

ANNEXURE O:

Heritage Impact Assessment

ANNEXURE P:

Visual Impact Assessment

ANNEXURE Q:

Residential Market Demand Study

ANNEXURE R:

Social Impact Assessment

PLAN 1:

Locality Plan

PLAN 2:

Site Characteristics Plan

PLAN 3:

*Proposed Road Closure and subdivision of
Urbans Boulevard*

PLAN 4:

Layout Plan

HERITAGE IMPACT ASSESSMENT

In terms of Section 38(8) of the NHRA for the

PROPOSED DEVELOPMENT OF ERVEN 25537, 25538 & 25541, GEORGE DISTRICT AND MUNICIPALITY

Prepared by CTS Heritage



CTS HERITAGE

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For

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March 2025

Updated August 2025



EXECUTIVE SUMMARY

1. Site Name:

Oumeulen Village and Meulenzicht Landgoed

2. Location:

In George located on Erven 25537, 25538 & 25541 (Kraaibosch)

3. Locality Plan:

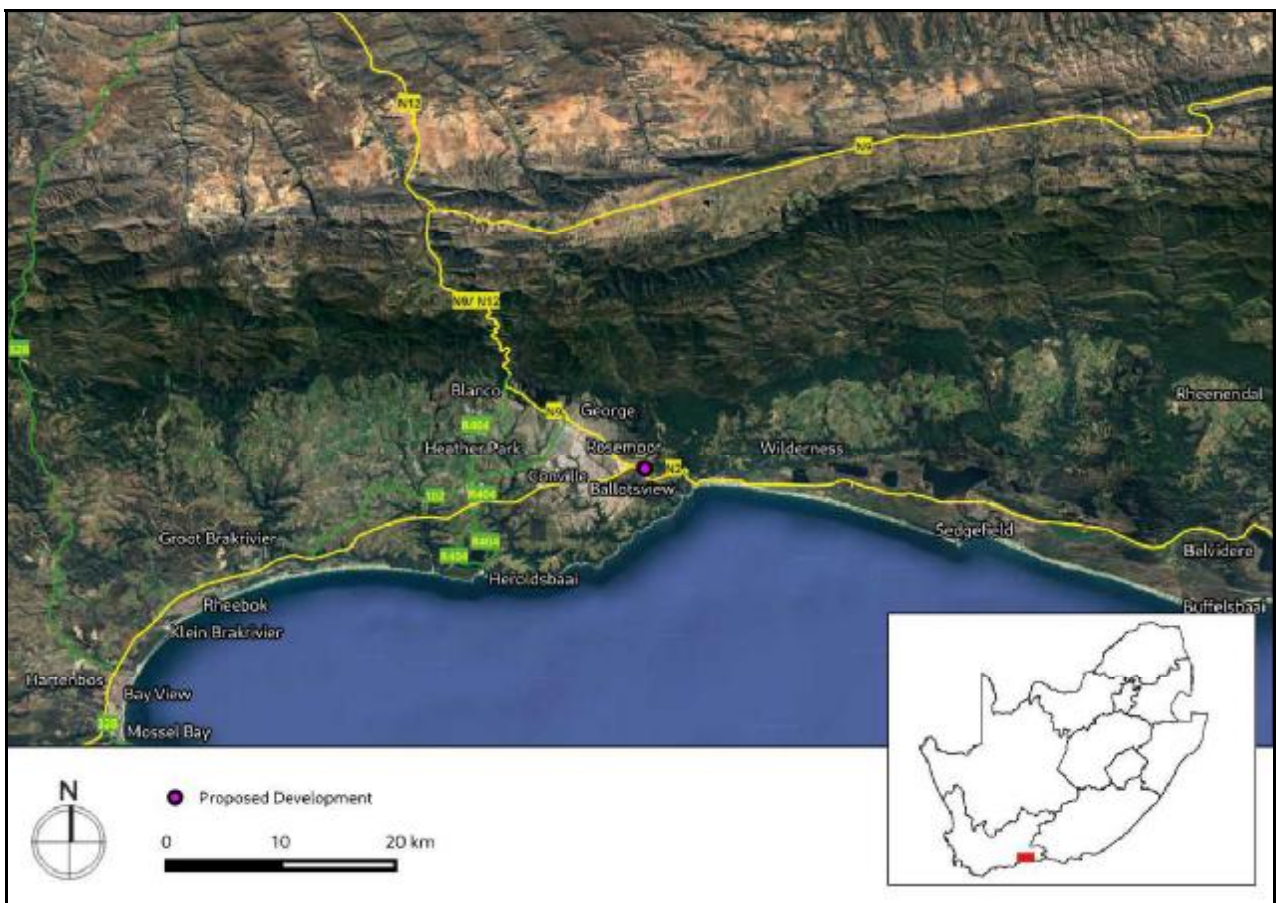


Figure A: Location of the proposed development area



4. Description of Proposed Development:

The site will be developed into 3x precincts:

- East of Urbans Boulevard (Erf 25237), a residential estate, consisting of ±259 single residential erven, of which the layout was informed by environmental constraints known as **Meulenzicht Landgoed**
- West of Urbans Boulevard (Erven 25238 & 25541), a higher density residential estate, consisting of group housing erven (207x) and apartments (220x) known as **Oumeulen Village** as well as
- A remaining extent that will be “undetermined”. A development proposal on this node will be informed by future market conditions.

5. Heritage Resources identified:

As noted by De Kock (2012), “*The sawmill site falls within the proximity of a major intersection, which also serves as the eastern approach to George. When evaluating examples of existing development within the direct proximity of the site, we note that the siting and orientation of structures within close proximity to the N2, (e.g. with monotonous and long barrier-like structures or the rear of buildings facing the N2 as illustrated with have the potential to significantly detract from the visual amenity of the area.*

In addition, this has the potential to detract from the overall quality and sense of place for prospective visitors as it rather deters than attracts. It is therefore important that future planning of the study area incorporates important view corridors from the N2 as annotated with the heritage resource mapping (Figure 5.1). Again therefore, the benefits of an overall urban design framework aimed at informing future planning with relation to redevelopment of the site, cannot be discounted.”

Historical context

From a broader local historical perspective, the proposed development site has a strong association with forestry, which played a significant role in early establishment and development of the town and its environs and which is therefore considered to be of high local historic, social and aesthetical cultural significance. Future redevelopment of the site must therefore acknowledge and incorporate this local forestry theme.

Cultural landscape issues

Harvesting of the last forestry plantations and subsequent urban development within the proximity of the study area have, for the most part, transformed the landscape character of the area from forestry (and some agriculture) to predominantly urban development. For this reason it is considered necessary that remaining traditional (Pre-Modern) cultural landscape features evident within the landscape (e.g. tree lines, linear features and forestry grid block lines identified) be incorporated into the overall planning and design for redevelopment of the site.



Visual-spatial issues

The site is complex and in order to capture its unique sense of place and maximise the potential benefit to be derived from its broader historic context, it is strongly recommended that an overall urban design framework be compiled before further detailed planning for the site (and each individual building) be done to avoid haphazard and inappropriate infill, which in the long term may significantly degrade the setting and viability of the site as a whole.

These issues are addressed in the detailed and thorough VIA reports completed by Stead (2025a and 2025b). In his report, the following resources are identified;

- Urbans Boulevard

The Urban Boulevard provides access from the Kaaimans/ N2 intersection to the eastern gated estates of Welgelegen. The Boulevard sense of place has been created by design, allowing for a winding road that takes the undulating terrain into account, providing open views to the Outeniqua Mountains that significantly add to the sense of place. A large road reserve was proclaimed that allows for suitable setbacks such that views over residential structures are possible. This effect is reflected in the adjacent Welgelegen Estate to the north of the site, the wide road reserve allows for more open views of the eastern residential dwellings that are located below the height of the road users. The recommendation is that, as this was the intention of the design, the openness of the existing experience of the landscape context should remain to some extent.

The location of 8m dwellings in close proximity to the road would detract from the intended experience of the road if residential 'walling' effect took place. As the site has previously been excluded from the George Municipality Urban Edge, the land uses are rural, with open views to the east. Some plantings of indigenous trees have taken place, but the tree growth remains stunted and many of the trees have died. The trees that remain will become feature trees over time, an effect that would enhance the sense of place and should be encouraged.

- N2 National Highway

The N2 Highway is the most important tourist route along the length of the Garden Route and is highlighted in the DFFE EMF. The importance of the road is flagged in local and district municipality planning as an important tourist view corridor where adjacent land uses need to take the scenic quality into account. Travelling along the N2 Highway eastbound, the initial view of the development area will take place at the Knysna Road interchange. The views from this locality currently depict multiple trees that are a remnant from the old Urbans Mill, as well as more recently planted trees around the Outeniqua Farmers Market. As the trees are predominantly pines and invasive species that are prone to wind-fall risks, these trees would need to be felled. There is limited structural development in the background save for the single water tower structure in the mid-ground.



- N2 National Highway Eastbound and Westbound: Teachers Apartments

The existing views from this location allow for open views to the east towards the Garden Route rural landscapes. This is the de-facto initial eastbound view of the wilderness section of the Garden Route that does have value and should be considered landscape heritage and as a gateway into the Garden Route.

Built environment issues

Since 2012, the structures associated with the sawmill have further deteriorated and at present, have very little cultural value remaining. These structures have been determined to be Not Conservation-Worthy in this assessment.

However, as noted by De Kock (2012), it is not necessarily individual buildings that define the unique identity of the sawmill precinct but rather the clustering and combination of substantially-sized, industrial-orientated and purpose-built structures and how these developed over an extended period of time during the operational phase of the sawmill;

Therefore, due to the need to also capture the broader spatial qualities of the sawmill precinct, (rather than only individual buildings) attention with relation to future design should be focussed on developing an overall architectural design manual aimed at acknowledging existing scale, bulk, materials as well as the simplicity, flexibility and functionality of existing structures. This architectural design manual should tie in with the urban design framework.

6. Anticipated Impacts on Heritage Resources:

The survey proceeded with no major constraints or limitations, and the project area was comprehensively surveyed for heritage resources. No significant archaeological resources were identified during the field assessment. No impact to significant buried archaeology is likely, however it is possible that the remnant foundations of the Modderkloof farm werf may be impacted. The remnant foundations of the Modderkloof farm werf have limited cultural value and are considered to be Not Conservation-Worthy. As such, no impact to significant archaeological heritage resources is anticipated.

The primary concerns associated with this development pertain to the significant impact of the development on the sense of place and cultural landscape value associated with the Sawmill Precinct of George and the associated loss of significant visual resources as identified within the comprehensive VIA completed by Stead (2025a and b).

As noted by Stead (2025); *“The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the*



proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred. However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended."

An extensive list of mitigation measures is included in Section 9 of the VIA completed by Stead for both the Meulenzicht Estate development (2025a) and the Oumeulen Estate development (2025b) including recommendations regarding setbacks, tree planting and height restrictions. This list of recommendations is endorsed and reiterated herein. The key mitigation measures proposed in the VIA reports (Stead 2025a and b) are repeated below:

Meulenzicht Estate

- A 10-meter setback from the Urbans Boulevard road reserve to reduce the visual dominance of the proposed buildings adjacent to the road. This setback allows the natural drop in slope to better contain the height of double-storey units, following the Welgelegen Estate precedent, where buildings are set back $\pm 30\text{m}$ and allow for partial views over the buildings.
- The removal/ relocation of four erven located between the Boulevard and the small farm dam. This would create a clear visual break in the linear development, retain a sense of the rural context, and preserve depth of view towards the eastern Garden Route. It would also enhance views along the two natural drainage lines, helping to reduce the perceived massing of the development.

Oumeulen Estate

- Detailed landscaping for the section along the N2 Highway to ensure that the intensity of the proposed landscape change can be effectively mitigated by strategic planning of trees.
- Detailed landscaping for the section along the Urbans Boulevard such that the natural constraints of the soil can be overcome, and with the introduction of a low topsoil berm to create a natural landscaped area that offers partial screening to the proposed double-storey dwellings, as well as create an aesthetically pleasing landscape along the Boulevard.

The VIA (2025a and b) concludes that "from a landscape and visual perspective, the mitigations proposed for the preferred development layout would be suitable to ensure that significant landscape degradation of the existing landscape and visual resources would not be degraded. The Preferred Development Option, with additional landscaping, is the visual and landscape preference."



7. Recommendations:

There is no objection to the proposed development from a heritage perspective on condition that:

- Phase A8 is excluded from the assessment area
- The mitigation measures detailed in Section 9 of both of the VIAs (2025a and b) are implemented in the development design
- The architectural guidelines and detailed landscaping plans should be reviewed prior to construction and submitted to the HWC and the George Aesthetics Committee to ensure they align with the broader, emerging 'garden city' identity of George.
- Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. The South African Heritage Resources Agency (SAHRA) must be contacted immediately in order to determine an appropriate way forward.



Details of Specialist who prepared the HIA

Jenna Lavin, an archaeologist with an MSc in Archaeology and Palaeoenvironments, and since 2016 heads up the heritage division of the organisation. She has a wealth of experience in the heritage management sector. Jenna's previous position as the Assistant Director for Policy, Research and Planning at Heritage Western Cape has provided her with an in-depth understanding of national and international heritage legislation. Prior to joining CTS Heritage, her 8 years of experience at various heritage authorities in South Africa means that she has dealt extensively with permitting, policy formulation, compliance and heritage management at national and provincial level and has also been heavily involved in rolling out training on SAHRIS to the Provincial Heritage Resources Authorities and local authorities.

Jenna is a member of the Association of Professional Heritage Practitioners (APHP), and is also an active member of the International Committee on Monuments and Sites (ICOMOS) as well as the International Committee on Archaeological Heritage Management (ICAHM). In addition, Jenna has been a member of the Association of Southern African Professional Archaeologists (ASAPA) since 2009. Since 2016, Jenna has drafted over 250 Screening and Heritage Impact Assessments throughout South Africa.



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1. INTRODUCTION

1.1 Background Information on Project

Current Rights:

The land use rights on the application area are:

- Erf 25537 = Agriculture Zone I
- Erf 25538 = Agriculture Zone I
- Erf 25541 = Industrial Zone II (pending litigation)

Development Proposal:

Development Precincts

- The site will be developed into 3x precincts:
 - East of Urbans Boulevard (Erf 25237), a residential estate, consisting of ±259 single residential erven, of which the layout was informed by environmental constraints known as Meulenzicht Landgoed
 - West of Urbans Boulevard (Erven 25238 & 25541), a higher density residential estate, consisting of group housing erven (207x) and apartments (220x) known as Oumeulen Village as well as
 - A remaining extent that will be “undetermined”. A development proposal on this node will be informed by future market conditions.
- Environmentally sensitive areas (wetlands, water courses, steep slopes, sensitive vegetation, etc, will be retained as communal open spaces for the proposed development.
- The existing water tower/reservoir will be retained and accommodated in the layout.

