GEORGE KERRIDGE HOUSING

VISUAL IMPACT ASSESSMENT

PORTION 1 OF ERF 8270 AND PORTION 4 OF FARM ONGEGUND 132, VREDENBURG WC

MARCH 2025 ✍ PHOTOGRAPH 1: VIEW OF THE SITE AND SURROUNDS FROM THE R45

researched and produced by
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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 20) 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 22) from the *PGWC Urban Edge Guideline (December 2005)*

ᘓ Beauty is in the eye of the beholder.

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

English Proverbs

ᘓ 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)

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1 Executive Summary

1.1 Summary

The proposed low cost housing scheme aims to formalise informal settlement on the George Kerridge site falls within the proposed planning for the area. The Site Development Plan shows 324 Residential Zone IV units on 3.47 hectares (48%) of the site, 6 erwen of Open Space Zone I, 1 erf of Institutional Zone II for a Church building on 0.578 hectares (8%), 1 erf of Institutional Zone I for a Crèche and 1 erf of Transport Zone II for Public Roads on 3.04 hectares (42%) out of a total of 7.29 hectares. The site and area has high visibility from the Scenic Route R45. The project will have a minimal to moderate impact on the landscape causing limited changed to the visual environment. Recommendations are made around wider Township and Peri-Urban Design, Street Tree & Planting Plan, Market Gardening & Controlled Grazing Plan, Structures Guidelines, Maintenance & Management Plans for environmental and settlement standards for sustainable development.

1.2 Project Description (see page 13)

1. The Saldanha Bay Municipality wishes to develop a housing scheme to the southeast of the town to formalise the location of informal housing in the area.
2. The Site Development Plan shows 324 Residential Zone IV units on 3.47 hectares (48%) of the site, 6 erwen of Open Space Zone I, 1 erf of Institutional Zone II for a Church building on 0.578 hectares (8%), 1 erf of Institutional Zone I for a Crèche and 1 erf of Transport Zone II for Public Roads on 3.04 hectares (42%) out of a total of 7.29 hectares.
3. No further detail of the scheme has been provided other than the Subdivision Plan.

1.3 Legal and Administrative Requirements (see page 19)

1. Provision is made for scenic, visual and aesthetic protection in the NHRA (1999), WC Provincial Urban Edge Guideline (2005), WC Provincial SDF (2014) and the Saldanha Bay Municipal SDF (2017-2022) inter alia.

2. The Provincial Government of the Western Cape *Guideline for Visual and Aesthetic Specialists in EIA processes* defines the scope and preparation of VIAs. VIA is integral to assessing environmental and heritage impact in scenic heritage areas like the West Coast, Swartland and coastal areas.
3. The site falls outside any recognised heritage landscape but on the R45 Scenic Route in an Informal Area that is To Be Formalised; zoned as Conservation in the EMZ; and in the Urban Area of the Composite Proposal.

1.4 Visual Environment Description (see page 33)

1. The area to the southeast of Vredenburg near the R45 is covered with a sprawling extent of old townships and newer informal settlements spreading over the old farmland.
2. The area is flat and lies at the eastern foot of the hilltop town with little to conceal it, particularly from the road.
3. However, due to the area's general flatness on the Besaansklip Plain, low-level views are quickly obscured by ground level obstructions such as fences and even shacks.
4. The landscape remains strongly rural but with little major tree groups anywhere to bring focus to the sprawling informal settlements.
5. Ongegund is a poor area and George Kerridge is hidden deep within it and inaccessible by road, as shacks have been built over the road entrances. Dumping and squalor is prominent.

1.5 Visual Impact Assessment (see page 61)

1. VISUAL IMPACT: The proposed development will have a Minimal to Moderate impact on the landscape causing limited change to the visual environment.
2. VISIBILITY: The development has high visual exposure; low visual absorption capacity; medium compatibility; and moderate–high visibility.
3. NATURE OF IMPACT: The development's visual impact has district extent, long-term duration, medium intensity, definite probability, and medium significance on the landscape.
4. RECOMMENDATIONS are made around the need a wider view of township design in terms of urban growth, community design and peri-urban design. Issues of overcrowding and expansion need to be handled. A Street Tree & Planting Plan, a Market Gardening & Controlled Grazing Plan, Structures Guidelines for colouration and control, and Maintenance & Management Plans for environmental and settlement standards at the wider scale are needed.

1.6 Visual Management and Monitoring Plan (see page 79)

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

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2 Project Description

2.1 Summary

The Saldanha Bay Municipality wishes to develop a housing scheme to the southeast of the town to formalise the location of informal housing in the area. The Site Development Plan shows 324 Residential Zone IV units on 3.47 hectares (48%) of the site, 6 erwen of Open Space Zone I, 1 erf of Institutional Zone II for a Church building on 0.578 hectares (8%), 1 erf of Institutional Zone I for a Crèche and 1 erf of Transport Zone II for Public Roads on 3.04 hectares (42%) out of a total of 7.29 hectares. No further detail of the scheme has been provided other than the Subdivision Plan.

2.2 Introduction

Combined with Section 3, this chapter presents the relevant project information required to prepare a Visual Impact Assessment (VIA) of the development for Environmental Impact Assessment (EIA) and Heritage Impact Assessment (HIA) purposes. 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 Environmental Assessment Practitioners (EAP) Sillito Environmental Consulting to prepare the Visual Impact Assessment (VIA) for this project who will be 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

Professional Registration

Bruce Eitzen ML BSc PrLArch MEMBER ILASA APHP 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 and registered with the Association of Professional Heritage Practitioners (APHP) as a Professional Heritage Practitioner (PHP). He has thirty-five years experience across the board of Landscape Architecture, Environmental Planning, Visual and Heritage 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.

Professional Service

His public service includes serving for three years on the Association of Heritage Assessment 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. He also chaired the Local Organising Committee (LOC) of the International Federation of Landscape Architects (IFLA) World Congress 2012 that was held in Cape Town. He is the founder of Landscape Heritage SA, a new heritage organisation focussing on Southern African Landscape Heritage and currently serving once more on the APHP ExCo, now chairing the Landscape Heritage portfolio.

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.

2.2.4 Reporting Requirements

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

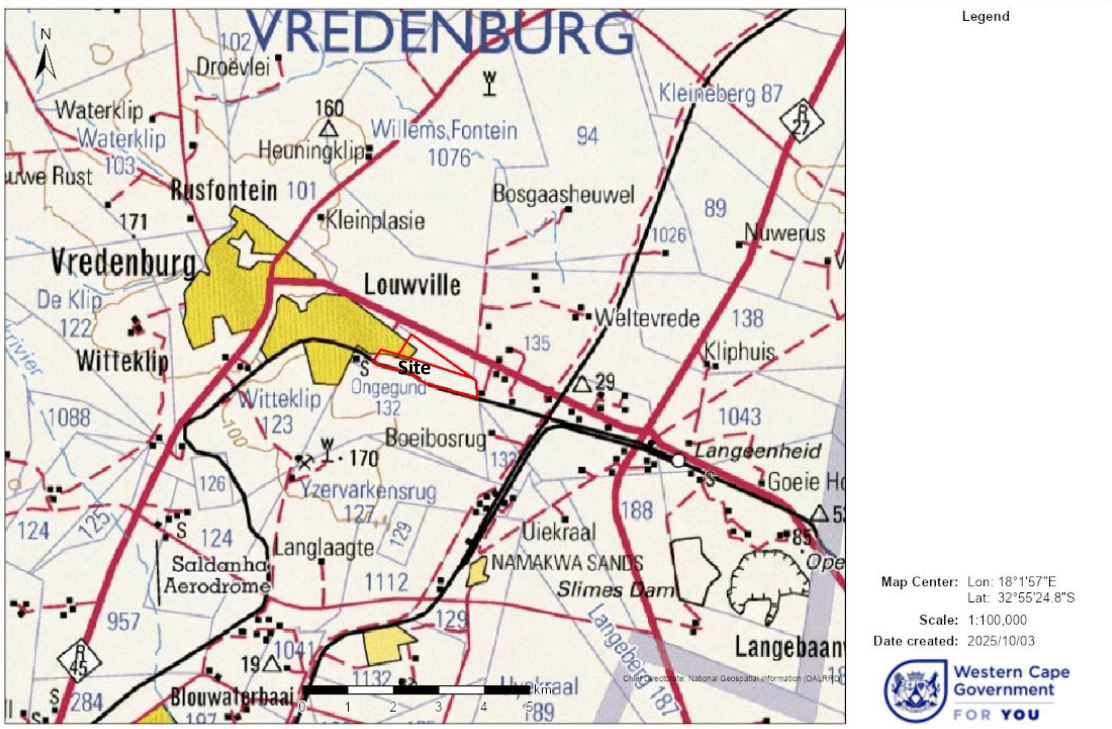
2.2.5 Assumptions and Limitations

This assessment has been conducted based on the information presented in the report as received from the development team at the time of the report's preparation. While the information provided is limited to these plans, a comprehensive site inspection and impact analysis allowed mitigation recommendations to be made. We assume that the information provided was accurate and complete, and there are no gaps in our knowledge of the project proposal for this level of assessment.

2.3 Project Proposal

2.3.1 Location

The development lies on portions of Erf 8270 and Portion 4 of the farm *Ongegund 132*, which lies to the southeast of the town of Vredenburg (see Figure 2-1).



Source: Cape Farm Mapper.

Figure 2-1: Regional Location Plan.

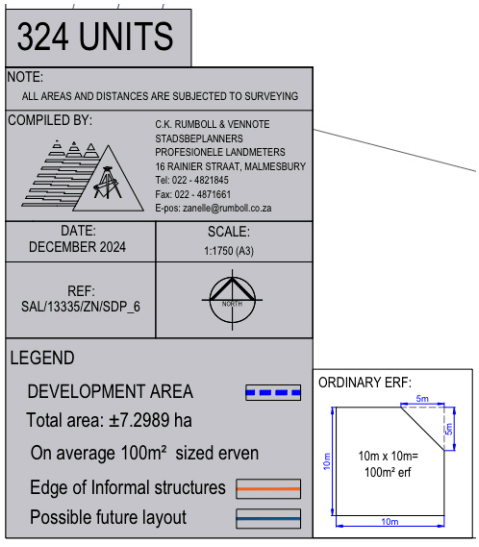
2.3.2 Planning Application

The applicant wishes to develop a housing development of 324 units (Figure 2-3).

2.3.3 Site Development Plan (see Appendix A)

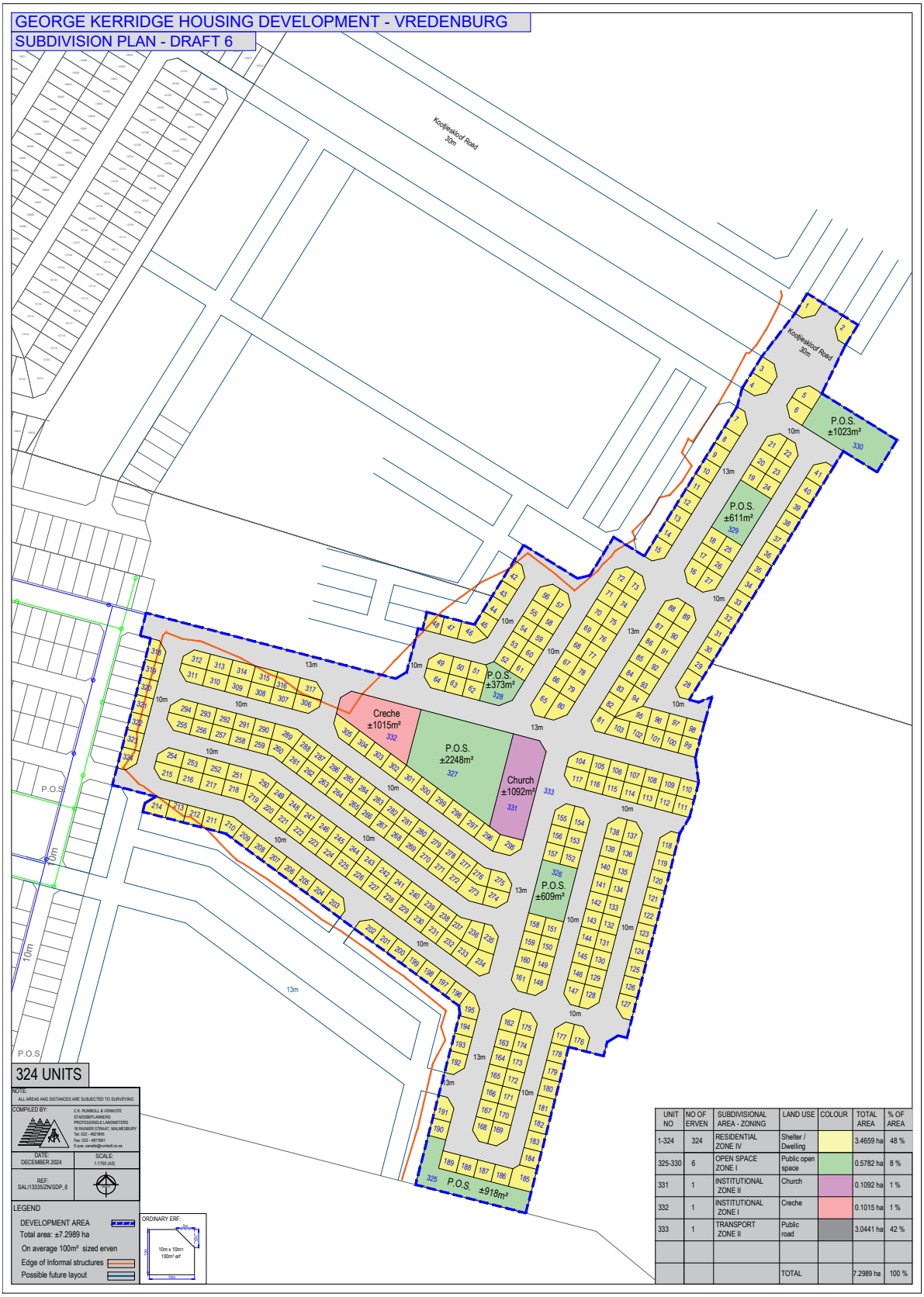
The Site Development Plan shows 324 Residential Zone IV units on 3.47 hectares (48%) of the site, 6 erwen of Open Space Zone I, 1 erf of Institutional Zone II for a Church building on 0.578 hectares (8%), 1 erf of Institutional Zone I for a Crèche and 1 erf of Transport Zone II for Public Roads on 3.04 hectares (42%) out of a total of 7.29 hectares.

UNIT NO	NO OF ERVEN	SUBDIVISIONAL AREA - ZONING	LAND USE	COLOUR	TOTAL AREA	% OF AREA
1-324	324	RESIDENTIAL ZONE IV	Shelter / Dwelling		3.4659 ha	48 %
325-330	6	OPEN SPACE ZONE I	Public open space		0.5782 ha	8 %
331	1	INSTITUTIONAL ZONE II	Church		0.1092 ha	1 %
332	1	INSTITUTIONAL ZONE I	Creche		0.1015 ha	1 %
333	1	TRANSPORT ZONE II	Public road		3.0441 ha	42 %
			TOTAL		7.2989 ha	100 %



Source: CK Rumboll & Vennote.

Figure 2-2: Site Development Plan: Key and Legend (December 2024).



Source: CK Rumboll & Vennote.

Figure 2-3: Site Development Plan (December 2024).

See Appendix A on page 85 for full size plans if necessary.

2.3.4 Landscape and Environment

No information is available at this time.

2.4 Alternatives

At this stage there are no alternatives under consideration. However, the initial Notice of Intent to Submit and Environmental Application (NOI) dated October 23 had an SDP allowance of 600 low-cost housing units, so the density has been significantly reduced since then to the current Revision 6 SDP of December 2024 with 324 units.

3 Legal and Administrative Requirements

3.1 Summary

Provision is made for scenic, visual and aesthetic protection in the NHRA (1999), WC Provincial Urban Edge Guideline (2005), WC Provincial SDF (2014) and the Saldanha Bay Municipal SDF (2017-2022) inter alia. The Provincial Government of the Western Cape *Guideline for Visual and Aesthetic Specialists in EIA processes* defines the scope and preparation of VIAs. VIA is integral to assessing environmental and heritage impact in scenic heritage areas like the West Coast, Swartland and coastal areas. The site falls outside any recognised heritage landscape but on the R45 Scenic Route in an Informal Area that is To Be Formalised; zoned as Conservation in the EMZ; and in the Urban Area of the Composite Proposal.

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 requirements for VIA may also 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 VIA in the Law and by National Guidelines.

3.3.1 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).**

3.3.2 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."**

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 manage by the Local Authority.

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

This long since endorsed guideline (November 2005) is the most relevant document that now guides VIA in the Western Cape.[1] 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

[1] Oberholzer, B (2005) by CSIR Environmentek. *Guideline for Involving Visual and Aesthetic Specialists in EIA Processes: Edition 1.* CSIR Report No. ENV-S-C 2005 053 F. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental

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).

3.3.4 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 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). 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 *Werf*s 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 various types of landscape form 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 Administrative Framework

3.4.1 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."**

3.4.2 Saldanha Bay Municipal SDF Draft (2025–2030)

Relevant extracts from the Saldanha Bay Municipal SDF Draft (2025–2030) (SB MSDF) are included below with particular respect to landscape, visual and aesthetic concerns.

1.5 Legislative Directives

1.5.5.3 Saldanha Bay Municipality Spatial Development Framework, 2019

SB MSDF (page 61ff) (**bold** added):

SDF Goals and Strategic Objectives: The SDF strategic objectives below provide a more detailed direction to achieving the vision as set out in the IDP.

