RIEBEECK HILL VIA

VISUAL IMPACT ASSESSMENT

ERF 878 RIEBEEK-KASTEEL

MAY 2024, FINAL NOVEMBER 2024 ☙ PHOTOGRAPH 1: VIEW OF THE SITE FROM THE R311/CHURCH ROAD (ABOVE) AND EASTBOUND (BELOW)

researched and produced by
New World Associates LA © for **Silver Solutions 3371 CC**

COPYRIGHT WARNING

Email: neworld@telkomsa.net
Visit: new-world-associates.com

Landscape Architecture | Landscape Management
Landscape Planning | Heritage Planning | Visual Planning
This report should be printed double-sided if at all.
Viewing of images is best done on screen.

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 33) 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 34) 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)

NWA

Table of Contents

List of Figures

List of Photographs

NWA

1 Executive Summary

1.1 Summary

The proposed development has been carefully planned using a mix of residential typologies and a layout that partially suits historic Riebeek-Kasteel's town's grid, however, modernist building designs do not relate well to the town's character. The site is generally not visible from the town itself but is mostly visible from the R311, an important local heritage route. The visual and aesthetic sensitivity of the area is moderate–high while the anticipated impact on the landscape is high. Recommendations are made to minimise visual and heritage–aesthetic impacts with particular reference to using SDP Alternative 2, traditional architectural typologies and detailing, traditional tree planting and tree conservation, traditional colouration and fencing options. Some additions to the Architectural Guidelines are required.

1.2 Project Description (see page 13)

1. The proposed development is a mixed residential estate that has been carefully conceived incorporating heritage and visual indicators with strong guidelines around architectural, visual and landscape controls.
2. The development comprises a retirement-based residential extension, apartments, open market townhouses, lower density freestanding residences, small-medium scale supermarket, retail & fuel station, short-term holiday accommodation, public park and secondary public park/green belt. Alternatives were also considered in the process.
3. An Urban Design was subsequently prepared to refine the scheme's fit to landscape and heritage.

1.3 Legal and Administrative Requirements (see page 29)

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 Swartland 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.
3. VIA is integral to assessing environmental and heritage impact in scenic heritage areas like the Winelands and historic towns.
4. The site lies within the Urban Edge and on the edge of the vineyards surrounding the town. The Swartland SDF aims to conserve the heritage, rural and scenic character of the town and area that has important tourism benefits.
5. It also allows for Residential infill on the site with a variety of housing typologies and for retirement.

1.4 Visual Environment Description (see page 37)

1. The general setting of Riebeek-Kasteel is both dramatic and scenic lying at the foot of the imposing Kasteelberg and nestled into its undulating vineyard clad foothills that stretch out to the Tulbagh Mountains.
2. The town is quite unique in retaining its simple but historic east–west gridiron footprint. Lying in the southeast corner of the town the site largely inaccessible to the main part of the town.
3. Church Street/R311 runs to the west of Riebeek-Kasteel but along the western boundary of the property.
4. The site itself is a wheat field remnant with some of the newer houses in the town bordering it to the north and east. It splits into the southern/upper Riebeek Hill portion and the lower/northern vlei and pasture area.

1.5 Visual Impact Assessment (see page 71)

1. VISUAL IMPACT: The proposed development will have a moderate-high impact on the landscape causing noticeable change to the visual environment.
2. VISIBILITY: The development has mixed high to low visual exposure; moderate-high visual absorption capacity; medium compatibility; and moderate to high visibility from different locations.
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 to respect the town's historic grid, the significance of Riebeeck Hill, traditional architectural typologies, detailing and colouring, and traditional landscape planting to help conserve this valuable heritage townscape and landscape. Some additions to the Architectural Guidelines are required.

1.6 Visual Management and Monitoring Plan (see page 91)

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.

NWA

2 Project Description

2.1 Summary

The proposed development is a mixed residential estate that has been carefully conceived incorporating heritage and visual indicators with strong guidelines around architectural, visual and landscape controls. The development comprises a retirement-based residential extension, apartments, open market townhouses, lower density freestanding residences, small-medium scale supermarket, retail & fuel station, short-term holiday accommodation, public park and secondary public park/green belt. Alternatives were also considered in the process. An Urban Design was subsequently prepared to refine the scheme's fit to landscape and heritage.

2.2 Introduction

Combined with Section 3, this chapter presents the relevant project information required to develop 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 Silver Solutions 3371 CC to prepare the VIA for this project. Developments of this scale and nature in scenic and historic environments, within or without the Urban Edge, require Visual Assessments in accordance with the PGWC *Guideline for Specialist Visual Studies* (pp 11-12).

2.2.2 Accreditation

Bruce Eitzen ML BSc PrLArch PHP 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. He has thirty years experience across the board of Landscape Architecture and

Environmental Planning and has practised in South Africa, Central Africa and East Africa. He holds a BSc (Botany) from the University of Cape Town and a Masters in Landscape Architecture from the University of Pretoria.

His public service includes serving for three years on the Association of Heritage 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.

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.

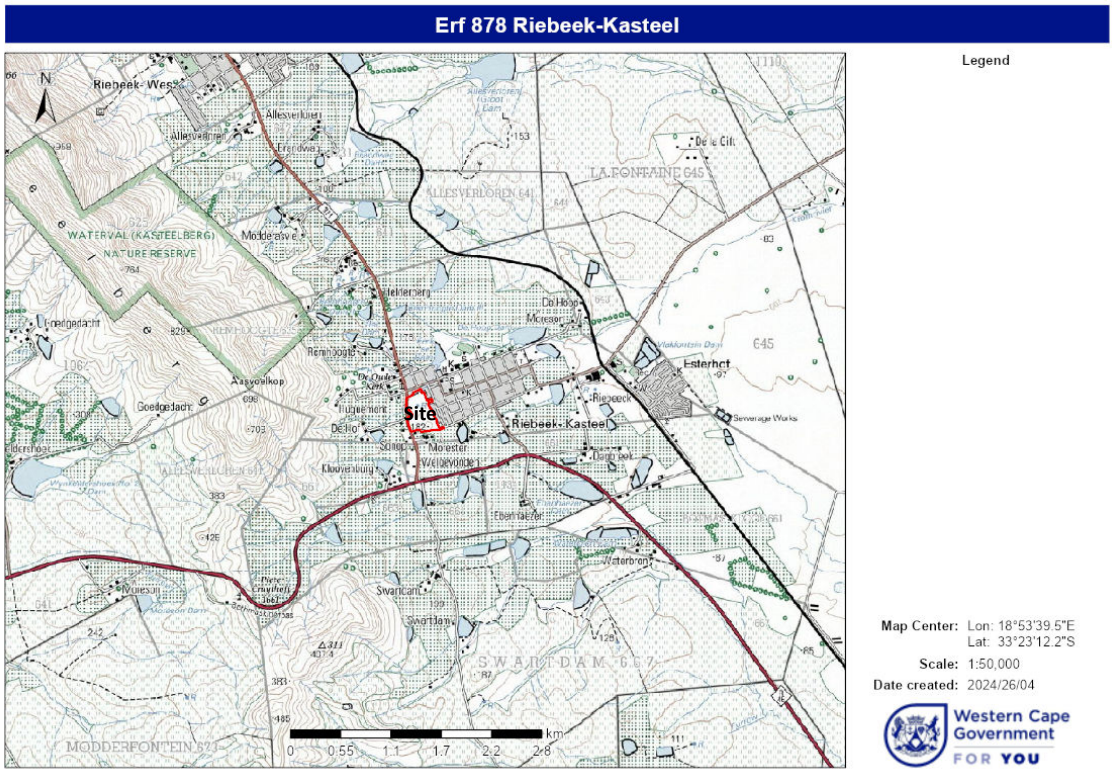
2.3 Project Proposal

2.3.1 Location

The development occurs on Erf 878 Riebeek-Kasteel (see Figure 2-1). The site is located on the west of the town on the R311.

2.3.2 Planning Application

An application for the development of the site is being prepared by InterActive Town & Regional Planning. The Zoning and Subdivision Plan can be seen in Figure 2-2.



Source: Cape Farm Mapper | New World Associates.

Figure 2-1: Location of the Proposed Development.

The development comprises a retirement-based residential extension, apartments, open market townhouses, lower density freestanding residences, small-medium scale supermarket, retail & fuel station, short-term holiday accommodation, public park and secondary public park/green belt (Architectural Design Parameters, page 12).[1]

2.3.3 Site Development Plan (see Appendix A)

See Appendix A on page 97 for full size plans.

The Site Development Plan is shown in Figure 2-2. Summary details are as follows (ibid page 12):

1. A secure **retirement based residential extension** towards the North East of the application site (erven 1 – 32), inclusive primarily of freestanding single storey dwellings of approximately 140 – 180m^2 on stands of approximately 260 – 310m^2. The opportunities will also include an assisted living facility with rooms and associated medical care facilities / communal meeting and recreational spaces on erf 11. A private open space has also been included to serve the retirement-based precinct – this area shall offer a landscaped recreational area to the residents with walkways and seating areas.

[1] Grow Architects (October 2023). *Architectural Design Parameters* Rev 5.

2. **Apartments** on erf 33 up to double storey scale will provide small-scale "lock-up and go" residential opportunities to young, single or elderly individuals. This allows for a more affordable residential offering.

3. **Open Market Townhouses** are proposed in the central, lower lying reaches of the site (erven 88 - 113) with aims to offer smaller free- standing residential opportunities to young families, or elderly not yet ready to settle in the retirement village.

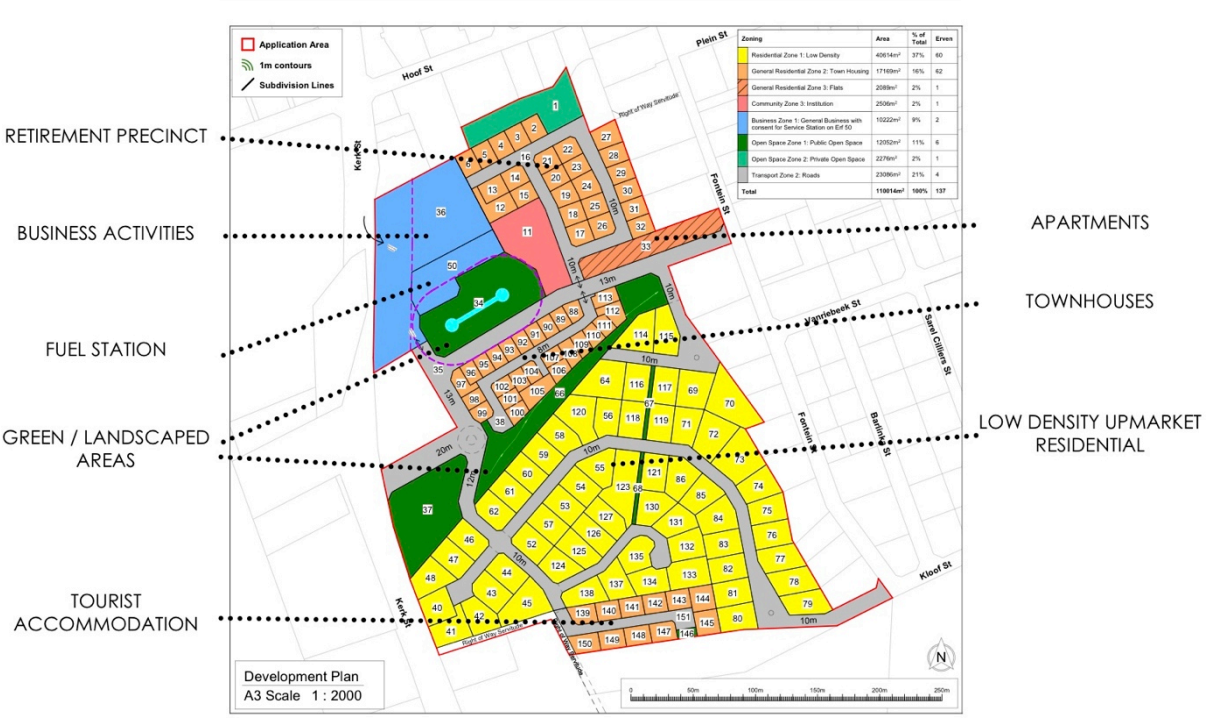
4. **Lower Density Freestanding Residences** (erven 40 – 145) are proposed on the moderate to steeper slopes of the hill. The residences are envisioned to be bespoke and sensitively designed to integrate with the visually sensitive context.

5. A small to medium scale **Supermarket with associated retail opportunities and fuel station** is proposed along Kerk Straat on erf 36 & 50.

6. **Short Term Holiday Accommodation** is proposed on free- standing residential plots (erven 139 - 145) which offers a more upmarket opportunity serving the tourist market. The typologies include single and double storey dwellings only for rental market.

7. A **Public Park** and associated recreational / weekend market area is proposed to enhance the **existing fountain** located on erf 34 of the application property. The park will also be designed to integrate with the business activities adjacent.

8. A **secondary public park / green belt** is proposed to reinforce the gateway / view corridor towards the historic Riebeeck Kasteel Church Steeple on approach from Kerk Street. This green axis will reinforce recreational facilities to the residents, and provide a pedestrian thoroughfare from Kerk Street towards the existing Riebeeck Kasteel.

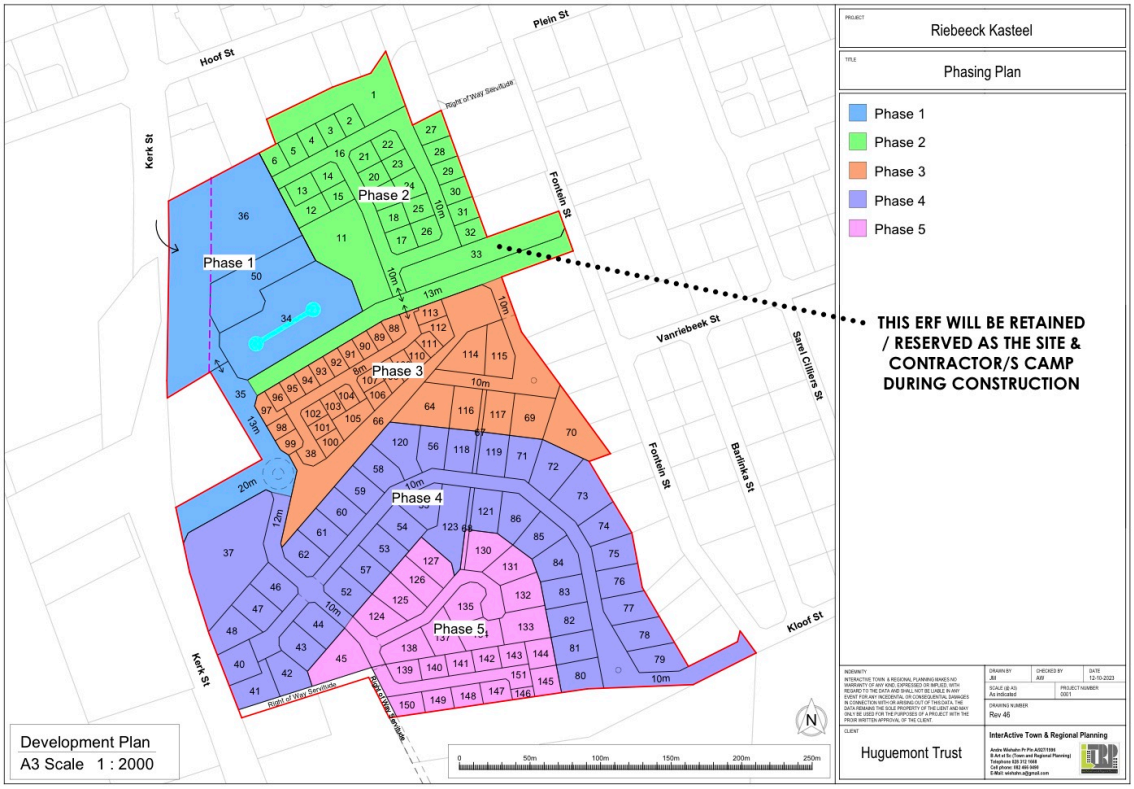


Source: InterActive Town & Regional Planning.

Figure 2-2: Development Plan (October 2023).

Phasing

Site phasing is shown in Figure 2-3 below with phasing starting in the north and developing to the south.



Source: InterActive Town & Regional Planning.

Figure 2-3: Phasing Plan (October 2023).

2.3.4 Architecture

The project comes with a good level of architectural, planning and landscape guidelines (*Architectural Design Parameters* (October 2023)). This report incorporated preliminary visual guidelines (section 2.6), alternative proposals (§2.7), extensive architectural guidelines (§2.8), building typologies and 3-D models including landscaping guidelines and a landscape master plan (§2.9) which is quite exceptional and to the scheme's credit.

Source: grow architecture.

Figure 2-4: Site Model Axonometric (October 2023).

Source: grow architecture.

Figure 2-5: 3-D Architectural Model (October 2023): Double Storey Units Axonometric.

Source: grow architecture.

Figure 2-6: 3-D Architectural Model (October 2023): Streetscape.

Source: grow architecture.

Figure 2-7: 3-D Architectural Model (October 2023): Double Storey Unit 1.

Source: grow architecture.

Figure 2-8: 3-D Architectural Model (October 2023): Double Storey Unit 2.

Source: grow architecture.