Access

- Given the steep topography of the site and the topography and visibility on Urbans Boulevard, access to the proposed development can only really be provided at a point centrally on Urbans Boulevard. A new traffic circle can be constructed at this point, and then this circle will provide access to the east and west of Urbans Boulevard. No other direct access will be provided off Urbans Boulevard.
- A left-in-only slip lane is proposed near Portion 400 of Farm No 195.

Proposed Zoning / George Zoning Scheme Bylaw

- The proposal is to rezone to a subdivisional area and then subdivision into “Residential Zone II” (Estate Housing)” erven.
- The new limitation of a maximum size of 5ha for estate housing is noted. The western precinct, excluding the future development area is ± 23 ha in extent, and then the eastern precinct will be ±37 ha in extent. Given the fact that the application area is on the eastern edge of the municipal urban edge, the natural informants and the topography, it is not reasonable and feasible to provide more public roads, in order to obtain more access to provide 7 gates villages/estates on the eastern precinct. There is no future urban



expansion where future public roads can expand. A departure from this development parameter will be applied for.

Environmental Authorisation

The proposed development will require an application for environmental authorisation.

George Municipal SDF

- The Application area is located inside the urban edge of George. The SDF states that Properties that are currently vacant, without a development proposal or number of erven have been conservatively calculated at 80u/ha for the first 150m from primary transport corridors, 60u/ha from 151m to 350m from primary transport corridors and 45 u/ha form 351m to 500m.
- Erf 25538 and 25541 are earmarked as a “tourism precinct” for tourist-related facilities and accommodation. This may include tourism-related small shops (convenience), restaurants, sport- and recreation- and services conditions to be included in land use application.
- The current Farmers Market will be retained and will not be removed.

1.2 Description of Property and Affected Environment

The proposed Kraaibosch residential development project lies to the east of the N2 highway which bypasses George en route to Wilderness. A series of completed housing estates lie north of the study site and immediately border the proposed development which will extend the urban footprint of George. The Modderrugrivier and Swartrivier form two deep valleys on which the new and existing housing estates are perched. The complex of ruins of the Urbans sawmill are prominently situated on the northwestern side of the project and most of the premises are being used for the local nursery. The Outeniqua Family Market lies directly west of the old sawmill and the Garden Route Mall is further west over the other side of the highway. Additional developments are also present to the southwest of the study site with a series of fuel stations, a church and various businesses.

The entire site has been transformed over many years for the forestry which provided wood to the sawmills. Alien bluegum and pine trees are still very much a part of the lower reaches of the Swartrivier river corridor which will border the new houses that are planned on the cleared areas. These cleared areas are currently covered in grass and are being maintained with some basic access roads already in place that have utilised the former forestry roads. The forested sections are nearly impenetrable with dense brush and trees but a couple of disused and overgrown forestry paths are present which provide some access down to the river.

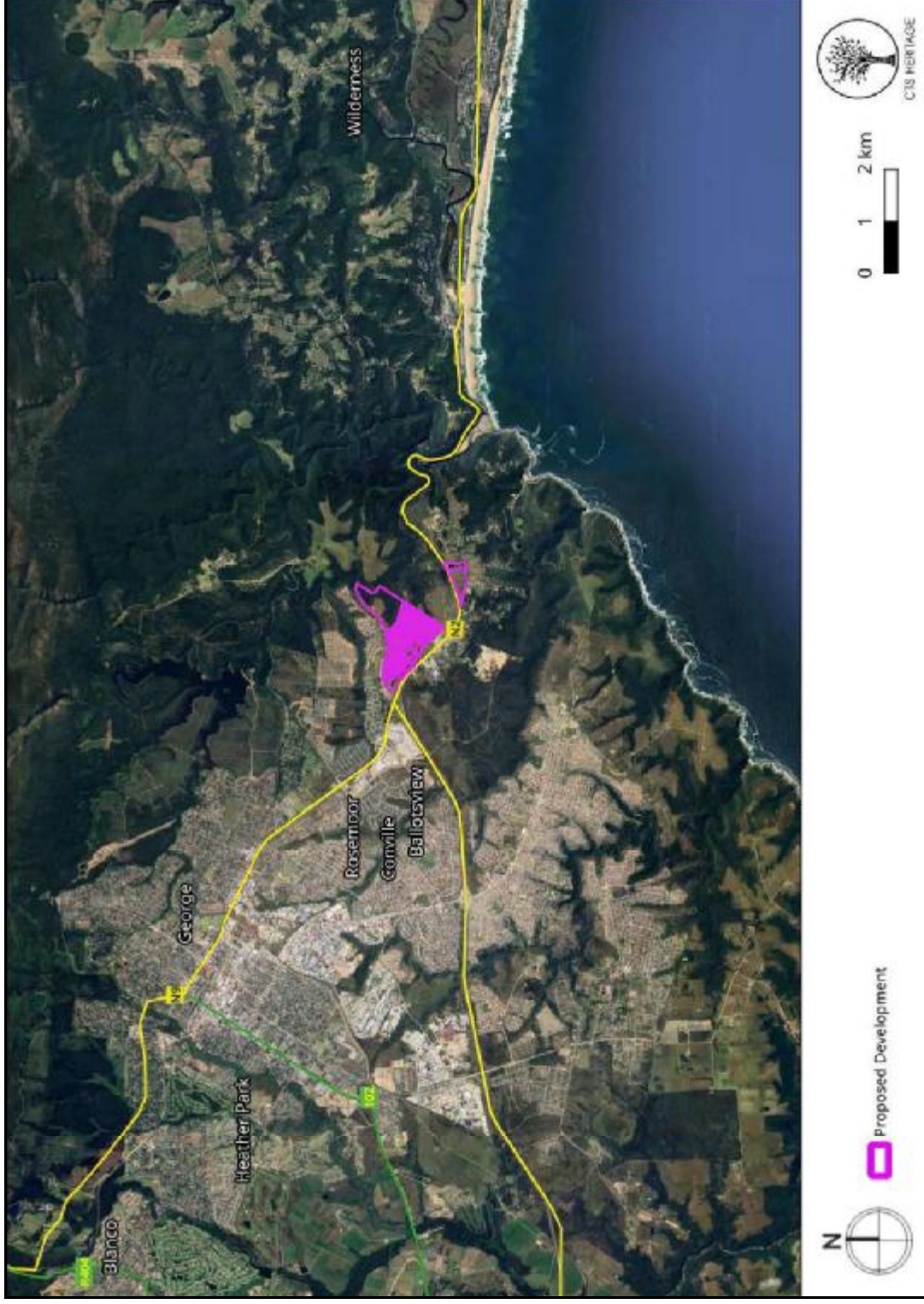


Figure 1.1 Overview Map. Satellite image (2024) indicating the proposed development area at closer range.

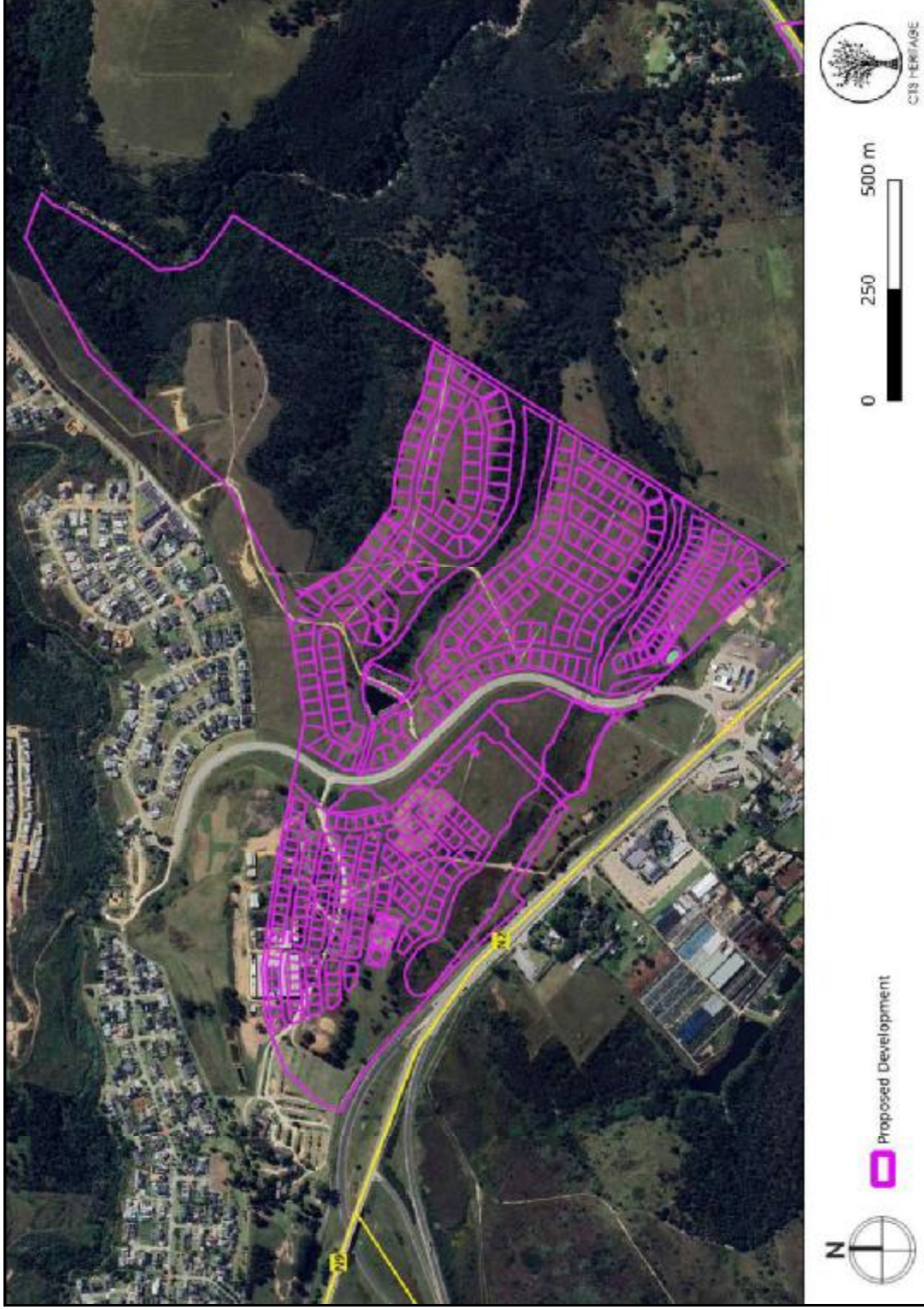


Figure 1.2 Overview Map. Satellite image (2024) indicating the proposed development at closer range.

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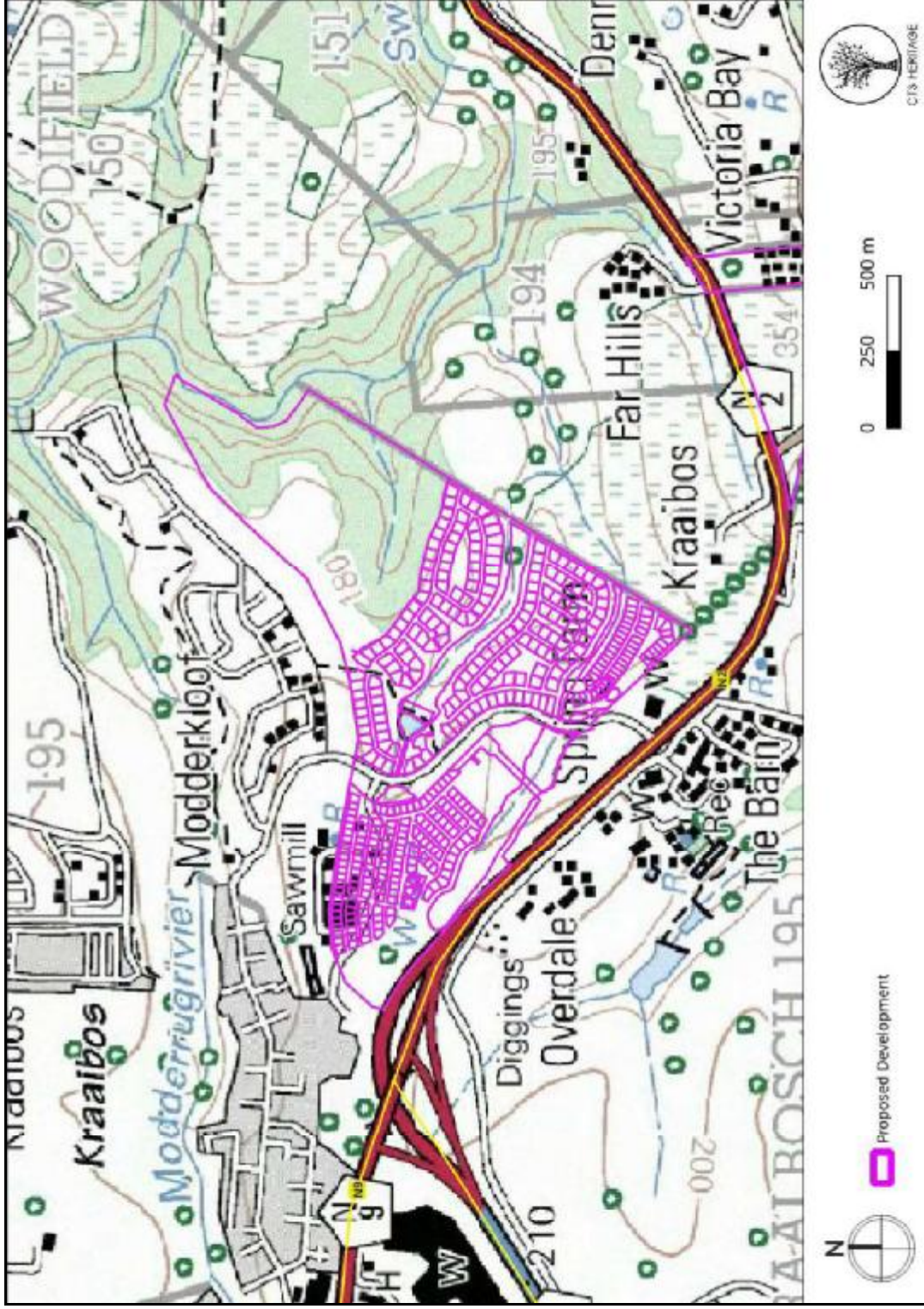


Figure 1.3 Overview Map 1:50 000 Topo Map for the development area

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2. METHODOLOGY

2.1 Purpose of HIA

In 2012, a NID submission was made to HWC. On 4 July 2012, HWC responded indicating that a Heritage Impact Assessment (HIA) is required consisting of an assessment and grading of existing structures on site and assessment of the impact of the proposal on these structures and the visual impact from the N2. In subsequent correspondence dated 11 July 2024, HWC confirmed that this NID response remains applicable. The purpose of this Heritage Impact Assessment (HIA) is to satisfy the requirements of section 38(8), and therefore section 38(3) of the National Heritage Resources Act (Act 25 of 1999) as per HWC's requirements.