Goal 6: To ensure that ongoing development pressure and its spatial implications are managed in a sustainable manner that protects the unique character of the existing cultural landscape and the place-specific character and form of the existing settlement pattern	– To promote a spatial development pattern that contains urban sprawl / urban development and promotes compact well-defined settlements; – To retain and strengthen the unique identity of the municipal area and its districts; – To determine clear limits to urban development and define the urban edge / limits of existing settlements; – To conserve and improve the visual quality of the landscape and the scenic route experience of the primary movement corridors; – To improve the aesthetic quality of the built environment.

Source: Saldanha Bay MSDF (2025–2030) Draft: Page 61.

Figure 3-1: Saldanha Bay MSDF (2025–2030) Draft: Goal 6.

1.7 Structural Tools: Biodiversity Spatial Planning Categories

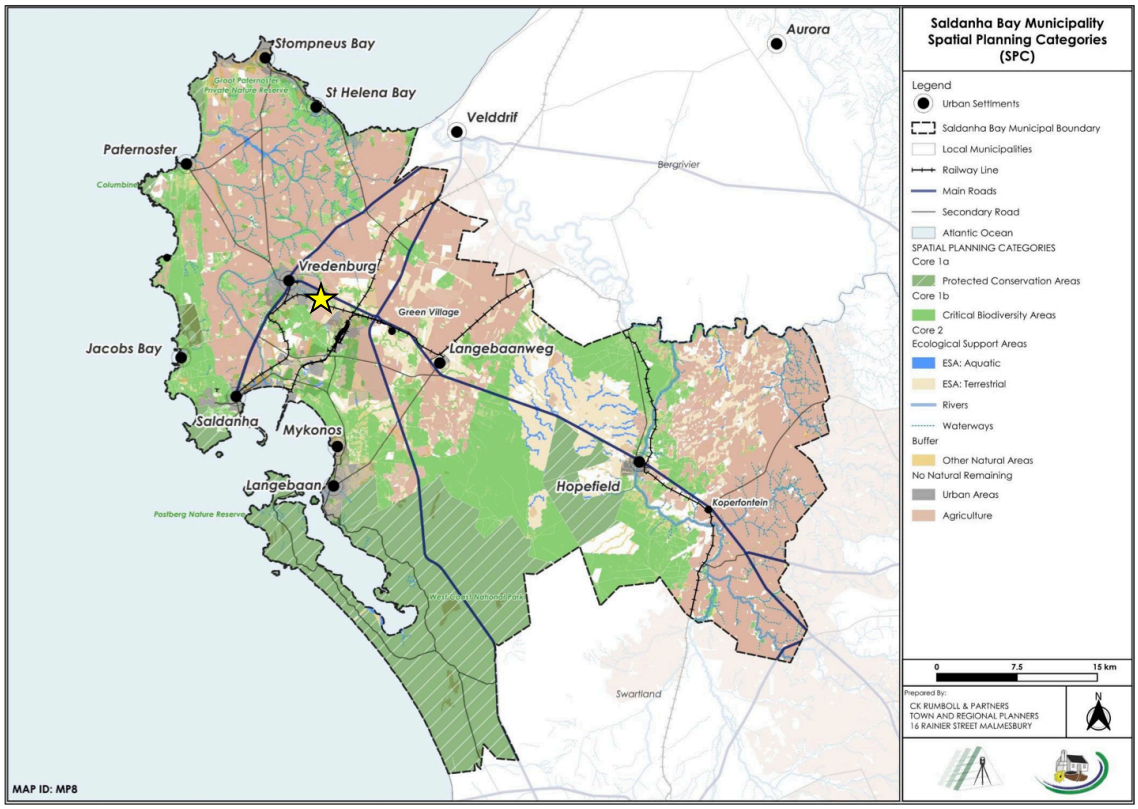
SB MSDF (page 77ff) (**bold** added):

The Biodiversity Spatial Planning Categories (SPCs), consistent with the principles of bioregional planning and UNESCO's MaB (Man and the Biosphere) Programme have their origins in the Biodiversity Spatial Plan (2017) for the Western Cape. Bioregions can occur across municipal boundaries to provide meaningful geographical areas with common interests. SPCs serve to organize space and provide structure and the implementation of these categories guide development to the most appropriate areas and support conservation and integration of natural areas, e.g. nature reserves and biospheres (WCBSP, 2017).

SPC categories were used to generate an SPC map for Saldanha Bay municipal area to be **used as basis for environmental factors to be considered when development is contemplated.**

Sustainable development is generally defined as development that satisfies the needs of the current generation without jeopardising the ability of future generations to provide for their needs. The National Environmental Management Act, Act 107 of 1998, defines sustainable development as integration of social, economic and environmental factors through planning, implementation and decision-making to ensure that development can support future generations.

This relates to the way the landscape is seen from a biodiversity and sustainability perspective, which is integral to our understanding of landscape and development as mapped in Figure 3-2.



Source: Saldanha Bay MSDF (2025–2030) Draft: Page 80.

Figure 3-2: Saldanha Bay MSDF (2025–2030) Draft: Map 2 Spatial Planning Categories.

Figure 3-2 shows the site falling in an **Agricultural** area with no natural habitat remaining.

2.1 Spatial Analysis of Status Quo

SB MSDF (page 88ff) (**bold** added):

> The spatial analysis considers **three environments: biophysical, socio-economic and built.**
>
> From the analysis general directives arise that inform the settlement and rural proposals:

2.1.3 Built Environment Spatial Analysis

The SB MSDF notes on **Heritage, Built, Landscapes and Scenic Routes** (page 143ff):

Heritage

Built Heritages Resources:

Several settlements in Saldanha Bay were founded in the 19th century, however towns such as Saldanha and St Helena Bay were founded much earlier, dating back to the 1400-1600s of the discoveries made by European explorers. A summary of the built heritage resources is tabulated below:

Founded	Declared	Settlement	Grade 2	Grade 3A	Grade 3B	Grade 3C	Total
1497	1870	St Helena Bay		4	1	3	8
1853		Saldanha	1	1	1	1	4
1853		Vredenburg		1			1
1856		Langebaan	2	1			3
1861		Hopefield		11	33	39	83
		Paternoster		5	16	59	80
		Jacobsbaai			1		
		Rural	2	3	13	20	118
			5	26	65	122	297

Five Provincial Heritage Site (PHS) were confirmed for Saldanha Bay.

Saldanha, Vredenburg have grid layouts whilst St Helena and Paternoster have layouts comprised from the original fishing villages. Langebaan's layout comprises out of development initiatives from its several suburbs and Hopefield has a "Voortrekker Rydorp" layout with water erven.

Scenic routes:

Saldanha Bay's connector routes all act as scenic routes that promote the region's scenic quality and sense of place.

The region has the following routes that have high scenic quality of the natural, historical and agricultural landscapes:

- R45 route, a crucial linking route on south-east-north-west axis that connects Vredenburg to Hopefield and towards Malmesbury (Graded 3A);
- R27 route, a crucial linking route connecting north-south from Cape Town to the West Coast National Park towards Velddrif (Graded 3A);
- R399 route, a crucial linking route connecting West-East from Paternoster to Velddrif (Graded 3B);
- Route along the Saldanha Bay and the Langebaan Lagoon (Graded 3B);
- Route linking Jacobsbaai to Saldanha (Graded 3B);
- Route linking Paternoster and Vredenburg (Graded 3B);
- Road situated along the coast of through St Helena Bay (Graded 3B);
- Road from Hopefield linking to Velddrif (Graded 3B).

Heritage Landscapes:

The following landscapes are of high heritage value:

	Coastal Archeological Landscape	Langebaan Lagoon	Swartland Agricultural Landscape
Scenic Landscape	Spectacular: series of rocky outcrops along sandy shoreline.	Spectacular: series of rocky outcrops and low hills that surrounds setting.	Collection of agricultural cultivation, natural veld with wild flowers (in season).
Historical buildings and provincial heritage site	High concentration: - Paternoster as historic village; - Columbine Lighthouse - De Gama Monument, St Helena Bay.	Very high concentration. - Fishermen cottages, Saldanha. - Dutch Reformed Church, Langebaan. - Oosterwal, rural.	Includes the Hopefield historic settlement, with Sandveld vernacular buildings.
Civilisation	Concentration of conservation worthy fishing villages and fishing sites.	Concentration of conservation worthy fishing villages, fishing sites and marine activity.	Evidence of long human occupation, well preserved, stretching 1.8 million years and the Stone Age (3 million years ago).
Agriculture and Nature	South African Heritage Resources Agency (SAHRA) Western Cape consideration for application as Grade 3 cultural landscape.	Very high scenic value that included the West Coast National Park.	Aesthetic and agricultural value including the West Coast Fossil Park: and Miocene/early Pliocene (circa 5.2 million years ago) experience before this period.

Directives

Promote the preservation of worthy buildings and trees and concentration of buildings in settlements.

Promote Heritage Zones to protect buildings and to relax parking requirements and to promote pedestrian traffic. Heritage zones can develop as destinations.

Preserve the following West Coast Heritage Themes:

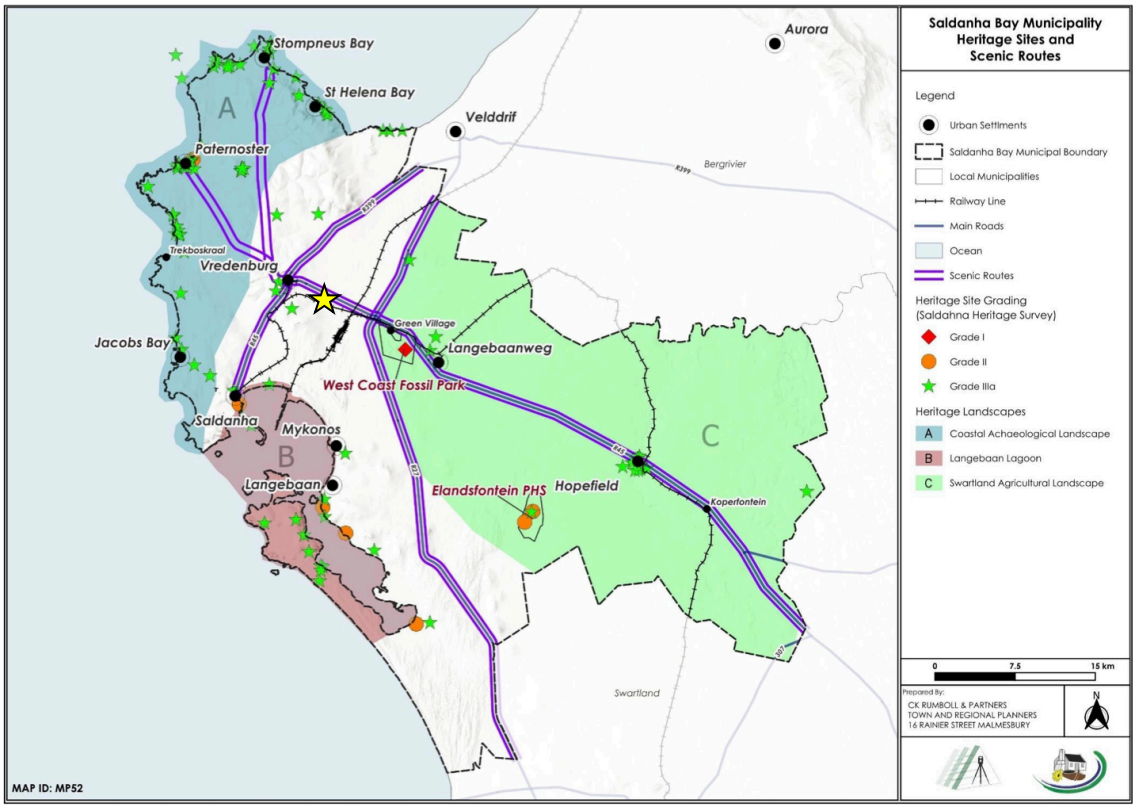
1. Pre-colonial archaeology and early inhabitants of the area.
2. Early colonial history and settlements; agriculture early C19th and fishing earth C20th.
3. Cultivation and agricultural production; historic land claiming, history of farming and associated secondary industries.
4. Slavery and labour; Farmyard and agricultural production to mid C19th; sites of slavery including 1808 Slave Revolt.
5. Religion; C19th Church towns.
6. Routes and Transport: e.g. early cattle and wagon routes, outspans; railway development in C19th, associated stations and development.
7. Military History; SA Anglo-Boer War action, WW2 installations.
8. Regional Architecture; Cape Dutch, Georgian, Victorian, Cape Revival, Art Deco in settlements and barns and veranda houses of the early C19th on farms.
9. Outstanding Scenic Beauty and landscapes.

Promote heritage through recreation and tourism: destination places, themes and routes; wildflowers, food and places of cultural and/ or scientific interest.

Source: Saldanha Bay MSDF (2025–2030) Draft: Page 167–168.

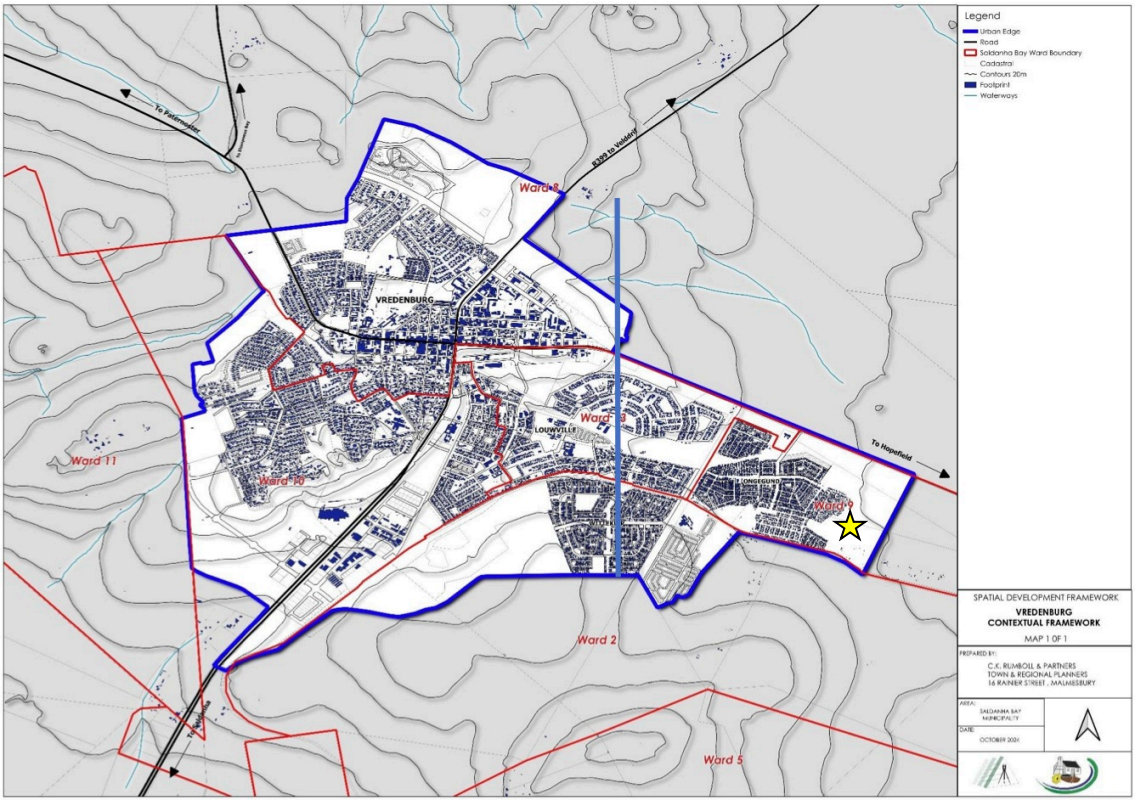
Figure 3-3: Saldanha Bay MSDF (2025–2030) Draft: Heritage.

The site falls outside the 3 Heritage Landscapes of Figure 3-4 but on the R45 Scenic Route. While the Heritage analysis looks at broad categories of heritage and proclaimed Heritage Sites (Grades I, II and IIIa), the local landscape is a mosaic of old farmland and semi-natural landscape over which the town is expanding to the southeast. Neighbouring landscapes such as the Smallholding area may be of Local significance.



Source: Saldanha Bay MSDF (2025–2030) Draft: Page 169.

Figure 3-4: Saldanha Bay MSDF (2025–2030) Draft: Heritage Sites and Scenic Routes.



Source: Saldanha Bay MSDF (2025–2030) Draft: Page 196.

Figure 3-5: Saldanha Bay MSDF (2025–2030) Draft: Vredenburg Contextual Framework.

Ward 9

The site falls in Ward 9 on the outskirts of the town (Figure 3-5).

5.1.1 Situational Analysis

SB MSDF (page 197) (**bold** added):

5.1.1.1 Settlement History

The town of Vredenburg was established in 1875, originally as a Dutch Reformed Church congregation to serve nearby communities, since the closest church was in Hopefield. It was initially named **Twisfontein,** an Afrikaans name that means 'disputed spring' as two farmers disputed the ownership of the area's only freshwater spring. The town was renamed **"Vredenburg,"** meaning "town of peace " after the farmers resolved their disagreement.

5.1.1.4 Settlement Character and Layout Pattern

SB MSDF (page 197–198) (**bold** added):

The character of Vredenburg includes a mix of industrial processing facilities, essential services such as banks and hospitals, shopping centres, and the notable Fossil Park. The town's layout consists of a central business district (CBD) bordered by Main, Dorp, and Uitspan Streets; low-density residential neighbourhoods to the west, primarily established in the 1960s and 1970s; and the low-income area of Louwville, located between Main and Saldanha Roads and adjacent to the railway line. The earlier residential extensions near the CBD feature lower-density curvilinear designs, **while more recent developments, such as Witteklip and Ongegund, exhibit higher densities at the town's edges, with Ongegund also containing a significant informal settlement.**

5.1.1.5 Challenges

Environmental Impact: The town's growth and industrialization could have **potential negative impacts on the surrounding natural environment and the agricultural areas.**

Economic Disparities: High social needs within the community may lead to economic disparities and social tension if not adequately addressed alongside economic development.

