** Careful colouration of fences in particular needs to be made, as well as any other landscape furniture such as lighting, benches, water features. These should preferably be in a natural colour palette that will not stand out from the agricultural landscape nor draw attention to itself with bright colouration. Likewise, building colours, walls and roofs, should be subtle.
3. **Landscape Plan:** The Landscape Plan should retain its existing features overall and not be changed to something completely different such as a freeform design. The traditional arrangement of cemeteries, the avenues and bounding walls will fit well into both the historical and cultural landscape.
 - 3.1 Wherever possible the greening/planting of the scheme needs to be maximised.
 - 3.2 Permeable paving and other sustainable practices should be incorporated into the landscape plan.
 - 3.3 Planting using indigenous and preferably endemic species from the area should be planned from the beginning; traditional exotic trees are acceptable.
 - 3.4 Large trees should be incorporated into the Landscape Plan to screen tall buildings or unsightly areas such as the nursery/maintenance yard.
 - 3.5 Gum trees, pines and oaks, while not indigenous, are typically the only major trees that can survive the rugged environment and achieve the necessary scale. They are also traditional cultural elements and not out of place as a result.
 - 3.6 Indigenous/endemic trees can also be used but are not as tall as gums.
4. **Perimeter Treatment:** As described above this may incorporate screening trees or fences. The treatment of perimeter fencing and any signage needs to be carefully considered.

- 4.1 Unsightly massive walls are not appropriate but the traditional low Cape farm werf wall may suffice well on the boundary and help locate the site on the R304.
- 4.2 Should fencing be required use clear-view fencing or similar is preferred, not palisade. It should be coloured a dull green to match the local environment and not black, silver, brown or other unnatural, standard commercial colours.
5. **Biodiversity:** As noted above, where possible, endemic planting schemes should be used with the exception of traditionally planted trees, which are permissible for practical and cultural landscape reasons.
6. **Maintenance:** Scheme maintenance both of buildings and landscape need to be undertaken with commercial maintenance projects with this intention from the outset for the duration of the project. Good site tidiness should be maintained at all times.
7. **Visual Assessor Review:** The proposed Landscape Plan should be referred to the visual impact assessor, namely, New World Associates, for review before it is approved, to ensure that it meets the recommendations of this report.

5.7 Construction Phase Impacts

Construction Phase visual impacts are no more than normal for an urban site although they will be extensive.

5.7.1 Construction

Construction inevitably gives rise to noise, disruption and dust, amongst others. These are well covered by Municipal Bylaws. Site destruction and damage is also coincident with quarrying especially to water, soil and vegetation. Changes to the water table by excavations can also have a heavy impact on the trees with deaths occurring a few years later.

Mitigation Recommendation: Construction

1. **Damage Control:** All parties must make every effort to control the destruction of soils and vegetation on site, especially any remnants of natural vegetation. These must not be damaged under any circumstances.
2. **Pollution:** Chemical damage by cement mixing directly on the ground and by diesel, etc spills must also be prevented at all costs, as should vandalism of the plants and accidental damage to limbs by workers and machinery. Fires must be prevented also at all costs in all areas. Penalties and incentives should be implemented as can fencing off areas.
3. **Monitoring:** Monitoring of the landscape, soils and vegetation during construction is very important and must be attended to regularly. Damage to some is all too inevitable and often irreversible. Adequate indigenous (preferably endemic) vegetation must be planted.

5.8 Operation Phase Impacts

Lighting, landscape maintenance and conservation management are discussed.

5.8.1 Lighting

The Architectural and Landscape Guidelines need to consider lighting in their specific guidelines. Security lighting, while necessary, can be handled with care.

Mitigation Recommendation: Lighting

1. **Lighting:** Lighting should be minimised and carefully controlled as part of the project's management plan. The use of green energy fittings and concepts should be encouraged and lighting developed with sensitivity to the rural landscape.

5.8.1 Conservation Management and Landscape Maintenance

Waterwise landscaping should be used wherever possible and green star building practices.

Mitigation Recommendation: Conservation Management and Landscape Maintenance

1. **Landscape Maintenance:** must be carried out at all times in line with these recommendations to help keep the scheme green and encouraging local biodiversity.

5.9 Decommissioning Phase Impacts

On-going landscape maintenance and conservation management remains necessary.

5.9.1 Refurbishment and Resale

This is a continuing aspect of the property ownership cycle.

Mitigation Recommendation: Refurbishment and Resale

1. **Refurbishment and Resale:** The previous recommendations regarding Planning, Construction and Operation all apply to this process. The entire site can be dismantled and rehabilitated if no longer needed and restored to an appropriate land use.

This concludes the analysis of impacts and detailed recommendations for their mitigation. The chapter, Visual Management and Monitoring Plan follows. It gives recommendations for the management and monitoring of the environment and the given VIA recommendations.