2.2 Summary of Steps Followed

- A Desktop Study was conducted of relevant reports previously written (please see the reference list for the age and nature of the reports used)
- An archaeologist, N. Wiltshire, conducted an assessment of archaeological resources likely to be disturbed by the proposed development. The archaeologists conducted their site visit on 28 September 2024
- The Visual Impacts anticipated from the proposed development have been assessed by VRM Africa in two separate reports dated August 2025 - one for each precinct Meulenzicht Estate and Oumeulen Estate.
- The identified resources were assessed to evaluate their heritage significance and impacts to these resources were assessed.
- Alternatives and mitigation options were discussed with the Environmental Assessment Practitioner

2.3 Assumptions and Uncertainties

- The *significance* of the sites and artefacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. It must be kept in mind that the various aspects are not mutually exclusive, and that the evaluation of any site is done with reference to any number of these.
- It should be noted that archaeological and palaeontological deposits often occur below ground level. Should artefacts or skeletal material be revealed at the site during construction, such activities should be halted, and it would be required that the heritage consultants are notified for an investigation and evaluation of the find(s) to take place.

However, despite this, sufficient time and expertise was allocated to provide an accurate assessment of the heritage sensitivity of the area.



2.4 Constraints & Limitations

The dense vegetation in the forested areas is impenetrable but the housing development is not planned in these sections of the old forestry lands. The areas designated for the new estate have been cleared and are being kept clear and are covered in grass. While the archaeological material at surface level has been entirely transformed across the site, other potential sites within the study area were easily visible due to the clearing such as graves or ruins (none were found besides the well documented old sawmill).

Additional limitations pertaining to the assessment, include the limited architectural guidelines as well as a strong emphasis on landscaping for mitigation, that will only be generated after project approval. To address these procedural risks, the architectural guidelines and detailed landscaping plans should be reviewed prior to construction and submitted to the HWC and the George Aesthetics Committee to ensure they align with the broader, emerging 'garden city' identity of George.

3. HISTORY AND EVOLUTION OF THE SITE AND CONTEXT

3.1 Desktop Assessment

3.1.1 Background

This application is for the proposed development of George erven 25537, 25538 & 25541. The project area is located approximately 6km east of the George town centre, within the broader Kraaibosch area. According to Raper et al (2018) in *"The Dictionary for Southern African Place Names"*, George was *"the first town to be established after the British Occupation of 1806, it was proclaimed in 1811 under the name George Town, after King George III of England, who donated a Bible to the church. It became a municipality in 1884."*

The Heritage Strategy and Action Plan drafted for George Municipality (Winter, 2023) recognises the Kraaibosch area as a "Rural Landscape" on the outskirts of George at risk of gentrification through lifestyle 'rural' estates, lifestyle centres, holiday accommodation and relocation of farm labour to "off-farm" housing settlements. This aligns with information included in the George SDF (2023-2027) which notes that "There has been a significant uptake of opportunities in estate/security type development, catering for urban based, affluent residents in developments such as Welgelegen, Kraaibosch, Kingswood, Blue Mountain, etc."



3.1.2 History, Cultural Landscape and Built Environment

Even though George was only proclaimed as a town in 1806, inhabitation of the area predates the town. Archaeologists have found that the pastoralist Khoi-khoi people moved into the southern Cape with their sheep about 2,000 years ago. Place names like the Outeniqua Mountains and Gwayang Road reflect their historical presence. The Attaqua and Inqua groups were prominent in the region between Mossel Bay and Plettenberg Bay, trading with the Dutch in the 18th century. By the early 1700s, the Khoi-khoi lost control of the area due to internal conflicts, diseases like smallpox, and wars with European settlers. They continued to exist as a community at Hoogekraal, and the Pacaltsdorp mission station was established in 1813 (Aikman, 2009, SAHRIS NID 329565).

The region saw significant development under Dutch and later British colonial rule, especially after the reports of Swedish botanists in the 1770s highlighted the vast forests. A timber industry emerged, leading to the establishment of George and the construction of key roads and passes, such as the Montagu Pass, built between 1844 and 1847 under the direction of engineer Henry Fancourt White. White, a significant figure in the area's development, also constructed several roads and built a mansion on the Modder River farm. After his death in 1861, the property changed hands several times until his son, Montagu White, acquired and remodelled it, living there until his death in 1916 (Aikman, 2009, SAHRIS NID 329565).

In 2008, Thompson compiled an extensive history of the area surrounding the proposed residential development. Only key points are summarised here. The historical background document for the Kraaibosch Bulk Sewer project details the early settlement and development of Victoria Bay and the surrounding area:

1. **Early Timber and Grazing Activities:** The shortage of timber in the western Cape by the 1700s led to the establishment of "Buiteposte" by the Dutch East India Company (VOC) to control timber cutting and cattle barter in Outeniqualand. The area saw increased activity from explorers, hunters, woodcutters, and settlers who began to occupy the region
2. **Settlement and Agricultural Development:** The 1777 establishment of a VOC "Buitepost" in Outeniqualand on the Swart River (visible in Figures 1.3 and 3.3) helped to manage the transport and supply of timber to the Cape. The initial route to the Karoo and Eastern Frontier went over Duivelskloof Pass to the Langkloof, with Pampoenkraal serving as a key outspan for travellers
3. **Expansion of Grazing and Farming:** From the early 1800s, the Victoria Bay valley was used for grazing cattle, and over time the area became a popular destination for campers and travellers. Efforts by individuals like Edmeades, who experimented with various grasses and grains, marked a shift from basic agricultural practices to more diversified farming.
4. **Local Infrastructure and Economic Shifts:** The construction of roads and other infrastructure, such as the 1928 George to Knysna railway line, impacted the region's development. The area saw various ownership changes and land sales throughout the 19th and 20th centuries, reflecting shifting economic



activities, including farming, forestry, and more recently, development initiatives. (Thompson, 2008)

Another extensive heritage survey for erven 25541 & 25538 was conducted by De Kock in 2012. *“The site forms part of an undulating landscape sloping towards the Modderrug River, which defines the northern property boundary and is bounded by the N2 (South). Predominant land use within the direct proximity of the site is residential, which lands between the N2 and historic George – Knysna Road having been earmarked for future urban development. Present vehicular access is from the National Road N2, off the Sasol Petrol Station.*

The subject site holds the former “Urbans” industrial sawmill which was liquidated during December 2001 and has since been in a general state of disuse. The condition and structural integrity of the majority of remaining buildings (some of which are older than 60 years) are rapidly deteriorating.” Some of the sawmill structures appear on the First Edition Topo Map (Figure 3.3). De Kock (2012) graded each structure that forms part of the sawmill complex. His findings were that the site’s unique sense of place comes not from individual buildings, but from the overall arrangement and orientation of its large, industrial structures. While Buildings 18 and 19 are of high cultural significance due to their historical ties to forestry, the entire precinct’s spatial qualities and identity are important. Buildings 18 and 19 (see figure below) should be restored, replaced, or adapted for future use, and Building 10’s unique design elements should be preserved in redevelopment. Future design efforts should focus on creating an architectural manual that respects the existing scale, materials, and functionality of the structures. Additionally, an urban design framework should be developed to guide detailed planning and capture the site’s historic context.



Figure 2.1 Extract from De Kock (2012)

De Kock's (2012) other findings were that the proposed development site is slightly elevated and partially visible from the N2 National Road, especially since most of the original pine plantation screening has been removed, leaving only two rows of pine trees. These trees enhance the site's visual prominence and frame the views, suggesting that planting more pine trees could reinforce the site's connection to its forestry history.

The site's remaining linear features, such as drainage lines and old forestry grid patterns, along with its location and layout, contribute to its visual structure and should be preserved in the urban design framework. The sawmill complex blends well with the surrounding landscape without disrupting the natural skyline, as indicated by various viewpoints from the N2 (De Kock, 2012).

Future redevelopment should maintain important view corridors and avoid creating monotonous structures that could detract from the area's visual appeal. Instead, an overall urban design framework should guide redevelopment to respect the site's historical forestry associations and existing visual and spatial qualities. The redevelopment should incorporate traditional landscape features and the remaining building structures in a way that preserves the site's unique sense of place. Additionally, maintaining certain structures, like Building 10 and the modern water tower, should be considered to retain their contributions to the site's overall character (De Kock, 2012).



As noted in the George SDF (2023-2027), “passing George and heading east past Kraaibosch and moving on towards the Victoria Bay area gives one the feeling of leaving the built-up area as the vistas are generally of farm fields in the foreground with trees including pine plantations and rolling hills in the mid ground and then the Outeniqua Mountains in the background. This is the gateway to the Wilderness approach and in fact where the experience of the Garden Route starts. It is the area where the Kaaimans Corridor starts, which is unique not only for the spectacular Kaaimans Gorge, but also because it is where the distance between the ocean and mountain is the shortest in the Southern Cape. If travelling along the Garden Route from Cape Town this is the first encounter with the dense indigenous forest characteristic of the Garden Route and, along with the commercial forestry plantations, an important part of the cultural history of the area.”

3.1.3 Archaeology

Archaeological sites spanning the Earlier, Middle and Later Stone Age have been found in the region despite the extensive agricultural transformation of the area. Kaplan (2006, SAHRIS NID 4427) provides a short summary of archaeological finds from the greater area, *“A few Early Stone Age (ESA) tools were located during a study of the proposed Kraaibosch residential housing estate directly to the north of the N2 and the study site (Kaplan 2003).”*

Further afield, relatively large numbers of ESA and Middle Stone Age (MSA) tools have been documented at Oubaai (Kaplan 2002) and The Brink (Kaplan 2004) near Herolds Bay. Shell middens have also been recorded on the high coastal cliffs at Oubaai (Kaplan 2002).

It is important to note that up to 70,000 ESA tools have been documented and collected during monitoring of earthmoving operations at Pinnacle Point near Mossel Bay (Dr Peter Nilssen pers. comm.). According to Dr Nilssen, the majority of tools are located in sandy deposits underlying the top soil about 1 m below the surface. Fewer artefacts appear in the underlying clay deposits, but several Pleistocene hyena lairs with well-preserved bone were documented in limestone deposits nearly 3 m below the surface. The key point is that the archaeology below the surface is undisturbed (as opposed to the surface disturbance of the site) and it is precisely the context of the finds that is so important for conservation purposes.”

In Kaplan’s heritage impact assessment of four portions of Kraaibosch 195, located less than 1km south of the project area, he identified the following, *“Low-density scatters of mostly Early Stone Age (ESA) tools were located during the study, but these are spread very thinly and unevenly over the surrounding landscape. All the tools were found in highly disturbed and degraded areas such as gravel roads and tracks, road cuttings, collapsed sections, scarred areas, erosion dongas, flood washes and slopes.*

Stone tools were located in both the western and eastern portions of the study site, while tools were also found in a severely flood-damaged and silted-up area in a river course alongside the railway line in the south eastern portion of the property. No tools were found in the quarry area, and only two ESA flakes were found close to the



large quarry spoil dumps.

It is interesting to note that eight tools (including a broken hand axe) documented in the network of gravel roads were found bedded in compacted sands. The bulk of the tools were, however, found near collapsed slopes, in sandy deposits, between 1.0 and 2.0 m below the overburden alongside the railway line. Apart from one large bifacial handaxe in rough-grained quartzite and one vehicle-damaged handaxe in finer-grained quartzite, the remainder of the tools comprises large ESA flakes, chunks and several smaller MSA flakes and blade tools."

According to De Kock in a heritage statement for a site located less than 1km north of the project area (2012, SAHRIS NID 364388), *"No heritage resources of archaeological significance could be identified on the subject property. Furthermore, in light of historical background research done, we are of the view further archaeological impact assessment would not be warranted in this instance."*

3.1.4 Palaeontology

According to the SAHRIS Palaeosensitivity Map the development sites are underlain by sediments of Insignificant/zero fossil sensitivity (Figure 4.1). According to the extract from the Council of GeoScience Map CGS 3322 Oudstroom Geology Map indicating that the development area is underlain by Nmg: George Batholith, and Nk: Sandkraal Formation. The **Sandkraal Formation** is known to consist of Quartzite, quartz-sericite schist that has **Low** Palaeontological Sensitivity. According to the SAHRIS Fossil Heritage Browser, the Sandkraal Formation is part of the Kaaimans Group, which has no fossils recorded but has the potential for organic-walled micro-fossils. Furthermore, any fossils, apart from microfossils, are unlikely due to high levels of deformation. According to Gess (2011, SAHRIS NID 269397) in a PIA that runs directly south of the proposed development, *"The sandier, well layered Sandkraal Formation alone has the potential to preserve evidence of past life. Records of metazoan life from such ancient rocks are, however, extremely rare and generally microscopic. As yet no fossils have been found in this unit."* The other underlying sediments belong to the **George Batholiths**, which is known for its gneissic granite and granodiorite which have **Insignificant or Zero** palaeontological sensitivity. Based on this information, the likelihood of impacting significant fossil heritage is unlikely, and no further studies are recommended for the palaeontological sensitivity of the development area.