5.1.3 Settlement Zone and Proposals

SB MSDF (page 201) (**bold** added):

The urban area for Vredenburg is divided into six (6) zones (areas with common features). This section lists and elaborates on the spatial proposals located in each zone each identified by a unique code corresponding to specific proposals illustrated in the settlement proposal map.

5.1.3.1 Zone A

Zone A has a medium to high-density residential character **with supporting social and educational facilities consisting of Witteklip, Louwville, and Ongegund.**

- Allow for neighbourhood-orientated commercial services along identified activity streets.
- Allow for supporting social services
- Provide opportunities for the provision of recreational facilities and further residential development and formalisation.
- Promote the provision of a range of residential housing typologies and appropriate densification strategies to ensure appropriate growth to address the growing population's housing needs.
- **Implement Ongegund informal settlement in-situ upgrade project/formalisation.**
- New development to take cognisance of proposed bypass road.
- Set aside the area around the intersection of the Southern Bypass and Kooitjieskloof Roads for business development including a taxi rank and LED opportunities.

Figure 3-8 maps the site as VA4 and area of informal development that needs to be formalised.

Code	Use	Proposals	Du/ha	Extent
VA4	To be Formalised	Formalize informal area (Phase 1 completed and promote business development at intersection of the Southern Bypass and Kooitjieskloof Roads. (Development to accommodate stormwater retention areas.)	50	42.79

Source: Saldanha Bay MSDF (2025–2030) Draft: Page 201.

Figure 3-6: Saldanha Bay MSDF (2025–2030) Draft: Proposals for Zone A.

Figure 3-6 shows the overall area extent is 42.79 hectares with a dwelling unit per hectare ratio of 50 Du/ha planned.

5.1.4 Non-Coded Proposals

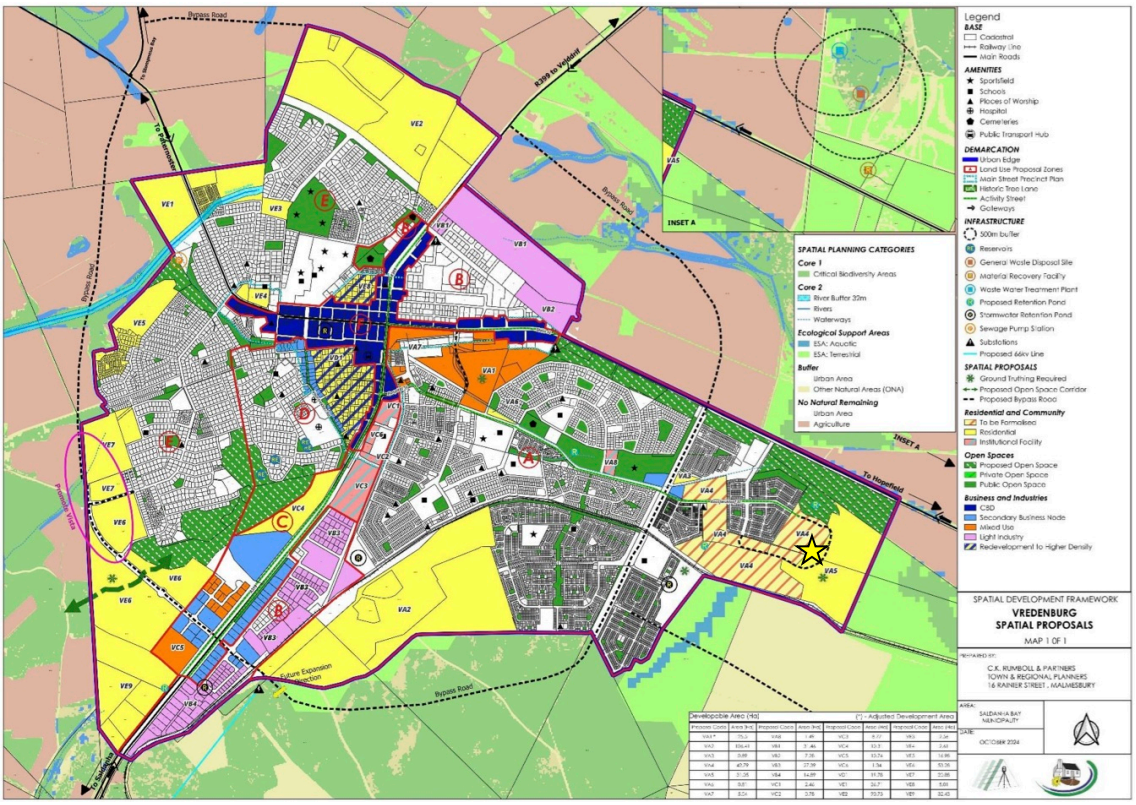
Use	Proposals
CBD	Support the development of a cross-cutting (inter-departmental) CBD rejuvenation precinct plan guided by the findings of an urban design study.
Industrial	Relegate heavy industrial development to the Besaansklip industrial area behind the port.
Nature and Conservation	Protect existing Pepper Tree Lane in Louwville (a portion of Kooitjieskloof Street).
Nature and Conservation	Develop a river maintenance management plan.
Public Transport	Promote the development of a public transport system from Louwville to CBD along Main Road and from West Coast Mall toward Velddrif along the R399 (north-south direction).
Roads	Promote the development of a southern bypass road linking Southern Bypass Street with the R399.
Roads	Support the removal of the existing railway line and support the construction of a replacement link between OP764 and Duferco siding.
Sense of Place	**Plant tree-lined boulevards along the network of main streets, including Main Road, R45, Kooitjieskloof Road, and the extension to Ongegund (which is already tree-lined between Dwars and Noordhoek Streets).**

Transport	Plan and budget for a NMT Strategy and prioritized implementation plan in conjunction with the District Municipality, or on its own.
Transport	Develop a private and public transport plan that addresses maintenance support and improved service provision.
Transport	Encourage the extension of network routes to public transport facilities to facilitate connectivity between the modes, especially in the Vredenburg Township.

Source: Saldanha Bay MSDF (2025–2030) Draft: Page 205.

Figure 3-7: Saldanha Bay MSDF (2025–2030) Draft: Non Coded Proposals.

5.1.5 Vredenburg Spatial Proposal Map



Source: Saldanha Bay MSDF (2025–2030) Draft: Page 206.

Figure 3-8: Saldanha Bay MSDF (2025–2030) Draft: Vredenburg Spatial Proposal Map.

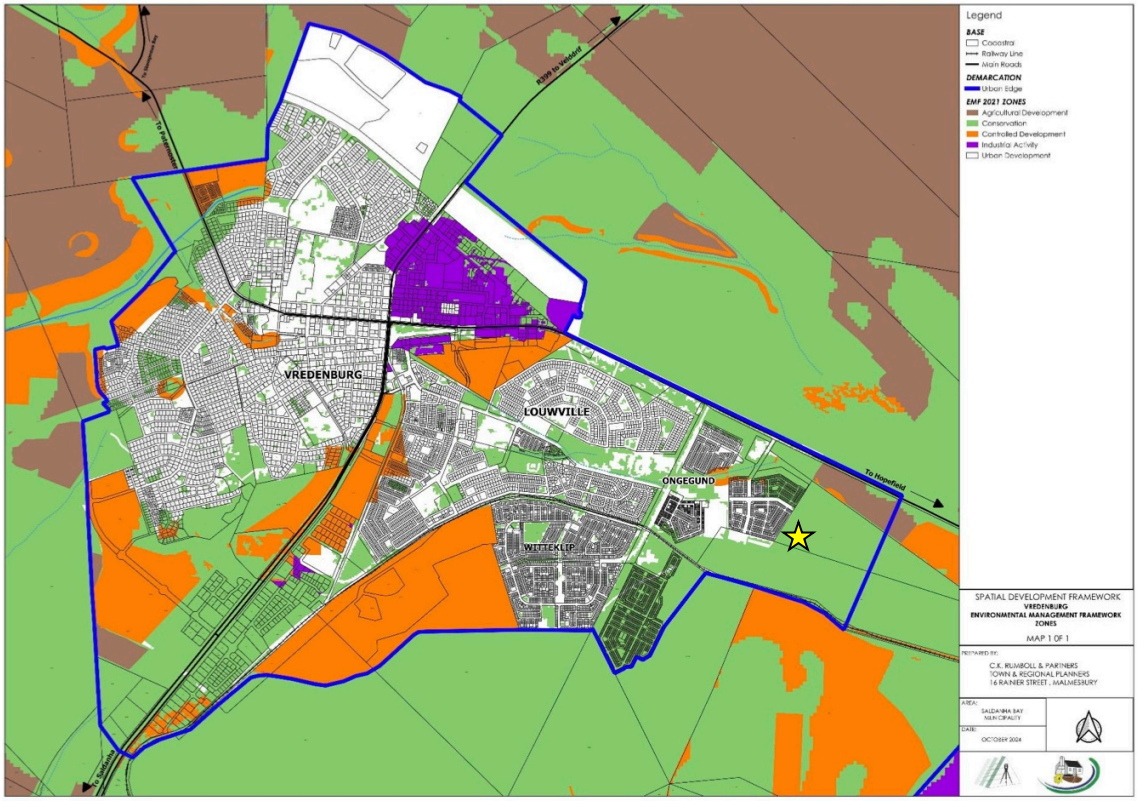
5.1.6 VREDENBURG ENVIRONMENTAL MANAGEMENT ZONES MAP

Figure 3-9 shows that the site lies in a **Conservation** environmental management zone.

6.2 Composite Proposals

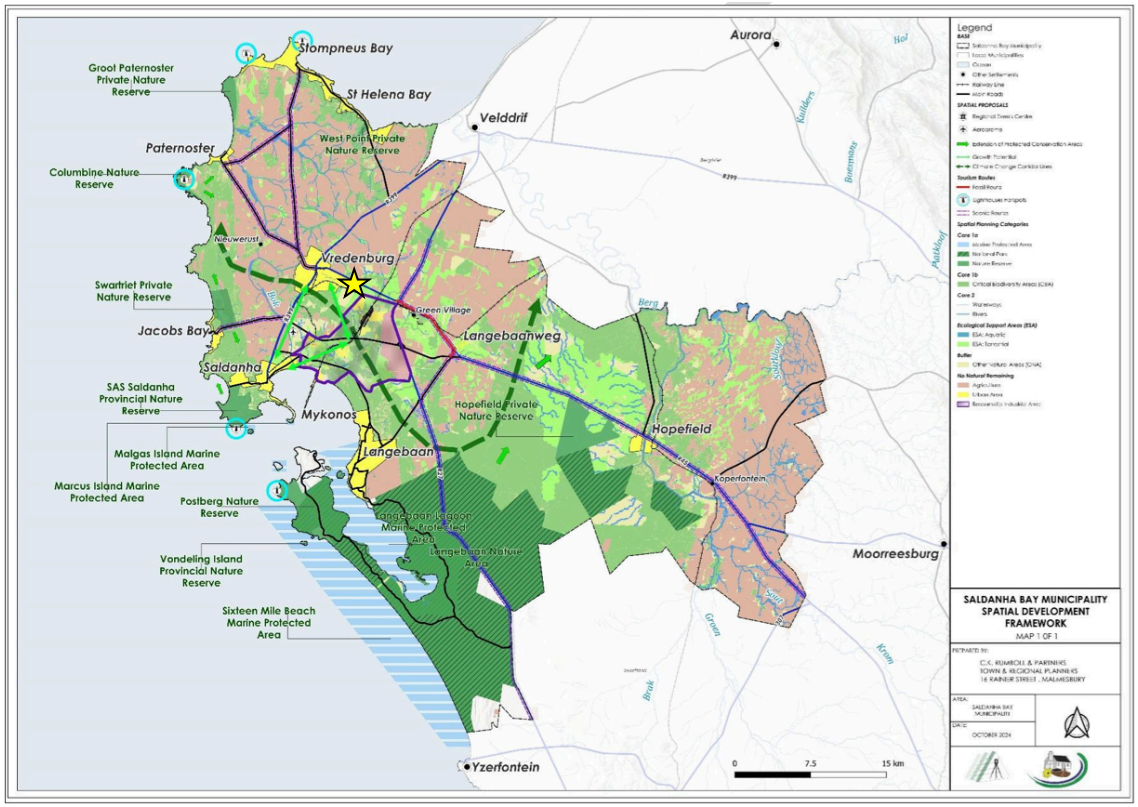
SB MSDF (page 350ff) (**bold** added):

The Saldanha Bay Municipality SDF Composite Plan (Map [58] sic 16) illustrates all the rural development proposals. The composite plan also illustrates the well-connected location of the Saldanha Bay settlements and the opportunities for spatial integration of the rural development proposals.



Source: Saldanha Bay MSDF (2025–2030) Draft: Page 207.

Figure 3-9: Saldanha Bay MSDF (2025–2030) Draft: Vredenburg Environmental Management Zones Map.



Source: Saldanha Bay MSDF (2025–2030) Draft: Page 350.

Figure 3-10: Saldanha Bay MSDF (2025–2030) Draft: Map 58 Composite Proposals.

Saldanha Bay MSDF Conclusion

Thus the project site falls on/in:

- **The R45 Scenic Route**
- **Zone A (Code VA4 Formalise Informal Area) that is To Be Formalised in the Spatial Proposal Map**
- **Conservation zone of the EMZ**
- **Urban Area of the Composite Proposal**
- **Thus this informal settlement area is set for formalisation.**

3.5 Strategic Issues

3.5.1 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 with the heritage surveys focussing on the built environment as opposed to landscape character. Therefore, 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.

4 Visual Environment Description

4.1 Summary

The area to the southeast of Vredenburg near the R45 is covered with a sprawling extent of old townships and newer informal settlements spreading over the old farmland. The area is flat and lies at the eastern foot of the hilltop town with little to conceal it, particularly from the road. However, due to the area's general flatness on the Besaansklip Plain, low-level views are quickly obscured by ground level obstructions such as fences and even shacks. The landscape remains strongly rural but with little major tree groups anywhere to bring focus to the sprawling informal settlements. Ongegund is a poor area and George Kerridge is hidden deep within it and inaccessible by road, as shacks have been built over the road entrances. Dumping and squalor is prominent.

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 3 VIA.

4.2.2 Key Issues

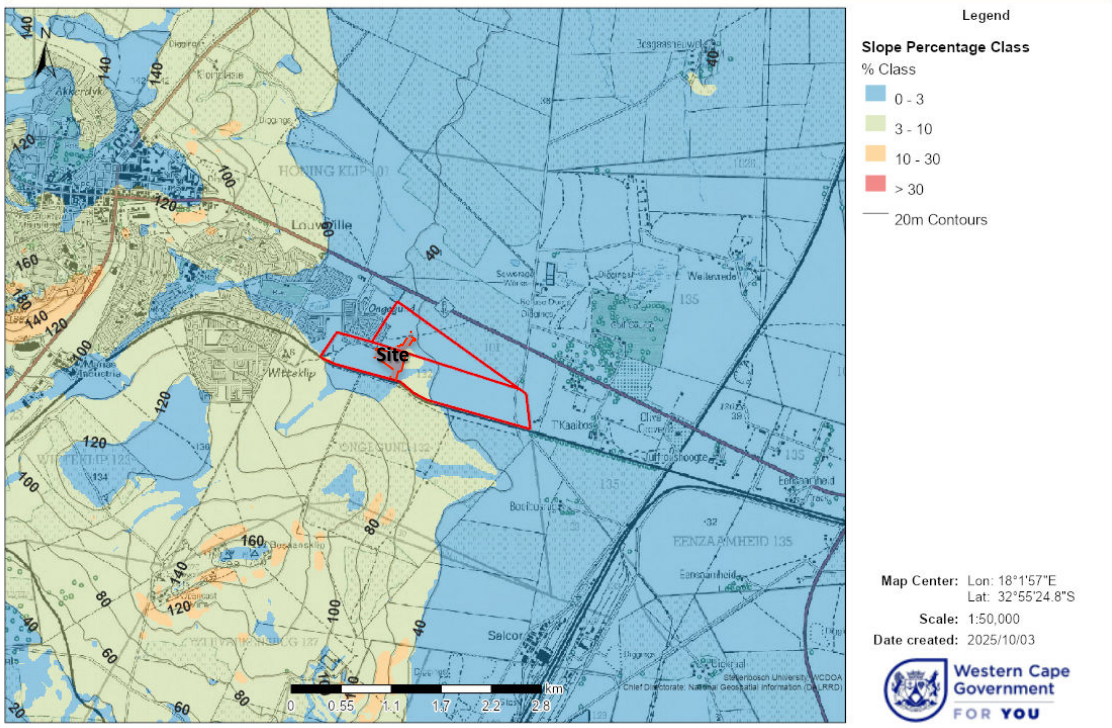
1. The site of the informal settlement area is to the southeast of Vredenburg near the Scenic Route R45.
2. The area is old farmland now being used for low income housing that has expanded into a fringe of informal settlement.

3. The site is gently sloping lying on the Besaansklip plain and reads as old farmland that has transformed to informal settlement.
4. The area is a low-income residential area of Vredenburg that is expanding into old farmlands and Smallholdings to the southeast.

4.3 Natural Environment

4.3.1 Landform

The site lies on land that is **relatively flat (<3%)** over most of its entire area the nearby hill rising into Vredenburg being largely **gently sloping (3-10%)** with patches of **hilly slopes (10-30%)** but no **steep hills (>30%)** in the map area (see Figure 4-1).