Figure 2-9: 3-D Architectural Model (October 2023): Double Storey Unit 3.

Source: grow architecture.

Figure 2-10: 3-D Architectural Model (October 2023): Single Storey Unit.

2.3.5 Landscape and Environment

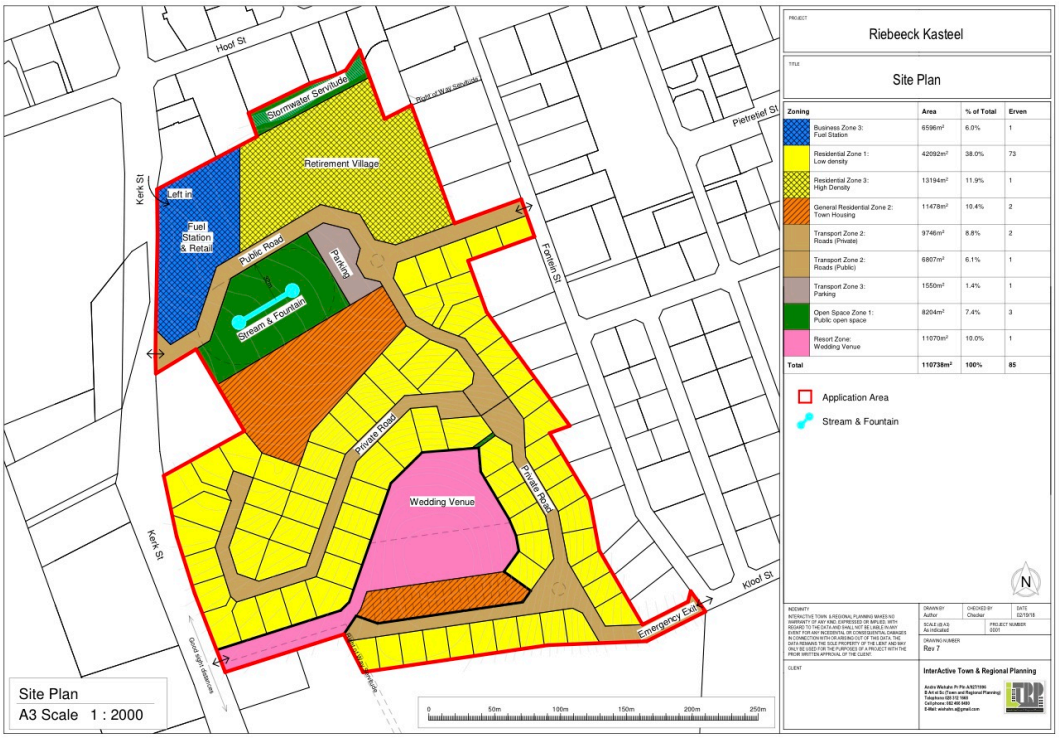
The plans are fully integrated with a landscape proposal as shown in Figure 2-11 below.

Source: JdV Landscape Studio.

Figure 2-11: Landscape Master Plan (October 2023).

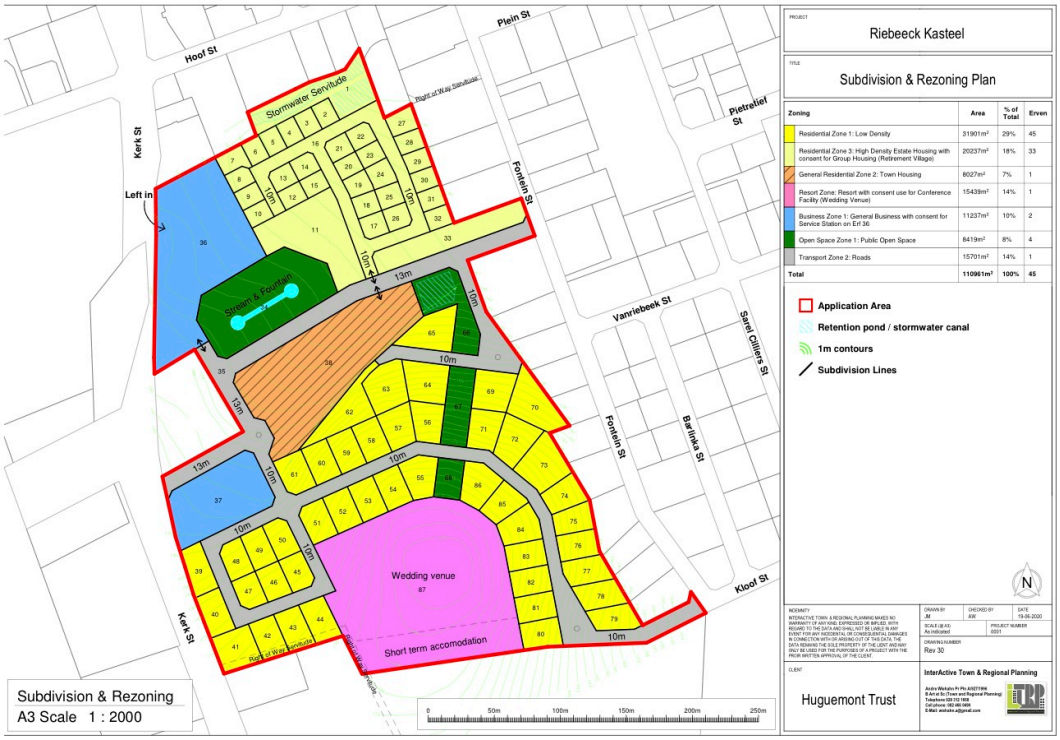
2.4 Alternatives

The following alternative plans were included but without any explanation.



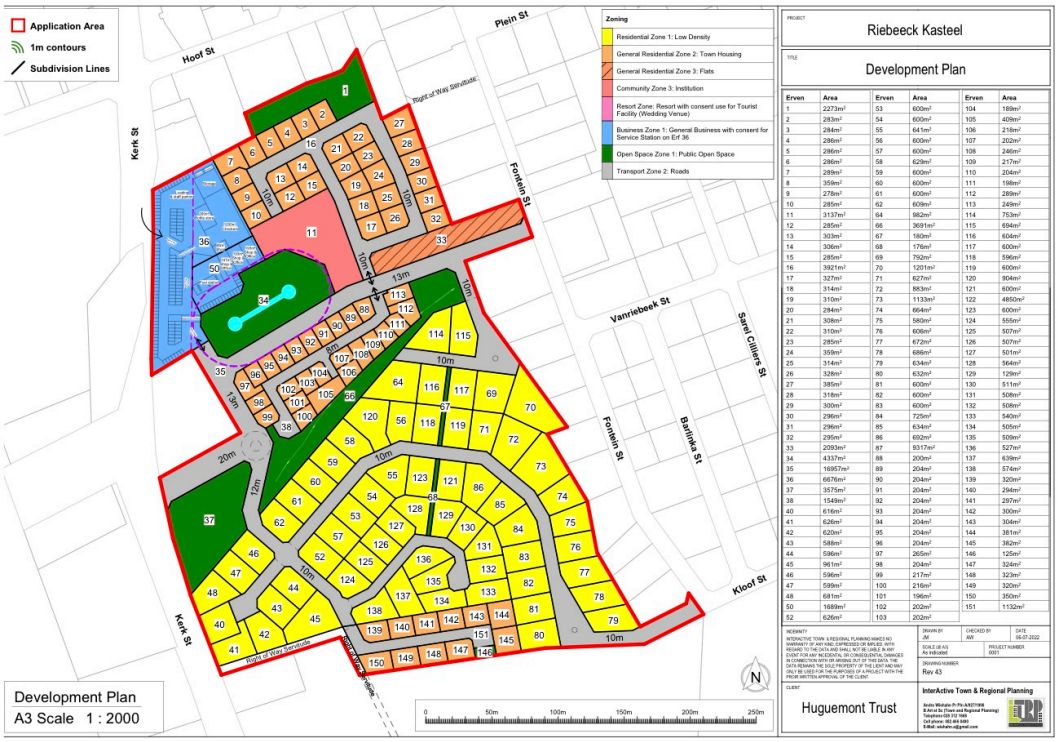
Source: InterActive Town & Regional Planning.

Figure 2-12: Alternative Plan 1 (October 2023).



Source: InterActive Town & Regional Planning.

Figure 2-13: Alternative Plan 2 (October 2023).

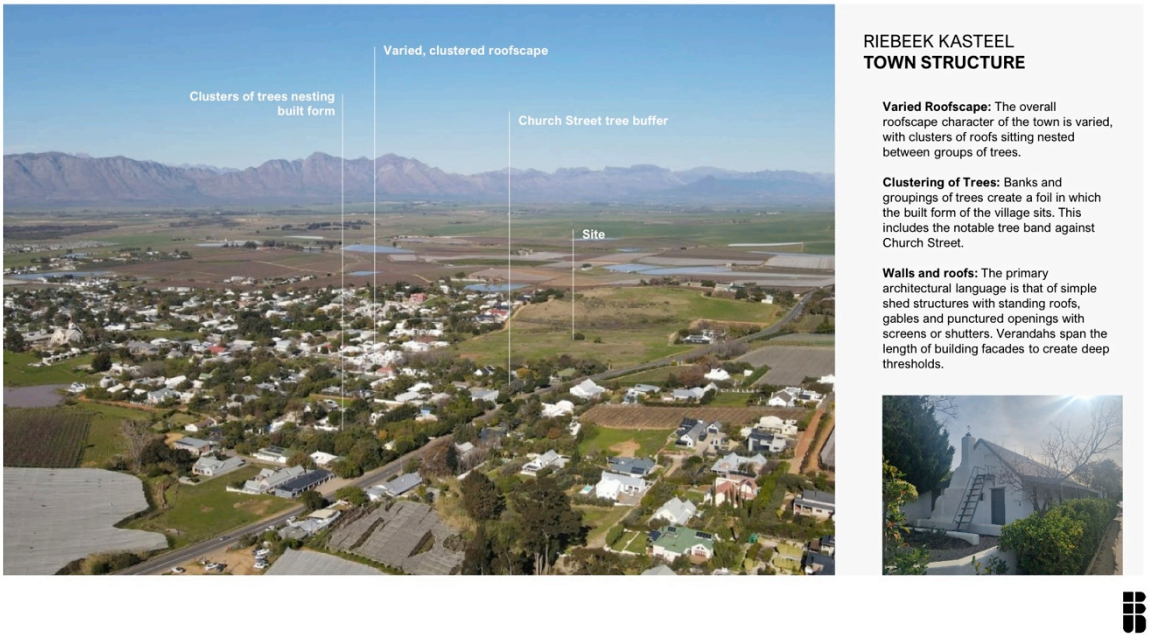


Source: InterActive Town & Regional Planning.

Figure 2-14: Alternative Plan 3 (October 2023).

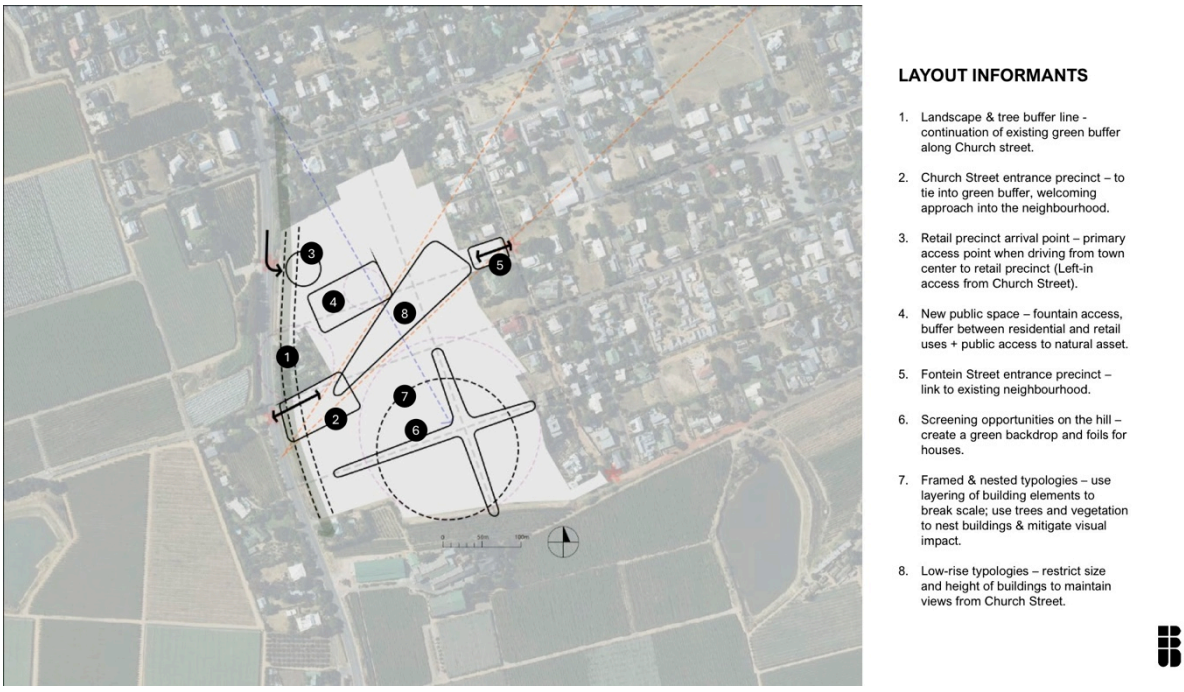
2.5 Urban Design (September 2024)

Subsequent to the Draft VIA Recommendations of April 2024 and similar by the Heritage Planner, an Urban Designer was appointed to provide an Urban Design for the scheme. This provided a more nuanced fit to site and integration into the town grid than the original plans and architectural designs. The full report can be seen in the Appendices. Some extracts of the revised SDP and aerial photomontages are included here. Updated Architectural and Landscape Guidelines were also provided for which also see the Appendices.



Source: Etienne Britz Urban Designer.

Figure 2-15: Urban Design Report: Town Structure (September 2024).



Source: Etienne Britz Urban Designer.

Figure 2-16: Urban Design Report: Layout Informants (September 2024).

A detailed analysis of the town was prepared for which see the full report in the Appendices and the recognition of amongst others the ***varied roofscape, clustering of trees*** *and* ***walls and roofs*** of the **Town Structure** (Figure 2-15). This led to the development of the **Layout Informants** (Figure 2-16).

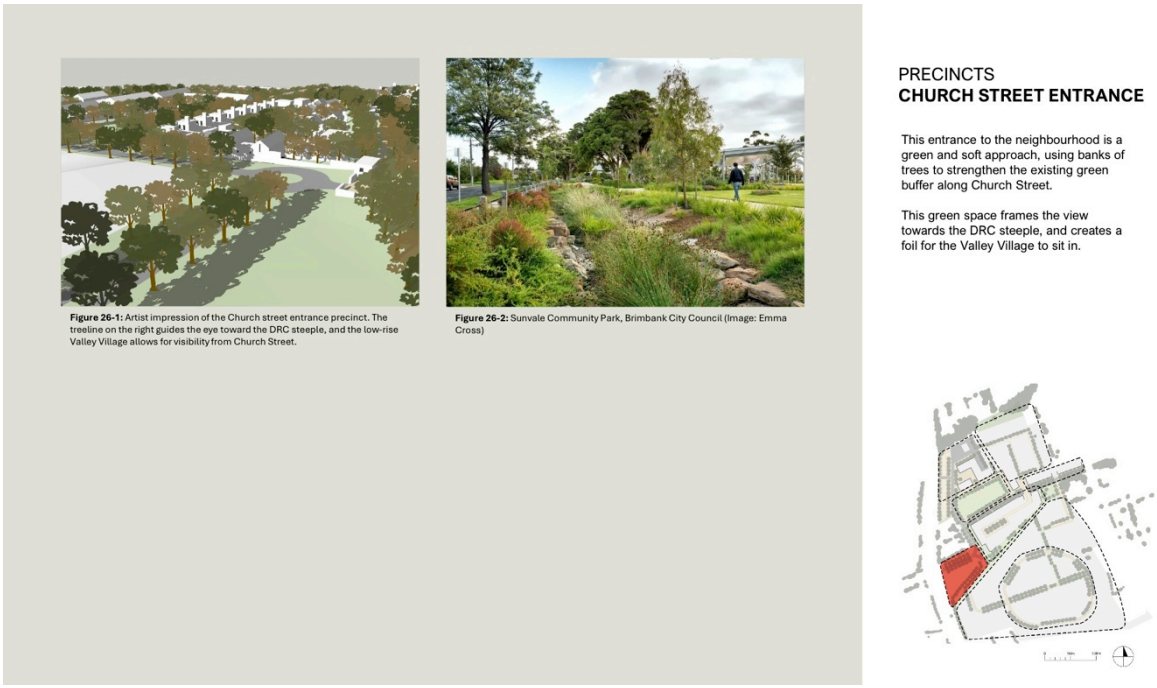
Source: Etienne Britz Urban Designer.

Figure 2-17: Urban Design Report: Neighbourhood Layout (September 2024).

Source: Etienne Britz Urban Designer.