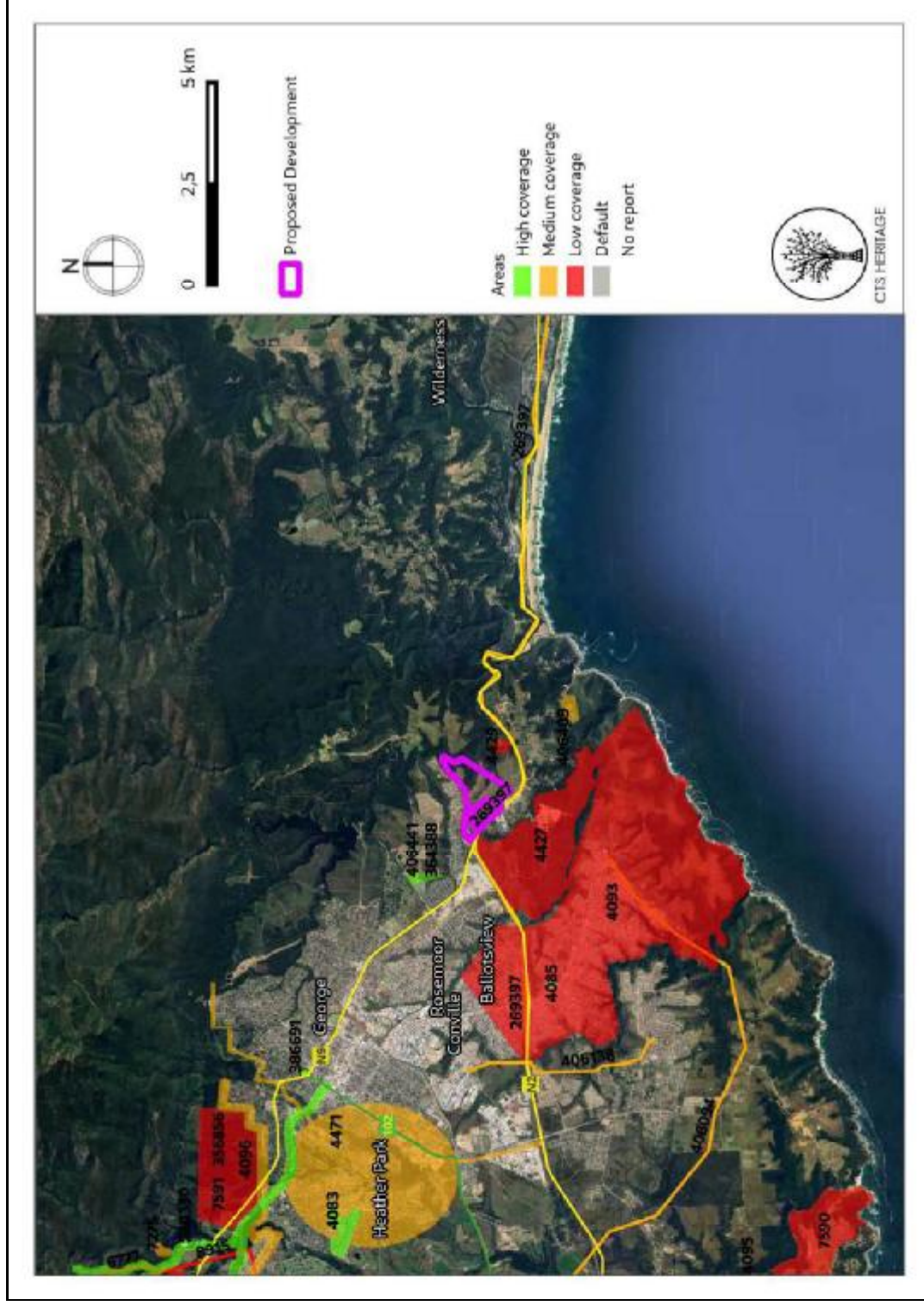


Figure 2.2 Spatialisation of heritage assessments conducted in proximity to the proposed development



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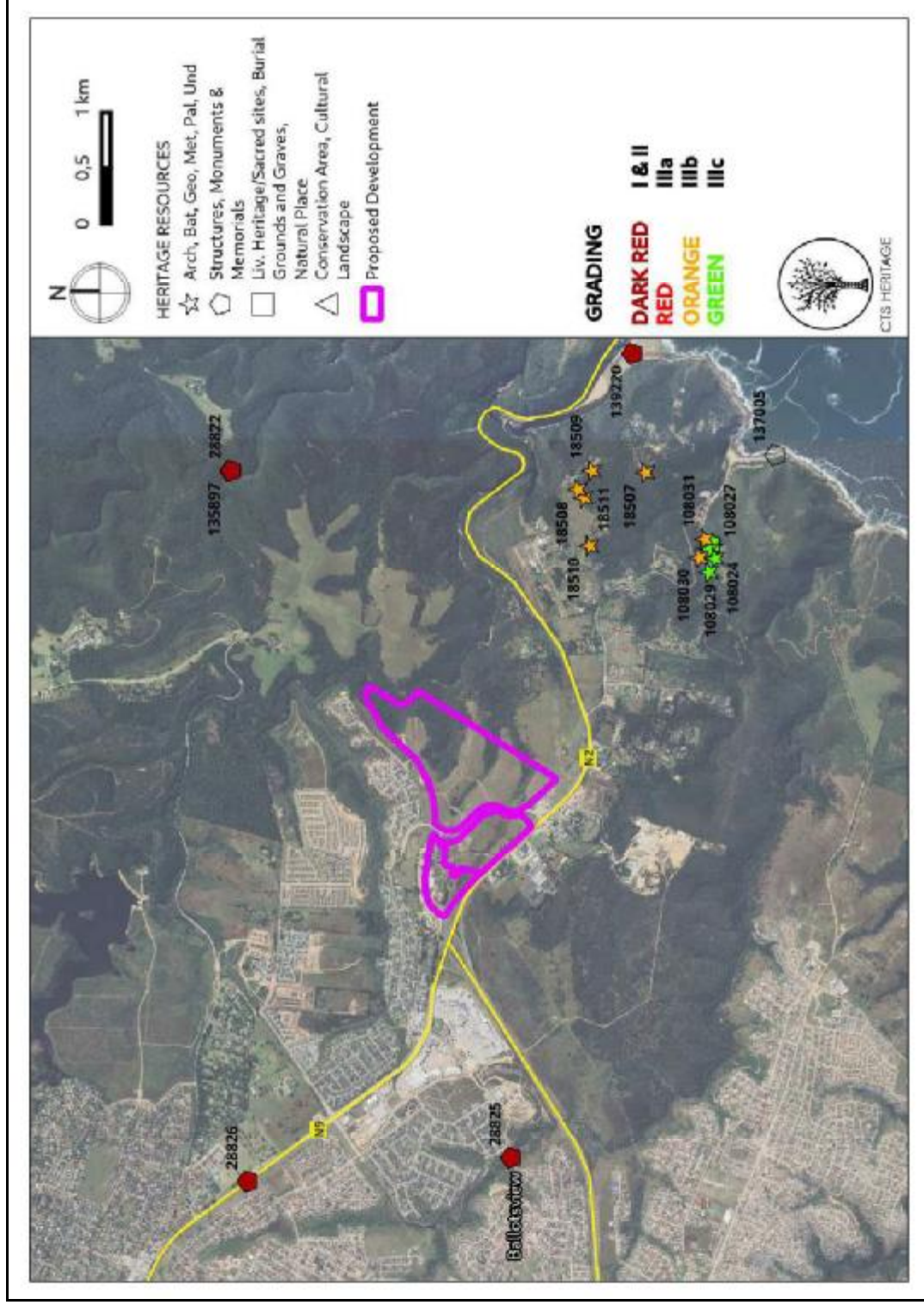


Figure 3.1 Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated.

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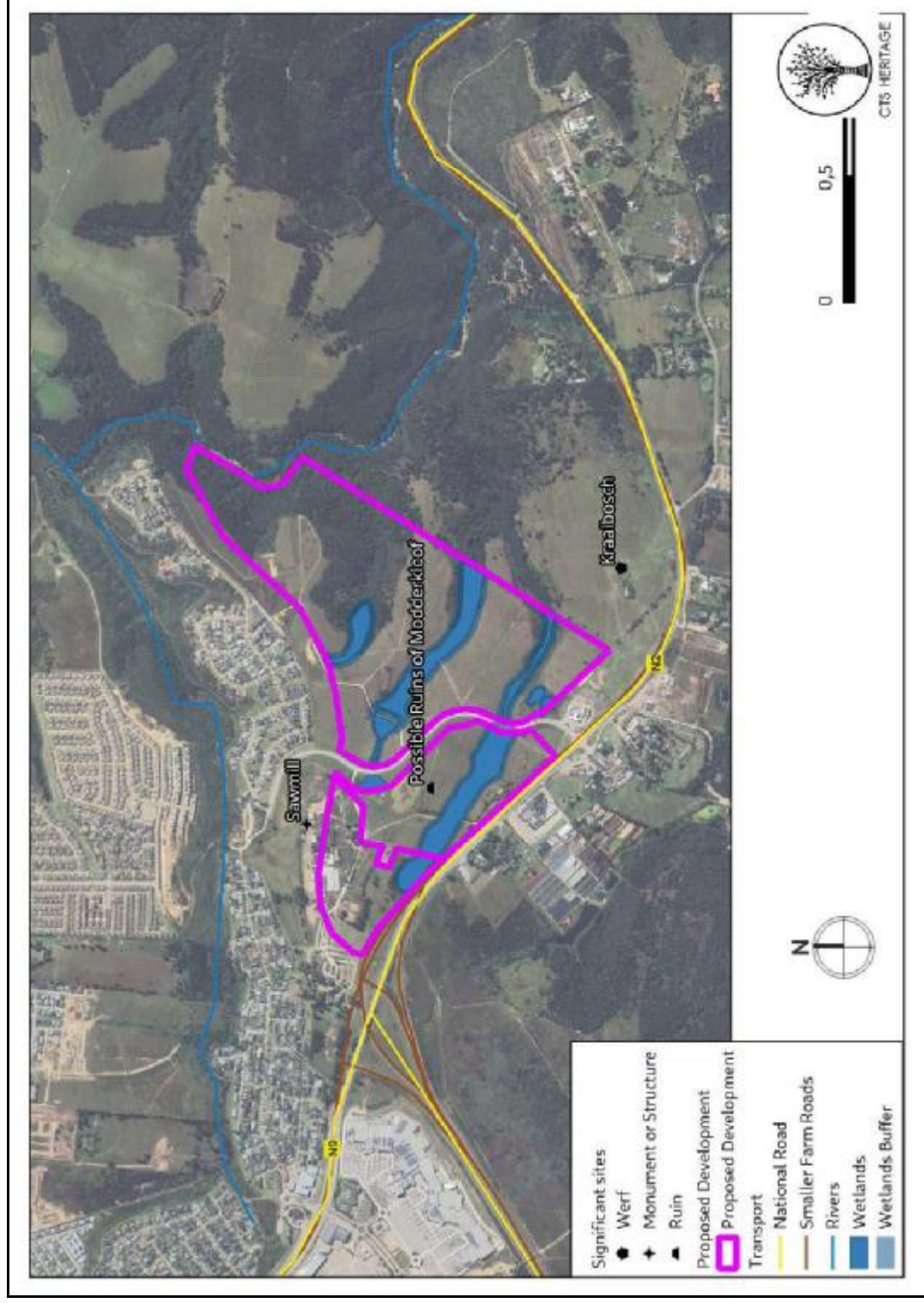


Figure 3.2 Cultural Landscape Map. Map indication sensitive receptors near the proposed development, extracted from the Topo 1:50 000 map (Wetlands area and buffer provided by client).

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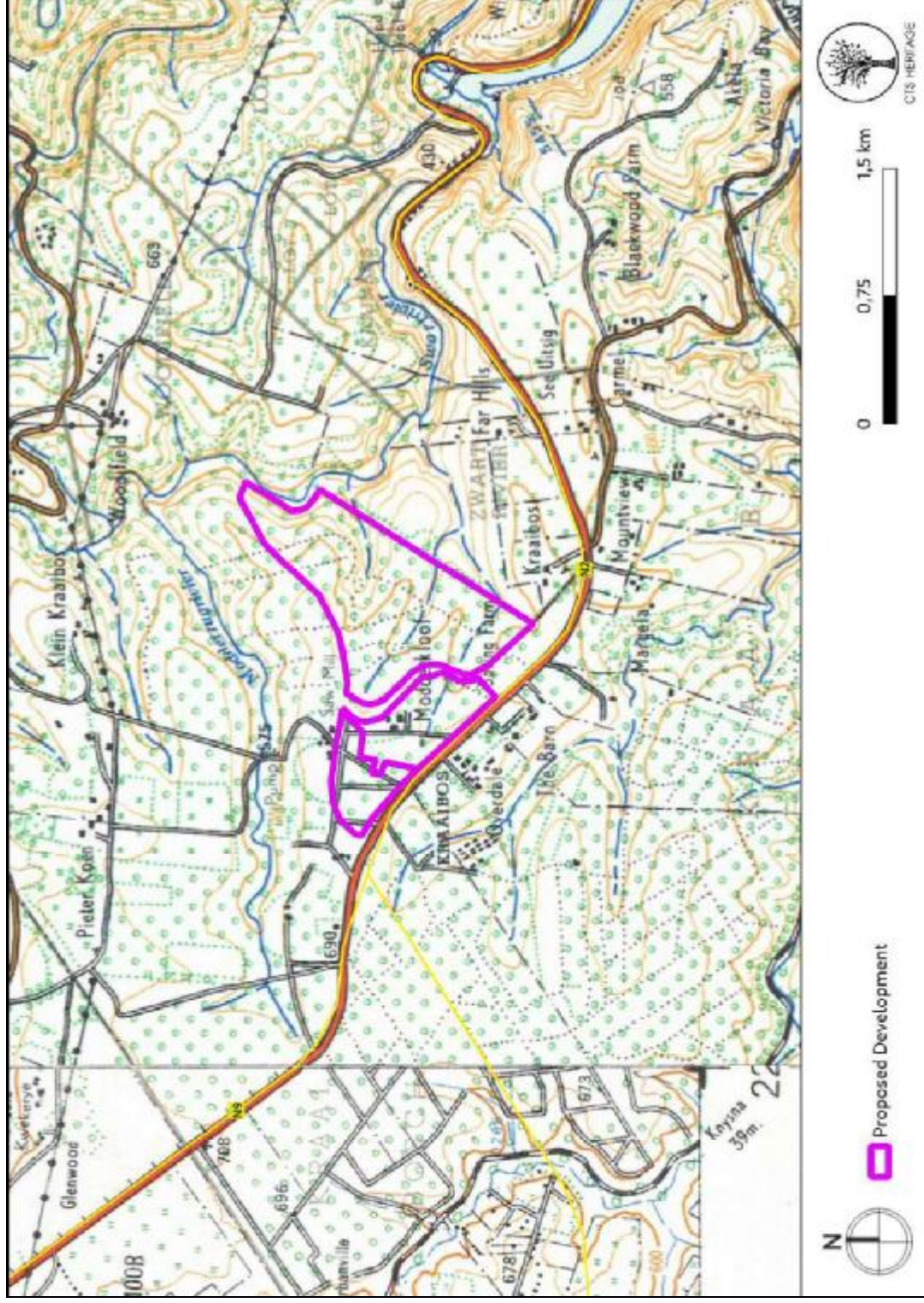


Figure 3.3 First Edition Topo Map. First Edition Topo Map indicating location of historical farm werfs