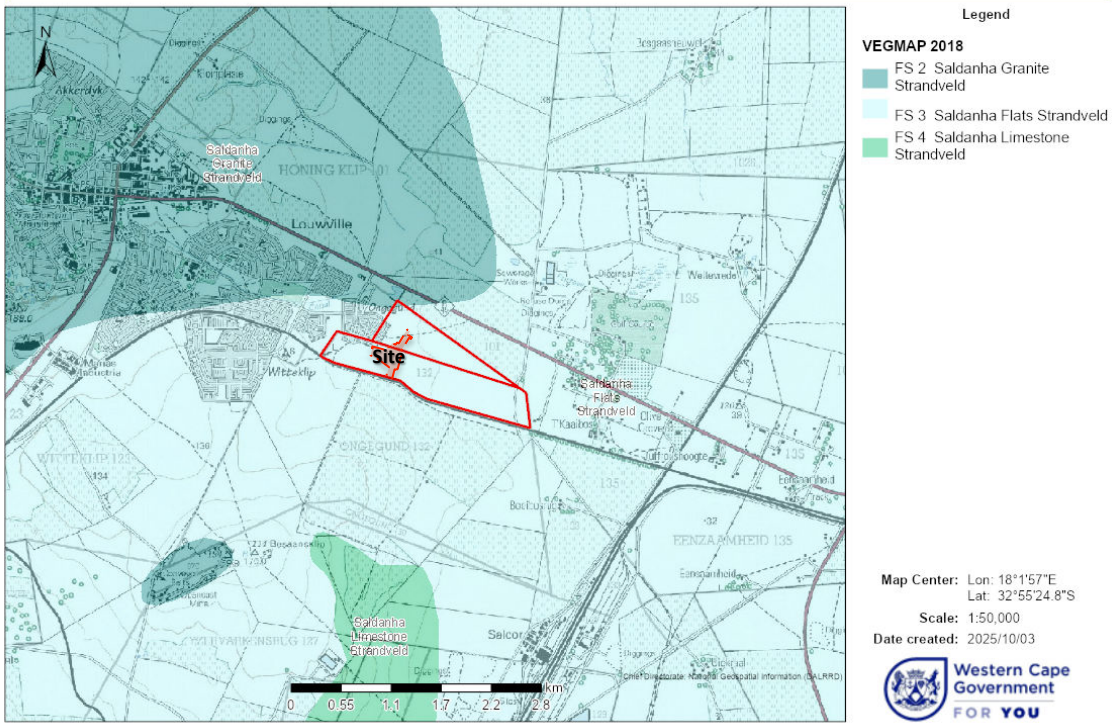


Source: Cape Farm Mapper | New World Associates.

Figure 4-1: Slope Class Map of the Area.

4.3.2 Vegetation

The area is extensively used for wheat and sheep farming. The site and general area was originally covered with **Saldanha Flats Strandveld** with **Saldanha Granite Strandveld** around the town of Vredenburg and an area of **Saldanha Limestone Fynbos** to the south (see Figure 4-2).



Source: VegMap 2018 on Cape Farm Mapper (CFM/SANBI, 2006–).

Figure 4-2: Vegetation Map of the Area.

The conservation status of the natural vegetation is provided below in order to inform the site's landscape value with respect to the significance of the vegetation. Sometimes a site is covered with exotic aliens and these too have a significant impact on the visual and aesthetic value of a site. It also informs the landscaping and planting mitigation recommendations.

Conservation and Management[2]

All of the site's vegetation type is **FS 3:**

- **FS 3 Saldanha Flats Strandveld** is a rich vegetation type ranked as **Endangered.**[3]

4.4 Cultural Environment

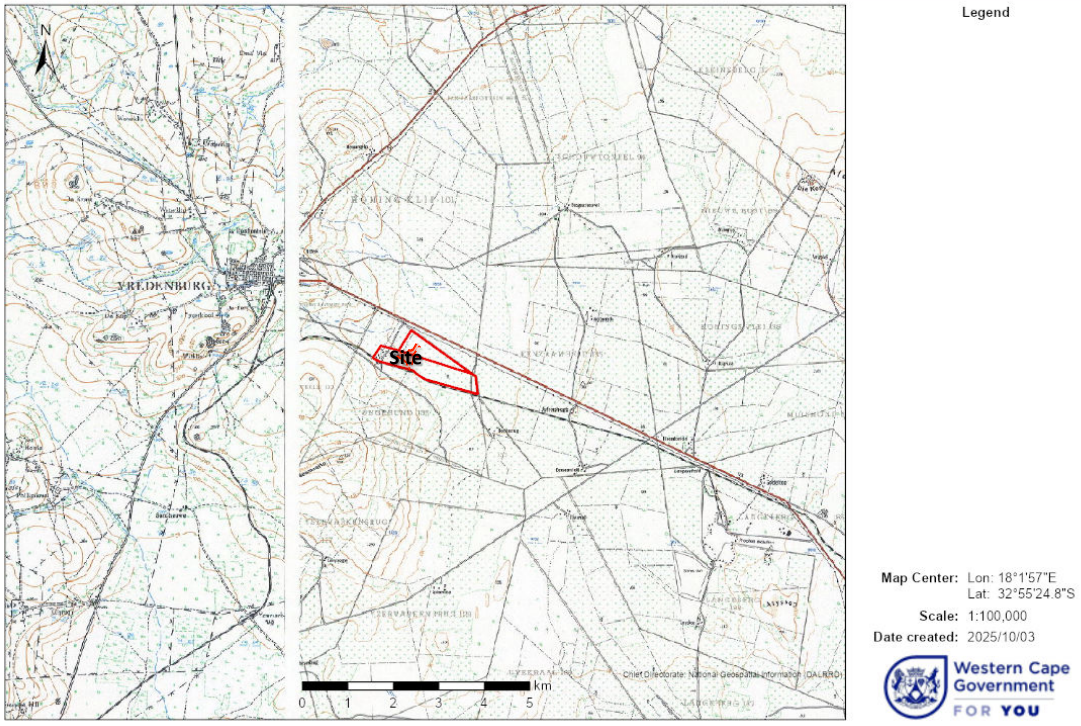
4.4.1 History

Vredenburg was established in 1875 over a quarrel between two farmers over the water rights of a spring on the farm so-named *Twisfontein* (Strife Spring) being renamed after the resolution of the quarrel as *Vredenburg* (Peacetown). It was initially established as a new Dutch Reformed Church parish to serve the needs of farmers in the wider area. The first residential stands were surveyed in 1883 around that quarrelsome spring. Vredenburg is a center for most towns and villages along the West Coast. The main activity in the area is wheat and sheep farm-

[2] 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.

[3] **Conservation: Endangered.** Target 24%. Some 11% statutorily conserved in the West Coast National Park and Yzerfontein Nature Reserve and a very small portion also in private conservation areas such as Jakkalsfontein and West Point. More than a half has already been transformed for cultivation, road building or by urban development. Serious alien infestation is caused by trees such as *Acacia cyclops* and *A. saligna* and herbs including *Bromus diandrus* and *Medicago hispida*. Erosion generally very low.

ing but there are also substantial limestone and phosphate deposits in the area (Erasmus, p52). The mid century 1st Edition 50,000 map series shows the site area as being completely rural on the farm *Ongegund* with the town of Vredenburg restricted to a small grid on the hill (Figure 4-3).



Source: Cape Farm Mapper | New World Associates.

Figure 4-3: 1st Edition 1:50,000 Map (circa mid 20th Century).

4.4.2 Heritage

The West Coast

The site falls within the West Coast region, which connects through, to the Swartland in the east and Sandveld in the north. The West Coast is the hub of South Africa's commercial fishing industry with its centre on St Helena Bay. It is reliant on the rich cold waters of the Benguela Current bringing nutrients and plankton from the Antarctic south on which the fish feed (ibid page 48). There are numerous coastal resort towns settled on the many small bays of the West Coast with the Langebaan Lagoon being the biggest in the area and the most picturesque. As noted in the Saldanha Bay MSDF, it is considered a Provincial (Grade II) landscape heritage resource.

The Swartland

The Swartland is a significant agricultural landscape with its earliest origins in Khoi cattle grazing, and in the later planting of wheat crops on the rich Malmesbury Clays by Cape colonists. The name *Swartland* (Black Country) is thought to derive from the grey renosterveld vegetation

being first recorded by Jan van Riebeeck, the first Governor of the newly founded colony.[4] The extensive wheat fields were established by the mid-eighteenth century making the region famous. Other important crops include fruit and flowers for export, tobacco and, importantly, grape vines (Erasmus, p40).

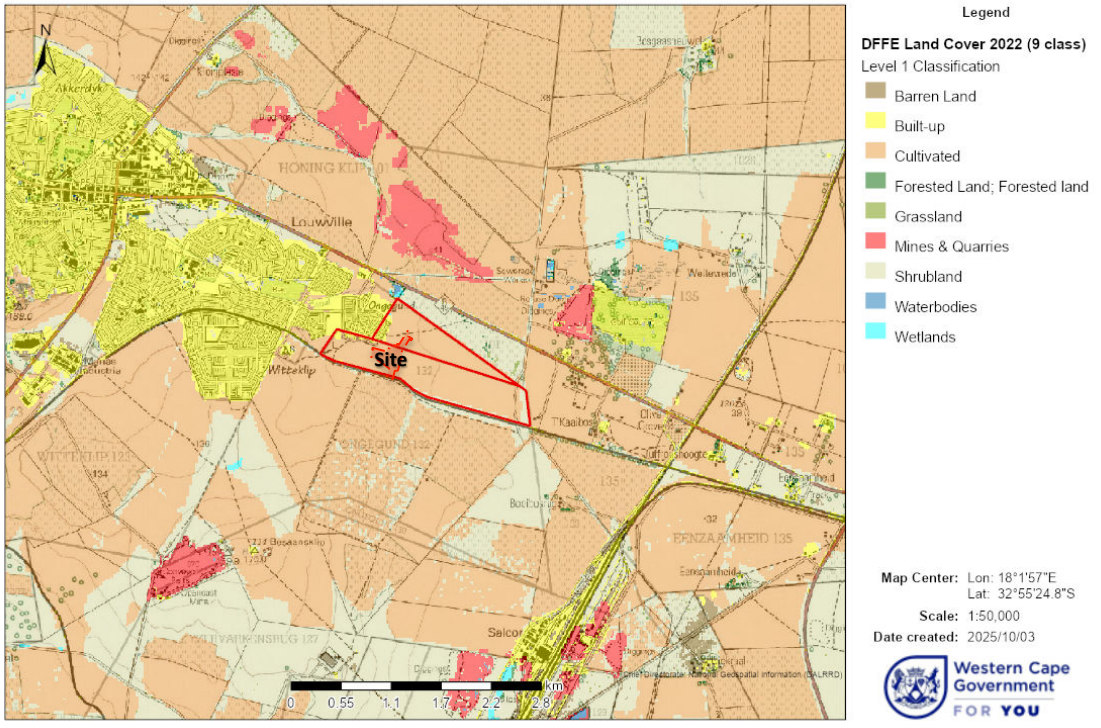
4.4.3 Land/scape Cover

District Land/scape Cover

District Land/scape Cover is predominantly **Cultivated** with areas of **Shrubland** and patches of **Mines & Quarries** near the **Built-up** area of Vredenburg (Figure 4-4). Patches of **Barren Land** are also evident to the southwest of the site and along the coast. The landscape is largely devoid of **Forested Land** (except for scattered Gum woodlots), **Grassland**, **Waterbodies** and **Wetlands**

Area Land/scape Cover

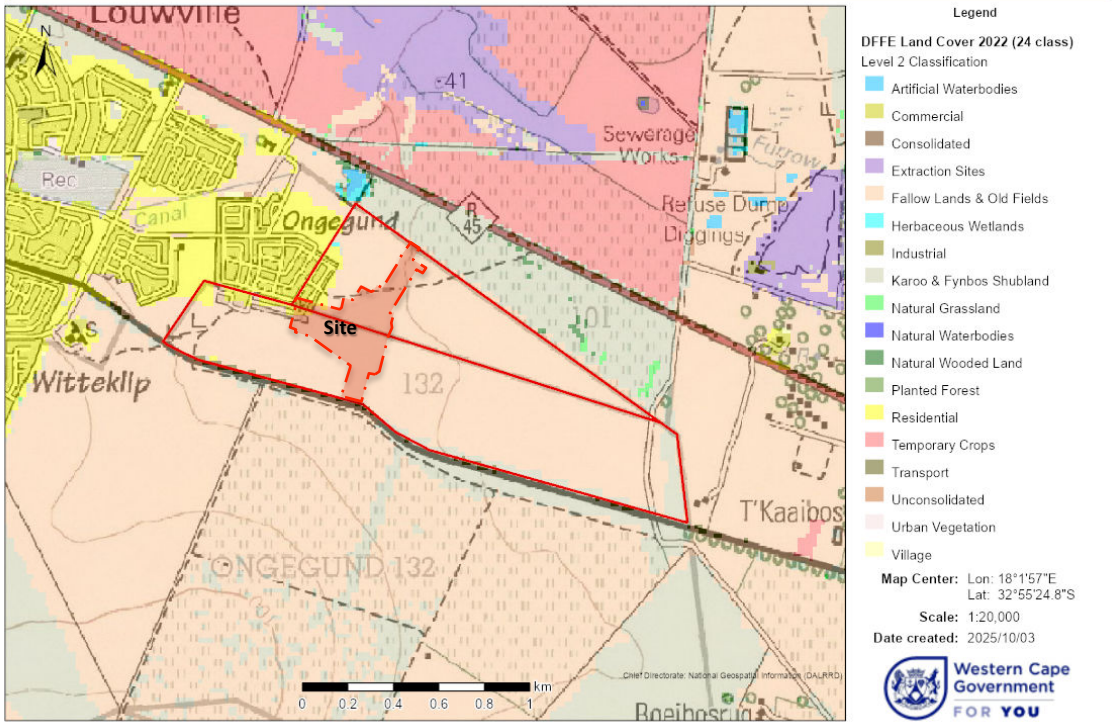
Area Land/scape Cover reveals further details in 24 classes with the site and surrounding area being **Fallow Lands & Old Fields,** with the area to the north being covered by **Temporary Crops** with some areas of **Extraction Sites** nearby (Figure 4-5). There are also areas of **Karoo & Fynbos Shrubland** with the **Residential** areas of Vredenburg to the west.



Source: Cape Farm Mapper | New World Associates.

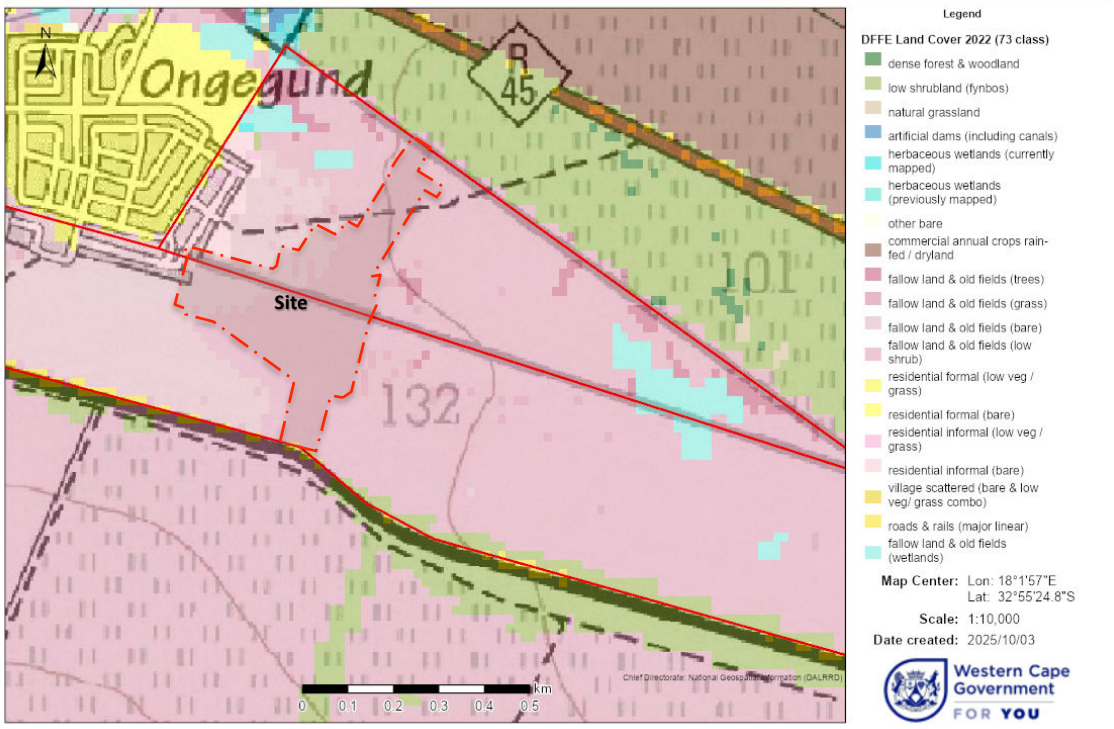
Figure 4-4: District Land/scape Cover (9 Class).

[4] Raper notes in the entry **Swartland** (page 360) that the Afrikaans name does not refer to the colour of the soil, which is generally yellow, but to the *renosterbossies (Elytropappus rhinocerotis)* and *bakkerbossies (Passerina filiformis)* growing there; these shrubs are greyish-black [when dry], and pitch black when wet."



Source: Cape Farm Mapper | New World Associates.

Figure 4-5: Area Land/scape Cover (24 Class).