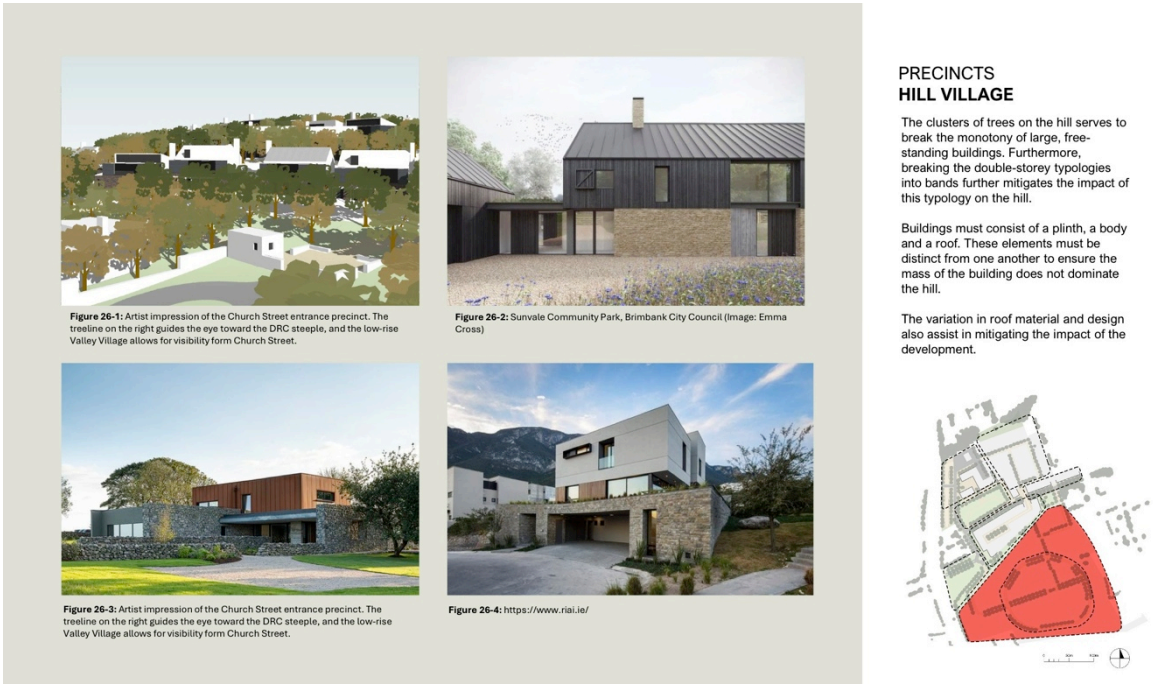
Figure 2-18: Urban Design Report: Layout Elements (September 2024).

Subsequently a **Neighbourhood Layout** was prepared (Figure 2-17) with an overview of the **Layout Elements** (Figure 2-18). Precinct Plans were also prepared for which a couple samples follow.



Source: Etienne Britz Urban Designer.

Figure 2-19: Urban Design Report: Precincts Church Street Entrance (September 2024).



Source: Etienne Britz Urban Designer.

Figure 2-20: Urban Design Report: Precincts Hill Village (September 2024).

Samples of the more visually prominent precincts include the **Church Street Entrance** (Figure 2-19) and the **Hill Village** (Figure 2-20).

The new neighbourhood sits comfortably on the hill, nested by banks of trees. The scale of houses o the hill is broken horizontally (Plinth, body, roof) to mitigate scale. The lines of trees in the new neighbourhood ties into the existing town treescape and grid.

Source: Etienne Britz Urban Designer.

Figure 2-21: Urban Design Report: Aerial photomontage from north (September 2024).

View of new neighbourhood from the North; banks of trees and the clustering of roofs create a townscape that is in harmony with the existing town.

Source: Etienne Britz Urban Designer.

Figure 2-22: Urban Design Report: Aerial photomontage from west (September 2024).

Aerial photomontages from the **north** (Figure 2-21) and the **west** (Figure 2-22) were prepared showing the successful fit to site of the revised scheme.

Source: Etienne Britz Urban Designer.

Figure 2-23: Urban Design Report: Recommendations 1 (September 2024).

Source: Etienne Britz Urban Designer.

Figure 2-24: Urban Design Report: Recommendations 2 (September 2024).

Recommendations in the Urban Design Report were also given for the various **Key Informants** (Figure 2-23, Figure 2-24). These successfully mitigated the scheme into a pleasing fit to the sensitive landscape and heritage context.

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 Swartland 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 Winelands and historic towns. The site lies within the Urban Edge and on the edge of the vineyards surrounding the town. The Swartland SDF aims to conserve the heritage, rural and scenic character of the town and area that has important tourism benefits. It also allows for Residential infill on the site with a variety of housing typologies and for retirement.

3.2 Introduction

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

3.2.1 Background

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

ments 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 managed 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.[2] It is a highly useful document and has been used to guide this report. While lacking a definition of VIA, it states in the Introduction: "This visual guideline document is therefore an attempt to develop a 'best practice' approach for visual specialists, EIA practitioners and authorities involved in the EIA process.

The term **'visual and aesthetic'** is intended to cover the broad range of visual, scenic, cultural, and spiritual aspects of the landscape; however, for the purpose of brevity, the term **'visual'** is used in the text' (p 1).

Thus it includes aspects of "the area's sense of place, ... natural and cultural landscapes, ... the identification of all scenic resources, protected areas and sites of special interest, together with their relative importance in the region, ... the need to include both *quantitative* criteria, such as 'visibility', and *qualitative* criteria, such as landscape or townscape 'character' (pp 1-2).

3.3.4 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:**

[2] 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.

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 sport-

ing 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 Swartland SDF (2017-2022)

The following is derived from the *Swartland SDF (2017)*, particularly section 5.8 *Ward 12: Riebeek-Kasteel and Rural Areas* (page 261). The site lies in a large site zoned **Residential** in the southeast corner of town (see Figure 3-3) adjacent to the R311. It falls completely within the Urban Edge with its southern boundary along it. Relevant extracts from the report note the following:

SPACE, NATURAL (Objective 5*: Protect Ecological and agricultural integrity)*		
Protect	**Change**	**Develop**
Nature and Conservation Riebeek Kasteel is surrounded by high potential agricultural land that is cultivated growing grapes, olives and deciduous fruit. Kasteelberg is a prominent landscape feature of Riebeek Valley.	Develop a Conservation management plan for the area. Formalise conservation status of nature areas earmarked for conservation. Conserve Kasteelberg as part of the Open Space corridor. Allow limited development opportunities related to tourism and recreational uses to improve the Kasteelberg's accessibility and management. Support effective use of natural/open space areas by communities Create an Open Space network in Riebeek Kasteel and the Valley. Design interactive development interfaces along open space network (developments face open space networks).	Determine development (including agriculture) line along Kasteelberg slopes. Identify conservation areas within urban areas Identify a heritage route. Enter into a stewardship programme with Cape Nature to manage conservation areas. Develop hiking trails, mountain bike trails, events facilities and venues. Plant trees to link to open spaces and to provide shade. Plant trees to improve visual attractiveness of Esterhof (higher density neighbourhoods)
Public and Private Open Spaces Central square in Riebeek Kasteel CBD. Parking lot in front of the Dutch Reform Church.	Upgrade market square between Plein and Main Streets. Develop guidelines regarding applicable architectural style, scale, height of built structures; Create an open space network through town.	

Source: Swartland SDF (2017), p 263.

Figure 3-1: Swartland SDF: Riebeek-Kasteel Planning Objectives – Space, Natural.

Thus the Swartland SDF seeks to protect and conserve the local heritage, rural and scenic character that is important for sustaining heritage, tourism and scenic integrity. The SDF allows for Residential infill within the Urban Edge.

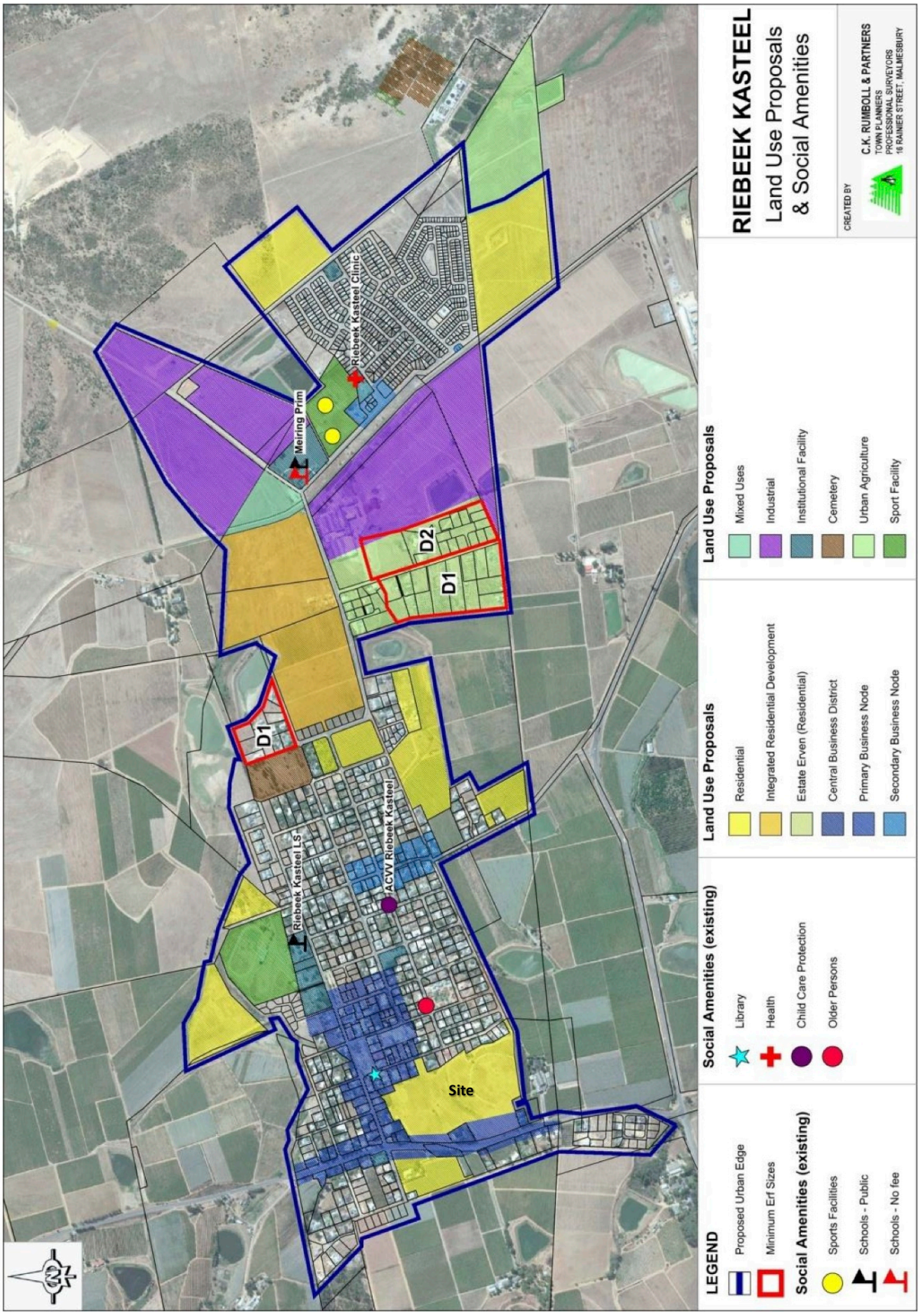
SPACE, BUILT (Objective 1: Grow economic prosperity and facilitate economic sector growth & (Objective 4: *Protect and grow place identity and cultural integrity*)		
Protect	**Change**	**Develop**
Heritage and Tourism Historical farms include Kloovenburg, Allesverloren, Sonquasdrift and Vlysbank (today known as Du Vlei). The Hugenote farmers began the cultivation of vineyards. In 1855 De Oude Church was the first church built in Riebeek Kasteel. Riebeek Valley was discovered in 1661 during a European expedition in search of gold. The CBD has several heritage buildings and has huge tourism potential.	Ensure new developments are sympathetic to heritage buildings and the local character is protected. Identify Heritage Streets and apply heritage overlay zone. Compile guidelines for future development. Develop a tourism strategy for Riebeek Valley to identify focus areas. Support Agri-tourism based development Provide skills development in agri- tourism. Market Riebeek Kasteel as part of the Riebeek Valley tourism region and one of the main tourism towns in the Swartland.	Support and improve tourism infrastructure e.g. local tourism information office, tourism signs, and improve the standard of tourism facilities. Support accommodation facilities for tourist in rural and urban areas. Develop educational hiking trails in natural surrounds that include Kasteelberg. Market these features. Beautify town, entry point etc. to support tourism industry. Support the development of a Cycle route along the R311 between the towns in the Riebeek Valley. Support effective control of the extensions to or demolition of heritage buildings
Residential Riebeek Kasteel's follows a compact grid pattern around the market square and can be divided into four main urban areas: A. low and medium density residential uses along the foothills of Kasteelberg and east of Church Street; B. town centre, a combination of residential and commercial uses; C. A lower density residential area between Esterhof and the urban centre (and home to the wine cellar) D. a high density residential development, Esterhof, east of the urban centre.	Increase density for next 20 years is 8.5 units per hectare to 8.2 units per hectare in Riebeek Kasteel. The low density rate preserves the unique identity and character of Riebeek Kasteel. Higher residential developments and mixed uses should be encouraged along activity streets in the town. Include farmworker on housing waiting list. Identify land for GAP housing, including farmer owners that would like to create agri villages. Keep waiting list up to date.	Provide 171.6ha for future growth over next 20 years, of which 59.5ha is vacant land. Provide for future subsidised housing demand in Malmesbury. Develop vacant land between Esterhof and central Riebeek Kasteel Provide adequate land for different housing topologies (residential types). Provide for and support development of housing for retirees Encourage urban expansion for GAP housing on eastern periphery of Esterhof.
	Develop areas in accordance with availability and capacity of infrastructure and services. Enhance integration of CBD with Esterhof.	Plan for expansion of bulk infrastructure to support future residential growth.
	Support densification through Subdivision, Infill development and Renewal and restructuring.	Allow for minimum subdivision size of single residential erven of 500m² and rural living erven in identified zones of 1000m² and 2000m² respectively.
Commercial	Support development of CBD and secondary nodes and neighbourhood commercial facilities. Support integrated development and mixed uses in neighbourhoods.	Support secondary node in Esterhof at intersection between Lelie Street and Angelier Street. Support a smaller node along Kloof Street.

Source: Swartland SDF (2017), p 261.

Figure 3-2: Swartland SDF: Riebeek-Kasteel Planning Objectives – Space, Built.

Section 5.8.1 Riebeek-Kasteel notes the following on the grid layout of the town and the surrounding vineyards (page 257):

The town is located along the slopes of Kasteelberg and is surrounded by some of the oldest vineyards in the history of South Africa. **The town's characteristic grid layout is encouraged by the surrounding vineyards along with intensive agricultural uses adjacent to the urban edge.**



Source: Swartland SDF (2017).

Figure 3-3: Swartland SDF: Riebeek-Kasteel – Land Use Proposals & Social Amenities.

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. 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.

3.6 Conclusion

The proposed development is in line with the spatial planning of the area that is earmarked for Residential usage, providing a variety of housing typologies including a retirement component.

NWA

4 Visual Environment Description

4.1 Summary

The general setting of Riebeek-Kasteel is both dramatic and scenic lying at the foot of the imposing Kasteelberg and nestled into its undulating vineyard clad foothills that stretch out to the Tulbagh Mountains. The town is quite unique in retaining its simple but historic east–west gridiron footprint. Lying in the southeast corner of the town the site largely inaccessible to the main part of the town. Church Street/R311 runs to the west of Riebeek-Kasteel but along the western boundary of the property. The site itself is a wheat field remnant with some of the newer houses in the town bordering it to the north and east. It splits into the southern/upper Riebeek Hill portion and the lower/northern vlei and pasture area.

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 lies on the southeast corner of the town in an area currently undeveloped except for neighbouring wine properties.
2. The western edge of the site runs along the R311 for much of its length and is well visible in two main portions.

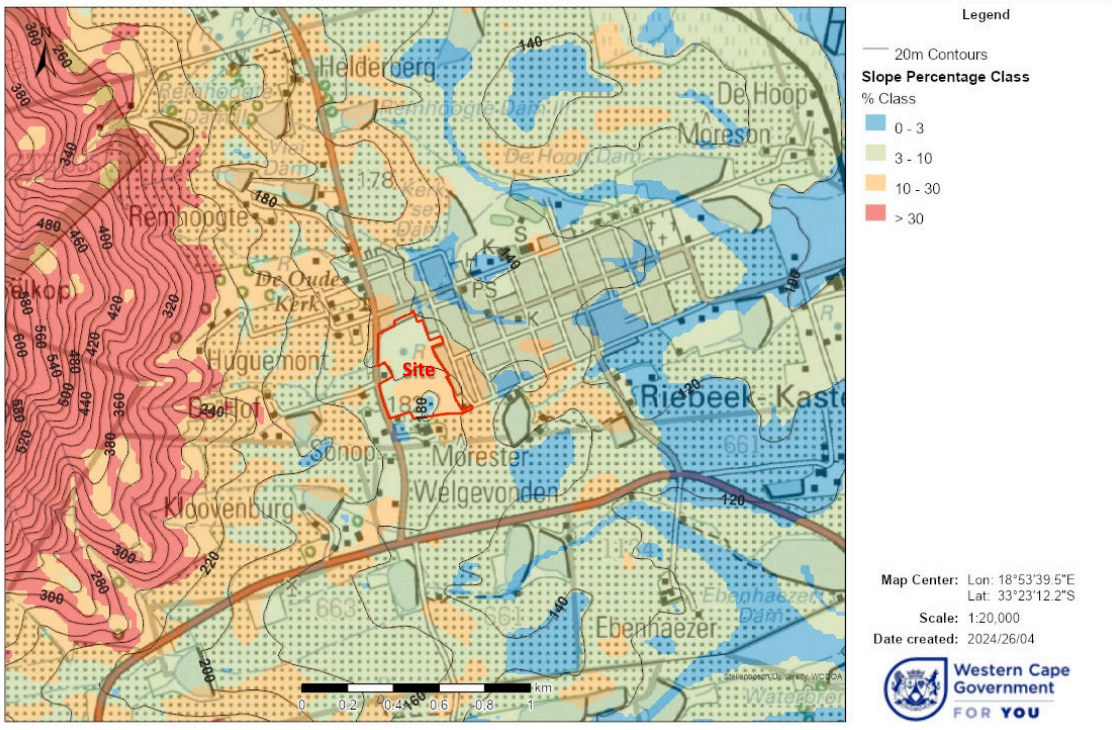
3. The site is currently undeveloped old farmland, either vineyards or wheat field, probably the former but this has been allowed to go to grass with some renosterveld.
4. The eastern and northern edges of the site connect onto the back/side of the town.
5. The area is highly scenic generally with great scenes of vineyards coming off the pass with the connection to the town being weak from the R311.