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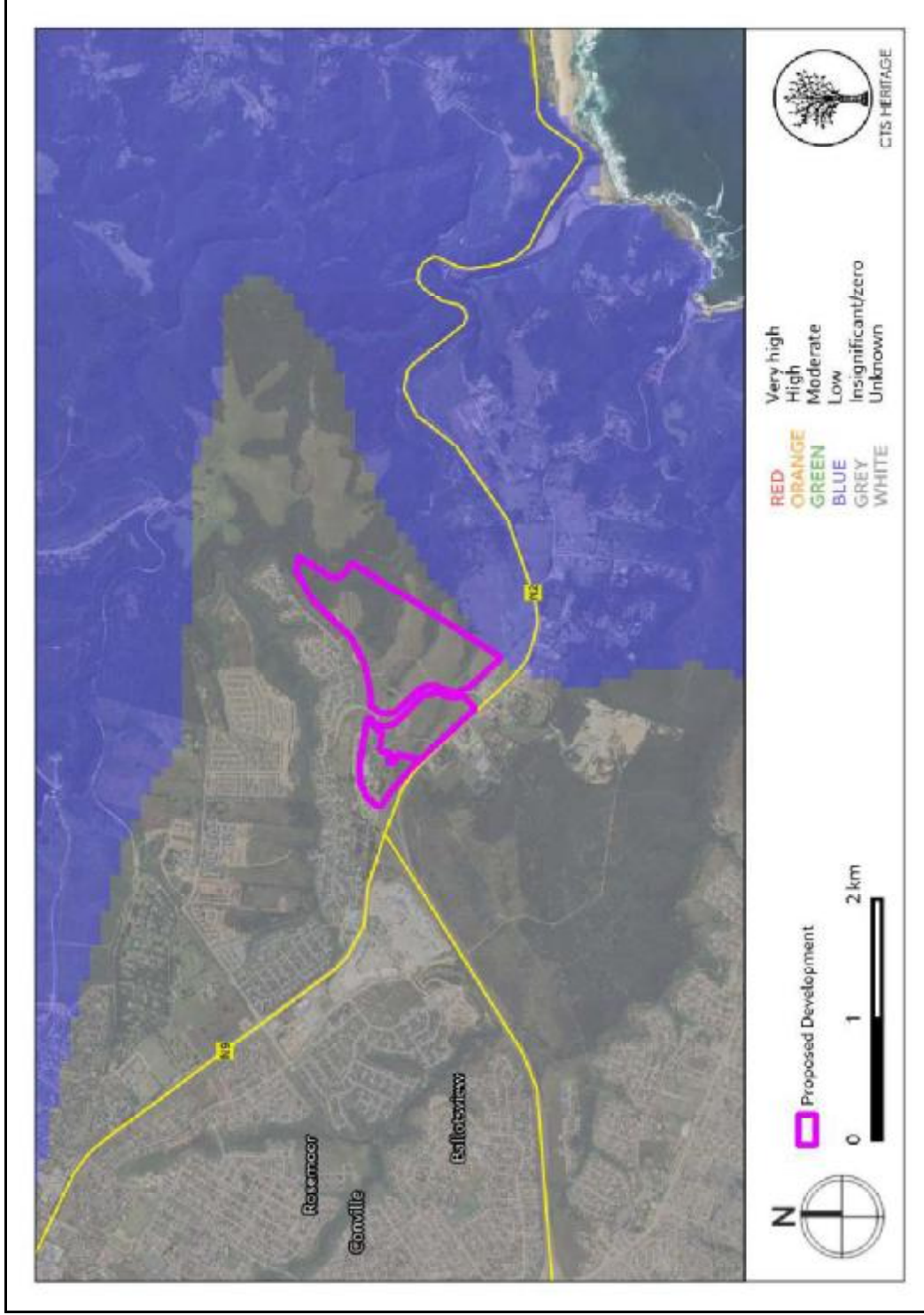


Figure 4.1: Palaeontological sensitivity of the proposed development area



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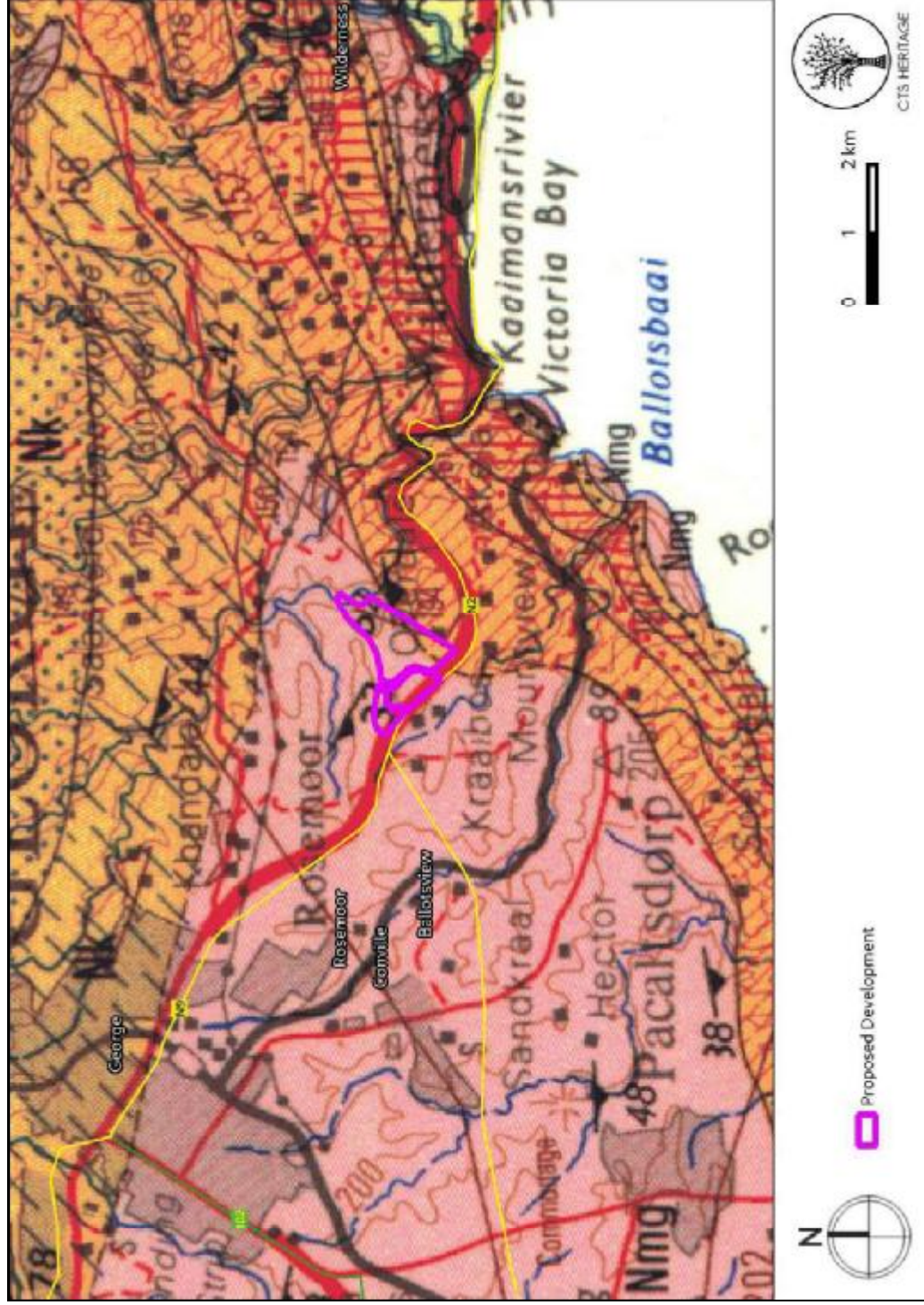


Figure 4.2: Extract from the CGS 3322 Oudstroom Geology Map indicating that the development area is underlain by Nmg: George Batholith, and Nk: Sandkraal Formation



4. IDENTIFICATION OF HERITAGE RESOURCES

4.1 Summary of Findings of Specialist Reports

4.1.1 Archaeology (Appendix 1)

The ruins of the Urbans sawmill were revisited in detail and rephotographed to ascertain whether the buildings had maintained their cultural value since the 2012 assessment by De Kock. The active use of most of the areas occupied by the sawmill for the local nursery has led to some retention of the state of the buildings but, for the most part, the condition of the sawmill complex is extremely poor. One of the buildings has been used to store a large volume of rubbish and much of the salvageable machinery and fittings have been stripped and sold for scrap. There are many other historic sawmills around South Africa that are in a much better condition than the Urbans sawmill and, given the ongoing deterioration it is likely more of the buildings will collapse in the near future. The site has therefore been graded as not conservation worthy. The rest of the study site lies on transformed forestry land and no graves or further ruins were found.

4.1.2 Visual Impact Assessment (Stead, 2025, Appendix 2a and 2b)

There is landscape relevance to the overall site in that it evokes a cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the transition from the built landscapes of the George town, into the undulating, rural landscapes that characterise the wilderness area of the Garden Route. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained.

This importance is described in the George Local Municipality SDF, stating, “if travelling along the Garden Route from Cape Town this is the first encounter with the dense indigenous forest characteristic of the Garden Route and, along with the commercial forestry plantations, an important part of the cultural history of the area... This landscape is a strong part of the identity of George and connects to a rural tourism sector that is central to George’s identity and has much potential”. Travelling westbound on the N2 Highway, after leaving the Kaaimans Pass, the Kaaimans traffic circle area is the main entrance into the built landscape of the town of George. Both these views are significant and currently offer clear views to the Outeniqua Mountains that should be viewed as key components of the cultural landscape heritage.

Also of value are the current arboreal landscape in the northern portion of the property created by the remnants of the pine trees, and other climax trees that reflect the forestry land use heritage around the old Urban sawmill. This theme is highlighted by De Kock in the 2012 Heritage Report undertaken for Magnolia Ridge Properties 77 (Pty) Ltd. De Kock states that “historically, the sawmill complex was entirely surrounded by pine plantations which effectively screened the site from view, the only remaining screening in place is two rows of linear-planted pine trees (L-shape) directly south and west of the building precinct... These trees enhance the overall visual



prominence of the site while framing the views of the building precinct. Therefore, in light of the overall forestry theme inherent to the complex, it is recommended that planting of pine trees along this corridor be encouraged". The sawmill is also highlighted as a heritage resource by De Kock, stating that "from a historical perspective, Buildings 18 and 19 are considered to be of the highest cultural significance by reason of its former functionality and resultant association with forestry as important local historic theme, we need to highlight the importance of considering the wider spatial qualities and identity of the building precinct as a whole". To ensure suitable alignment with the cultural landscape elements associated with the property, the above mentioned landscape heritage elements would need to be taken into consideration in terms of design, future landscaping, and with heritage structures of the old sawmill addressed as per the heritage assessment. In this regard, three-storey structures are not recommended as these higher structures would obscure views of the proposed heritage urban-arboreal landscape trees that would allow an alignment with the old Urbans Sawmill cultural heritage of the locality.

Stead (2025) assessed the Kraaibosch study area in two separate VIAs, divided into an assessment of visual impacts likely from the Meulenzicht Estate and the Oumeulen Estate (Figure X).

Meulenzicht Estate

The property is visually associated with significant vistas from the Urbans Boulevard which is a wide road reserve that effectively reflects the undulations of the terrain, creating an interesting meandering route with opens views to the east towards the Garden Route and Outeniqua Mountains. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained. Given the heritage relevance of the property, the following development criteria would need to be clearly depicted in the SDP:

- Plan for a medium-density settlement pattern within an 8m height restriction to allow for an urban-forest landscape to be the resulting landscape sense of place and ensure that the heritage vistas along the Urbans Boulevard retain some element of open views such that the eastern views do not become 'walled off' by continuous development along the road. Key vista point should be un-cluttered with views over structures. The following map depicts the significant landscape heritage views to the east from the N2 Highway.



Figure 5.1. Meulenzicht Estate



Figure 5.2. Oumeulen Estate

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Oumeulen Estate

The sawmill is highlighted as a heritage resource by De Kock, stating that “from a historical perspective, Buildings 18 and 19 are considered to be of the highest cultural significance by reason of its former functionality and resultant association with forestry as important local historic theme, we need to highlight the importance of considering the wider spatial qualities and identity of the building precinct as a whole” (De Kock, 2012). The property is also visually associated with significant vistas from the N2 Highway in both east and westbound directions. While the property does not specifically fall within one of the defined ‘gateways’ of the George SDF, the property does fall within vistas from the N2 towards the east that are effectively the initial view of the main wilderness section of the Garden Route. This specifically pertains to the eastern vistas of the Garden Route areas that effectively depict the ‘de facto’ gateway to the more wilderness related areas of the Garden Route. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained. Given the heritage relevance of the property, the following development criteria would need to be clearly depicted in the SDP:

- Retain key pine trees windrows (or slowly replace with Yellowwood trees) as per the De Kock heritage report, ensuring that an urban-arboreal landscape concept is retained to reflect the old Urbans Sawmill and forestry heritage. As the trees are alien invasive species and prone to wind-fall in isolation of a plantation, the recommendation is that the trees be felled. The design of the new layout allows for tree rows between the erven which, in conjunction with the street trees (mitigation requirement), would effectively reflect the old Urban Mill plantation sense of place in the medium to long-term. This would need to be a key component of the general mitigation and landscaping.
- Plan for a medium-density settlement pattern within an 8m height restriction to allow for an urban-forest landscape to be the resulting landscape sense of place and ensure that the heritage vistas along the N2 Highway and Urbans Boulevard are retained as open and un-cluttered with views over structures. The following map depicts the significant landscape heritage views to the east from the N2 Highway.



4.2 Heritage Resources Identified

As noted by De Kock (2012), *“The sawmill site falls within the proximity of a major intersection, which also serves as the eastern approach to George. When evaluating examples of existing development within the direct proximity of the site, we note that the siting and orientation of structures within close proximity to the N2, (e.g. with monotonous and long barrier-like structures or the rear of buildings facing the N2 as illustrated with have the potential to significantly detract from the visual amenity of the area.*

In addition, this has the potential to detract from the overall quality and sense of place for prospective visitors as it rather deters than attracts. It is therefore important that future planning of the study area incorporates important view corridors from the N2 as annotated with the heritage resource mapping (Figure 5.1). Again therefore, the benefits of an overall urban design framework aimed at informing future planning with relation to redevelopment of the site, cannot be discounted.”

Historical context

From a broader local historical perspective, the proposed development site has a strong association with forestry, which played a significant role in early establishment and development of the town and its environs and which is therefore considered to be of high local historic, social and aesthetical cultural significance. Future redevelopment of the site must therefore acknowledge and incorporate this local forestry theme.

Cultural landscape issues

Harvesting of the last forestry plantations and subsequent urban development within the proximity of the study area have, for the most part, transformed the landscape character of the area from forestry (and some agriculture) to predominantly urban development. For this reason it is considered necessary that remaining traditional (Pre-Modern) cultural landscape features evident within the landscape (e.g. tree lines, linear features and forestry grid block lines identified) be incorporated into the overall planning and design for redevelopment of the site.

Visual-spatial issues

The site is complex and in order to capture its unique sense of place and maximise the potential benefit to be derived from its broader historic context, it is strongly recommended that an overall urban design framework be compiled before further detailed planning for the site (and each individual building) be done to avoid haphazard and inappropriate infill, which in the long term may significantly degrade the setting and viability of the site as a whole.



These issues are addressed in the detailed and thorough VIA reports completed by Stead (2025a and 2025b). In his report, the following resources are identified;

- *Urbans Boulevard*

The Urban Boulevard provides access from the Kaaimans/ N2 intersection to the eastern gated estates of Welgelegen. The Boulevard sense of place has been created by design, allowing for a winding road that takes the undulating terrain into account, providing open views to the Outeniqua Mountains that significantly add to the sense of place. A large road reserve was proclaimed that allows for suitable setbacks such that views over residential structures are possible. This effect is reflected in the adjacent Welgelegen Estate to the north of the site, the wide road reserve allows for more open views of the eastern residential dwellings that are located below the height of the road users. The recommendation is that, as this was the intention of the design, the openness of the existing experience of the landscape context should remain to some extent.

The location of 8m dwellings in close proximity to the road would detract from the intended experience of the road if residential 'walling' effect took place. As the site has previously been excluded from the George Municipality Urban Edge, the land uses are rural, with open views to the east. Some plantings of indigenous trees have taken place, but the tree growth remains stunted and many of the trees have died. The trees that remain will become feature trees over time, an effect that would enhance the sense of place and should be encouraged.