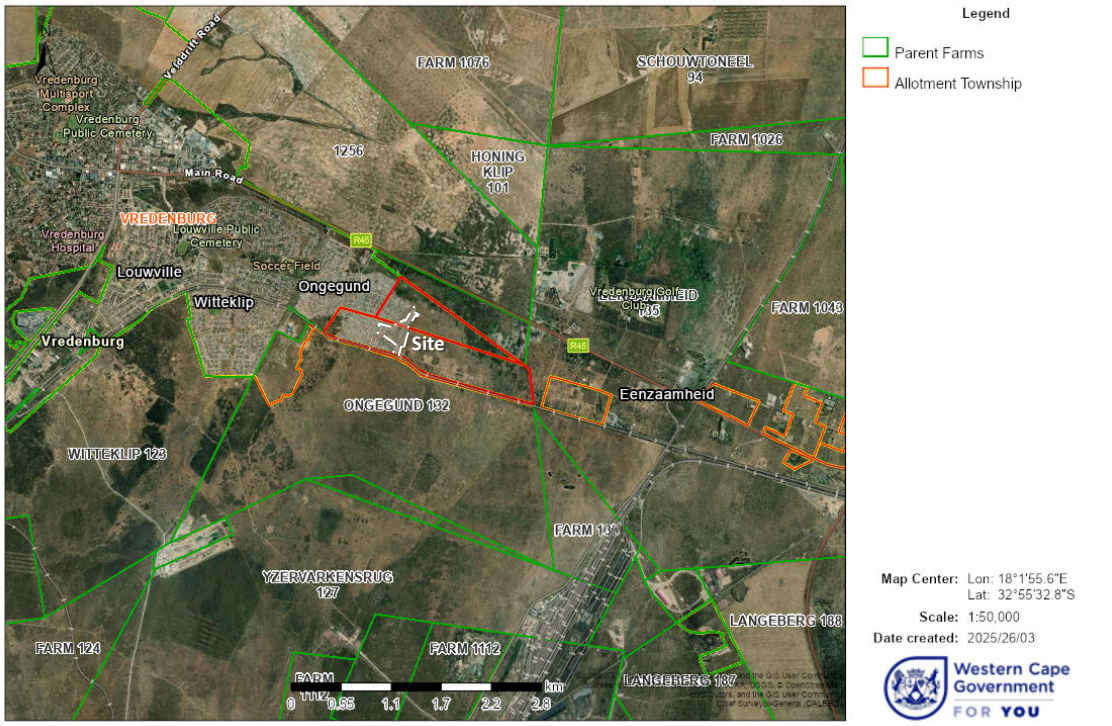
Source: Cape Farm Mapper | New World Associates.

Figure 4-6: Site Land/scape Cover (73 Class).

Site Land/scape Cover

Site Land/scape Cover reveals many details in 73 classes with the site and surrounding areas covered by **Fallow Lands & Old Fields (various)**. The area to the north along the R45 is

identified as **Low Shrubland (Fynbos)** with the **Residential** tip of southeastern Vredenburg's Ongegund to the northwest (Figure 4-6).



Source: Cape Farm Mapper | New World Associates.

Figure 4-7: Allotment Townships, Parent Farms and Urban Edge.

4.4.4 Urban Edge

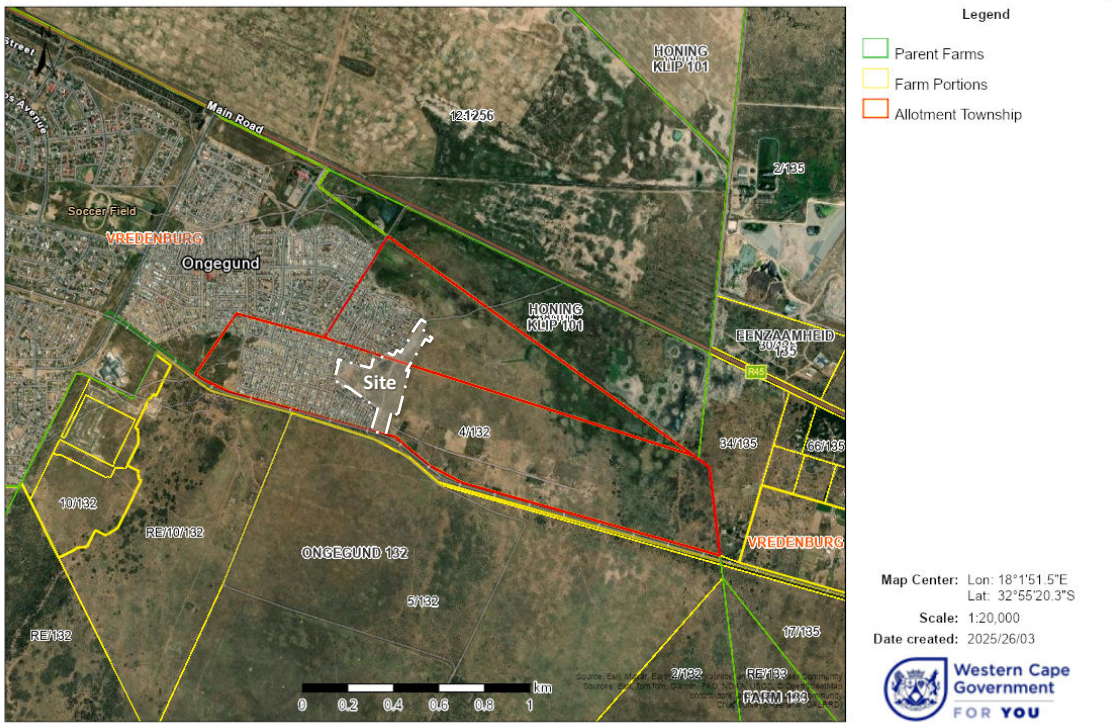
The site occurs **inside the Urban Edge** in this southeastern extension of Ongegund that projects towards Eenzaamheid (Figure 4-7).

4.4.5 Aesthetics

The area's aesthetic is mixed rising gently from the Besaansklip Plain (see Figure 4-8). Historically the drive up to Vredenburg along the R45 would have been a partly scenic route through the strangely mixed agricultural and industrial landscape of Saldanha and surrounds. In recent years, low cost housing and informal settlements have stretched down the hill causing the visitor to be greeted, as is so often the case in 21st Century South Africa with sprawling, unsightly townships, informal settlement areas and squatter camps. This is very much the case southeast of Vredenburg where extensive areas of informal settlements sprawl over the old farmland.

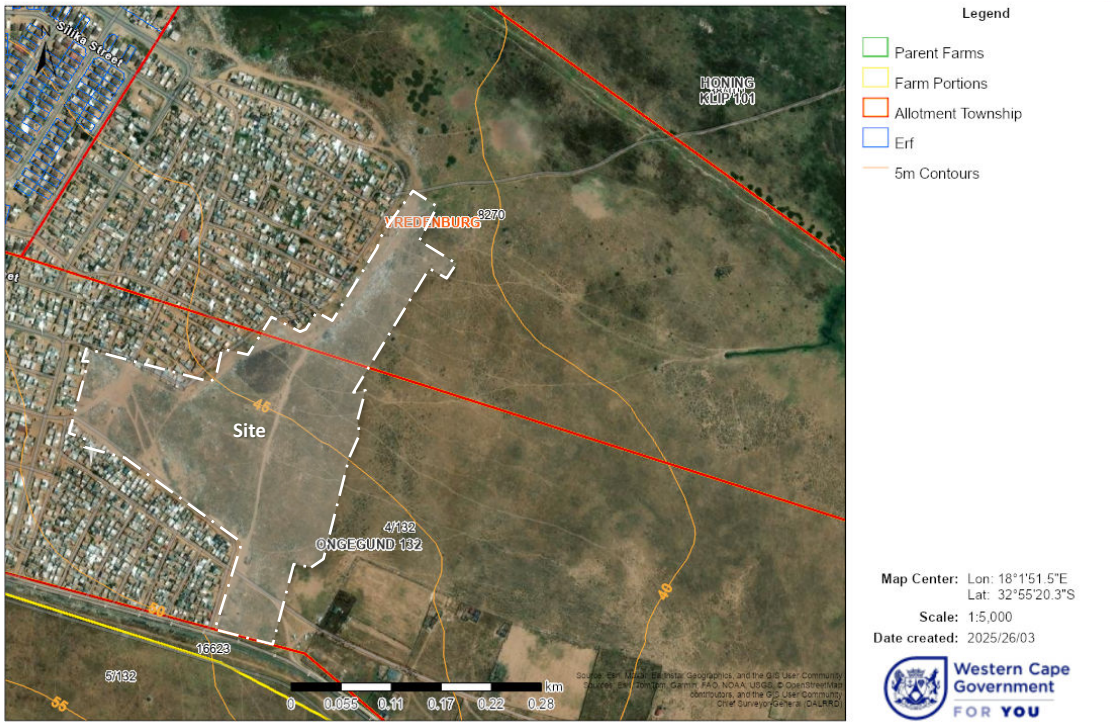
Moving onto the site itself is not even possible unless you walk into the milieu of crooked shacks as they have been built all over the road network where it exists (Figure 4-9). Thus there is an urgent need to bring order to this shanty fringe that has a very negative impact on this partially scenic rural landscape where the R45 is denoted as a Scenic Route (ungraded). There is also a distinct lack of trees or room for them in these townships and squatter camps that are reduced to the most rudimentary existence. There are some mature Gum trees as you drive up to

the town, an area of smallholdings to the south at Eenzaamheid, a large railway line and various roads crisscrossing the landscape.



Source: Cape Farm Mapper | New World Associates.

Figure 4-8: Satellite Image of the Area.

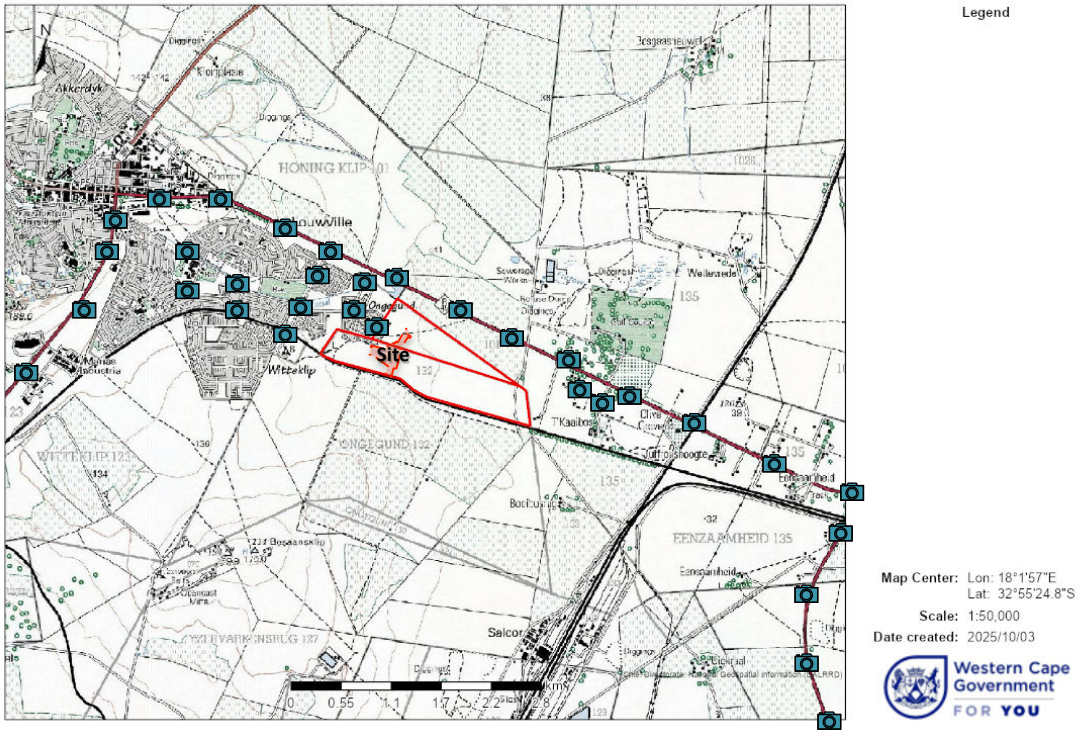


Source: Cape Farm Mapper | New World Associates.

Figure 4-9: Satellite Image of the Site.

4.5 Visual Environment

4.5.1 Visual



Source: Cape Farm Mapper | New World Associates.

Figure 4-10: Photographic locations on 1:50,000 map.

The site has been the subject of a photographic survey that looks at the site itself, the local area and views from local roads (Figure 4-10). The bulk of the visual description is to be found in the photographs that are self explanatory and accompanied by descriptions. The photographs were taken in early autumn on 17 March 2025.

4.5.2 Views from the Road

Views from the R45 Westbound

The site and surrounding area is best seen travelling in this direction on the R45, as views tend to look over the area. The site lies to the south of the R45 and can be seen to the left as you approach lower/southern Vredenburg at Ongegund. The outskirts of the town briefly appear as you cross a rail bridge before being obscured once more by vegetation and some housing.

Photograph 4-1: R45 Westbound towards Vredenburg as the town first comes into view.

Photograph 4-2: R45 Westbound towards Vredenburg with site views obscured by vegetation.

Photograph 4-3: R45 Westbound towards Vredenburg with site views opening up.

Photograph 4-4: R45 Westbound towards Vredenburg showing the general area of the site.

Photograph 4-5: R45 Westbound towards Vredenburg showing the general area of the site.

Photograph 4-6: R45 Westbound towards Vredenburg showing the general area of the site.

As the area is a continuous informal settlement it is not possible to see exactly where the site is as there are no roads or distinguishing features as the settlement sprawls southwards over old farmland.

Photograph 4-7: R45 Westbound towards Vredenburg passing the informal settlement.

Photograph 4-8: R45 Westbound towards Vredenburg passing the informal settlement.

Photograph 4-9: R45 Westbound towards Vredenburg passing the informal settlement.

Photograph 4-10: R45 Westbound panorama at the edge of the informal settlement.

Photograph 4-11: R45 Westbound panorama at the edge of the informal settlement.

Photograph 4-10 is a continuing panorama into Photograph 4-11.

Photograph 4-12: R45 Westbound towards Vredenburg approaching Ongegund.

George Kerridge is a relatively small area of informal settlement that is part of a much wider area of informal settlement on the edge of the established southern township of Ongegund. It is overlooked by Vredenburg south on the hill and surrounding townships at Louwville and Witteklip.

Views from the R45 Eastbound

The site lies to the south of the R45 and can be seen to the right as you leave Vredenburg moving towards Ongegund. Views in this direction are more oriented ahead with the general area of the site falling away to the right as one passes Ongegund. Views are obscured in places by a concrete palisade fence.

NB Site location labels are very approximate only.

Photograph 4-13: R45 Eastbound from Vredenburg looking towards the site area.

Photograph 4-14: R45 Eastbound from Vredenburg already passing the views to the site area.

Photograph 4-15: R45 Eastbound from Vredenburg looking into the concrete fence.

Photograph 4-16: R45 Eastbound from Vredenburg passing the concrete fence.

Photograph 4-17: R45 Eastbound from Vredenburg passing the concrete fence.

Photograph 4-18: R45 Eastbound from Vredenburg looking briefly into the site area.

Photograph 4-19: R45 Eastbound from Vredenburg looking briefly into the site area.

Photograph 4-20: R45 Eastbound from Vredenburg looking briefly into the site area.

Photograph 4-21: R45 Eastbound from Vredenburg past the site towards the dump.

Photograph 4-22: R45 Eastbound from Vredenburg looking towards the dump.

Views to the site are briefer and more peripheral when travelling eastwards. The large municipal dump to the northeast blocks views in the flat landscape of the Besaansklip Plain.

Views from the Southern Bypass Southbound

The site is approached on the Southern Bypass that connects rounds from the R45 to the R399 to Saldanha and round Ongegund. The road heads up to Witteklip en route to Saldanha with the extended area of Ongegund into George Kerridge on the left but out of sight through an extended area of township and informal settlement.

Photograph 4-23: Southern Bypass Southbound towards Saldanha looking left to site (right).

Photograph 4-24: Southern Bypass Southbound travelling between Ongegund and Louwville.

The Southern Bypass is the access point into Ongegund below the less dense area of Louwville.

Views from the Southern Bypass Northbound

Travelling back as from Saldanha on the R399 and the overlooking area of Witteklip, one looks down briefly into the sprawling area of Ongegund and George Kerridge extending onto the plain as one rounds the corner.

Photograph 4-25: Southern Bypass Northbound overlooking Ongegund and George Kerridge.

Photograph 4-26: Southern Bypass Northbound crossing the railway line.

The Southern Bypass is the route into the site via Ongegund separating the older area of Louwville from Ongegund and George Kerridge on the plain.

Views from the R399 Southbound

Travelling south into Vredenburg on the R399 one has some long distance views towards the site area. These are only possible after crossing a ridgeline to the north of the town.

Photograph 4-27: R399 Southbound towards Vredenburg with the town visible on the hill.

Photograph 4-28: R399 Southbound towards Vredenburg as one rises the hill/ridgeline.

Photograph 4-29: R399 Southbound towards Vredenburg with the site area now in view.

Photograph 4-30: R399 Southbound towards Vredenburg with the site area now in view.

After crossing a ridgeline to the north of the town the site initially comes into view to the left in the far distance, the general area of the sprawling settlement being just discernible at 3.5km near *Kleinplasie*.

Photograph 4-31: R399 Southbound approaching Vredenburg with the site area now in view.

Photograph 4-32: R399 Southbound nearing Vredenburg with the site area now in view.

Photograph 4-33: R399 Southbound entering Vredenburg.

There are only long distant views towards the general area of the site from the R399 north of Vredenburg.

Views from the R399 Northbound

Travelling north into Vredenburg on the R399 there are very limited opportunities to see the site area from the road due to the road's orientation.

Photograph 4-34: R399 Northbound towards Vredenburg ex Weskus Mall.

Photograph 4-35: R399 Northbound towards Vredenburg glimpsing the site over barriers.