4.3 Natural Environment

4.3.1 Landform

The topography of the general area is mixed **gently sloping 3-10%** to **hilly slopes of 10-30%** around rising to the Kasteelberg, which is **steeply sloping >30%.** Areas that are **relatively flat at <3%** occur around wetlands and also a tiny area at the top of the hill of the site itself (see Figure 4-1). The site itself is a hill, hence, the project name Riebeeck Hill comprising **hilly slopes of 10-30%** at the top/south and west and **gently sloping 3-10%** to the north.

This has affected the extent of the town's grid with modifications on the hilly slopes to the southeast where contracted street blocks have been employed while the town's main old blocks are on slopes possibly around 3–7%.



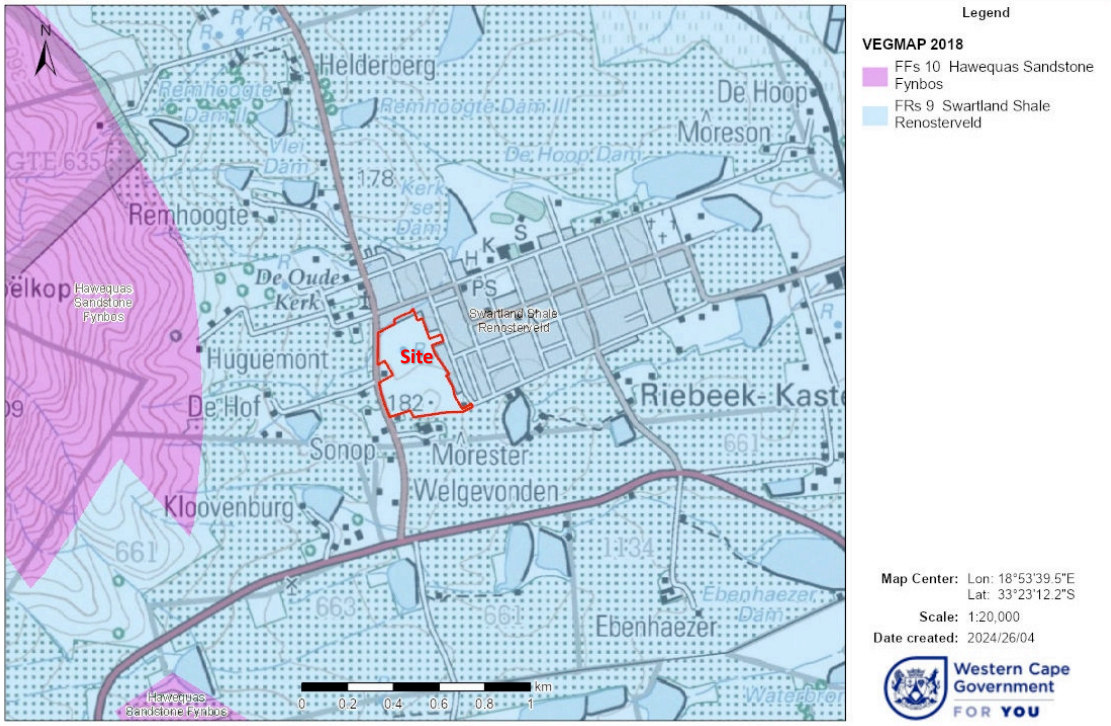
Source: Cape Farm Mapper | New World Associates.

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

4.3.2 Vegetation

The vegetation of the area was originally **Swartland Shale Renosterveld** but this has been largely replaced by agriculture, notably vineyards and wheat fields (see Figure 4-2). There

was no obvious infestation of aliens with the site showing remains of pasturage, if not still used for wheat farming. There is some remnant renosterbos in the contour bands of the hill while there are scattered traditional heritage trees like European Oak and Poplars on the edges.



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

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[3]

Most of the Site's area's vegetation type would have been **Swartland Shale Renosterveld,** which is now ranked as **Critically Endangered.**[4]

4.4 Cultural Environment

4.4.1 History

Riebeek Kasteel lies in the Riebeek Valley, found as early as 1661 in the Dutch VOC period in a search for gold. The railway line to Porterville was extended from Wellington in 1929 with

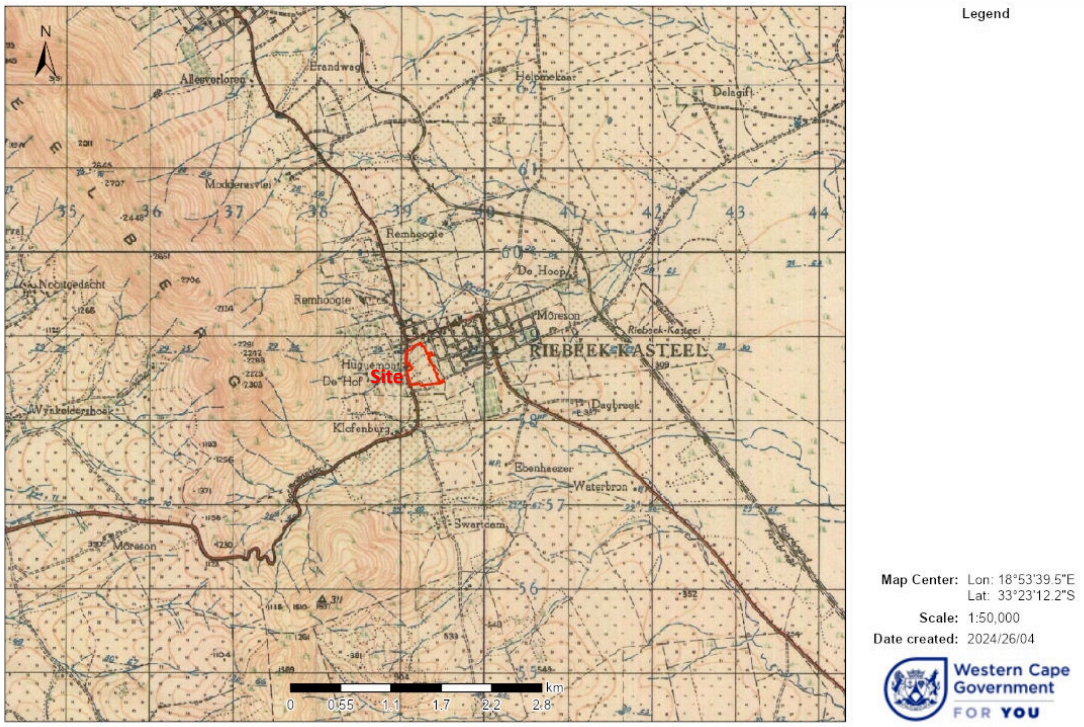
[3] South African National Biodiversity Institute (2006–). *The Vegetation Map of South Africa, Lesotho and Swaziland*, Mucina, L., Rutherford, M.C. and Powrie, L.W. (Editors), online http://bgis.sanbi.org/SpatialDataset/Detail/18, Version 2012.

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

stations at Riebeek Kasteel and Riebeek West making the valley more accessible for agricultural exports to Cape Town (Swartland SDF, p 114).

The twin towns of Riebeek-Kasteel and Riebeek West were both founded in the nineteenth century as new Dutch Reformed parishes and are home to the well known political rivals General Jan C Smuts and DF Malan, today associated with British and Afrikaner Apartheid in the twentieth century.[5] Smuts' birthplace is at *Bovenplaas*, part of *Ongegund* farm, while Malan was born at *Allesverloren*.

The site has remained undeveloped and either agricultural or viticultural, being on land possibly considered unsuitable to conform with the town's linear East–West grid or not available for town expansion at the time.



Source: Cape Farm Mapper | New World Associates.

Figure 4-3: First Edition 50K Series of the area.

4.4.2 Heritage

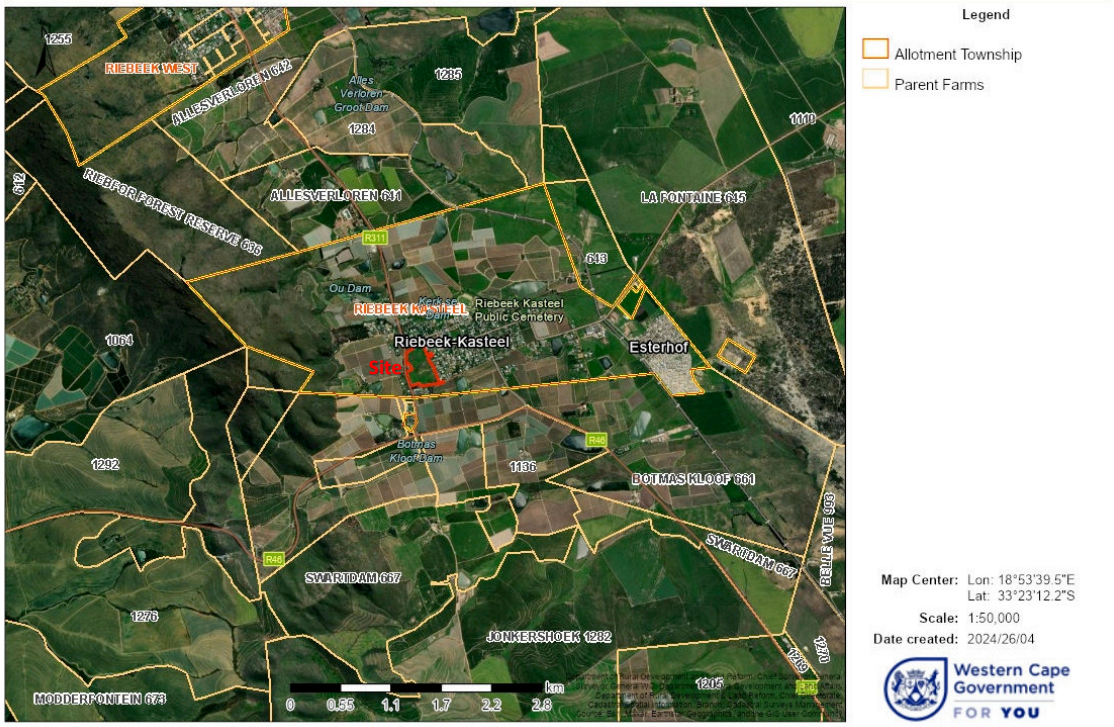
In recent years, the valley has become a centre of high quality olive production centred at *Kloovenberg* below and north of the descending Bothmaskloof Pass where a monument to the European explorer Pieter Cruythoff can be found. The largest Oak Tree in South Africa is reputed to stand at *Spes Bona* (Good Hope) farm on the southern slopes of the Kasteelberg (ibid).

In terms of the visual and aesthetic landscape, the scenic value and condition of the extensive vineyards stretching out for miles over the landscape to the distant mountains, contrasted with the dramatic heights of the Kasteelberg and the location of the historic town at its foot

[5] Erasmus, page 43.

amidst these fields, creates a very particular setting that has remained largely unchanged for many years.

Parent farms in the district surrounding the Riebeek-Kasteel Township are named as *Allesverloren* 641/642 to the north, *La Fontaine* 645 to the east, *Botmaskloof* 661, *Jonkershoek* 1282 and *Swartdam* 667 to the south (Figure 4-4). At the local level they include the smaller farms *Cloovenburg* 663 and *Welgevonden* 1281, also to the south (Figure 4-8).



Source: Cape Farm Mapper | New World Associates.

Figure 4-4: Parent Farms, Erwen and Urban Edge – District.

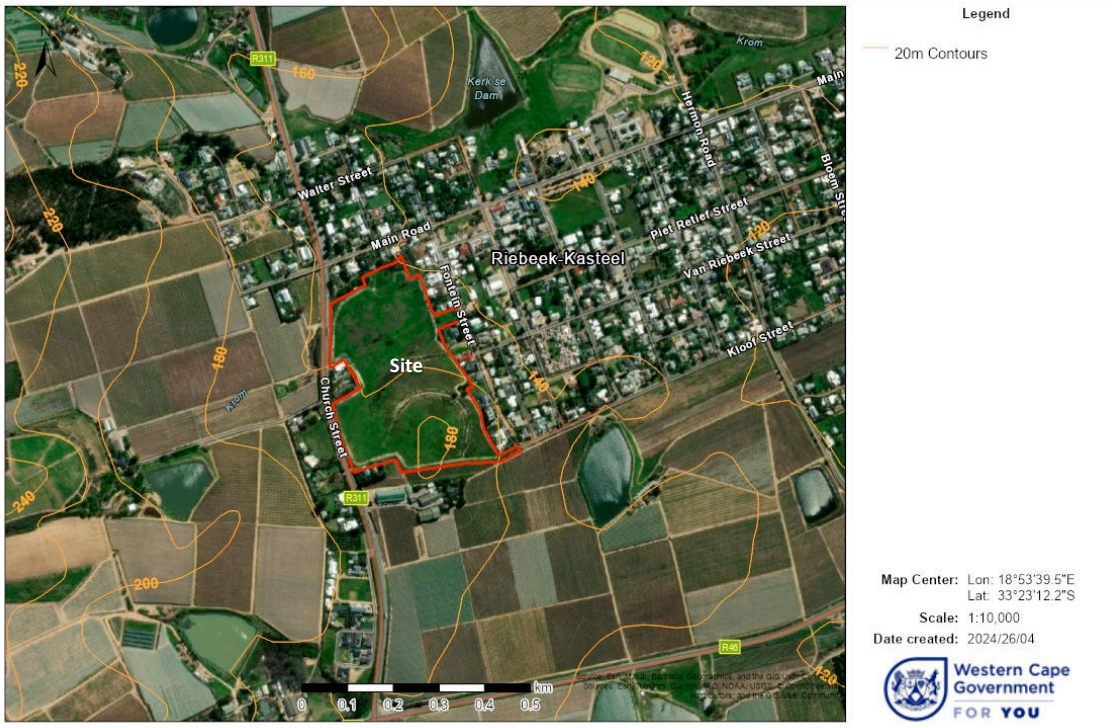
Changes to the town's discreet linear grid footprint will have a big change on this stable image that today is quite rare amongst the province's old towns and villages, which are often lost in arbitrary residential extensions that give little thought to historical image and continuity.

4.4.3 Land/scape Use

While the site is zoned as **Residential**, which aligns well with the nearby town, the current land use is **Commercial Annual Crops Rainfed/Dryland** (Figure 4-6).

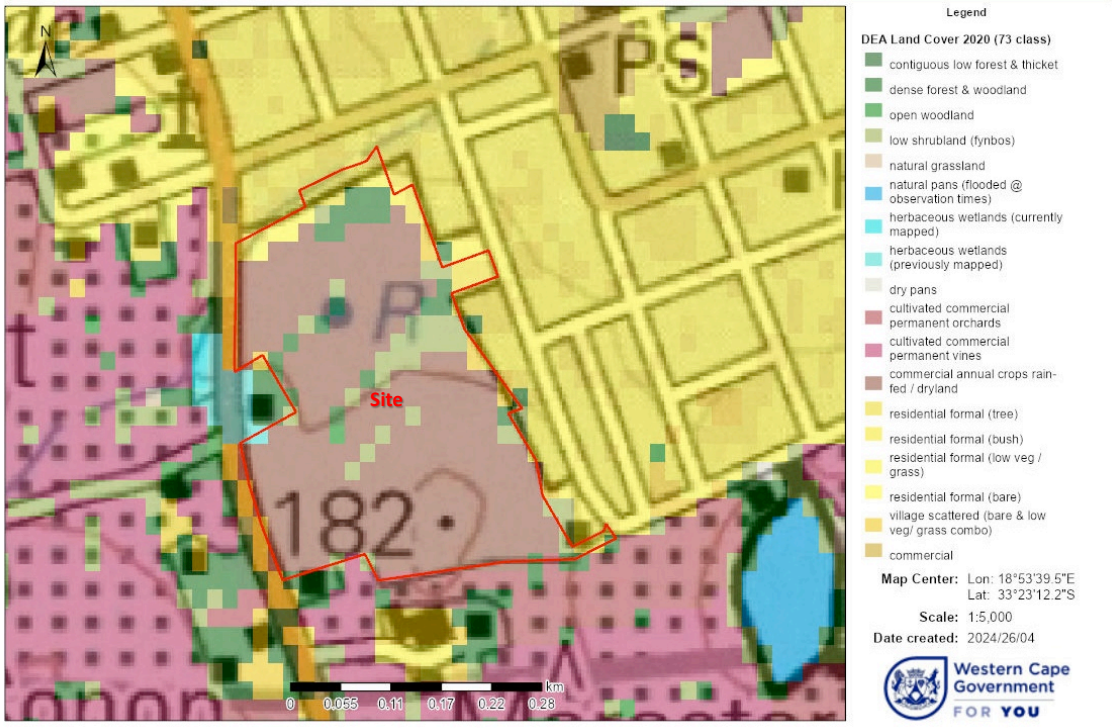
Trying to understand the availability of this erf that was not incorporated into the town grid originally probably lies in its historic use as agricultural land as with most of the field patterns in the area.