- *N2 National Highway*

The N2 Highway is the most important tourist route along the length of the Garden Route and is highlighted in the DFFE EMF. The importance of the road is flagged in local and district municipality planning as an important tourist view corridor where adjacent land uses need to take the scenic quality into account. Travelling along the N2 Highway eastbound, the initial view of the development area will take place at the Knysna Road interchange. The views from this locality currently depict multiple trees that are a remnant from the old Urbans Mill, as well as more recently planted trees around the Outeniqua Farmers Market. As the trees are predominantly pines and invasive species that are prone to wind-fall risks, these trees would need to be felled. There is limited structural development in the background save for the single water tower structure in the mid-ground.

- *N2 National Highway Eastbound and Westbound: Teachers Apartments*

The existing views from this location allow for open views to the east towards the Garden Route rural landscapes. This is the de-facto initial eastbound view of the wilderness section of the Garden Route that does have value and should be considered landscape heritage and as a gateway into the Garden Route.



Built environment issues

Since 2012, the structures associated with the sawmill have further deteriorated and at present, have very little cultural value remaining. These structures have been determined to be Not Conservation-Worthy in this assessment.

However, as noted by De Kock (2012), it is not necessarily individual buildings that define the unique identity of the sawmill precinct but rather the clustering and combination of substantially-sized, industrial-orientated and purpose-built structures and how these developed over an extended period of time during the operational phase of the sawmill;

Therefore, due to the need to also capture the broader spatial qualities of the sawmill precinct, (rather than only individual buildings) attention with relation to future design should be focussed on developing an overall architectural design manual aimed at acknowledging existing scale, bulk, materials as well as the simplicity, flexibility and functionality of existing structures. This architectural design manual should tie in with the urban design framework.



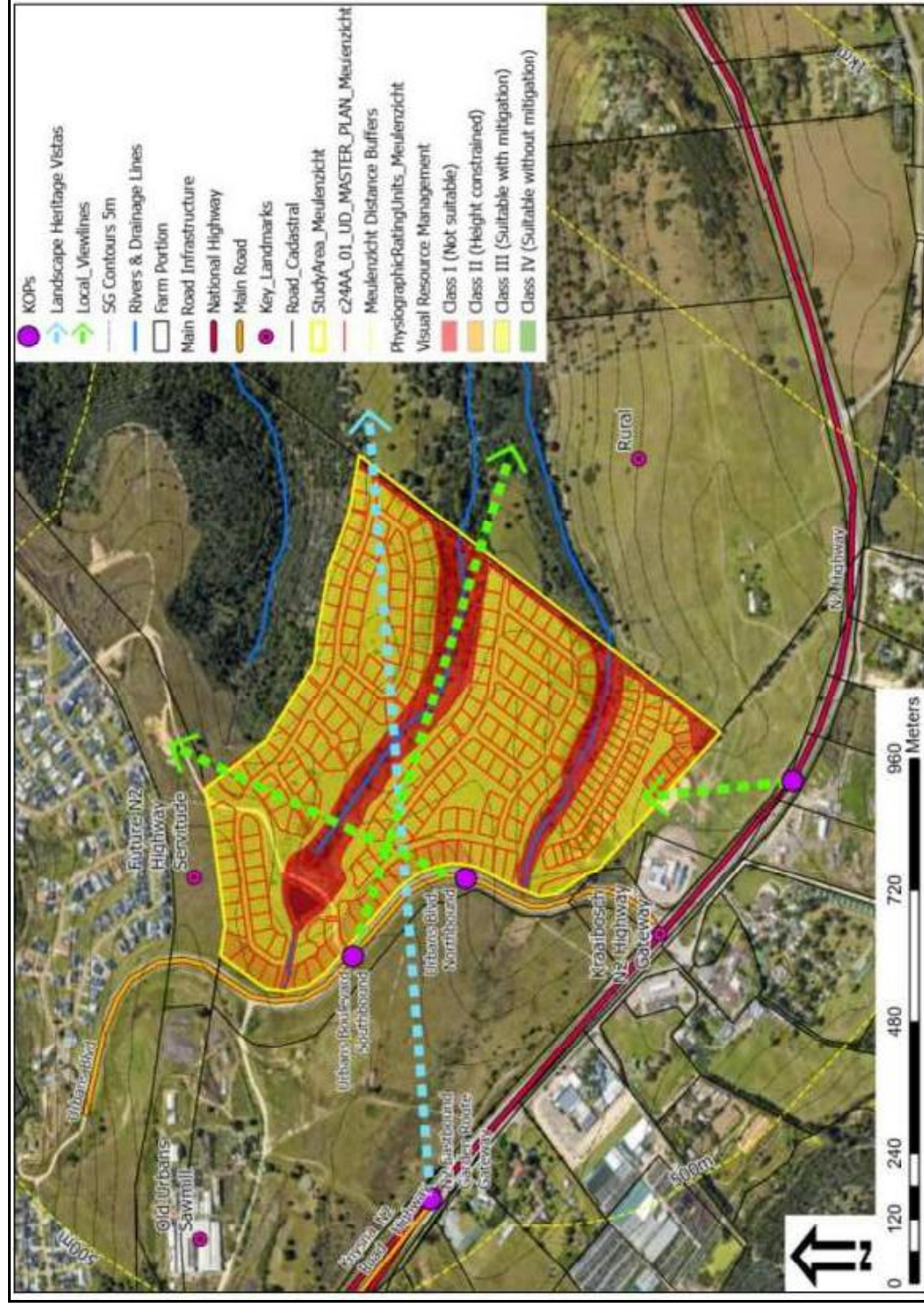
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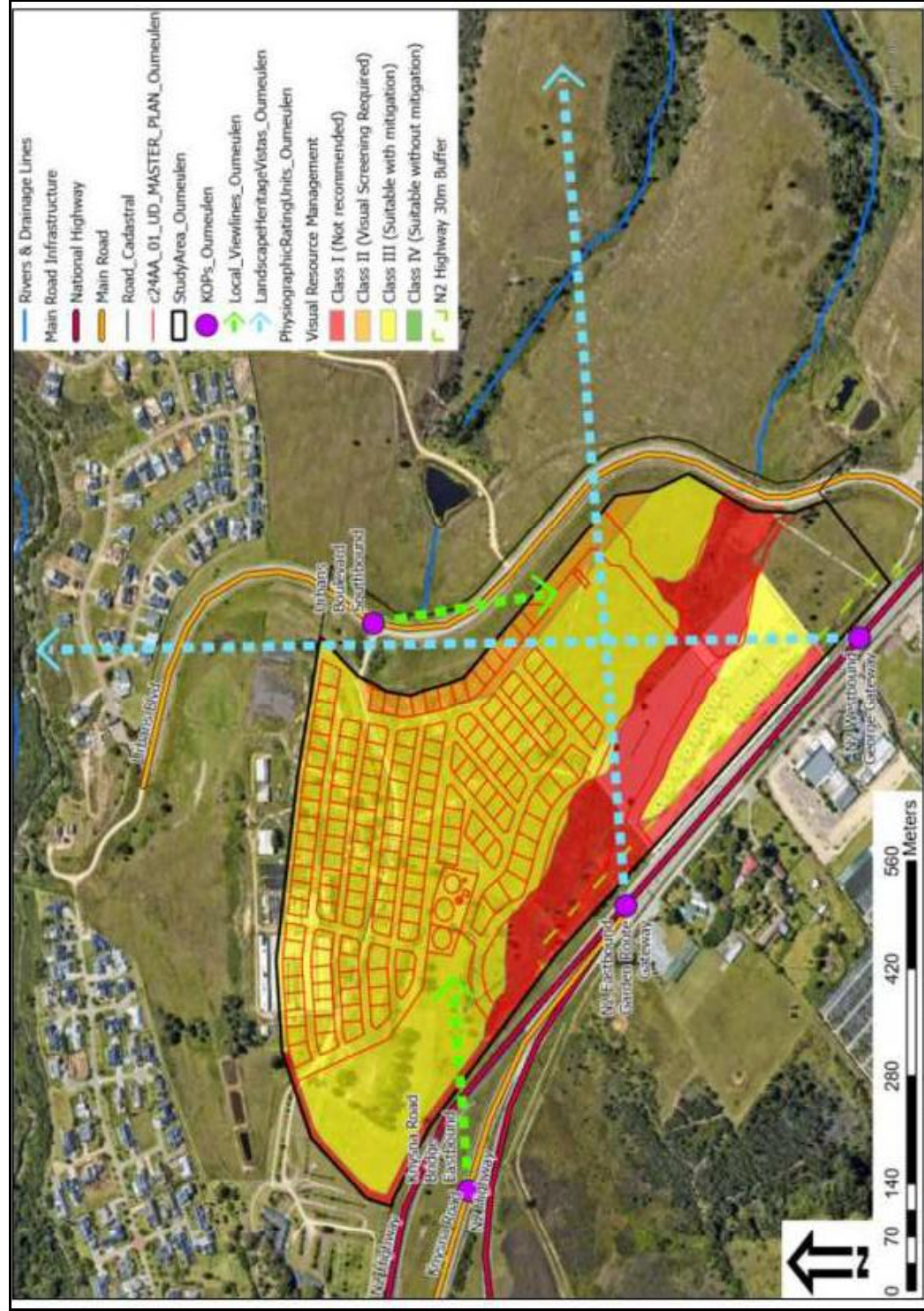
4.3 Mapping and Spatialisation of Heritage Resources



Figure 6.1: Heritage Resource Mapping from de Kock (2012)

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Figure 6.4: Visual Resource Management Classes map overlaying the layout proposal for the Oumeulen Estate (Stead, 2025b) - Teachers Apartments

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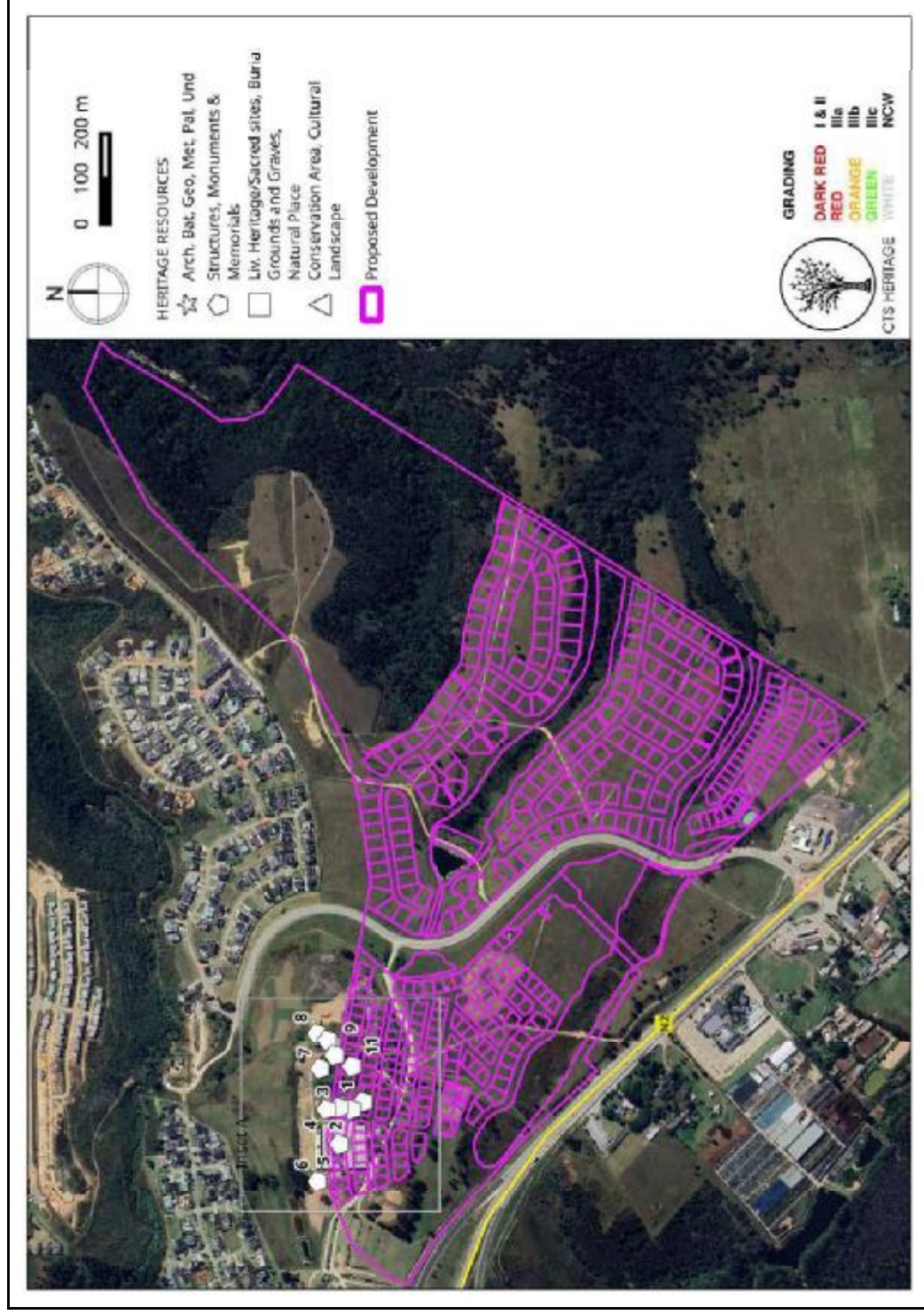


Figure 6.5: Heritage Resources Identified map

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Figure 6.6: Heritage Resources Identified inset map A

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5. ASSESSMENT OF THE IMPACT OF THE DEVELOPMENT

5.1 Assessment of Impact to Heritage Resources

5.1.1 Cultural Landscape and VIA

According to the VIA (2025a and b), “The scenic quality of the site is rated as medium to high. The landforms are characterized by strong undulations, contributing to the landscape’s visual associations with the eastern Garden Route vistas. The vegetation primarily consists of veld grasslands, with some larger (mainly non-native) trees in the northwest portion of the property. These trees are associated with the heritage of the old Urbans Sawmill and forestry. The veld grasslands visually connect with eastern rural landscapes. Cultural modifications are limited to the northern portions of the property and are related to the old Urbans mill and the remaining pine trees and other non-native vegetation around this site. Although the old mill currently results in some local landscape degradation, it holds some heritage value in terms of cultural heritage. The property also offers significant views to the east into the Garden Route, with background views of the Outeniqua Mountains, enhancing the scenic quality of the site.”

The VIA (2025a and b) has identified varying visual sensitivity across the development area (Figure 5.2):

VRM Class I - Not Suitable for development

Class I is assigned when legislation restricts development in certain areas. The visual objective is to preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention. A Class I visual objective was assigned to the following features within the proposed development area due to their protected status within the South African legislation:

- N2 Highway landscape heritage visual buffers.
- Knysna Road/ N2 Highway Intersection screening boundary buffer

These areas comprise key components of the local sense of place, are associated with landscape heritage vista or legal water use management stipulations restricting development and as such, should be retained No-Go areas.