Views northbound from the R399 are very limited due to road orientation, angles and roadside barriers.

4.5.3 Views from Neighbouring Areas

Views from Vredenburg

A few views were taken around the town but generally views towards the site are very limited when seen from public areas.

Photograph 4-36: View from Engen Garage on R399.

Photograph 4-37: Enlarged view from Engen Garage on R399.

Photograph 4-38: View from the town highpoint near a reservoir obscured by fencing.

Views from Louwville and Witteklip

Views from the road as one drives through Louwville down and along Witteklip towards the site are very limited. As one drives along the lower valley route towards site, it is not possible to see beyond ground level structures or see very far into the distance.

Photograph 4-39: View descending new link road to Witteklip.

Photograph 4-40: View across Louwville to Ongegund.

Photograph 4-41: View of housing in Witteklip, which overlooks Ongegund.

Photograph 4-42: View on route to site through lower Louwville.

As one gets to this point one can just see the sprawling area of Ongegund and George Kerridge deep within it over the concrete fence.

Photograph 4-43: View on route to site through lower Louwville.

Photograph 4-44: View on route to site through lower Louwville.

Photograph 4-45: View on route to site through lower Louwville.

Photograph 4-46: View on route to site through lower Louwville.

Photograph 4-47: View on arriving at the entrance into Ongegund.

4.5.4 Views from Heritage Sites

There were no views from any heritage sites that we could determine.

Views from Eensaamheid Smallholdings

There is an area of smallholdings east of the site at Eensaamheid that still retains its rural character. Somewhat scrappy in character these are the nearest neighbours to the site outside of Vredenburg.

Photograph 4-48: View from Eensaamheid towards Vredenburg.

Photograph 4-49: View from Eensaamheid up its road towards Vredenburg.

Photograph 4-50: View of the smallholdings in Eensaamheid.

Photograph 4-51: View of a smallholding in Eensaamheid.

4.5.5 Views of the Site

Views of the site are very limited to more distant views such as from the nearby R45 as the area lies deep within Ongegund and the local roads there have been built over allowing only foot traffic.

Views of Ongegund Edge into George Kerridge

The following views are taken of the edge of Ongegund off the Southern Bypass. There are occasional glimpses into the distant sprawl of George Kerridge but otherwise access is pedestrian and the area highly congested.

Photograph 4-52: View on the edge of Ongegund from the railway line.

Photograph 4-53: View over Ongegund towards George Kerridge.

Photograph 4-54: Enlarged view over Ongegund towards George Kerridge.

Travelling over the railway line one gets a brief overview/glimpse into the sprawling area of lower Ongegund and George Kerridge, which cannot be distinguished from the general spread of continuous shacks.

Photograph 4-55: View over Ongegund towards George Kerridge.

Photograph 4-56: View on the edge of Ongegund.

Photograph 4-57: View on the edge of Ongegund.

Photograph 4-58: View on the edge of Ongegund.

The edge of Ongegund in places is in appalling condition with dumping everywhere and no formal facilities, parks, trees, streets to alleviate the harsh conditions of the sprawling shacks.

Views within Ongegund travelling towards George Kerridge

Photograph 4-59: View on the edge of Ongegund overlooking the sprawling shack land.

Photograph 4-60: View within Ongegund showing a mix of low cost houses and shacks.

Photograph 4-61: View within Ongegund showing a mix of low cost houses and shacks.

Photograph 4-62: View within Ongegund down one of its functional roads.

Photograph 4-63: View within Ongegund down its main road, shacks to the edge of properties.

Photograph 4-64: View within Ongegund down its main road, shacks to the edge of properties.

Photograph 4-65: View within Ongegund down its main road, shacks to the edge of properties.

Photograph 4-66: View within Ongegund down its main road, shacks to the edge of properties.

Photograph 4-67: View within Ongegund over its northern edge towards the dump.

Photograph 4-68: View within Ongegund at the end of the road into George Kerridge area.

Photograph 4-69: View within Ongegund of another blocked road built on and many cables.

Photograph 4-70: View within Ongegund of another blocked road built on and tower lighting.

Photograph 4-71: View within Ongegund into George Kerridge with its pedestrian routes

Photograph 4-72: View on the edge of Ongegund towards George Kerridge.

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

VISUAL IMPACT: The proposed development will have a Minimal to Moderate impact on the landscape causing limited change to the visual environment. VISIBILITY: The development has high visual exposure; low visual absorption capacity; medium compatibility; and moderate–high visibility. NATURE OF IMPACT: The development's visual impact has district extent, long-term duration, medium intensity, definite probability, and medium significance on the landscape. RECOMMENDATIONS are made around the need a wider view of township design in terms of urban growth, community design and peri-urban design. Issues of overcrowding and expansion need to be handled. A Street Tree & Planting Plan, a Market Gardening & Controlled Grazing Plan, Structures Guidelines for colouration and control, and Maintenance & Management Plans for environmental and settlement standards at the wider scale are needed.

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. George Kerridge is an informal settlement area on the edge of a sprawling township adjacent to Ongegund outside Vredenburg.
2. The landscape is flat and low-lying and can best be seen from the R45 on the drive up to Vredenburg.
3. The character of the area is one of open old farm fields that form the agricultural landscape of the West Coast interior.

4. The area generally has a lack of large trees or tree groups such as Gum woodlots that typically dot the rural countryside.
5. The R45 to Vredenburg from Darling is identified as a Scenic Route although the scenic quality on this stretch is now lacking.

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 *Heritage* (ancient, colonial, modern, contemporary).
3. **Visual Environment:** comprising *Views* (aesthetics, visibility), *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 9) 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;**
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.

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 1 of the 10 listed receiving environments (10%), and 0 out of 7 project types (0%) that may cause visual impact giving a combined total of 5%; the receiving environment has *very low* sensitivity while the project character has *nil* impact.[5] **Thus the factors triggering potential impact suggest that impact will be moderate.** 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 5-1: 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 5 development:** large-scale infrastructure generally.

[5] This is a very unusual rating and we could expect that the project would potentially be of beneficial or positive impact.

Terms are defined as follows (p 7):[6] **Category 5 development** *e.g. high density township*.[7] In the list of "Type of environment" this would be defined as a mix of **"areas or routes of *low (to medium)* scenic, cultural, historical significance."** This would result in a theoretical possible outcome: ***moderate to high* visual impact** expected. When considering the following descriptions, we find that the visual impact is also described as **Minimal to 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;**[8]
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."

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[6] **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.
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.

[7] *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.

[8] While the formalization of an informal settlement area is positive to the inhabitants there, the formalization and extension of the township with very low cost housing is negative on the rural landscape and adjacent Scenic Route.

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 Minimal to Moderate impact on the landscape causing limited 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 requires "Complete 3D modelling and simulations, with and without mitigation" in addition to the above.[9]

[9] This is not always possible depending on the planning information available or necessary where development types are known.

5.4 Visual Analysis

5.4.1 Visual Mapping

This has been mapped in Figure 5-2 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 Visual Analysis Mapping

The Visual Catchment is shown as speckled brown lines - - - - - and approximately follows the ridgelines of the mountains, hills and landforms (Figure 5-2). Depending on the height of the ridgeline it may or may not contain views. Areas *theoretically* visible to the site based on landform only (Zone of Visual Influence or ZVI) are indicated grading from **blue (100% visibility)** on and around the site, through **green (75% visibility),** to **yellow (50% visibility),** to **white (0% visibility/view shadow).**

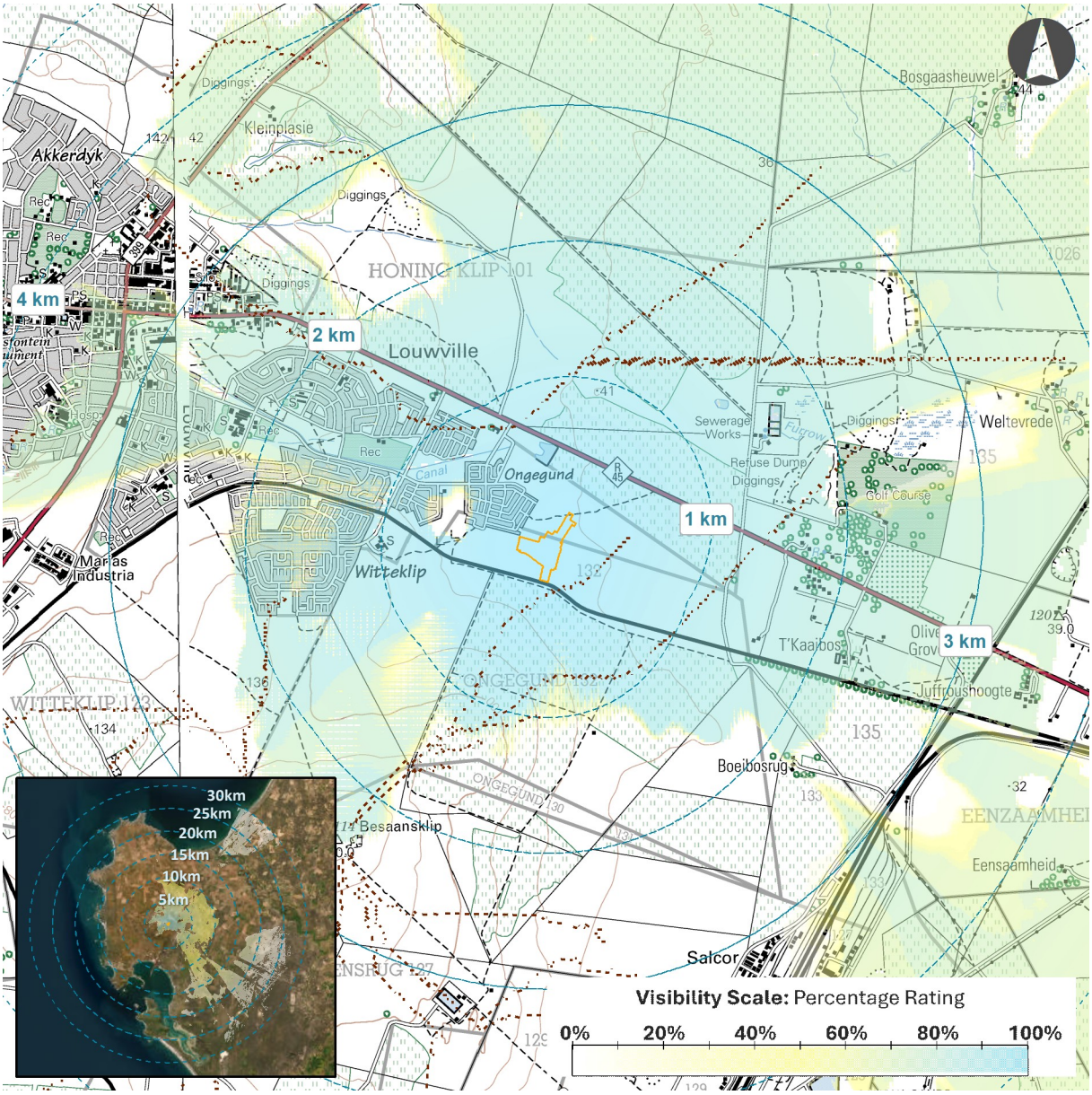
It should be noted that the term *theoretically* is significant as it is neither possible nor necessary to physically check all these locations. However, strategic views have been checked according to site inspection and analysis. Many views that are theoretically possible are not possible due to ground level screening or sloping terrain. Urban and suburban buildings and orientation are also important factors in visibility.

5.4.3 Viewshed

The **viewshed** is indicated by the edge of the **yellow** zones on the map and either is terminated by the brown **speckled ridgelines - - - - -** or diminishes with distance (Figure 5-2). The viewshed of the site is partially contained by local topography but largely diminishes with distance over the flat terrain. Landform tends to contain views to the plain making it less visible from the town of Vredenburg while subtle ridgelines to the south also cut off views rapidly.

5.4.4 Zone of Visual Influence

The **Zone of Visual Influence (ZVI)** is shown in various shades from **blue (100%), green (75%)** and **yellow (50%)** to **white (0%).** The site has a moderate area of visual influence fading out with distance over the first few kilometres (see Figure 5-2). There is reduced visibility to the south due to various subtle ridgelines and around Vredenburg except in Louwville and surrounds, also due to landform.



Source: New World Associates | Mattheus H Human (MSc, GPrGISc 1491).

Figure 5-2: Zone of Visual Influence and Area of Visual Discernibility.
GIS calculated Zone of Visual Influence (ZVI) overlain on the 1:50,000 map of the area. The satellite map inset uses 5km radii showing the theoretical furthest potential visibilities. Visual discernibility for low structures falls away quickly over distance with legible visibility only under 5km.

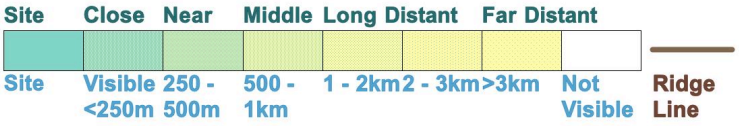
Visual Discernibility Analysis by GIS

The *Visual Discernibility Range* was calculated and rounded to 30km using the entire footprint of the layout and a maximum proposed height of 8m, and then reduced for a 50% development density. The analysis was executed on an Elevation Model that does not take into consideration current vegetation or any structures.

Practical Visual Discernibility and Distance

Visibility under 25% is practically insignificant or visually indiscernible. Only a wind turbine, hill or mountain is visible at 30km and a town at 10km, if seen from a high point. The main map shows a 4km radius at 1:50,000 scale within the most immediate significant impact zones

of practical visibility. Our traditional visibility key for manually drawn maps where we show distances over 3km as *Far Distant* and over 4km as *practically not visible* or *visually insignificant* is as follows:



The grading of visibility distance views by this key is most effective, as views over 3km tend to be practically not visible or so insignificant as to have no effect for general applications. Views within 1km are typically the most significant, particularly within 500m.

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, land use and vegetation such as trees are all factors.

VAC of the Land Form

Landform is partially significant in containing views particularly around Vredenburg but also to the south.

VAC of the Land Use

Land Use VAC is always a factor in urban areas with ground level structures usually blocking off views near buildings and walls. Even low-level shacks can screen the shacks behind them in this flat landscape.

VAC of the Vegetation

The area has minimal vegetation VAC except to the southeast where there is an area of alien vegetation near the Golf Course.

5.4.6 Visual Sensitivity

The area has low to moderate visual sensitivity, as the landscape is very plain and flat with minimal interesting vegetation, trees or woodland generally. The only interest in the landscape is Vredenburg hill itself, which rises over the Besaansklip Plain. As a result of the very flat landscape, visibility is generally unimpeded especially relatively near to the site and as seen from the Scenic Route R45, which could not be described as anything more than Grade IIIc or moderate–low scenic.

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 VIAs[10]—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.

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);**
2. ***Moderately visible*** **– recognisable to the viewer (e.g. 1 to 2km);**
3. *Marginally visible* – not particularly noticeable to the viewer (e.g. 2km+).

SUMMARY ASSESSMENT—VISIBILITY: The development has high visual exposure; low visual absorption capacity; medium compatibility; and moderate–high visibility.

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

The following analysis presents the specific criteria findings in bold for the project.

[10] *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.

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).

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;**
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.

SUMMARY ASSESSMENT—NATURE OF IMPACT: The development's visual impact has district extent, long-term duration, medium intensity, definite probability, and medium significance on the landscape.

VISUAL IMPACT	SITE	VISIBILITY	SITE	NATURE OF IMPACT	SITE
Impact	Med-Low	**Visual Exposure**	High	**Extent**	District
Change	Low	**Visual Absorption Capacity**	Low	**Duration**	Long term
		Compatibility	Medium	**Intensity**	Medium
		Visibility	Med-High	**Probability**	Definite
				Significance	Medium

Figure 5-3: Summary Assessment of the Site ex PGWC Guideline Assessments.

Plomp Methodology

Visual impact assessment using the Plomp (2004) methodology (see Appendix C for key):

Activity	Impact	Phase	Probability		Duration		Scale		Magnitude / Severity		Significance[11]		
			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 + 2.5 + 6) = 5 x 12.5 = 62.5 WOM **Visual Significance Score Calculation = Probability x (Duration + Scale + Magnitude) = 5 x (4 + 2.5 + 4) = 5 x 10.5 = 52.5 WM**													
Construction activities, operational infrastructure and lighting, decommis-sioning of infrastructure	Visual impact of develop-ment on surrounding landscape	Construc-tion, opera-tions and closure	5	Definite	4	Long term	2.5	District	6 4	Medium Med-Low	62.5 52.5	Moder-ate–High	Mod-erate

Figure 5-4: Plomp Methodology Assessment.

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-5: Attribute Weighting.

[11] **Significance:** Score calculation = Probability x (Duration + Scale + Magnitude); WOM Without Mitigation; WM With Mitigation.

5.4.8 Distribution of Impacts

"Beneficiaries and losers"[12] (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.

The people most affected by the development will be the surrounding farmers with the nearest views of the PV Plant.

5.4.9 Photomontages

Photomontages were not prepared, as the level of impact does not warrant it. Our knowledge of the development types suffices in understanding the proposed development and how to mitigate the likely impacts.

5.5 Analysis of Alternatives

At this time there are no significant alternatives to consider beyond the minor revisions shown previously.

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 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 3.4.1).

Furthermore, the WC Provincial SDF noted *inter alia* the following:

[12] Possible better designations are "winners and losers" or "beneficiaries and adversaries" as, so often objectors become opponents in environmental and visual impact.