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6 Visual Management and Monitoring Plan

Sound Visual Management is the ultimate aim of the VIA process. The Mitigation Recommendations developed in the report need to be implemented. This process of implementation will occur throughout the lifetime of the project, hence, the need for a Monitoring Plan. Institutions, individuals and organisations referred in the Monitoring Plan must develop a means of achieving the monitoring otherwise this report serves no purpose. Once the VIA Report has been approved, the Developers must seek the implementation of the recommendations as soon as possible.

6.1 Introduction

This chapter uses the information developed in the previous section. It sets out a basic plan for the implementation of both site management and the VIA recommendations.

6.1.1 Background

Site management in this case refers to that aspect of project management needed to control visual impact. The tools for visual management developed in the VIA Report are the *Mitigation Recommendations*. Their implementation also needs to be managed as part of the on-going site and impact management. A particular aspect of site management is monitoring. Monitoring is the routine inspection, recording and reporting of visual issues pertaining to visual impact aimed at mitigating impact by timely correction of problems as they arise.

6.1.2 Key Issues

1. Monitoring is typically routine inspection with physical analysis and recommendation, or routine reporting by various combinations of parties as outlined. The on-going monitoring of various aspects of the project are critical to its success. Long term management of visual issues is a more challenging issue that comes down to what individuals do over time as allowed to by their local authority.

2. With the identification of monitoring method, analysis and reporting, is the identification of the responsible party as indicated in Figure 5: Visual Monitoring Plan. This figure is crucial in the successful implementation of the Mitigation Recommendations and consequently, a visually-friendly (or visually responsible) project. The key parties referred to in the Monitoring Plan are largely the Developers/Owners, the Designers, and the Planning Authorities.
3. **Once the VIA Report has been approved, the Developer must seek the implementation of the recommendations as soon as possible. The Developer and Designers need to take this document and embody it in their day-to-day operations and long-term plans. Mitigation Recommendations are all written specifically around the subject of project and site management for impact mitigation; it is their incorporation into overall project management policy and practice that is required.**

6.2 Visual Management

6.2.1 Project and Site Management

The management of the project and site with particular reference to visual concerns is the subject of the Mitigation Recommendations and, indeed, the whole VIA study. As the Mitigation Recommendations are all written specifically around the subject of project and site management for impact mitigation; it is their incorporation into overall project management policy and practice that is required. The information contained in the VIA Report effectively provides the necessary information for the project management to implement their project in a visually responsible manner.

6.2.2 Implementing the VIA Recommendations

The Mitigation Recommendations have been written as broad guidelines to identify principles for minimising visual impact. The recommendations are by no means specifications. **There is a tendency in the construction industry to damage and repair later, which, while possible in construction, is not always possible in the environment. A need for care towards the environment should be developed by the Contractors.** The Development Team needs to take this document and embody it in their planning and design, day-to-day operations and long-term plans.

6.3 Environmental Monitoring

6.3.1 Monitoring Methodology

The framework for administering the implementation of mitigation guidelines is presented in the monitoring plan on the following page (see Figure 5: Visual Monitoring Plan). The table comprises the list of project activities numbered in the same sequence as those in the Mitigation

Plan. For each project activity, recommendations are made from the following standardised monitoring activities:

6.3.2 Monitoring

The following types and timing of monitoring are suggested:

1. **Inspection:** site inspection (random, at completion), routine inspection (possibly annually), clean-up inspection (after completion of clean up of the accident incident).
2. **Monitoring:** observation (and photography).
3. **Review:** review of reports, plans and design.

6.3.3 Monitoring Plan

The Monitoring Plan has been tabulated for easy reference in the figure below.

Item	Project Component and Activity	Monitoring	Investigation	Reporting	Responsible Party
5.6	PLANNING PHASE				
5.6.0	VIA Report	Review	Physical and Recommendation	Recommendation	Planning Authorities
5.6.1	Planning and Design	Review	Physical and Recommendation	Recommendation	Authorities, Developers and Designers
5.7	CONSTRUCTION PHASE				
5.7.1	Construction	Site and Routine Inspection	Physical and Recommendation	Recommendation	ALL
5.8	OPERATION PHASE				
5.8.1	Lighting	Routine Inspection	Physical and Recommendation	Routine, <i>Ad hoc</i> Meeting	Owners, Authorities
5.8.2	Conservation Management and Landscape Maintenance	Routine Inspection	Physical and Recommendation	Routine, <i>Ad hoc</i> Meeting	Owners, Authorities
5.9	DECOMMISSIONING				
5.9.1	Refurbishment	Site Inspection	Physical and Recommendation	Routine, <i>Ad hoc</i>	Owner, Authorities

Figure 5: Visual Monitoring Plan.