These areas comprise key components of the local sense of place, are associated with landscape heritage vistas or legal water use management stipulations restricting development and as such, should be retained as No-Go areas. The following mitigations pertain to these areas:

- 10m No-Go buffer from the Knysna Road/ N2 Interchange road reserve for berming and landscaping as per the existing Kraaibosch Estate development precedent.
- 30m from the edge of the N2 Highway to allow for the drop in slope east of the road embankment to better contain the double-storey dwellings such that views over the structures can take place.



VRM Class II - Height constrained

The Class II objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be low. The proposed development may be seen but should not attract the attention of the casual observer, and should repeat the basic elements of form, line, colour and texture found in the predominant natural features of the characteristic landscape.

- Urbans Boulevard vista is sensitive..
- Teachers Apartments:
 - Detailed landscape planning for use of medium sized trees to effectively screening the bulk of the apartments without
 - Initially retain the existing pine trees, not within a development footprint, while interplanting of medium sized trees to replace the pines as these trees standing in isolation will become a fall hazard.
 - Specific planting of medium sized trees x 3 to the northwest of the row of apartments to ensure that this unit in predominantly screen within the short to medium term.

The Urbans Boulevard was designed as a view corridor with wide verges to accommodate views over residential units. To ensure that the existing view corridor sense of place of the Urbans Boulevard are retained, a 6m average height above ground level is recommended for these units proposed along the Boulevard. To ensure that some views over the proposed structures take place, a 10m buffer from the road cadastral is also recommended as a non development area. The combination of these two mitigations with landscaping, would effectively allow for maintenance of the wide road, Boulevard sense of place with open views to the east.

VRM Class III (Suitable with mitigation)

The Class III objective is to partially retain the existing character of the landscape, where the level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer, and changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The following landscape was defined as having Class III Visual Objectives where development would be most suitable:

- Undulating grasslands.

The majority of the remaining portions of the property are characterised by veld grassland on undulating terrain. Located within the urban edge and zoned for residential, these areas would be suitable for lower/ medium density residential related development. The following mitigations have relevance to these areas in the Meulenzicht Estate development:



- Maximum 8.5m height restriction to an effective transition to the eastern medium to long term urban edge.
- Street trees planted every 15m on one side of all streets.
- Planting of trees every 15m along the identified 'green' rows in the residential areas.

The following mitigations have relevance to these areas within the Oumeulen Estate development:

- Maximum 8.5m height restriction to ensure that an inner urban landscape context is not created.
- Single Residential and Apartment main roads: Street trees on both sides of all main interior roads every 15m to reduce massing effects and more effective landscape transition to the eastern Garden Route landscapes.
- Apartments: Street trees planted every 15m on one side of all internal streets.
- Planting of trees every 15m along the identified 'green' rows in the residential areas.
- Phase A2 Apartments (and the un-named apartment areas adjacent to Knysna Road) need to reflect a similar tree landscaping "rows" to allow for visual continuity and reduction of massing effects from the higher density apartments.
- It is recommended that the complete removal of all the old Urbans Mill structures should be a condition of approval as the small sections remaining outside the property, within the proposed N2 Highway road reserve, would create landscape decay effect that will negatively influence the property prices of the proposed development.
- There are numerous pine trees that are slowly spreading across the wetland. These trees pose an alien invasive risk, and as they are standing in isolation, will be subject to windfall and place undue risk on nearby structures and persons. The pine trees should be felled. The planting of significant trees amongst the residential buildings located in the background areas will eventually create an urban forest effect that would reflect the heritage of the original pine forests of the old Urbans Mill locality.
- The views along the N2 Highway adjacent to the wetlands should be kept open to allow for the continuation of this heritage vista to the eastern Garden Route landscapes.

VRM Class IV (Suitable without Mitigation)

The Class IV objective is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the landscape can be high, and the proposed development may dominate the view and be the major focus of the viewer's (s') attention without significantly degrading the local landscape character. Due to the degraded sense of place, the following areas were rated Class IV:

- Not applicable.



With regard to the Meulenzicht Estate development, as the area depicts higher scenic quality and where receptors would be more sensitive to very intensive residential/ industrial developments, and there is no planning for industrial/ mixed used type development, no Class IV areas were defined.

With regard to the Oumeulen Estate development, as the old Urbans Mill depicted landscape decay, the visual inventory for this site did result in an inventory Class IV. However, as this area is not zoned for industrial development, usually associated with Class IV landscapes, the inventory class was changed to a Class III visual management to accommodate the residential zoning for the site.

Visual Impact Discussion

- Urbans Boulevard

The location of 8m dwellings in close proximity to the road would detract from the intended experience of the road if residential 'walling' effect took place. As the site has previously been excluded from the George Municipality Urban Edge, the land uses are rural, with open views to the east. Some plantings of indigenous trees have taken place, but the tree growth remains stunted and many of the trees have died. The trees that remain will become feature trees over time, an effect that would enhance the sense of place and should be encouraged.

Without mitigation, there is a risk from residential 'walling' effects from residential erven from both the Oumeulen and Meulenzicht Estates where the line of 8.5m high dwellings located along the road would significantly alter the openness of the Urbans Boulevard current sense of place. Contrast generated from these two rows of development would result in strong levels of visual contrast and the Class III Visual Objective would not be met. The closing in of the residential units around the small dam would obscure the view of this feature, detracting from the existing boulevard sense of place. Without mitigation, the Class II Visual Objective defined for the road would not be met. However, within the urban edge development context, there is an expectation for some development. The photomontages generated for a section of the Urbans Boulevard by the project architects depicts that with a setback, and landscaping along the road, the proposed development would be similar to the Welgelegen Estate example (but with some higher visual intrusion due to less of a drop in slope and a larger setback buffer. However, this effect along the length of the route would effectively wall off the depth of view to the eastern Garden Route over the Swart River. To ensure that the route sense of place is retained to some degree where depth views beyond the front line of proposed dwellings can take place, the recommendation is that four erven to the west of the small dam (north of the main gate), are removed.

- N2 National Highway Westbound: Peri-urban Areas

The existing views from N2 Highways receptors travelling westbound into George are currently peri-urban, transitioning from rural to urban. As such, while the VAC levels are higher, there is no precedent for double storey structures. To protect the areas to the east that are outside of the urban edge, the proposed structures should



appear to be single residential, following the existing landscape context. With this mitigation, the units that are set back 150m from the road would meet the Class II Visual Objective.

- N2 National Highway Eastbound: Western Apartments along Knysna Road

Without mitigation, the landscape change from the apartment developments would depict Strong levels of visual contrast from the block forms of the structure, the longer lines created by the rows of apartments as seen from the elevated section of the Knysna Bridge crossing the N2 Highway, and possible strong colour contrast from wall paint and reflective roof sheeting textures. While this area does fall within the George Municipality Urban Edge and is zoned for higher density development, the development area was assigned a Class III Visual Objective where moderate levels of change should take place to ensure that some moderation of the landscape change takes place.

With mitigation, the Class III Visual Objectives could be met by the creation of a low berm (2m) with intensive indigenous plantings around the western apartment areas. This would also screen ground views from N2 Highway westbound as well as assist in retaining the sense of place of the Outeniqua Market located to the west of the site. This type of mitigation planting has been successfully implemented at the Kraaibosch Estate, and with effective implementation, could effectively screen off the 8m high apartments from the ground level N2 Highway receptors. A maximum height restriction of 8.5m, landscaped berm along the perimeter, as well as incorporation of street trees into the layout, would also be required.

- N2 National Highway Eastbound and Westbound: Teachers Apartments

Due the 30m setback from the N2 Highway, the drop in elevation to the east of the N2 Embankment would allow for less dominating views. The Class III Visual Objective would be met for the apartments with mitigation. With mitigation and retaining of the existing pine trees until other indigenous screening trees can be established, will effectively add value to the local landscape context. The large view buffer between the N2 Highway and the wetland should be retained open, and the pine trees along this section of the highway felled.



Figure 7: The key views that will need to be taken into account are from the N2 Highway section (NuVorm, 2025)



Recommended Mitigation Measures for Meulenzicht Estate

N2 National Highway Eastbound Peri-Urban Views: Phase 2B Apartments

- Six apartment dwellings are located in a relatively prominent location and are currently viewed from a peri-urban landscape context as seen from the N2 Highway receptors eastbound. The row of double storey structures would be clearly visible from the N2 Highway in the foreground, where there is no other similar residential dwelling context, other than the proposed background views of the proposed development single residential houses. To retain the existing peri-urban sense of place that does add value, a row of fast growing indigenous trees should be planted to the south of these structures following the existing farm wind break alignment with a 15m spacing between stems.

Urbans Boulevard

- The recommendation is that the proposed erven along the Urbans Boulevard (Refer to Figure 20 in the VIA) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen Estate where the natural drop in the terrain from the road allows for more effective views over the dwellings, thus reducing the 'walling' effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments on either side of the road. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.
- The recommendations is that the proposed erven along the Urbans Boulevard (Refer to Figure 20 in the VIA) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen where the natural drop in the terrain further from the road allows for more effective views over the dwellings, thus reducing the massing effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better throughviews.
- To allow for a vista gap to break the 'walling effect' created by the proposed line of dwellings along the Urbans Boulevard from the Oumeulen (west of road), and the Meulenzicht (east of road), is recommended that four erven should be removed to create a significant visual 'pause' area. This would allow an vista opening along the portion of the road to the small dam and background views of the eastern Garden Route. This would ensure that key views that benchmark the landscape heritage of the Boulevard are not all lost behind estate houses, to the detriment of the those using the road to access the tourist precinct/ residential areas or simply enjoying the road as a walking space. The photograph



inserted into the above map, taken from the boulevard should be retained as open. The area should be retained as natural vegetation allowing the fynbos vegetation (specifically Erica species) to regrow as an extension of the natural vegetation landscaping along the drainage line.

- To ensure that security fencing does not impact the views, Clear-View type security fencing should be used along the road. For the section along the farm dam 'view-gap', the Clear-View fencing should be set back 10m from the road reserve to afford views over the security fencing.
- Planting of medium sized indigenous trees along the boulevard following the effective precedent set by the Welgelegen Estate. The trees should be scattered to create more organic plantings. The section of road overlooking the farm dam should not have trees to enhance the view down the valley. Trees planted along the road would need to have 1m x 1m holes dug and the tree planted with a suitable compost mix (subject to detailed landscaping planning and review by George Aesthetic Committee). The following photograph of Welgelegen landscaping should inform the final landscaping plan. The landscape plan should also take into consideration that this is optimal location for the growing of Ericaceae family if veld areas are not cut.
- Along the verges of the Urbans Boulevard where suitable, natural veld-grass 'patches' can also be created to allow Erica species growth and reduce the burden of the municipality having to cut the verges. This would reduce the maintenance burden placed on the municipality, but with management of the gardens by the estate.
- The existing Welgelegen Estate entrance should also be used as a positive precedent. The walling is set back from the road with intensive, indigenous vegetation landscaping to partially screen the entrance from the road. This precedent should be used as a reference for the Meulenzicht Estate entrance.

General Development

- The proposed Club House should be restricted to single-storey height to reduce visual intrusion and walls well screened by indigenous vegetation without the vegetation blocking views over the clubhouse structure. The vehicle parking area for the clubhouse should not dominate the local landscape context and should be screened from view with a variety of medium sized indigenous vegetation.
- To ensure that the proposed Water Treatment Plan does not become visually intrusive, this structure needs to be visually screened by the planting of fast growing indigenous trees.
- All interior roads and 'tree-gap' areas should be planted as an avenue of indigenous trees at 15m spacings on both sides of the road. As the topsoil is limited in the area overlaying clay soils, the detailed landscape plan should specifically take the inherent constraints of the soils into consideration.
- In principle, with the exception of the flat topped roof proposals, the concept architectural guidelines provided to inform the LVIA are suitable to provide sufficient confidence in the assessment. However, as this is a large area development that does have the potential to significantly alter the eastern entrance into the George, more detailed architectural guidelines should be generated, and be subject to external



review, prior to construction phase. These guidelines should be provided to the George Aesthetics Committee for review.

- A key mitigation is that landscape planning is incorporated into the design. As this is a key factor influencing the proposed amendment to the sense of place of the Urbans Boulevard, these plans should be provided to the George Aesthetics Committee for review.

Recommended Mitigation Measures for Oumeulen Estate

N2 National Highway Eastbound: Western Apartments (phase un-named on plan) along Knysna Road.

- Maximum 8.5m height restriction with natural/ earth colours for walls and roof areas.
- 10m buffer around the exterior sections of the Apartment area for 2m high berm and intensive indigenous landscaping as per the existing Kraaibosch Estate berm landscaping depicted in Figure 30 of the VIA (2025).
- Street trees on both sides of all main roads at 15m between stems to reduce massing effects and more effective landscape transition to the eastern Garden Route landscapes. Single row of street trees along each of the internal roads also at 15m intervals.
- In relation to views from the elevated bridge of Knysna Road, Phase A2 needs to reflect a similar tree “row” landscaping as Phase A1 to allow for visual continuity and reduction of massing effects from the higher density apartments. The green space rows need to extend into the apartment area with these areas depicted in the layout. Planting of trees 15m stems along the identified ‘green’ breaks in the apartment residential areas.

N2 National Highway Eastbound and Westbound: Southern Apartments and Phase A2.

- The areas adjacent to the N2 Highway and the wetland need to be retained as open space and all pine trees need to be removed in this area to allow for the initial Garden Route view to the east for N2 Highway receptors travelling east.
- The single, northern townhouse structure should be well screened with the planting of at least 3 x medium sized fast growing indigenous trees.
- The area where Teachers Apartments are proposed, should retain the pine trees that are not a fall risk to the proposed structures, as temporary visual screening. This area adjacent to the highway needs to reflect a similar landscape context of scattered trees, but with indigenous trees grown between the pines. Once the indigenous trees become established, the pine trees can slowly be removed as they will become a fall risk when they get very tall.
- Black Thru-view type fencing that allows for security without visual restriction.
- Natural earth-based colours with a grey hue for all structures.



Urbans Boulevard

- The existing indigenous trees within the Urbans Blvd. road reserve on the embankment areas have not taken due to very shallow topsoil on top of clay subsoils. The trees are stunted and unlikely to grow effectively without specific measures to introduce topsoil. Detailed landscape planning around a wide 2m high planted berm to reduce the visual intrusion of the proposed double storey structures along this route should be generated and provided to the George Aesthetics Committee for review.
- The areas around the current entrance to the Outeniqua Farmers Market that have been landscaped, should be retained as a component of the new estate entrance. The small wetland area to the south of the entrance should be incorporated into this indigenous tree landscaping as part of the open space 'pause' area that is proposed for the Meulenzicht areas to the east of the Boulevard as a continuity open-space.
- In order to not change the wide road reserve design, as well as not set a precedent for sale of road reserve that could add to the sense of place, the proposed sale of a portion of the Urban Boulevard for development expansion is not supported.

5.1.2 Archaeology

No significant archaeological resources were identified during the field assessment. This is likely due to the extensive transformation of the area in the past resulting from the forestry activities that have taken place here. The ruins of the Modderkloof farm werf were not visible on the ground surface, but may be present beneath the ground surface.