- 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."**

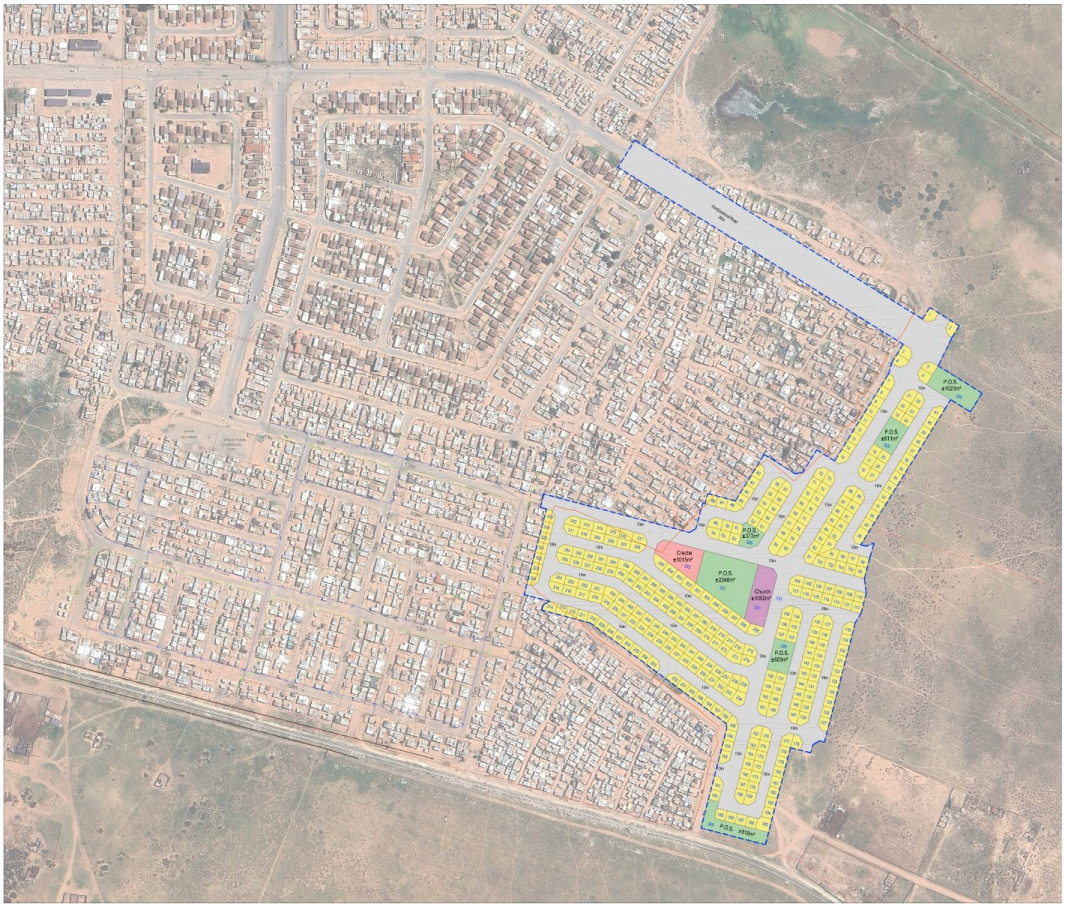
It is the guidelines resulting from the visual-aesthetic-landscape analysis that will achieve the balance as best as possible along with their implementation.

Site Development Plan Assessment

The proposed SDP shows a regular scheme with relatively wide road reserves (10m and 13m) arranged around a central Public Open Space (POS), a Crèche and a Church erf with a few smaller POSs distributed around the overall site (Figure 5-6). The road network fits well into the existing road network with opportunity to expand beyond it.

What the satellite images do not show is the existing situation on the ground, which is out of control with shacks being built over all the road reserves and every backyard being built up with ramshackle shacks and structures creating a chaotic and extremely untidy environment (Figure 5-7). These can be compared against the photographs taken on site especially at all the road entrances and as seen from the R45 showing the uncontrolled sprawl and infill shack construction on public roads (§4.5.2 and §4.5.5).

There are no street trees or any sense of settlement quality or organisation. The need to formalise this area and control the uncontrolled squatting is urgent.



Source: CK Rumboll & Vennote.

Figure 5-6: Site Development Plan (December 2024) on Satellite Image (Outdated).

Source: CK Rumboll & Vennote.

Figure 5-7: Site Development Plan (December 2024) on Satellite Image (Outdated) extract.

Mitigation Recommendations

1. **Site Development Plan:** is well conceived, if not minimal for the purpose, if the extent of uncontrolled informal settlement in the area is anything to go by. It does not seem to be nearly adequate to meet the current needs of the existing population.
    1.1. **Urban Growth:** the conventional township extension upon extension scenario does not seem to adequately meet the needs of people settling on the fringes of towns and cities today or even historically. It produces unsightly outskirts to rural towns and big cities that once were simply rural edges. How can this be turned around?
    1.2. **Community Design:** people settling in urban areas in South Africa are traditionally rural people so they often come with a farming background but a foreign environmental background, typically Eastern Cape or further north, where the climate is completely different: summer rainfall, better soils, more land. They settle in marginal, overpopulated areas very often with no facilities. The township solution of small erwen, single low cost houses, zero environmental quality, shade, planting or landscape is the norm.
    1.3. **Peri-Urban Design:** there is a need for a wider urban design of the area with its sprawling townships running down the hill from Louwville and Witteklip into Ongegund that needs more widespread and integrated design that will build viable environments that blend the urban–rural divide. This will enhance our urban edges and improve the living standard creating better cultural solutions that can be more land based than built environment, a cultivated landscape that is also cultural.
2. **Overcrowding and Expansion:** There are many more people and shacks on site than have been allowed for causing overuse of the land and inadequate space for comfortable living. The implementation of this formalised township extension needs to be expanded to properly accommodate the people living there.
3. **Street Tree & Planting Plan:** as there is no planting or trees whatsoever in the general area due to over building on the small erwen and construction on the streets, a wider *Street Tree & Planting Plan* needs to be developed and support for developing home gardens.
    3.1. **Street trees** are needed along the R45 to screen off this unsightly township and informal settlement.
    3.2. **Vredenburg** is rather devoid of tree planting generally so could form part of a wider plan of municipal improvement and upgrading.
    3.3. **Ground level planting** of large shrubs should also be developed to screen off views of the area and to contain it creating a planted connection to the surrounding agricultural landscape.

4. **Market Gardening & Controlled Grazing Plan:** this large area of township and informal settlement is an eyesore as much to passers by as it is to locals living there. Combined with the *Street Tree & Planting Plan* a *Market Gardening & Controlled Grazing* Plan should be developed that integrates a wider control and design of the periurban landscape. This can help create a local landscape-based economy and community that is more self-sustaining.
    4.1. **Market Gardening Plan:** should set aside allotments for people to grow their own vegetables and crops and create a positive agricultural open space around the residential zones.
    4.2. **Controlled Grazing Plan:** required, as there are numerous free-ranging cattle, sheep and goats in the area, which need better management and control. This can integrate into the market gardening system for use of manure and crop rotation.
5. **Structures Guidelines:** Guidelines for property use need to be developed to control construction on both private erwen and on public land.
    5.1. **Structures Colouration:** the most visually pleasing townships use carefully chosen local natural landscape colours that blend well into the landscape on both walls and roofs.
    5.2. **Structures Control:** need to be developed to prevent the random nature of shack and structure construction.
6. **Maintenance and Management:** The ongoing control of activities and construction in this area needs to be developed with input from the local community who need to help implement and manage area activities.
    6.1. **A clear vision of environmental and settlement quality** needs to be developed to develop a healthy environment.
    6.2. **Township and settlement standards** need to be addressed, as they are not uncommon situations, however, they are commonly substandard. New norms and practices by their inhabitants and municipal managers need to be developed.

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 6-1: 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/s must seek the implementation of the recommendations as soon as possible. The Developer/s 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 6-1: Visual Monitoring Plan). The table comprises the list of project activities numbered in the same sequence as those in the Miti-

gation 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, *Ad hoc* Meeting	Owners, Authorities
5.8.2	Conservation Management and Landscape Maintenance	Routine Inspection	Physical and Recommendation	Routine, *Ad hoc* Meeting	Owners, Authorities
5.9	**DECOMMISSIONING**				
5.9.1	Refurbishment	Site Inspection	Physical and Recommendation	Routine, *Ad hoc*	Owner, Authorities

Figure 6-1: 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 certifying or approving authority is noted. Many building activities are strictly controlled by local by-laws.

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Bibliography

CNdV Africa (November 2005). *Provincial Spatial Development Framework.* PGWC, CT.

DEA&DP (December 2005). *Provincial Urban Edge Guideline.* PGWC, CT.

Department of Environment Affairs (1992). *Integrated Environmental Management Guideline Series: 2 Guidelines for Scoping.* Also *1 The Integrated Environmental Management Procedure; 3 Guidelines for Report Requirements; 4 Guidelines for Review; 5 Checklist of Environmental Characteristics; 6 Glossary of Terms used in Integrated Environmental Management.*

Department of Environmental Affairs and Tourism & CSIR (February 2000). *Strategic Environmental Assessment in South Africa: Guideline Document.*

Department of Environmental Affairs and Tourism (April 1998). *Environmental Impact Management: A National Strategy for Integrated Environmental Management in South Africa.*

Erasmus, BPJ (2004). *On Route in South Africa.* Jonathan Ball Publishers, Jeppestown.

Earth Summit Agreements (1992): *Agenda 21, The Rio Declaration on Environment and Development,* and *the Statement of Forest Principles;* and *The United Nations Framework Convention on Climate Change* and *The Convention on Biological Diversity.*

IEA and the Landscape Institute (1995). *Guidelines for landscape and visual impact assessment,* E and FN Spon, London.

Oberholzer, B (2005) by CSIR Environmentek. *Guideline for Involving Visual and Aesthetic Specialists in EIA Processes: Edition 1.* CSIR Report No. ENV-S-C 2005 053 F. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs and Development Planning, Cape Town.

Raper, Peter E and the Human Sciences Resource Council (2004). *New Dictionary of South African Place Names*. Jonathan Ball Publishers, Johannesburg & Cape Town.

Republic of South Africa, Statutes of. *National Environmental Management Act No. 107 of 1998* (NEMA).

Republic of South Africa, Statutes of. *National Environmental Management: Biodiversity Bill, 2003* (BB).

Republic of South Africa, Statutes of—Land. *Environment Conservation Act No. 73 of 1989.*

Winter, S & Baumann, N (2005). *Guideline for Involving Heritage Specialists in EIA Processes: Edition 1.* CSIR Report No. ENV-S-C 2005 053 E. Republic of South Africa, Provincial Government of the Western Cape, Department of Environmental Affairs and Development Planning, Cape Town.

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Appendices

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Appendix A VIA Author's CV

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Bruce Eitzen
Landscape Architect
Curriculum vitae

Principal	
Landscape Architect	Bruce Eitzen.
ML	Landscape Architecture & Urban Design (University of Pretoria) (1994). • Thesis Title (Africana Collection): *Incorporating Shona Culture in Township Design.*
BL Programme	Landscape Architecture & Environmental Planning (University of Pretoria) (1988).
BSc	Botany (University of Cape Town) (1984).
Practice	
New World Associates	• Bruce Eitzen has been practising landscape architecture and environmental planning since 1989. He has run his own professional landscape architectural practice from Cape Town since 2003 and in Harare, Zimbabwe from 1992. His practice has extensive experience in a wide range of landscape architecture and environmental planning specialising in visual and heritage planning. He is currently focussing on landscape heritage and landscape character assessment in the region. All work is computerised and digitally available.
Company	
SA Registration	Bruce Eitzen Landscape Architect cc trading as New World Associates, Landscape Architects.
Closed Corporation	2005/059513/23.
History	
2003 to date	New World Associates (Cape Town).
1996 to 2003	New World Associates PBC (Harare).
1992 to 1996	Environmental Design and Planning (Pvt) Ltd (Harare).
1989 to 1991	Environmental Design Partnership (SA).
Registrations	
ILASA	Professional Member of the Institute of Landscape Architects of South Africa.
	• NEC Member, Cape Treasurer, Chair Professional Practice & Development, ILASA Cape Chair (2008-2011); National Treasurer (2013); Vice Chair National (2008-2009). • IFLA 2012 World Congress LOC Chair (2009-2012).
APHP	Accredited Member of the Association of Professional Heritage Practitioners (Cape).
SACLAP	Professional Landscape Architect (SA) (SACLAP No. 20127).
NALA	Full Member and Founder of Nursery and Landscape Association (Zimbabwe) to 2003.
Awards	
ILASA 2013	• *Special Award* for services to the landscape profession.
ILASA 2007	• *Merit Awards:* Special Commendation for Koringberg VIA.
TUKS Prizes	• Best Environmental Planning Student (1987); Best Designer (1988) – University of Pretoria.
Skills	
Practice Management	30+ years experience in office management, staff management, office administration, contract administration, client liaison, work securement. Experienced in all areas and levels of project management in landscape architecture, environmental, visual, and heritage assessment.
Landscape Architecture	Experienced in all areas of practice, especially on commercial and prestige projects. Botanically trained, fynbos planting specialists with rehabilitation experience. Planting, large tree transplantation, paving, furniture, water feature and roof garden design; master planning, landscape analysis and site design; plan preparation, documentation, certification and report writing are all areas of considerable practise.
Landscape Management	Maintenance monitoring and direction of landscape development. Advisory to BC. Review and approval of Landscape Plans for individual units on estates. Advisory to HOA.
Green Star	Design and As-Built consulting for landscape, irrigation and ecology credits.
Environmental Planning	Diverse EIA experience obtained in Southern and East Africa.
Heritage Planning	Heritage Impact Assessment (HIA), Landscape Character Assessment (LCA) and Landscape Heritage Conservation and Planning.
Visual Planning	Visual Impact Assessment (VIA), Visual Planning, Photomontages.
Tourism & Recreation	Urban Parks, Sports Grounds, Public Open Space.
Urban Landscape	Urban Landscape master planning and design.
Publications	
Journal	• The Orangerie (2012) and Bloemhof EHQ (2015) have both featured in *Landscape SA*. • *Surviving the Drought* (Landscape SA May 2017) features the success of the Bloemhof EHQ landscape's endemic planting and waterwise soil solutions in beating the great drought of 2015-2017, Cape Town's worst drought in over a century.
Conference	• The paper *Designing with Fynbos* was presented at the ILASA 2014 Conference.

Public Service

Bruce Eitzen worked for years in various professional institutes including ILASA and APHP serving on their executive committees in various capacities over the years. Besides his work on South African institutes and associations, he was also one of the Founders of the Nursery and Landscape Association of Zimbabwe in the 1990s. His primary focus now is in developing the field of Landscape Heritage in the region.

Landscape Heritage Southern Africa (LHSA)

In 2020, Bruce Eitzen founded Landscape Heritage Southern Africa (LHSA) which is a heritage organisation devoted to conservation, appreciation and promotion of the vast Landscape Heritage of the region. LHSA is developing a massive landscape inventory, map and encyclopaedia of the region's landscape heritage. It is also networking with all role players in this vast domain in both the public and private sectors. See the LHSA website for more information:
https://landscape-heritage-sa.yolasite.com/

Africa Landscape Network (ALN)

He also participated in the establishment of the African Landscape Network (ALN) in 2021.

Project Experience

Bruce Eitzen has wide experience in over 60 development types.

Landscape Architecture

1. Roof Gardens
2. Malls
3. Hotels
4. Airports
5. Suburban Parks
6. Office Parks and HQs
7. Interior Landscapes and Atriums
8. Residences
9. Residential Estates
10. Apartment Complexes
11. Master Plans
12. University Campuses
13. Regional Cemetery
14. Green Star: Design & As-Built
15. Cemetery

Landscape Management

16. Maintenance Monitoring
17. Landscape Plan Control

Environmental Planning & EIA

18. High Rise Buildings
19. Quarry Planning and Rehabilitation
20. Tourism and Visual Surveys
21. Domestic Airports
22. Safari Lodges in National Parks
23. Underground Fuel Storage
24. Rural Roads in Remote Regions

Heritage Planning & HIA

25. Heritage Conservation Plan
26. Heritage Impact Assessment
27. Notification of Intent to Develop
28. Landscape Character Assessment
29. Wine Estates
30. Sewer Line
31. Water Line
32. Golf Course Estates
33. Historic Sites
34. Industrial Estates
35. Manor House
36. Cemeteries
37. Fish Farm
38. New Town
39. Historic Farms

Visual Planning & VIA

40. Residential Estates
41. Wine Estates
42. Resorts
43. Coastal Developments
44. Industrial Estates
45. Hotel
46. Regional Shopping Mall
47. Sewage Treatment Plant
48. New Towns
49. Quarry
50. Solar Farm
51. Wind Farm
52. Cemeteries
53. Ridgeline Housing
54. Fish Farm
55. Space Satellites

Tourism & Recreation Planning

56. Sports Fields
57. Safari Lodges
58. Hotels
59. Parks

Urban Landscape Design

60. Urban Landscapes
61. Master Plans
62. Urban Landscape Master Plans
63. CBD Landscape Planning

Select Project Profile

Landscape Architecture

KCC Sunnydale Church Campus
Site planning of 1.1-hectare hillside site, site analysis and master plan review in preparation of campus plan report and landscape design.

Karl Bremer Hospital Offices, Bellville
Green Star, waterwise landscape for the Provincial Government of the Western Cape for Earthworks LA. The project features an endemic planting scheme, car park retention pond planting and landscape enhancements for the great drought of 2015-17.

Bible Institute of South Africa, Kalk Bay
Campus master planning for this historic institution to enhance the natural, spiritual and heritage components of the site while maximising site usage for the college's 2023 Centenary Plan.

Baronetcy Estate, Plattekloof
Estate Landscape Architect managing implementation of Landscape Guidelines and Landscape Plan Approval.

Karwyderskraal Cemetery, Whale Coast
Preparation of Landscape Sketch Design for extensive, new regional cemetery serving the Hermanus Municipality.