This hill effectively prevented a regular grid to be extended over it. However, this large erf is a sizeable addition to the historic town footprint that currently connects into Church Street (R311) as a narrow grid extension to the north



Source: Cape Farm Mapper | New World Associates.

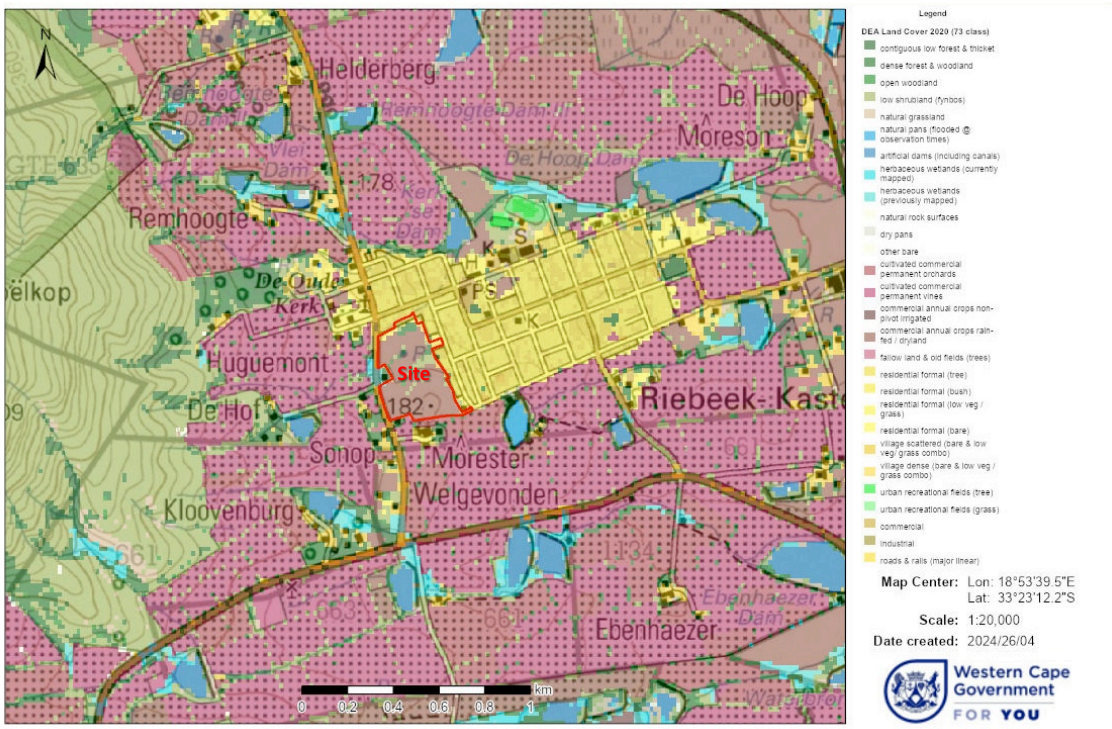
Figure 4-5: Satellite Image of the site and surrounds with 20m contours.



Source: Cape Farm Mapper | New World Associates.

Figure 4-6: Land Cover (Level 3) – Site.

The site is split, however, between a flatter northern portion that is similar to slopes in the town, and a hilly southern portion that still retains agricultural land use patterns that go with the contour. This effectively splits the site in two with the lower/northern portion being better suited to grid expansion than the upper/southern hill portion that also serves to screen the town from the road. Land above the 150m-contour probably loosely defines this transition (Figure 4-5).



Source: Cape Farm Mapper | New World Associates.

Figure 4-7: Land Cover (Level 3) – Local.

The wider picture of land use in the *Level 3 Land Cover Classification* (73 Classes) shows that the general setting outside the town is the extensive vineyards and the steep naturally vegetated Kasteelberg:

- **Commercial Permanent Vines** to the west, south and east of the site (vineyards).
- **Commercial Annual Crops (Dryland)** on much of the site (wheat) and scattered.
- **Residential** in the town to the north and east.
- **Low Shrubland (Fynbos)** to the east on Kasteelberg.
- **Artificial Dams** and **Herbaceous Wetlands** are scattered widely.

4.4.4 Urban Edge and Form

The site occurs within the Urban Edge in the southeast corner of the town (Figure 4-8). The town of Riebeek-Kasteel still has a strong gridiron layout with the site being the largest area

not developed falling within the grid. The strong impact of rectangular vineyards is evident in the satellite image.

The image of this significant historic town can be seen in the heritage of erf sizes and strict orthogonal orientations aligned with the town grid that angle out to the south along Kloof Street in alignment with the field patterns visible today.

Source: Cape Farm Mapper | New World Associates.

Figure 4-8: Parent Farms, Erwen and Urban Edge – Local.

4.4.5 Aesthetics

The general area around the Riebeek Valley is home to several historic farms as noted above amongst others and is a highly scenic landscape with the high Kasteelberg standing out on the plain. Extensive wheat fields, vineyards and orchards cover the landscape of rolling hills and a wide plain that extends out to the mountains near Tulbagh (see Figure 4-5). The site lies on the southeastern edge of town in a transitional viticultural area that borders the tourist route R311 with its wine route stops. It is currently a rural site and provides a natural open space for the town.

As noted above, the simple grid form of the town and its relatively stable image has remained unchanged for generations. Additions to this almost unique town form conservation will have a big impact on the townscape and adjacent viticultural landscape.

4.5 Visual Environment

4.5.1 Visual

The site has been the subject of a photographic survey that looks at the site itself, the local area and views from local roads (Figure 4-9). The bulk of the visual description is to be found in the photographs that are self explanatory and accompanied by descriptions.

According to the PGWC Guidelines "the term 'visual and aesthetic' is intended to cover the broad range of visual, scenic, cultural and spiritual aspects of the landscape; however, for the purpose of brevity, the term 'visual' is used in the text" (p 1). Thus it is within the technical gambit of VIA to comment on all the varied aspects that make up the visual environment which is the aim of this study.

Source: Google Photos | New World Associates.

Figure 4-9: Site and general area photographic locations on satellite image.

The photographic survey is presented as if one were to visit the site for the first time, covering views from the approach road, scenic routes, local roads, views of and from the site then views from the neighbourhood.

The following photographs were taken on 28 April 2024 in early autumn. The site is first approached along the R311 to the east just outside Riebeek Kasteel. This is the main public view of the property as it is backed onto by houses to the north and east and private vineyards to the south.

The main views of the site are from the R311 and these are divided into two stretches, one of the upper/southern hill portion and the other of the lower/northern flatter portion separated by The Barn restaurant site, which also look out onto it.

4.5.2 Views from the Road

The site is best seen from the R311 when travelling past Riebeek-Kasteel or from *The Barn* restaurant on the R311 midway on the site.

Source: All photographs in this report by Bruce Eitzen © 2024

Photograph 4-1: Panorama of the site from *The Barn*.

The following views were from the R311. The site can be seen to the east of the road and viewed over two sections, upper/south and lower/north with *The Barn* restaurant in between.

Views from the R311: Westbound

The following photographs show views from the drive westbound towards Riebeek-Kasteel then Riebeek West as one turns onto the R311.

Photograph 4-2: R311 Westbound approaching the site after *Het Vlock* (right).

Photograph 4-3: R311 Westbound at the site's southwest corner ridge (right).

Photograph 4-4: R311 Westbound passing the site before *The Barn* (right).

Photograph 4-5: R311 180˚ panorama of the upper/southern site on Riebeeck Hill.

Photograph 4-6: R311 150˚ panorama of the upper/southern site on Riebeeck Hill.

Photograph 4-7: R311 Westbound approaching *The Barn* (right).

Photograph 4-8: R311 Westbound passing *The Barn* (right), lower site beyond.

The following photographs show the lower/northern portion of the site with the town of Riebeek-Kasteel in the background and Tulbagh Mountains on the horizon.

Photograph 4-9: View of the lower site (central) from the R311.

Photograph 4-10: View of the lower site (south) and upper site behind from the R311.

Photograph 4-11: View of the lower site (north) from the R311.

Photograph 4-12: Panorama of the lower site from the R311.

Photograph 4-13: R311 Westbound past the site and entering western Riebeek-Kasteel.

Photograph 4-14: R311 Westbound passing through western Riebeek-Kasteel.

Photograph 4-15: R311 Westbound exiting western Riebeek-Kasteel.

Views from the R311: Eastbound

The following photographs show views from the drive eastbound towards Riebeek-Kasteel from Riebeek West on the R311. There is a ridge to the west of the town that blocks views of the site and town from the west.

Photograph 4-16: R311 Eastbound approaching western Riebeek-Kasteel.

Photograph 4-17: R311 Eastbound approaching Riebeek-Kasteel, first site glimpse.

Photograph 4-18: R311 Eastbound approaching Riebeek-Kasteel and site hill visible.

Photograph 4-19: R311 Eastbound approaching Riebeek-Kasteel viewing site hill.

Photograph 4-20: R311 Eastbound panorama approaching Riebeek-Kasteel.

Photograph 4-21: R311 Eastbound view of Riebeek-Kasteel town to site hill.

Photograph 4-22: R311 Eastbound approaching Riebeek-Kasteel and site.

The site can be clearly seen rising above Riebeek-Kasteel west and the R311 as approaches the town but once you enter the dip just north of the site and Main Road into the town, the streets are heavily tree-line from Walter Street onward to the site edge.

Photograph 4-23: R311 Eastbound entering well-treed Riebeek-Kasteel and site.

Photograph 4-24: R311 Eastbound through Riebeek-Kasteel's many street trees.

Photograph 4-25: R311 Eastbound through Riebeek-Kasteel's many street trees.

Photograph 4-26: R311 Eastbound through Riebeek-Kasteel's many street trees.

Photograph 4-27: R311 Eastbound through Riebeek-Kasteel's many street trees near the site.

Having passed through the edge of town on the R311, the site's corner neighbours and *The Barn* come into view again round the bend.

Photograph 4-28: R311 Eastbound passing the site one sees vineyards and mountain (right).

There are heavy riverine reeds to the north of the site effectively blocking views into it with the fields nearby *The Barn* just beyond before the R311 curves once more round *The Barn*.

Photograph 4-29: R311 Eastbound passing the lower/northern site (left).

Photograph 4-30: R311 Eastbound passing the upper/southern site (left).

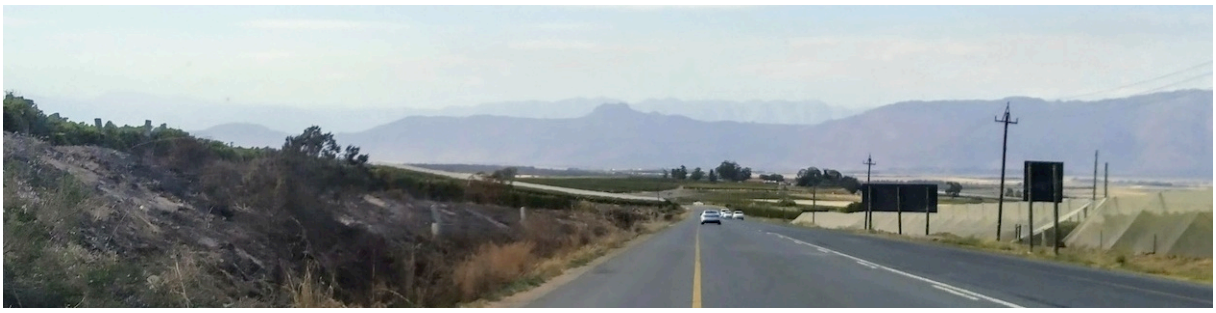
Photograph 4-31: R311 Eastbound passing the upper/southern site (left).

Photograph 4-32: R311 Eastbound approaching *Het Vlock Casteel* and the R46 intersection.

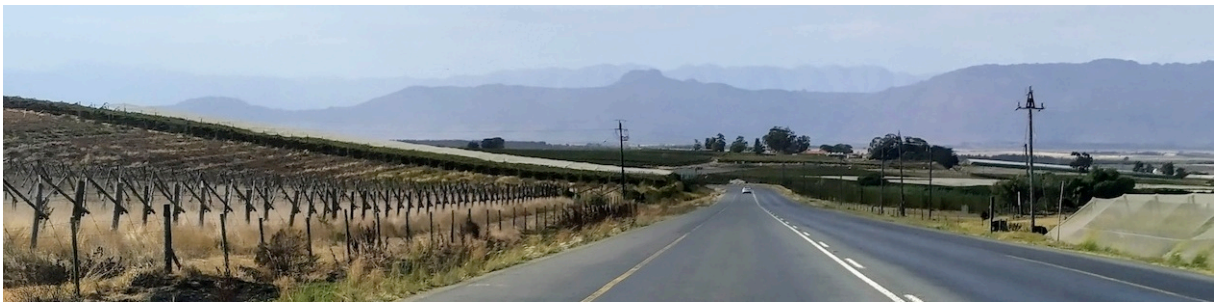
Photograph 4-33: R311 Eastbound past *Het Vlock Casteel* and the R46 intersection.

Views from the R46

The R46 bypasses the town and site to the south but the site cannot be seen from it due to an intervening ridge.



Photograph 4-34: R46 eastbound with site not visible to left.



Photograph 4-35: R46 eastbound with site not visible to left.

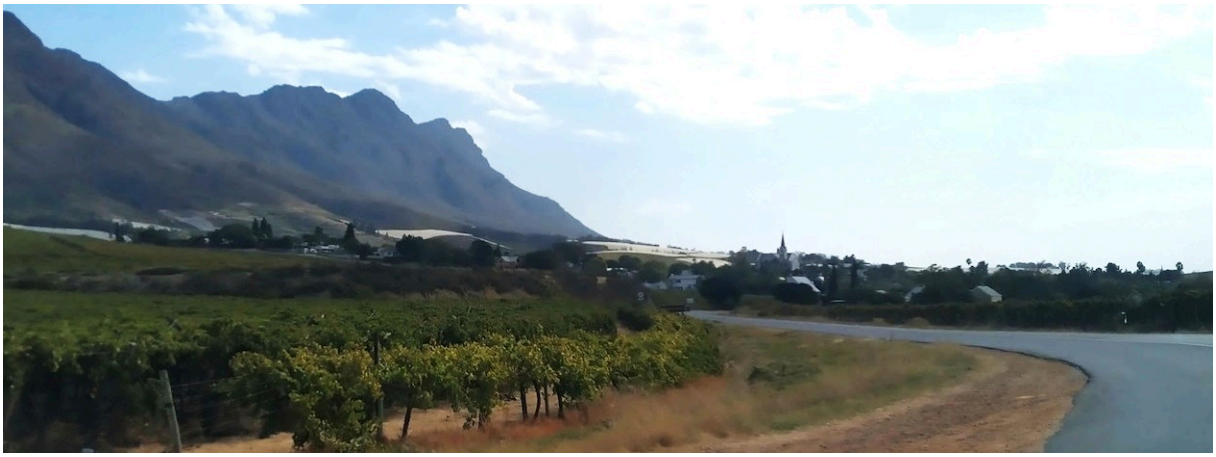
Photograph 4-36: R46 eastbound looking left/north through old vineyard.

Photograph 4-37: R46 eastbound with site not visible to left.

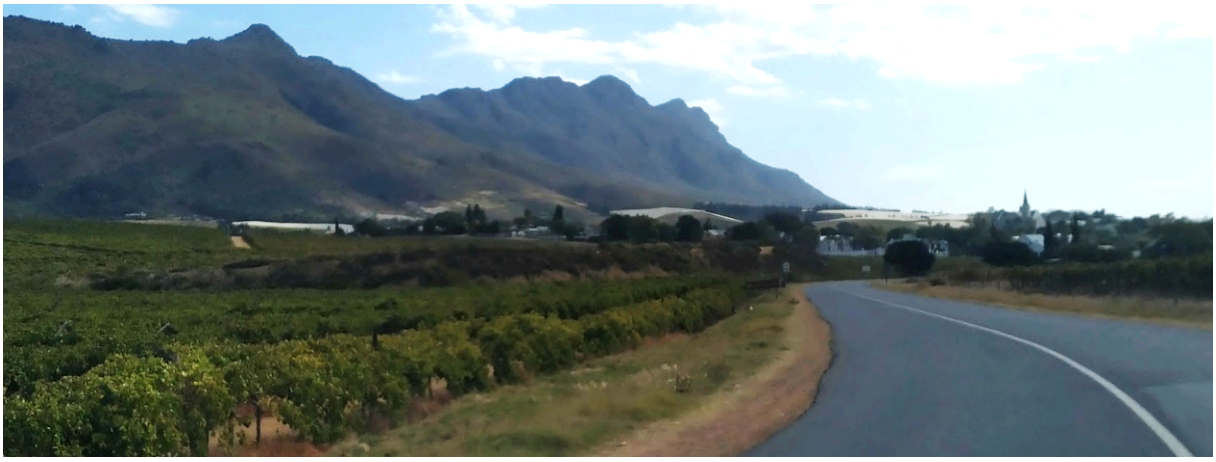
Photograph 4-38: R46 eastbound with site not visible to left.