6.3.4 Analysis

The following types of analyses are recommended:

1. **Physical:** on site and by photography.
2. **Recommendation:** check against VIA recommendation.

6.3.5 Reporting

The following methods of recording and reporting are recommended:

1. **Recommendation:** report or design recommendation.
2. **Routine:** log (daily, monthly, activity), report (quarterly), certificate, minutes.
3. **Ad hoc:** report (incident, closing).
4. **Meetings:** routine meeting (weekly), follow-up (incident), pro-active meeting (*ad hoc*).

6.3.6 Responsible Party

The following principal responsible parties have been identified as key during the monitoring process:

1. The Planning Authorities
2. The Developers and Owners
3. The Designers: Architects and Landscape Architects
4. The Contractors.

The above monitoring plan identifies who is conducting the prescribed monitoring activities. In cases where certification for compliance or approval are indicated the responsible certi-

fyng or approving authority is noted. Many building activities are strictly controlled by local by-laws.

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Appendices

Appendix A – Plomp Assessment Methodology (2004)

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Appendix A: Plomp Assessment Methodology

An impact can be defined as any change in the physical-chemical, biological, cultural and/or socio-economic environmental system that can be attributed to human activities related to alternatives under study for meeting a project need.

The significance of the aspects/impacts of the process was rated by using a matrix derived from Plomp (2004) and adapted to some extent to fit this process.¹⁷ These matrices use the consequence and the likelihood of the different aspects and associated impacts to determine the significance of the impacts.

The significances of the impacts were determined through a synthesis of the criteria below:

Probability	This describes the likelihood of the impact actually occurring.
Improbable	The possibility of the impact occurring is very low, due to the circumstances, design or experience.
Probable	There is a probability that the impact will occur to the extent that provision must be made therefore.
Highly Probable	It is most likely that the impact will occur at some stage of the development.
Definite	The impact will take place regardless of any prevention plans, and there can only be relied on mitigatory actions or contingency plans to contain the effect.
Duration	The lifetime of the impact.
Short term	The impact will either disappear with mitigation or will be mitigated through natural processes in a time span shorter than any of the phases.
Medium term	The impact will last up to the end of the phases, where after it will be negated.
Long term	The impact will last for the entire operational phase of the project but will be mitigated by direct human action or by natural processes thereafter.
Permanent	Impact that will be non-transitory. Mitigation either by man or natural processes will not occur in such a way or in such a time span that the impact can be considered transient.
Scale	The physical and spatial size of the impact.
Local	The impacted area extends only as far as the activity, e.g. footprint.
Site	The impact could affect the whole, or a measurable portion of the above-mentioned properties.
Regional	The impact could affect the area including the neighbouring residential areas.
Magnitude/ Severity	Does the impact destroy the environment, or alter its function.
Low	The impact alters the affected environment in such a way that natural processes are not affected.
Medium	The affected environment is altered, but functions and processes continue in a modified way.
High	Function or process of the affected environment is disturbed to the extent where it temporarily or permanently ceases.
Significance	This is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required.
Negligible	The impact is non-existent or unsubstantial and is of no or little importance to any stakeholder and can be ignored.
Low	The impact is limited in extent, has low to medium intensity; whatever its probability of occurrence is, the impact will not have a material effect on the decision and is likely to require management intervention with increased costs.
Moderate	The impact is of importance to one or more stakeholders, and its intensity will be medium or high; therefore, the impact may materially affect the decision, and management intervention will be required.
High	The impact could render development options controversial or the project unacceptable if it cannot be reduced to acceptable levels; and/or the cost of management intervention will be a significant factor in mitigation.

¹⁷ Plomp, H. (2004). *A Process for Assessing and Evaluating Environmental Management Risk and Significance in a Gold Mining Company*. Conference Papers – Annual National Conference of the International Association for Impact Assessment: South African Affiliate.

Figure A-6: Impact Significance Criteria.

The following weights were assigned to each attribute:

Aspect	Description	Weight
Probability	Improbable	1
	Probable	2
	Highly Probable	4
	Definite	5
Duration	Short term	1
	Medium term	3
	Long term	4
	Permanent	5
Scale	Local	1
	Site	2
	Regional	3
Magnitude/Severity	Low	2
	Medium	6
	High	8
Significance	Sum (Duration, Scale, Magnitude) x Probability	
	Negligible	<20
	Low	<40
	Moderate	<60
	High	>60

Figure A-7: Attribute Weighting.

The significance of each activity is rated without mitigation measures and with mitigation measures for both construction and operational phases of the development.

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Appendix F: Local Heritage Body Comment

At the time of preparing this first draft, feedback from the local heritage body had not yet been obtained but is being sought. It will hopefully be included in the next draft.

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