Bloemhof Electricity Headquarters, Bellville
Green Star landscape for City of Cape Town's electricity supply depot HQ including roof gardens. Planting carefully selected using mostly endemics, low water regimes and permeable paving. Maintenance monitoring is ongoing.

Capricorn Beach, Muizenberg
Preparation of Landscape Site Development Plans (SDP) for an extensive mixed housing scheme in a windy, coastal fynbos site for MALA.

Khayelitsha Public Interchange, Cape Town
Preparation of public realm tree planting scheme for this large urban design project associated with the upgraded railway facilities to this underdeveloped township for MALA.

The Orangerie, Gardens
Landscape design for twin apartment complexes next to the Mount Nelson Hotel featuring a central gracht, pergola and waterfall; special consideration given to historic tree conservation. Management of maintenance is ongoing.

Airport City, Cape Town
Preparation of 3D modelled landscape featuring an exciting lake-sculpture design and Cape Flats landscape for this industrial park site for MALA.

Lourens River Estate, Somerset West
Sketch design for 2-hectare riverine landscape in small, upmarket housing complex for Langverwacht Landscaping.

The Promenade, Mitchell's Plain
Sketch design for new mega-shopping centre comprising primarily extensive car park planting and peripheral planting design along boundaries and entrances.

Harare International Airport, Harare
Directed preparation of sketch and detail designs to Tender stage of extensive courtyards prominently located and integral to the architectural concept. The design theme exploited a natural landscape built on hills representing various Zimbabwean environments. Also prepared the preliminary landscape master plan for the approach road, car parks and feature, grand axis landscape.

National University of Science and Technology Public Realm Landscape, Bulawayo
Sketch Design for three large landscape projects: Ceremonial Avenue, 1.2 km long with forest avenue planting and large central median; Bus Stop for central campus student access; Central Plaza with a radius of 50m, a central communications tower, colonnade, circular tree planting and lawns; Pedestrian Boulevard also 1.2 km long, links residences and Chapel to central campus through shaded avenues and meeting spaces. All areas are carefully furnished.

Mutual Gardens, Harare
Landscape Master planning detail design and implementation for a 7-hectare office park site situated in the suburbs. Detail designs cover eight courtyards, two roof gardens, a recreation area including two football fields, a woodland and lake and two hectares of landscaped gardens.

National University of Science and Technology, Bulawayo
Landscape Master planning of this new 200-hectare campus. Projects now taken through costings of thirty landscape projects including faculty buildings, roads and pedestrian routes, sports centre, residences, woodland planting and ceremonial spaces into the sketch and detail design stage.

House Sugarloaf, Harare
New private residence on a steep site. The design on four acres includes many terraces, formal landscaping, steep sight landscape treatment and enhancement of natural msasa woodland.

Mayor's Residence, Harare
Preparation of sketch and detail designs for a prestige 8 Ha residence. Features include indigenous woodlands, formal gardens and a small lake.

Southampton Life Centre, Harare
Detail design of shopping arcades, street landscaping around high-rise building, entrance fountain and a large roof garden for this central city site.

Mossgas, Mossel Bay
Master planning and detail design of oil refinery complex including extensive rehabilitation procedures in a rare ecosystem, and planning and construction of berms to utilise over 800,000m³ of spoil.

Environmental Planning & EIA

Victoria Falls Strategic EA
Photographic survey and landscape analysis as part of multi-disciplinary team investigating the impacts of development on the Victoria Falls area.

Domestic Airports Master Plan Project EIA, Zimbabwe
Preparation of ten EIA Reports for the development of new and existing, domestic airports around Zimbabwe. Airports included were: Buffalo Range, Bulawayo, Charles Prince, Gweru Thornhill, Hwange National Park, Kariba, KweKwe, Masvingo, Mutare Grand Reef and Victoria Falls. The EIA studies went up to the *Initial Assessment* stage and gave general recommendations for environmentally responsible project implementation. Full or *Detailed EIAs* were prescribed in two cases.

Matetsi Safari Lodge EIA, Victoria Falls Region
Preparation of EIA report for a proposed 60 bed safari lodge on the Zambezi River in the heavily gamed Matetsi Safari Area. Mitigation guidelines covered master planning, construction impacts, sensitive riverine habitats, game management, effluent treatment and social impacts.

NOCZIM FSP & Interlink Project EIA, Harare
Preparation of EIA report for an underground Fuel Storage Plant and connecting pipeline in the catchment of Harare's water supply dams. Mitigation guidelines focused on construction, operation and decommissioning phases and were particularly concerned with fuel spill, risk assessment, aesthetic impact and rehabilitation post construction.

Mutukula-Bukoba-Lusahunga Road EIA, NW Tanzania
Research, Site Inspection and EIA Report production for a 280 km road in NW Tanzania. Impacts and mitigation recommendations included road cuttings, bridges, purchasing of land from farmers, swamp crossings and urban roads.

Victoria Falls Safari Lodge, Victoria Falls
Preparation of specifications and inspection of rehabilitation of areas surrounding this time-share development. The site occurs on arid Kalahari Sands in mixed woodland and included a quarried area and elephant damaged vegetation.

Mossgas, Mossel Bay
Preparation of rehabilitation procedures and contract documentation for extensive, disturbed areas and newly constructed berms in renosterbos, a rare ecotype.

Heritage Planning & HIA

Rozenburg, Malmesbury HIA
Preparation of HIA for mixed use commercial, industrial and residential estate on historic Swartland farm.

Jonkersdrift, Jonkershoek HIA
Preparation of HIA for 8 new houses and agricultural buildings on Grade IIIa historic estate.

De Hoop Mixed Use Development Node HIA
Preparation of HIA for 79-hectare mixed-use node linking SW Malmesbury and Abbotsdale.

Schoonspruit *The Beacon*, Malmesbury
Revision and resubmission of an HIA for an amended industrial estate around a high profile, Grade IIIa Victorian house with significant historical garden.

La Motte Sites Feasibility Studies, Franschhoek
Preparation of an HIA for the comparative assessment of four alternative residential sites in the sensitive Robertsvlei Valley.

CNC Aquaculture, Sandveld
Preparation of the NID, Landscape Character Assessment (LCA) and HIA for a new salmon farming facility including 6 wind turbines.

Louw's Bos HIA, Stellenbosch
Preparation of the NID and HIA for a new regional cemetery for the Stellenbosch Municipality.

Calcutta Bos HIA, Stellenbosch
Preparation of the NID and HIA for a new regional cemetery for the Stellenbosch Municipality.

Saldanha Separator Plant, Vredenburg
Preparation of the NID and HIA for a heavy industrial development in a semi-rural area on the West Coast.

Royal Palms, Paarl
Preparation of HIA for mixed housing estate next to the proposed World Heritage Site of Dal Josaphat Language Origin Centre.

Glen Lily, Malmesbury
Preparation of HIA for a large expansion of N Malmesbury on veterinarian horse farm sited on a 17th century church erf.

Schoonspruit *The Beacon*, Malmesbury
Preparation of an HIA for a residential development around a high profile, grand Victorian house complete with turret.

Mariendahl Terraces, Newlands
Visual input into Heritage Statement for a small group of terrace houses near the historic breweries forming part of the staff housing next to the railway.

Langezandt Fishermen's Village, L'Agulhas
Preparation of Heritage/Urban Design VIA for development of controversial housing project in the vernacular fishermen's cottage style.

Mount Pleasant Terraces Heritage Conservation Plan, Table Mountain National Park
Research and preparation of detailed heritage study and conservation plan for this highly regarded, landscape national monument dating to the 18th century and associated with Lourens Cloete ex *Groot Constantia.*

Visual Planning & VIA

Kaap Agri Silos, Riebeek-West VIA
Preparation of VIA for new silos at historic Riebeek-West.

Farm 1259, Paternoster VIA
Preparation of VIA for mixed use residential, hotel and commercial development on the Paternoster Peninsula.

Darling Power PV Plant, Darling VIA
Preparation of VIA for Photovoltaic (PV) Plant nearby historic Darling.

Swartland Power PV Plant, Malmesbury VIA
Preparation of VIA for Photovoltaic (PV) Plant south of Malmesbury adjacent to historic Abbotsdale.

Rozenburg, Malmesbury HIA
Preparation of HIA for mixed use commercial, industrial and residential estate on historic Swartland farm.

Nederberg, Paarl VIA
Preparation of VIA for residential estate adjacent to historic *Nederberg*.

Jonkersdrift, Jonkershoek VIA
Preparation of VIA for 8 new houses and agricultural buildings on Grade IIIa historic estate.

SANSA Space Operations, Matjiesfontein
Preparation of the VIA for new satellite antennas near the historic town of Matjiesfontein, Karoo.

De Hoop Mixed Use Development Node VIA
Preparation of VIA for 79-hectare mixed-use node linking SW Malmesbury and Abbotsdale.

CNC Aquaculture, Sandveld
Preparation of the VIA for a new salmon farming facility including 6 wind turbines.

Schoonspruit *The Beacon*, Malmesbury
Revision and resubmission of a VIA for an amended industrial estate around a high profile, Grade IIIa Victorian house with significant historical garden.

La Motte Sites Feasibility Studies, Franschhoek
Preparation of a VIA for the comparative assessment of four alternative residential sites in the sensitive Robertsvlei Valley.

De Punt Estate, L'Agulhas
Preparation of a VIA and Landscape Character Assessment (LCA) on the cultural landscape for two ridgeline houses overlooking the town.

CNC Aquaculture, Sandveld
Preparation of the VIA for a new salmon farming facility including wind turbines.

Louw's Bos VIA, Stellenbosch
Preparation of the VIA for a new regional cemetery for the Stellenbosch Municipality.

Calcutta Bos VIA, Stellenbosch
Preparation of the VIA for a new regional cemetery for the Stellenbosch Municipality.

Farm 47 Lange Klip, St Helena Bay
VIA preparation for transport, scrapyard, composting and sand mining facilities on the Patrysberg near St Helena Bay adjacent a scenic route.

Harcroft, Constantia
VIA preparation for a historic 10-hectares estate in Upper Constantia, located on the boundary of the Table Mountain National Park.

Saldanha Separator Plant, Vredenburg
Preparation of the VIA for a heavy industrial development in a semi-rural area on the West Coast.

Novo Power Wind Farm, Vredenburg
Preparation of the VIA for an extensive industrial development in the Vredenburg Peninsula, West Coast.

Vredendal PV Plant, Vredendal
Preparation of the VIA for a PV Plant near Vredendal, West Coast.

Moerasrivier Mine, George
Preparation of VIA for gravel quarry in the George area.

Victoria Falls Strategic EA
Photographic survey and landscape analysis as part of multi-disciplinary team investigating the impacts of development on the Victoria Falls area.

Tourism & Recreation Planning

Wallacedene Sports Fields, Durbanville
Layout of sports fields and facilities comprising 6 football fields, cricket, stadium, hardball courts and indoors sports hall and entrances in Cape vernacular for MALA.

Khayelitsha Public Interchange, Cape Town
Preparation of public realm tree planting scheme for this large urban design project associated with the upgraded railway facilities to this underdeveloped township for MALA.

Emerald Hill Park, Harare
Design of 4.5-hectare suburban park including indigenous woodlands, lawns and gardens.

Victoria Falls Safari Lodge, Victoria Falls
Landscape design for this prestige time-share resort set in indigenous teak woodland. Landscaping theme was natural landscaping to reinforce the wild bush character of the site.

Web Site
Further information and full CV available on request; also please see my company web site:
www.new-world-associates.com

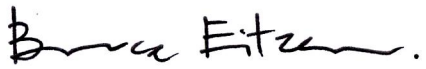
Appendix B VIA Author's Declaration of Independence

NWA

DECLARATION OF THE SPECIALIST

I **Bruce Eitzen**, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
    - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or
- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;
- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any report, plan or document prepared or to be prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the Specialist:  Date: **3/4/2025**

New World Associates, Landscape Architects

Name of company (if applicable):

Appendix C 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.

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.

Figure A-1: Impact Significance Criteria.

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.[13] 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 in Figure A-1 above.

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-2: 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.

NWA

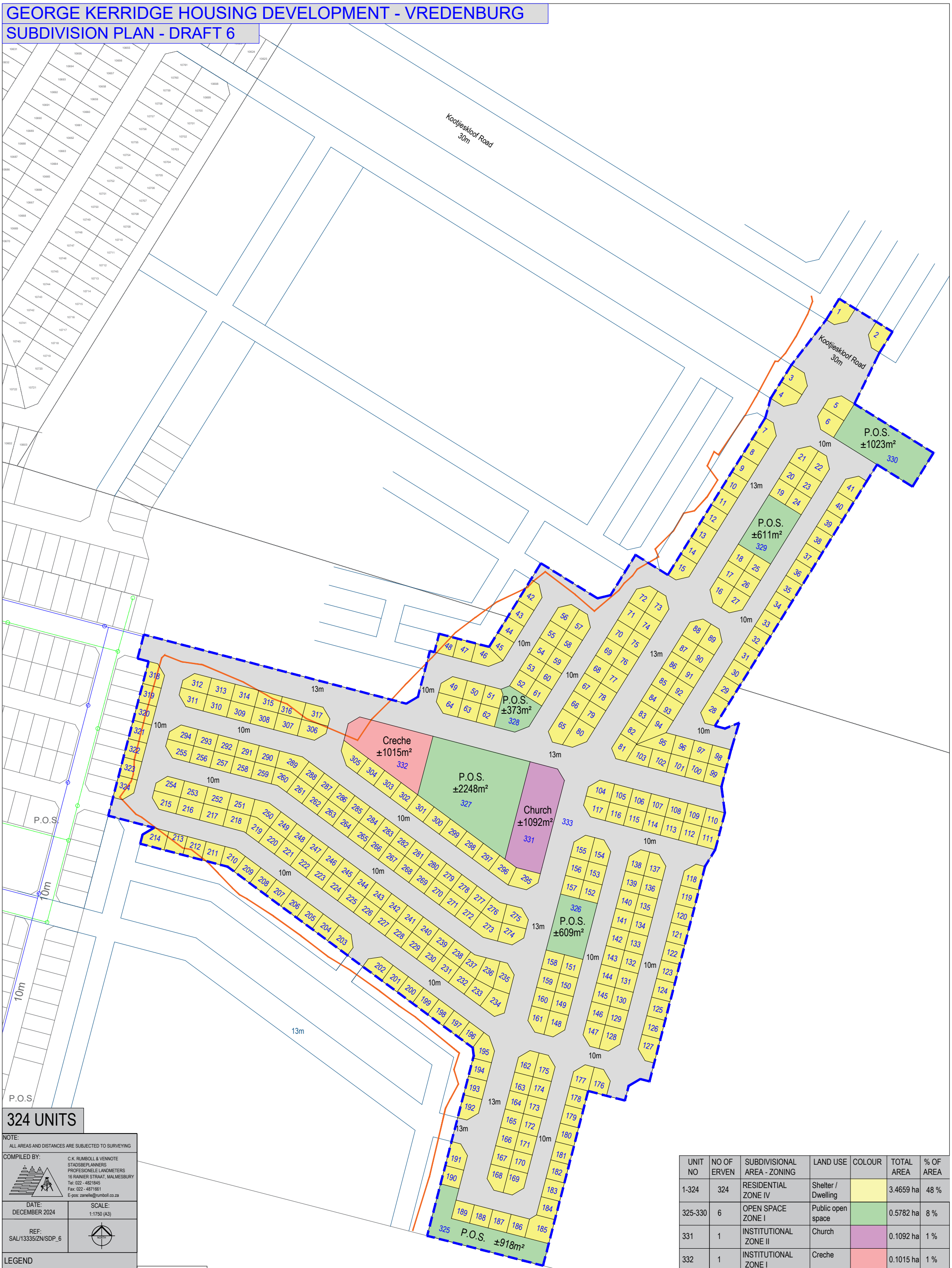
[13] Plomp, H. (2004). *A Process for Assessing and Evaluating Environmental Management Risk and Significance in a Gold Mining Company*. Conference Papers – Annual National Conference of the International Association for Impact Assessment: South African Affiliate.

Appendix D Project Plans

NWA

GEORGE KERRIDGE HOUSING DEVELOPMENT - VREDENBURG

SUBDIVISION PLAN - DRAFT 6



324 UNITS

NOTE:
ALL AREAS AND DISTANCES ARE SUBJECTED TO SURVEYING

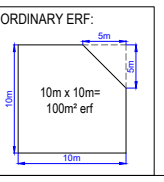
COMPILED BY:
C.K. RUMBOLL & VENNOTE
STADSBEPLANNERS
PROFESIONELE LANDMETERS
16 RAINIER STRAAT, MALMESBURY
Tel: 022 - 4821845
Fax: 022 - 4871661
E-pos: zanelle@rumboll.co.za

DATE:	SCALE:
DECEMBER 2024	1:1750 (A3)
REF: SAL/13335/ZN/SDP_6	NORTH

LEGEND

- DEVELOPMENT AREA
  Total area: ±7.2989 ha
  On average 100m² sized erven
- Edge of Informal structures
- Possible future layout

ORDINARY ERF:



UNIT NO	NO OF ERVEN	SUBDIVISIONAL AREA - ZONING	LAND USE	COLOUR	TOTAL AREA	% OF AREA
1-324	324	RESIDENTIAL ZONE IV	Shelter / Dwelling		3.4659 ha	48 %
325-330	6	OPEN SPACE ZONE I	Public open space		0.5782 ha	8 %
331	1	INSTITUTIONAL ZONE II	Church		0.1092 ha	1 %
332	1	INSTITUTIONAL ZONE I	Creche		0.1015 ha	1 %
333	1	TRANSPORT ZONE II	Public road		3.0441 ha	42 %
			TOTAL		7.2989 ha	100 %