Photograph 4-39: R46 eastbound with site not visible to left.

Views from Hermon Street



Photograph 4-40: Hermon Street northbound view approaching Riebeek-Kasteel.



Photograph 4-41: Hermon Street northbound view approaching Riebeek-Kasteel.

Photograph 4-42: Hermon Street northbound view approaching Riebeek-Kasteel.

Photograph 4-43: Hermon Street northbound view approaching Riebeek-Kasteel.

As one enters the town private garden vegetation and trees rapidly build up from the surrounding open vineyards and rolling countryside. The high mountains of the Kasteelberg tower over the southern horizon. The tall trees and bushy gardens tend to obscure views anywhere beyond them.

Hermon Street is the eastern entrance to the town off the R46 to Hermon, Gouda and Tulbagh. The site cannot be seen easily from this road, if at all, especially as you near the town due to garden/town gardens and trees.

Photograph 4-44: Hermon Street northbound view approaching Riebeek-Kasteel.

Photograph 4-45: Hermon Street northbound view entering Riebeek-Kasteel.

Photograph 4-46: Hermon Street northbound view entering Riebeek-Kasteel.

Turning around, the heavily planted gardens soon give way to the rolling countryside of sun-baked vineyards that fringe the town, however, views to the site are not possible.

Photograph 4-47: Hermon Street southbound view exiting Riebeek-Kasteel.

Views from Kloof Street

Photograph 4-48: Kloof Street westbound view entering Riebeek-Kasteel.

Kloof Street runs along the south side of Riebeek-Kasteel forming its southern boundary. The road leads up to the southeast corner of the site but it is not possible to look into the site from here.

Photograph 4-49: Kloof Street westbound view entering Riebeek-Kasteel.

Kloof Street seems to be a natural and open connection into the site although the road is steep and only a gravel road at this time. It is possible to look into the southeast corner of the site from some stretches of this road.

Photograph 4-50: Kloof Street northbound view entering Riebeek-Kasteel.

Views from Fontein Street

Fontein Street runs just to the east of the site and serves the properties on the site's eastern boundary.

The name Fontein Street describes the original condition of this well-watered street as seen in the site's dense, tall trees and vegetation, the clay soils retaining moisture well and being highly suited to both agriculture and horticulture.

Photograph 4-51: Fontein Street northbound view and the start of dense vegetation.

Photograph 4-52: Fontein Street northbound view travelling east to west.

Photograph 4-53: Fontein Street northbound view travelling east to west.

Photograph 4-54: Fontein Street northbound view travelling south to north.

The delineation between the older tar roads and street blocks versus the newer erwen and dirt roads show how the town has grown eastward towards Kloof Street, another dirt road in part as it ascends the hill, the top of which is Riebeek Hill.

Photograph 4-55: Fontein Street northbound view travelling south to north.

Photograph 4-56: Fontein Street northbound view travelling south to north.

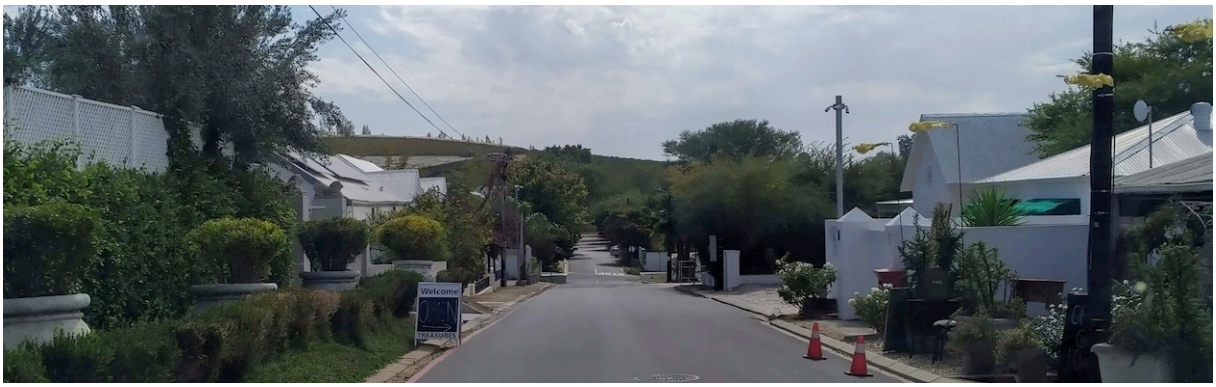
Photograph 4-57: Fontein Street northbound view travelling south to north.

There is sometimes a stark variety of contemporary architecture, which shows the character of newer housing on the edge of town as Riebeek-Kasteel has grown in popularity.

Photograph 4-58: Fontein Street northbound view where the site connects into Fontein Street.

Photograph 4-59: Fontein Street northbound view where the site connects into Fontein Street.

There is only one obvious connection into the lower/northern site off Fontein Street. Otherwise, views into the site from the street are not possible, only from residents' back-yards.



Photograph 4-60: Fontein Street northbound view towards the north with contemporary hous-ing evident.

Views from Peter Cruythoff Avenue

Photograph 4-61: Peter Cruythoff Avenue westbound view.

The site is only distantly and very partially visible from Peter Cruythoff Avenue, the eastern entrance to the town.

Photograph 4-62: Peter Cruythoff Avenue westbound view.

Views from Van Riebeek Street

Photograph 4-63: Van Riebeek Street westbound view.

Photograph 4-64: Van Riebeek Street westbound view.

Photograph 4-65: Van Riebeek Street westbound view.

Photograph 4-66: Van Riebeek Street westbound view.

Photograph 4-67: Van Riebeek Street westbound view.

Van Riebeek Street and Piet Retief Street align east–west towards the site but as neither connect into the site the end of the street view is blocked by houses and trees.

Views from Piet Retief Street

Photograph 4-68: Piet Retief Street westbound view.

Views from/off Main Road

Main Road is the main road entering Riebeek-Kasteel from the R311/Church Street.

Travelling east one moves away from the site/R311 leaving the site behind you but not visible anyway over most of the street due to garden and street trees and houses. Views south up the side streets sometimes glimpse Kloof Street and the town edge but not the site.

Photograph 4-69: Royal Road view eastwards.

Photograph 4-70: School Street view eastwards.

Photograph 4-71: School Street view eastwards with view over open space to site.

Photograph 4-72: School Street view eastwards at car park on Piet Retief.

Photograph 4-73: School Street view westwards up Piet Retief.

The town provides very few opportunities to see the site, which is hidden at the top of closed streets to the west. Occasionally one might glimpse Riebeek Hill but nothing at ground level.

Photograph 4-74: School Street view westwards up Van Riebeek Street.

Photograph 4-75: School Street view westwards onto vineyards to the south.

The southern vineyards come into view at the end of the north–south streets but the street orientations prevent views towards the site as do houses and gardens.

Photograph 4-76: View of the neighbouring vineyards to the south that edge the town.

4.5.3 Conclusion

Overall there are very limited opportunities to see the site from most of the old town and newer areas except those on Fontein Street that are neighbour to it. This is due to the street orientations and the closed east–west streets that are blocked onto the site. The best views and largely views of the site are the two stretches on the R311/Church Street.

NWA

5 Visual Impact Assessment

5.1 Summary

VISUAL IMPACT: The proposed development will have a moderate-high impact on the landscape causing noticeable change to the visual environment. VISIBILITY: The development has mixed high to low visual exposure; moderate-high visual absorption capacity; medium compatibility; and moderate to high visibility from different locations. 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 to respect the town's historic grid, the significance of Riebeeck Hill, traditional architectural typologies, detailing and colouring, and traditional landscape planting to help conserve this valuable heritage townscape and landscape. Some additions to the Architectural Guidelines are required.

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. The site lies on the R311 and is best seen from this major route.
2. The site is not easily seen from the town of Riebeek-Kasteel.
3. The site is split between a lower/northern portion and an upper/southern portion.
4. The historical grid of Riebeek-Kasteel remains intact.
5. Ridgelines constrain views of the site from the south and north.
6. Land use constrains views of the site from the east/town as does the grid.

5.3 Methodology

A table is being used to scope the issues relating to visual and aesthetic impact of the development 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 6 of the 10 listed receiving environments (60%), and 3 out of 7 project types (29%) that may cause visual impact giving a combined total of 42.9%; the receiving environment has *moderate-high* sensitivity while the project character has *moderate* impact. **Thus the factors triggering potential impact suggest that impact will be moderate-high.** 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 3 development:** low density resort / residential type development.

Terms are defined as follows (p 7):[6] *Medium density development* – generally 1 to 3-storey structures, including cluster development, usually with more than 25% of the area retained as

[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.

green open space.[7] In the list of "Type of environment" this would be defined as **"areas or routes of *high* scenic, cultural, historical significance."** This would result in a theoretical possible outcome: ***high* visual impact** expected. When considering the following descriptions, we find that the visual impact is described as **Moderate-High**:

"High visual impact expected:

1. Potential intrusion on protected landscapes or scenic resources;
2. **Noticeable change in visual character of the area;**
3. Establishes a new precedent for development in the area.

"Moderate visual impact expected:

1. **Potentially some affect on protected landscapes or scenic resources;**
2. Some change in the visual character of the area;
3. **Introduces new development or adds to existing development in the area.**

"Minimal visual impact expected:

1. Potentially low level of intrusion on landscapes or scenic resources;
2. Limited change in the visual character of the area;
3. Low-key development, similar in nature to existing development."

"Little or no visual impact expected:

1. Potentially little influence on scenic resources or visual character of the area;
2. Generally compatible with existing development in the area;
3. Possible scope for enhancement of the area."

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."

[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.

SUMMARY ASSESSMENT—VISUAL IMPACT: The proposed development will have a moderate-high impact on the landscape causing noticeable 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);

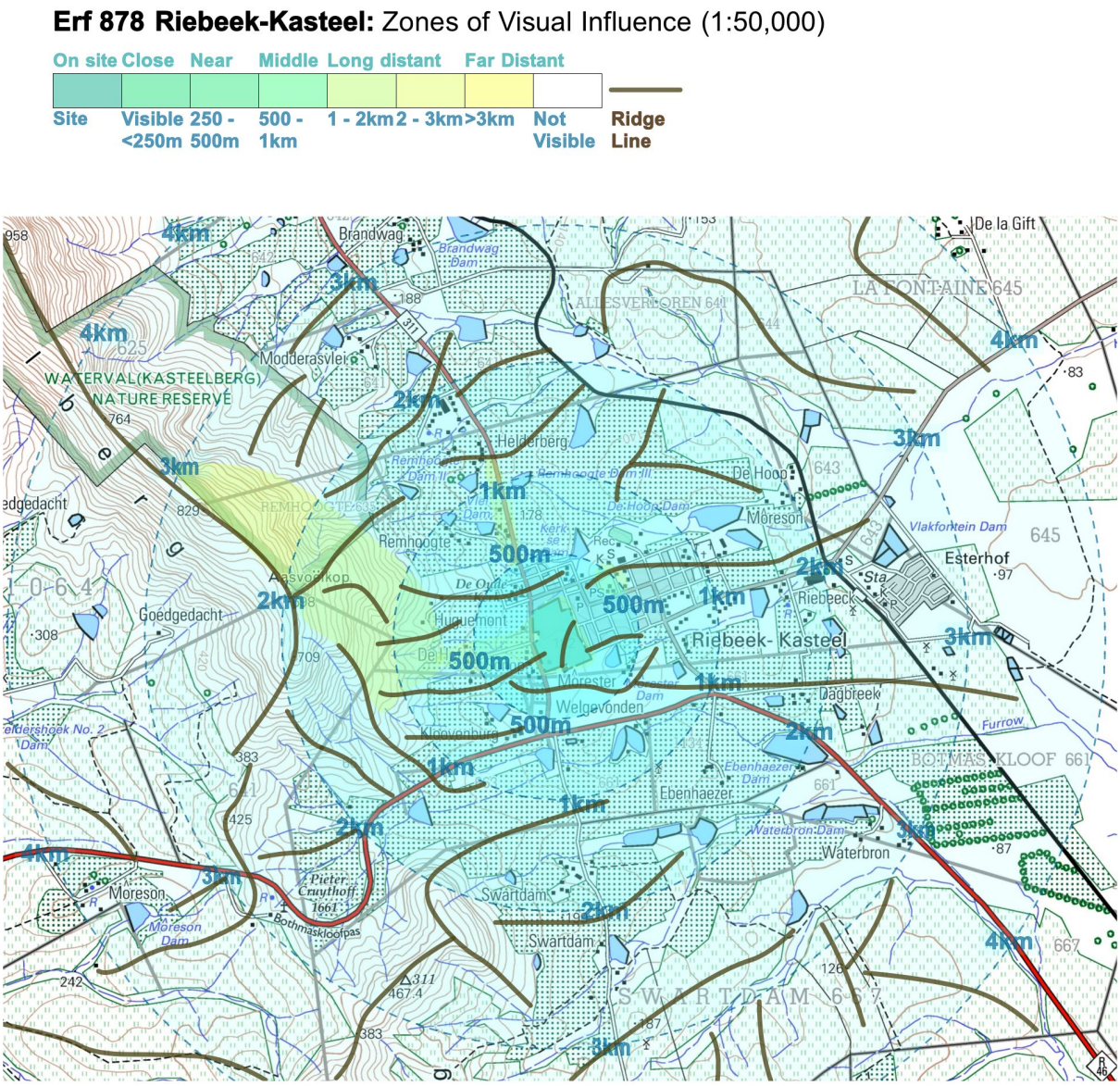
A Level 4 VIA for High Impact requires "Complete 3D modelling and simulations, with and without mitigation" in addition to the above.[8]

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.

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



Source: New World Associates.

Figure 5-2: Zone of Visual Influence.
Portion of a 1:50,000 map of Riebeeck Kasteel (3318 BD 2000 Ed5 GEO Riebeek Wes) showing the approximate Zone of Visual Influence (ZVI).

5.4.2 Key to the Visual Analysis Map

The Visual Catchment is shown as thick brown lines and approximately follows the ridgelines of the mountains and hills (see Figure 5-2). Areas *theoretically* visible to the site (Zone of Visual Influence or ZVI) are indicated in **yellow** overlain on a radiating circle centred on the site graded from **solid blue** on the site being most visible to no shading beyond 5km visibility. Combined with the yellow ZVI this produces a **green** to **yellow** colour where the site is visible. Areas with no yellow colouring are those where the site is not visible (the view shadow).

It should be noted that the term *theoretically* is significant as it is neither possible nor necessary to physically check all these locations. However, strategic views have been checked according to site inspection and analysis. Some views that would theoretically be

possible are not possible due to ground level screening and the hilly terrain. Urban and suburban buildings and orientation are also important factors in visibility. Radiating circles of concentric rings encompass the site at 1km intervals but including a 250m and 500m circle.

5.4.3 Viewshed

The **viewshed** is indicated by the edge of the yellow zones on the map and either is terminated by **ridgelines** shown in brown or diminishes with distance (see Figure 5-2). The viewshed of the site is contained mostly by local structures and vegetation as well as topography.

5.4.4 Zone of Visual Influence

The **Zone of Visual Influence (ZVI)** is shown in various shades of **green** and has a particularly small ZVI relative to the site (see Figure 5-2). The ZVI is relatively wide small at ground level being locally constrained by land use but is more highly visible at a long distance from the Kasteelberg.

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, landuse applies primarily while local vegetation and structures are also a factor.

VAC of the Land Form

Landform is a highly significant factor in constraining much of the ZVI of the site, due to the several minor local ridgelines in the undulating landscape. Kasteelberg itself provides the primary ridgeline at a distance of 2km and over.

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. In this case, it specifically applies to neighbouring houses and other buildings.

VAC of the Vegetation

The site also has very high vegetation VAC due to the heavily planted gardens and street trees of the town and surrounding erwen.

5.4.6 Visual Sensitivity

The area has moderate-high sensitivity as it occurs in an historic town in a picturesque agricultural area known for its vineyards and mountain views. Riebeeck Hill stands out from the surrounding land of the town, which is slightly lower lying making it mostly visible from the R311. Surrounding properties tend to screen off views of the site from the historic town in the main with only occasional glimpses from a few open spaces of the top of Riebeeck Hill.

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[9]—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 mixed high to low visual exposure; moderate-high visual absorption capacity; medium compatibility; and moderate to high visibility from different locations.

[9] *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.

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.

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.

Plomp Methodology

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

	Site
VISUAL IMPACT	
Impact	Med-High
Change	Med-High
VISIBILITY	
Visual Exposure	Mixed
Visual Absorption Capacity	Medium
Compatibility	Medium
Visibility	Med-High
NATURE OF IMPACT	
Extent	District
Duration	Long Term
Intensity	Medium
Probability	Definite
Significance	Medium

Figure 5-3: Table of Site Assessment.

Activity	Impact	Phase	Probability		Duration		Scale		Magnitude / Severity		Significance[10]		
			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													
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	Medium	62.5	High	Mod-erate

Figure 5-4: Plomp Methodology Assessment.[11]

It should be noted that the Aesthetic/Heritage Impact as pertains to the scheme's architectural detailing and connection with the historic town and grid layout is significant.

[10] **Significance:** Visual Significance Score; WOM Without Mitigation; WM With Mitigation.

[11] **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; [District, 2.5]; 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.

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 immediate neighbours at New Orleans.

5.4.9 Photomontages

The following photomontages were prepared with the current view (above) and montage view (below) shown together for comparison.

Photomontage 5-1 (Photograph 4–4): Westbound passing the site before *The Barn* (right).

The above photomontage shows the entrance off the R311 with a sweeping landscape area flanking the entrance road, replacing the current old field with a contemporary landscape area. Avenue trees line the road and build on the well-treed landscape of the village.

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

Photomontage 5-2 (Photograph 4–6): 150˚ panorama of the upper/southern site on Riebeeck Hill.

The above photomontage shows the corner of the housing area adjacent to the R311 with its simple white boundary wall with fencing, boundary and street tree planting. Views up towards the hill are largely lost by foreground structures and planting.

Photomontage 5-3 (Photograph 4–10): View of the lower site (south) and upper site behind from the R311.

The above photomontage shows the view eastbound on the R311 with the prominent *The Barn* building, new housing and tree-lined streets rising up the hill.

Photomontage 5-4 (Photograph 4–11): View of the lower site (north) from the R311.

The above photomontage shows the view into the retail centre off the R311 and the subtle colouration of buildings that should blend well with the landscape.

Photomontage 5-5 (Photograph 4-18): R311 Eastbound approaching Riebeek-Kasteel and site hill visible.

The above photomontage shows the more distant hilltop view of the new development. The old empty field/vineyard are gone, replaced by leafy suburb and well-screened houses.

Photomontage 5-6 (Photograph 4–21): R311 Eastbound view of Riebeek-Kasteel town to site hill.

The above photomontage shows a slightly closer view on the R311 with the leafy hilltop suburb now replacing the old bare fields and vineyards that have long stood there.

Photomontage 5-7 (Photograph 4–23): R311 Eastbound entering well treed Riebeek-Kasteel and site.

The above photomontage shows the nearer view of the hill's new leafy suburb set amongst the existing trees.

Photomontage 5-8 (Photograph 4–29): R311 Eastbound passing the lower/northern site (left).

The above photomontage shows the corner of the development near *The Barn* with boundary trees partially screening sideways views of the internal roads.

Photomontage 5-9 (Photograph 4–31): R311 Eastbound passing the upper/southern site (left).

The above photomontage shows the eastern corner of the scheme against the R311 with its boundary wall and fence with planting.

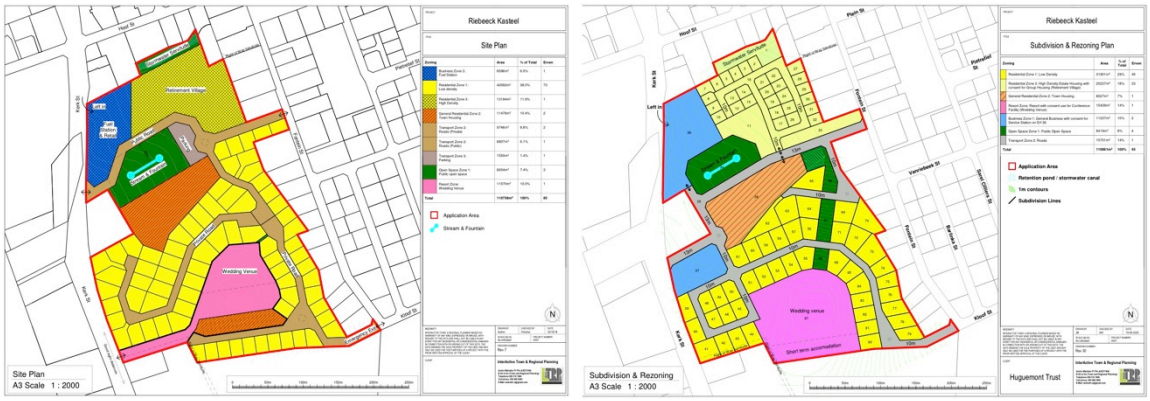
Conclusion

The revised layout and landscaping with careful consideration has created a scheme that blends well into the old village as it connects onto the prominent R311 cultural route. Some-

times the white/light coloured walls seem a bit bright and could be toned down to a greener option that will blend in better with the lush vegetation and general leafiness of the landscape.

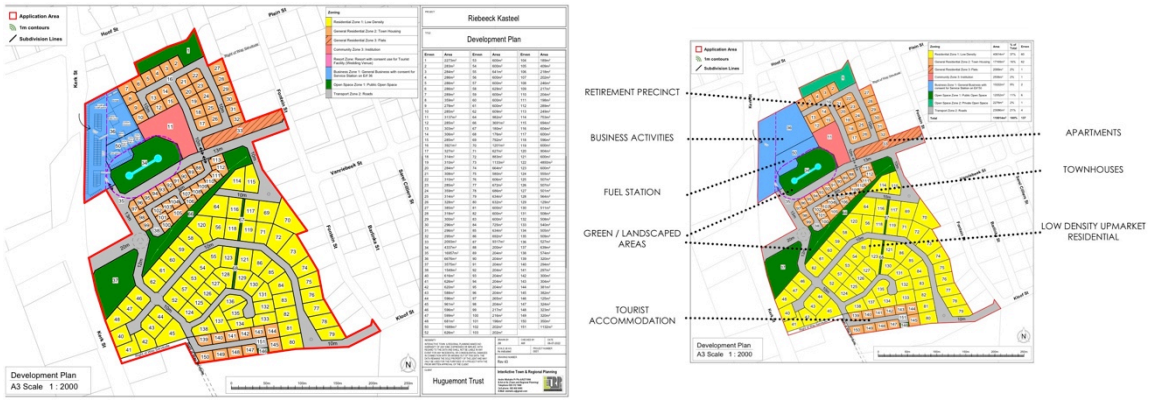
5.5 Analysis of Alternatives

Various alternatives were shown in Section 2.4. Alternative 1 (Figure 2-12) and Alternative 2 (Figure 2-13) both retained the top of Riebeeck Hill as a **Wedding Venue** site (Figure 5-5. Alternative 2 followed a more regular layout that tied in better with the existing grid and contours. Alternative 3 (Figure 2-14) densified the site doing away with the Wedding Venue site on the hill but leaving the west side of the hill erwen less aligned with the overall grid. This appears to be the chosen alternative (Figure 5-6).



Source: InterActive Town & Regional Planning.

Figure 5-5: Alternative Plan 1 (October 2023) and Alternative Plan 2 (October 2023).



Source: InterActive Town & Regional Planning.

Figure 5-6: Alternative Plan 3 and Development Option (October 2023).

In line with the VIA's concerns with heritage and aesthetics, Alternative 2 seems to be a better option as it retains both the open space at the top of the hill as a landscape memory that utilises the sense of place of both open space and outlook point. Secondly, its align-

ment with the town's contours and its less dense arrangement makes for a better fit with the town in this key location.[13]

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:

- 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 compo-

[13] Alternative 3 seems to have been chosen in order to retain views to the historic church steeple but this aspect seems less significant than fitting the scheme to the overall grid and form than a narrow view that would probably become overgrown with trees without careful control. The view to the church steeple is quite distant at this position and of much lower significance than the general direction of travel along the R311 westbound.

nents. **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 (SDP) Assessment (April 2024)

The development of this large site is significant to the overall footprint and aesthetic of historic Riebeek-Kasteel, which is rather unique in retaining its historic footprint. The introduction of an unsympathetic street layout will detract from this key feature of the town's intrinsic heritage character. Likewise, the loss of the hill from the town is also a loss to the town's local open space, especially having a special sense of place (*genius loci*). Another key feature of a modernist intrusion into this heritage townscape is the multiple development of highly modernist architecture with little reference to traditional detailing and scale. This is particularly problematic with the double-storey designs that introduce a mass scale and typology that is unsympathetic with traditional architecture. The lack of detailing in the small single-storey units also makes little connection to historic references of any sort. This heavily impacts on townscape and heritage landscape value.

Urban Design (UD) Assessment (November 2024)

Various criticisms of the original layout were very successfully addressed in the **Urban Design Report** (September 2024). What has not been shown in detail, however, are the *Revised Architectural Renders*. These were shown in limited detail in the UD study and aerial photomontages.

Architectural Guidelines Assessment (November 2024)

Revised **Architectural (and Landscape Guidelines)** were also prepared. The following coloured mitigation items require incorporation into the *Landscape Guidelines*, namely, items **4 Tree Plan, 5 Planting** and **7.1 Subtle Colouration.**

Mitigation Recommendations (April 2024)

1. **Site Development Plan:** Alternative 2 or similar is to be preferred over Alternative 3 and should be further explored to better fit the town grid and the site contours. The retention of Riebeeck Hill as significant Open Space should be considered.
2. **Architecture:** The design of buildings needs to incorporate traditional typologies and details that will make a better fit with this historic town and prevent a modernist intrusion on a heritage landscape.
3. **Landscape Plan:** A Landscape Plan has already been prepared and a reference to traditional tree and shrub species is desirable e.g. Oak and Gum trees.

4. **Tree Plan:** Trees both on-site and adjacent need to be mapped to ensure their conservation and incorporation into the development, including both traditional heritage tree species like oaks, gums and poplars, and indigenous/endemic species like Wild Olive.
5. **Planting:** There is no need to rigidly adhere to any "indigenous-only" kind of botanical extremism in an urban setting, especially one with strong historic connections.
6. **Fencing:** Is always a key feature of Architectural/Landscape detailing as it strongly affects the edge condition. Subtle, well-detailed, traditional fencing options and colours are preferred.
   6.1. ClearVu fencing is not desirable especially along the R311.
7. **Colouration:** Colouration is a key tool to fitting any development into the landscape. There is a strong tendency for monotonous charcoal/grey estate colourations today and black fencing ClearVu fencing. These are not traditional colours in the Cape and detract from both contemporary and historic environments.
   7.1. A subtle combination of scheme colours needs to be developed that will avoid a mass approach to colouration with a high visual impact.
8. **Maintenance:** Landscape Maintenance, both private and public, including streetscapes, needs to be integrated into the scheme.

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.

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.

NWA

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.

NWA

Appendices

NWA

Appendix A VIA Author's CV

NWA

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

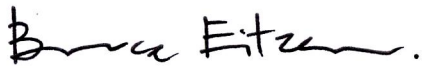
Appendix B VIA Author's Declaration of Independence

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: **25/1/2024**

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.[14] 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

[14] 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

2.2 SUBDIVISION AND REZONING PLAN - THE DEVELOPMENT COMPONENTS

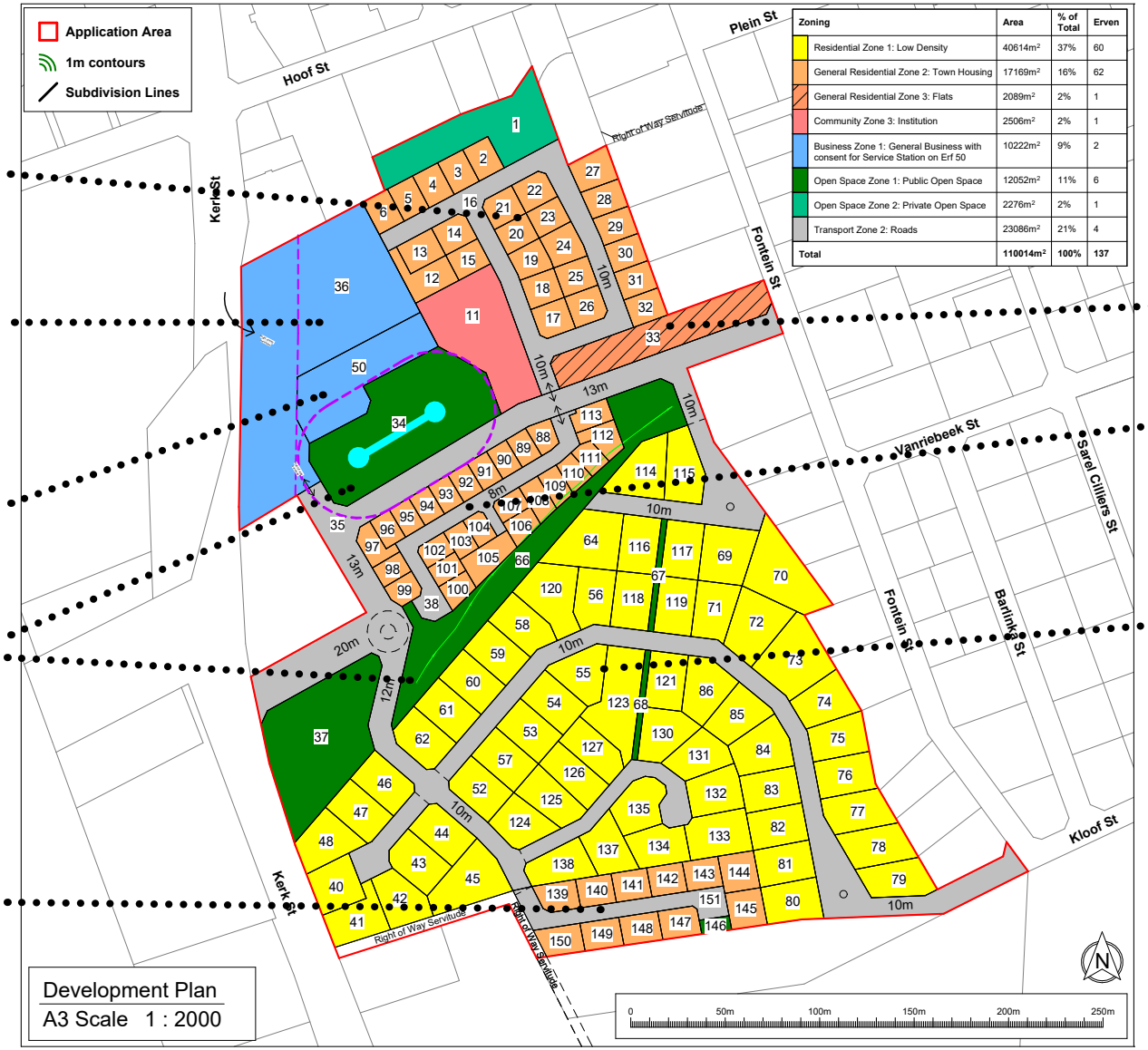
RETIREMENT PRECINCT

BUSINESS ACTIVITIES

FUEL STATION

GREEN / LANDSCAPED AREAS

TOURIST ACCOMMODATION



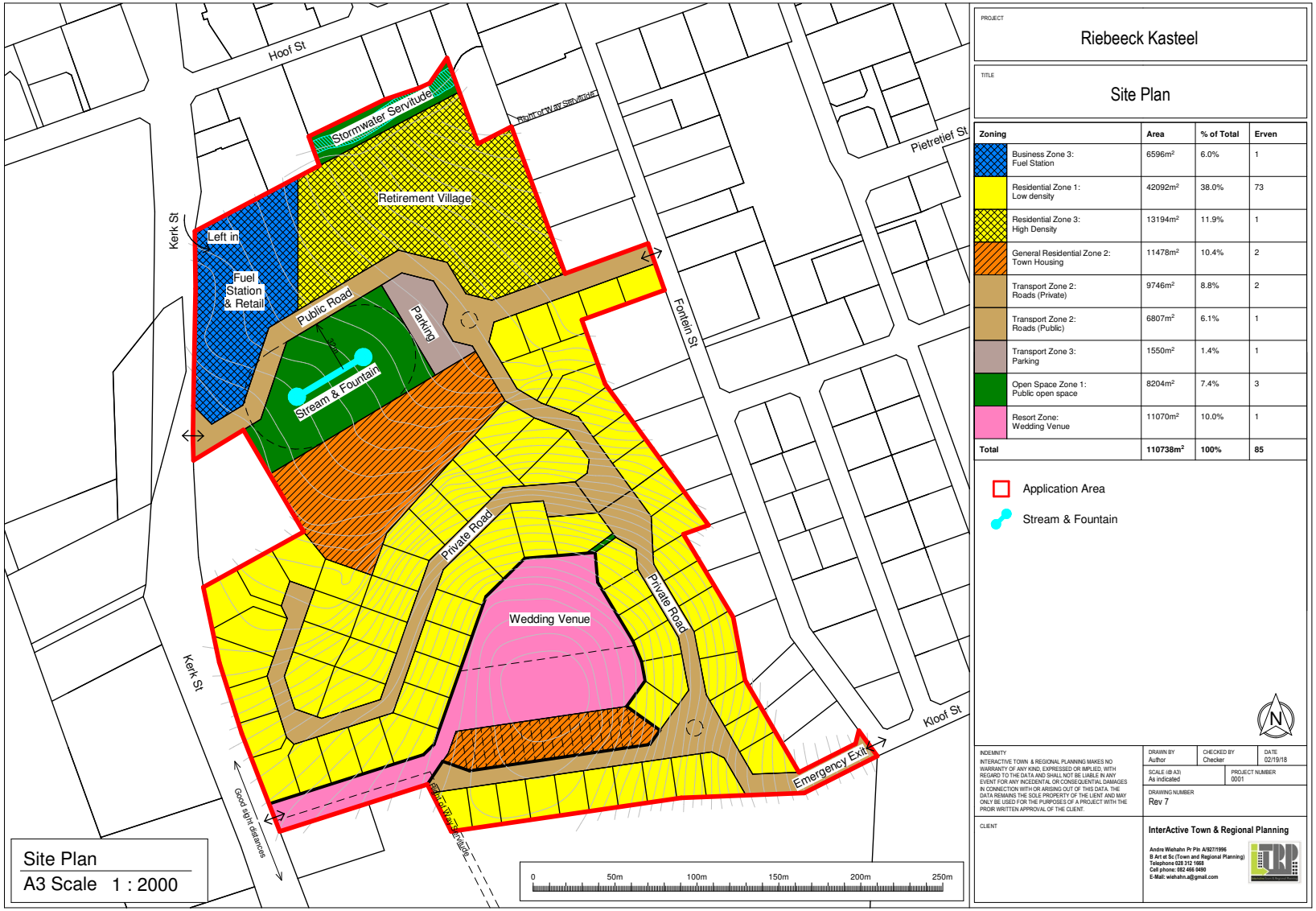
Zoning	Area	% of Total	Erven
Residential Zone 1: Low Density	40614m²	37%	60
General Residential Zone 2: Town Housing	17169m²	16%	62
General Residential Zone 3: Flats	2089m²	2%	1
Community Zone 3: Institution	2506m²	2%	1
Business Zone 1: General Business with consent for Service Station on Erf 50	10222m²	9%	2
Open Space Zone 1: Public Open Space	12052m²	11%	6
Open Space Zone 2: Private Open Space	2276m²	2%	1
Transport Zone 2: Roads	23086m²	21%	4
Total	110014m²	100%	137

APARTMENTS

TOWNHOUSES

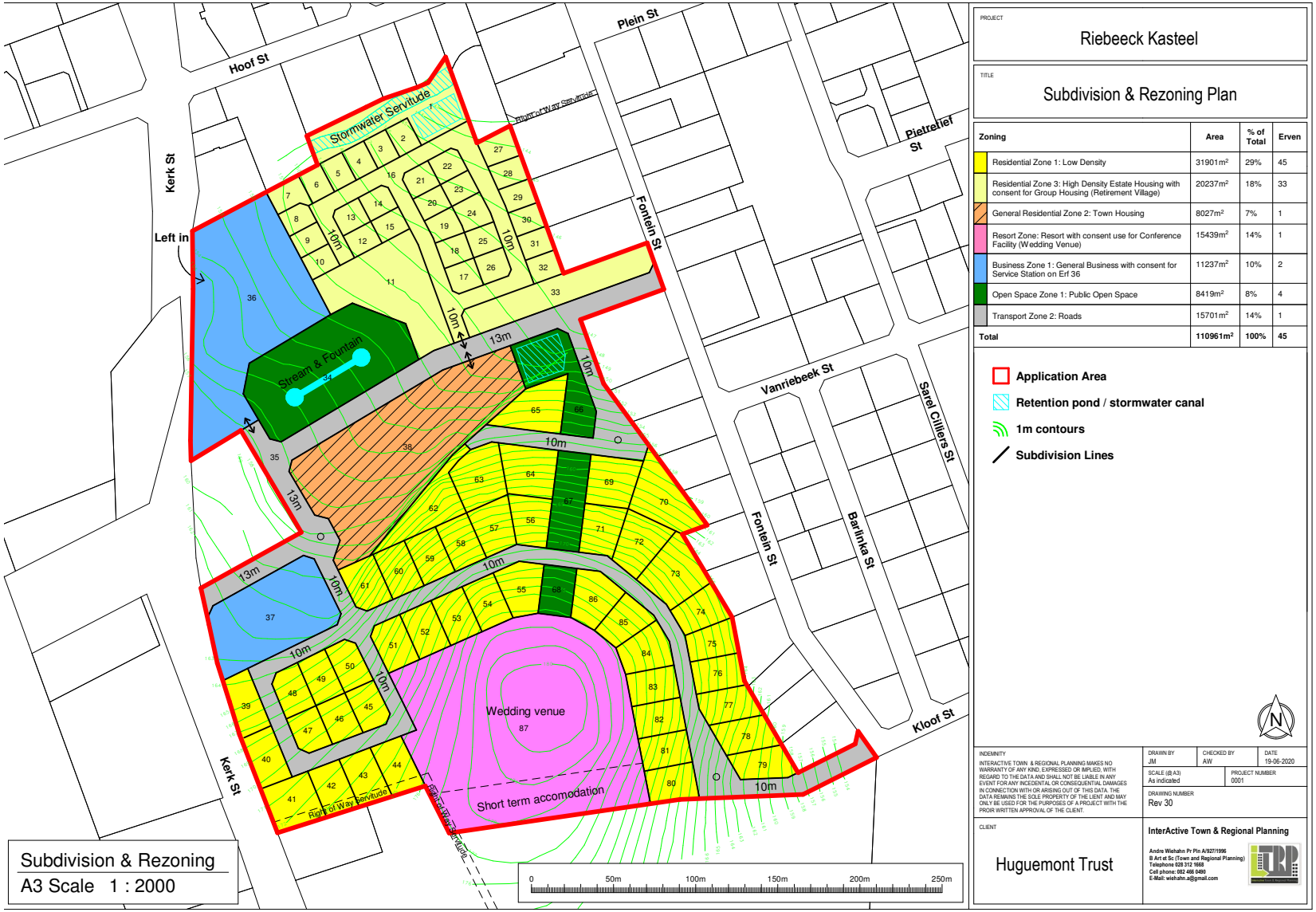
LOW DENSITY UPMARKET RESIDENTIAL

2.7 ALTERNATIVE DESIGN PROPOSAL/S



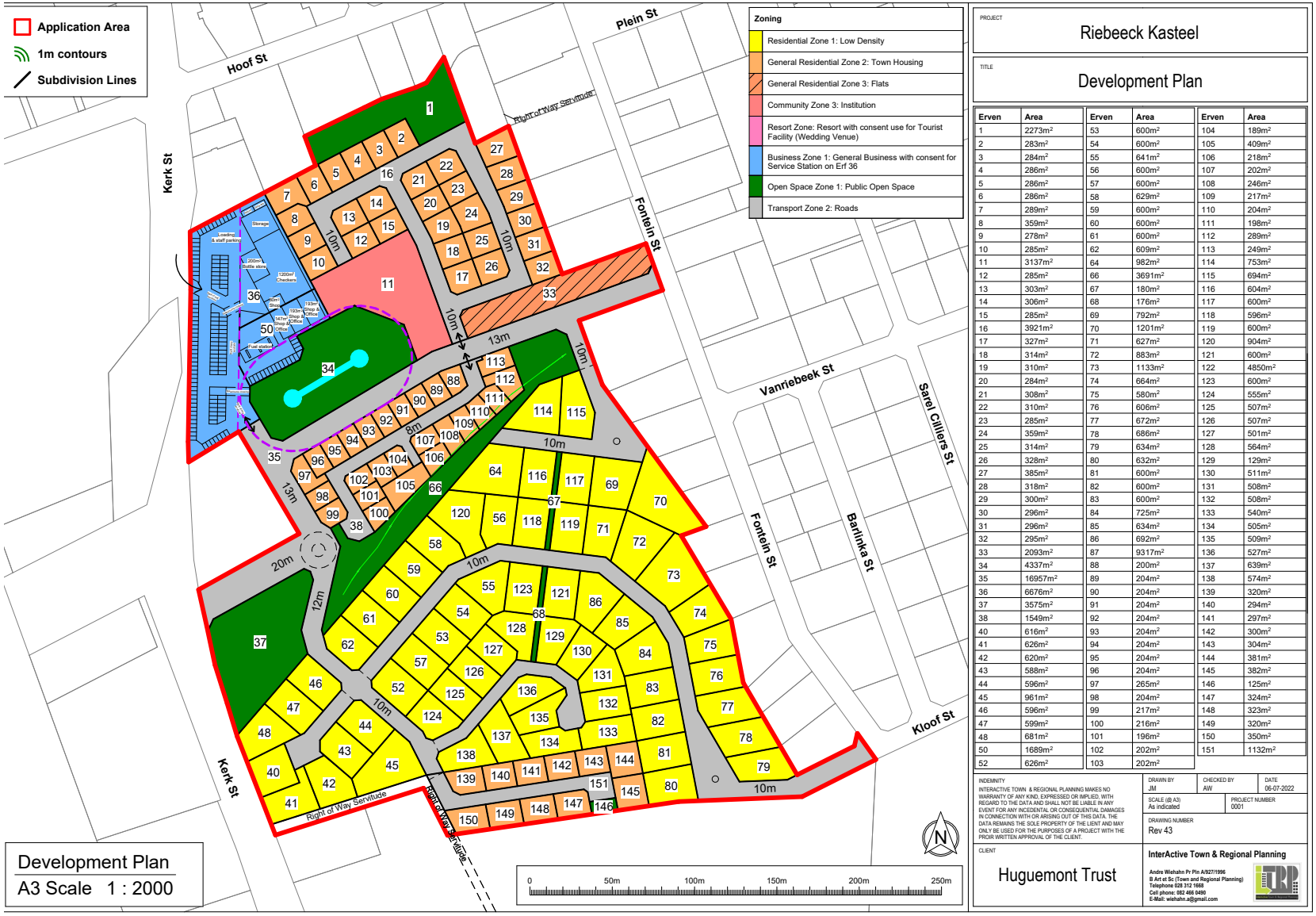
Zoning	Area	% of Total	Erven
Business Zone 3: Fuel Station	6596m²	6.0%	1
Residential Zone 1: Low density	42092m²	38.0%	73
Residential Zone 3: High Density	13194m²	11.9%	1
General Residential Zone 2: Town Housing	11478m²	10.4%	2
Transport Zone 2: Roads (Private)	9746m²	8.8%	2
Transport Zone 2: Roads (Public)	6807m²	6.1%	1
Transport Zone 3: Parking	1550m²	1.4%	1
Open Space Zone 1: Public open space	8204m²	7.4%	3
Resort Zone: Wedding Venue	11070m²	10.0%	1
Total	**110738m²**	**100%**	**85**

2.7 ALTERNATIVE DESIGN PROPOSAL/S



Zoning	Area	% of Total	Erven
Residential Zone 1: Low Density	31901m²	29%	45
Residential Zone 3: High Density Estate Housing with consent for Group Housing (Retirement Village)	20237m²	18%	33
General Residential Zone 2: Town Housing	8027m²	7%	1
Resort Zone: Resort with consent use for Conference Facility (Wedding Venue)	15439m²	14%	1
Business Zone 1: General Business with consent for Service Station on Erf 36	11237m²	10%	2
Open Space Zone 1: Public Open Space	8419m²	8%	4
Transport Zone 2: Roads	15701m²	14%	1
Total	**110961m²**	**100%**	**45**

2.7 ALTERNATIVE DESIGN PROPOSAL/S



PROJECT: Riebeeck Kasteel

TITLE: Development Plan

Erven	Area	Erven	Area	Erven	Area
1	2273m²	53	600m²	104	189m²
2	283m²	54	600m²	105	409m²
3	284m²	55	641m²	106	218m²
4	286m²	56	600m²	107	202m²
5	286m²	57	600m²	108	246m²
6	286m²	58	629m²	109	217m²
7	289m²	59	600m²	110	204m²
8	359m²	60	600m²	111	198m²
9	278m²	61	600m²	112	289m²
10	285m²	62	609m²	113	249m²
11	3137m²	64	982m²	114	753m²
12	285m²	66	3691m²	115	694m²
13	303m²	67	180m²	116	604m²
14	306m²	68	176m²	117	600m²
15	285m²	69	792m²	118	596m²
16	3921m²	70	1201m²	119	600m²
17	327m²	71	627m²	120	904m²
18	314m²	72	883m²	121	600m²
19	310m²	73	1133m²	122	4850m²
20	284m²	74	664m²	123	600m²
21	308m²	75	580m²	124	555m²
22	310m²	76	606m²	125	507m²
23	285m²	77	672m²	126	507m²
24	359m²	78	686m²	127	501m²
25	314m²	79	634m²	128	564m²
26	328m²	80	632m²	129	129m²
27	385m²	81	600m²	130	511m²
28	318m²	82	600m²	131	508m²
29	300m²	83	600m²	132	508m²
30	296m²	84	725m²	133	540m²
31	296m²	85	634m²	134	505m²
32	295m²	86	692m²	135	509m²
33	2093m²	87	9317m²	136	527m²
34	4337m²	88	200m²	137	639m²
35	16957m²	89	204m²	138	574m²
36	6676m²	90	204m²	139	320m²
37	3575m²	91	204m²	140	294m²
38	1549m²	92	204m²	141	297m²
40	616m²	93	204m²	142	300m²
41	626m²	94	204m²	143	304m²
42	620m²	95	204m²	144	381m²
43	588m²	96	204m²	145	382m²
44	596m²	97	265m²	146	125m²
45	961m²	98	204m²	147	324m²
46	596m²	99	217m²	148	323m²
47	599m²	100	216m²	149	320m²
48	681m²	101	196m²	150	350m²
50	1689m²	102	202m²	151	1132m²
52	626m²	103	202m²		

INDEMNITY
INTERACTIVE TOWN & REGIONAL PLANNING MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, WITH REGARD TO THE DATA AND SHALL NOT BE LIABLE IN ANY EVENT FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES IN CONNECTION WITH OR ARISING OUT OF THIS DATA. THE DATA REMAINS THE SOLE PROPERTY OF THE LIENT AND MAY ONLY BE USED FOR THE PURPOSES OF A PROJECT WITH THE PRIOR WRITTEN APPROVAL OF THE CLIENT.

DRAWN BY	CHECKED BY	DATE
JM	AW	06-07-2022

SCALE (@ A3): As indicated
PROJECT NUMBER: 0001
DRAWING NUMBER: Rev 43

CLIENT: Huguemont Trust

InterActive Town & Regional Planning
Andre Wiehahn Pr Pln A/927/1996
B Art et Sc (Town and Regional Planning)
Telephone 028 312 1668
Cell phone: 082 466 0490
E-Mail: wiehahn.a@gmail.com

AERIAL VIEW OF DEVELOPMENT


LEGEND:
Foul sewer
Water
Stormwater
Existing Trees to be retained
Existing trees to be removed
Proposed new trees
Planting
Laterite walkways
Water Feature/Natural spring
Lawn
Play areas
Servitude
Traffic calming
S/w pond
Barlinka St
Vanriebeek St
Fontein St
Hoof St
Kerk St
Church Street
Right of Way Servitude
PLANTING PALETTE:
SHRUBS & GROUNDCOVERS
Notes:
TYPICAL TREE STAKING
Project:
RIEBEECK HILL ESTATE
Drawing: - 12/10/2023
LANDSCAPE SITE DEVELOPMENT PLAN
Scale: A3 - 1:1500
Location: Riebeeck Kasteel

LAYOUT INFORMANTS

1. Landscape & tree buffer line - continuation of existing green buffer along Church street.

2. Church Street entrance precinct – to tie into green buffer, welcoming approach into the neighbourhood.

3. Retail precinct arrival point – primary access point when driving from town center to retail precinct (Left-in access from Church Street).

4. New public space – fountain access, buffer between residential and retail uses + public access to natural asset.

5. Fontein Street entrance precinct – link to existing neighbourhood.

6. Screening opportunities on the hill – create a green backdrop and foils for houses.

7. Framed & nested typologies – use layering of building elements to break scale; use trees and vegetation to nest buildings & mitigate visual impact.

8. Low-rise typologies – restrict size and height of buildings to maintain views from Church Street.

RECOMMENDATIONS
NEIGHBOURHOOD LAYOUT

The proposed layout uses elements identified through the townscape analysis to ensure the new neighbourhood sits comfortably within its context.

Parking under banks of trees to strengthen green buffer against Church street

Retail village square opening up to green open space

Shops with active facades & spill-out (F&B)

Articulated façade edge to define public space

Line of trees to guide the view towards the DRC

Line of trees to strengthen green buffer against Church Street

Walkable street with low-speed vehicular traffic, trees and landscaped sidewalks

Active edge to Retirement village complex – dining hall opening up onto veranda overlooking the open space

Clusters of street trees break building continuity against the slopes, nesting buildings in the landscape

Line of trees to for backdrop & nesting for hill houses, continuation of town grid

RECOMMENDATIONS
LAYOUT ELEMENTS

1. Retail village: Anchor with smaller line shops around a landscaped square. Connects to arrival point from Church Street as well as opens to neighbourhood green space
2. Filling station
3. Retail parking
4. Public open green space & access to spring
5. Valley village
6. Neighbourhood park
7. Hill village
8. Green open space & parking spill-over
9. The Barn
10. Retirement village
11. Retail village square

Site viewed from the north; Church Street, and the hill clearly visible.

View of new neighbourhood from the North; banks of trees and the clustering of roofs create a townscape that is in harmony with the existing town.

View towards the site from the North-East, the DRC steeple visible on the right.

The new neighbourhood sits comfortably on the hill, nested by banks of trees. The scale of houses o the hill is broken horizontally (Plinth, body, roof) to mitigate scale. The lines of trees in the new neighbourhood ties into the existing town treescape and grid.