No impact to significant buried archaeology is likely, however it is possible that the remnant foundations of the Modderkloof farm werf may be impacted. The remnant foundations of the Modderkloof farm werf have limited cultural value and are considered to be Not Conservation-Worthy.

The significant structures identified by De Kock in 2012 were re-evaluated. Although the remnants of the saw mill industrial infrastructure speak to the forestry past of the property, the structures that remain are not rare or unique, and have no other cultural value that would warrant their retention. Unfortunately, since 2012, the identified structures have further deteriorated and as such, it has been determined that there are no conservation-worthy elements that remain at these structures.



5.2 Sustainable Social and Economic Benefit

According to the Socio-Economic Assessment completed for this project:

The proposed development is anticipated to have a positive direct impact on the local and regional economy through construction and sub-contracting. The construction phase of the development is anticipated to contribute to business growth through the purchase of building materials and equipment from within the local area. Local and regional economic sectors such as the construction, transport, wholesale and retail trade sectors are anticipated to be positively impacted by the proposed development. The following are the broad activities that are anticipated to result in the stimulation of the regional economy:

- Growth in business activity
- Increased private investment
- Increase in household income
- Increased spending on goods and services, which will result in the flow of money back into the local economy through the multiplier effect.

Following the construction phase, the operating expenditure will further stimulate the local economy and contribute to the GDP of the George Local Municipality in the long term. As a result of the project location, the economic benefits will be felt by both the town of George and the Municipality. Economic benefits are expected across various dimensions of the local and regional economies.

Additionally, the proposed development is anticipated to create direct, indirect and induced employment opportunities. Direct employment opportunities are expected to occur through the employment of construction workers, which is anticipated to be short-term or last until the construction phase is complete. The development is anticipated to attract a pool of skilled and semi-skilled labour in the local area and is expected to result in the transfer of skills during the construction phase. Furthermore, transactions with building material suppliers will potentially create indirect job opportunities; suppliers will potentially hire additional factory workers as well as equipment and material producers due to the demand for building equipment.

During the operational phase, direct employment creation is anticipated through the following activities: (i) cleaning and maintenance of the building, (ii) safety and security and (iii) building management. Indirect employment creation will occur through transactions with suppliers such as cleaning material suppliers and security services. These may be outsourced from external companies and may provide those companies to hire more employees to produce the supplies or offer the needed services.

Induced employment creation will be created through retail jobs that will be created as those who are employed during the operational phase of the development will spend their disposable income on goods and services. The increase in business sales may potentially create an incentive for retail stores to employ more workers.



The anticipated socio-economic benefits to be derived from the project only outweigh impacts to heritage resources ONLY on condition that the recommendations in this HIA and the VIA (2025a and b) are implemented.

5.3 Proposed Development Alternatives

As the primary heritage concerns regarding this development relate to the impacts on the sense of place and significant visual resources, the below discussion regarding alternatives is informed by the findings of the VIA (Stead, 2025a and b).

Meulenzicht Estate

Preferred Development Option: Without mitigation

- Economic and employment opportunities for the local area.
- Removal of alien trees on the property.
- Walling effects along the Urbans Boulevard that would detract from the essence of the design which has value as an urban view corridor.

Preferred Development Option: With mitigation

- Residential development without significant loss of local visual resources and with moderated visual intrusion to local receptors with mitigation (medium to long-term).
- Removal of alien trees on the property
- Economic and employment opportunities for the local area.
- Potential for the residential development to set a precedent for other residential areas to the southwest outside of the urban edge (Medium risk).
- Loss of some landscape character and sense of place from the existing peri-urban landscape context / eastern Garden Route areas as the visual presence of George expands to the west.

No-Go Option

- Retaining existing peri-urban landscape context
- Retaining open views to the east along the Urbans Boulevard.
- Limited economic benefit to the local area, and the continuation of the fairly fragmented peri-urban sense of place at this section of the Kraaibosch traffic circle development node.

Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred. However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that



visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore not recommended.

Oumeulen Estate

Preferred Development Option: Without mitigation

- Degradation of significant views from the N2 Highway area to the east that currently depict open views to the undulating Garden Route landscape with the Outeniqua Mountains in the background.
- Walling effects along the Urbans Boulevard that would detract from the essence of the design which has value as an urban view corridor.

Preferred Development Option: With mitigation

- Residential development without significant loss of local visual resources and with relatively low visual intrusion to local receptors with mitigation (medium to long-term).
- Removal of alien trees on the property that will become a fall/ alien tree invasive risk, and re-establishing quick growing indigenous tree species.
- Economic and employment opportunities for the local area.
- Potential for the residential development to set a precedent for other residential areas to the west outside of the urban edge (Medium risk).
- Loss of some landscape character and sense of place from the existing peri-urban landscape context / eastern Garden Route areas as the visual presence of George expands to the west.

No-Go Option

- Retaining existing peri-urban landscape context that does enhance the George/ Garden Route interface as well as retain existing heritage vistas to the eastern Garden Route and Outeniqua Mountains.
- Limited economic benefit to the local area, and the continuation of the fairly fragmented peri-urban sense of place at this section of the Kraaibosch traffic circle development node.

The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred. However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.



6. RESULTS OF PUBLIC CONSULTATION

As this application is made in terms of NEMA, the public consultation on the HIA will take place with the broader public consultation process required for the Environmental Impact Assessment process and will be managed by the lead environmental consultants on the project.

Additionally, HWC requires that registered conservation bodies and the local authority are provided with 30 days in which to comment on the Heritage Impact Assessment. As such, both the George Municipality and the George Heritage Trust must be provided with 30 days in which to comment on this report. Evidence of consultation is included as Appendix 4.

7. CONCLUSION

The survey proceeded with no major constraints or limitations, and the project area was comprehensively surveyed for heritage resources. No significant archaeological resources were identified during the field assessment. No impact to significant buried archaeology is likely, however it is possible that the remnant foundations of the Modderkloof farm werf may be impacted. The remnant foundations of the Modderkloof farm werf have limited cultural value and are considered to be Not Conservation-Worthy. As such, no impact to significant archaeological heritage resources is anticipated.

The primary concerns associated with this development pertain to the significant impact of the development on the sense of place and cultural landscape value associated with the Sawmill Precinct of George and the associated loss of significant visual resources as identified within the comprehensive VIA completed by Stead (2025a and b).

As noted by Stead (2025); *“The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred. However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.”*

An extensive list of mitigation measures is included in Section 9 of the VIA completed by Stead for both the Meulenzicht Estate development (2025a) and the Oumeulen Estate development (2025b) including recommendations regarding setbacks, tree planting and height restrictions. This list of recommendations is



endorsed and reiterated herein. The key mitigation measures proposed in the VIA reports (Stead 2025a and b) are repeated below:

Meulenzicht Estate

- A 10-meter setback from the Urbans Boulevard road reserve to reduce the visual dominance of the proposed buildings adjacent to the road. This setback allows the natural drop in slope to better contain the height of double-storey units, following the Welgelegen Estate precedent, where buildings are set back $\pm 30\text{m}$ and allow for partial views over the buildings.
- The removal/ relocation of four erven located between the Boulevard and the small farm dam. This would create a clear visual break in the linear development, retain a sense of the rural context, and preserve depth of view towards the eastern Garden Route. It would also enhance views along the two natural drainage lines, helping to reduce the perceived massing of the development.

Oumeulen Estate

- Detailed landscaping for the section along the N2 Highway to ensure that the intensity of the proposed landscape change can be effectively mitigated by strategic planning of trees.
- Detailed landscaping for the section along the Urbans Boulevard such that the natural constraints of the soil can be overcome, and with the introduction of a low topsoil berm to create a natural landscaped area that offers partial screening to the proposed double-storey dwellings, as well as create an aesthetically pleasing landscape along the Boulevard.

The VIA (2025a and b) concludes that “from a landscape and visual perspective, the mitigations proposed for the preferred development layout would be suitable to ensure that significant landscape degradation of the existing landscape and visual resources would not be degraded. The Preferred Development Option, with additional landscaping, is the visual and landscape preference.”

8. RECOMMENDATIONS

There is no objection to the proposed development from a heritage perspective on condition that:

- Phase A8 is excluded from the assessment area
- The mitigation measures detailed in Section 9 of both of the VIAs (2025a and b) are implemented in the development design
- The architectural guidelines and detailed landscaping plans should be reviewed prior to construction and submitted to the HWC and the George Aesthetics Committee to ensure they align with the broader, emerging ‘garden city’ identity of George.



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- Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. The South African Heritage Resources Agency (SAHRA) must be contacted immediately in order to determine an appropriate way forward.



9. REFERENCES

Heritage Impact Assessments				
NID	Author(s)	Date	Type	Title
4082	Jonathan Kaplan	01/05/2002	AIA Phase 1	Archaeological Impact Assessment Proposed Development George Country Club and Golf Estate George
4083	Peter Nilssen	04/12/2003	AIA Phase 1	Earls Court - Lifestyle Estate Portion of Erf 464, George, Western Cape Proposed Residential - "Lifestyle" - Development Heritage Impact Assessment Final Report
4085	Peter Nilssen	08/06/2007	AIA Phase 1	Archaeological Heritage Impact Assessment Erf 7524, a Portion of Erf 1821, Tyolora: Proposed Thembaletu Plaza and Nursery School, Corner of Sandkraaland Ngcakani Roads, Tyolora, Thembaletu, George, Western Cape Province
4093	Cobus Dreyer	23/06/2006	AIA Phase 1	First Phase Archaeological and Cultural Heritage Assessment of the Proposed Ballot's Bay Field School Development at Sand Kraal 197, George, South Western Cape
4096	Cobus Dreyer	05/12/2007	AIA Phase 1	First Phase Archaeological and Cultural Heritage Assessment of the Proposed Upgrading of the Blanco Water Supply, George, South Western Cape
4427	Jonathan Kaplan	01/11/2006	AIA Phase 1	Phase 1 Archaeological Impact Assessment: Proposed Development Destiny Africa Portion 12 Kraaibosch 195 Remainder Portion 23 Kraaibosch 195 Remainder Portion 7 Kraaibosch 195 Remainder Portion 8 Kraaibosch 195 Portion 48 Sandkraal (a Portion of Portion 13)
4429	Jonathan Kaplan	01/06/2007	AIA Phase 1	Phase 1 Archaeological Impact Assessment: Proposed Development Far Hills Hotel Extension and Hotel Suites Portions 47 and 50 of Farm 194 Zwart River George
4471	Jonathan Kaplan	13/04/2007	AIA Phase 1	Archaeological Investigation the Proposed Development of the North Western Bulk Water Reservoirs at Denneoord and Bulk Water Supply Line from Denneoord to Pacaltsdorp, George
7275	Peter Nilssen	17/04/2007	AIA Phase 1	Archaeological Impact Assessment Portion 2 of the Farm Malgaskraal 142 Rem, District of George, Western Cape Province: Application for Mining Right - Extension of Witfontein Quarry
7590	Jonathan Kaplan	01/11/2001	AIA Phase 1	Heritage Impact Assessment: Proposed Development Oubaai Golf Estate, George
7591	Dave Halkett, Timothy Hart	01/02/1997	AIA Phase 1	Archaeological Assessment of Proposed Road Links Between the Outeniqua Pass and the National Road (N2) near George
8915	John E Almond	08/04/2011	PIA Phase 1	FibreCO Data Cable Project: Route 3 from Graaff-Reinet via George and Cape Town to Yzerfontein, Western and Eastern Cape Provinces
269397	Celeste Booth	02/03/2015	AIA Phase 1	FibreCo Repeater Sites Routes 3 and 4_Heritage_2015 AIA report
269397	Robart Gess	11/03/2011	PIA Phase 1	Palaeontological heritage component of FibreCo telecommunications, basic assessment for the proposed fibre optic data cable project: Route 4: George to port Elizabeth. DEA reference: 12/12/20/2160



329565	Henry Aikman	31/01/2009	HIA Phase 1	FANCOURT RETIREMENT VILLAGE PORTION 111 OF THE FARM MODDER RIVER 209 GEORGE
356856	Stefan de Kock	01/04/2009	Heritage Statement	Heritage Statement: MALGAS RIVER WATER PUMPING SCHEME: PORTIONS OF THE FARM MALGASKRAAL 142, DISTRICT GEORGE
357438	Peter Nilssen	15/03/2011	AIA Phase 1	Archaeological Impact Assessment Proposed residential development, Portion 52 Kraaibosch Farm 195, George, Western Cape Province
364388	Stefan de Kock	01/11/2010	Heritage Statement	NID and Heritage Statement: Proposed Development of Kraaibosch 195/52, District George

Additional References

De Kock, S. (2012) Preliminary Heritage Survey With Relation To Proposed Development: Erven 25541& 25538, George District (Old Urbans Sawmill)

Raper, P.E., Moller, L.A. and Plessis, T. (2018) Dictionary of Southern African Place Names. Jeppestown: Jonathan Ball.

Thompson, L. (2008) Kraaibosch Bulk Sewer (Phase 2) Victoria Bay: Historical Background Report for the ENVIRONS



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APPENDICES



APPENDIX 1: Archaeological Assessment (2024)

ARCHAEOLOGICAL SPECIALIST STUDY

In terms of Section 38(8) of the NHRA for a

PROPOSED DEVELOPMENT OF ERVEN 25537, 25538 & 25541 (KRAAIBOSCH), GEORGE DISTRICT AND MUNICIPALITY

Prepared by



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October 2024



EXECUTIVE SUMMARY

The proposed Kraaibosch residential development project lies to the east of the N2 highway which bypasses George en route to Wilderness. A series of completed housing estates lie north of the study site and immediately border the proposed development which will extend the urban footprint of George. The Modderrugrivier and Swartrivier form two deep valleys on which the new and existing housing estates are perched. The complex of ruins of the Urbans sawmill are prominently situated on the northwestern side of the project and most of the premises are being used for the local nursery. The Outeniqua Family Market lies directly west of the old sawmill and the Garden Route Mall is further west over the other side of the highway. Additional developments are also present to the southwest of the study site with a series of fuel stations, a church and various businesses.

The survey proceeded with no major constraints or limitations, and the project area was comprehensively surveyed for heritage resources. No significant archaeological resources were identified during the field assessment. No impact to significant buried archaeology is likely, however it is possible that the remnant foundations of the Modderkloof farm werf may be impacted. The remnant foundations of the Modderkloof farm werf have limited cultural value and are considered to be Not Conservation-Worthy.

As such, no impact to significant archaeological heritage resources is anticipated.

Recommendations

There is no objection to the proposed development from an archaeological perspective on condition that:

- Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. The South African Heritage Resources Agency (SAHRA) must be contacted immediately in order to determine an appropriate way forward.



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1. INTRODUCTION

1.1 Background Information on Project

Current Rights:

The land use rights on the application area are:

- Erf 25537 = Agriculture Zone I
- Erf 25538 = Agriculture Zone I
- Erf 25541 = Industrial Zone II (pending litigation)

Development Proposal:

Development Precincts

- The site will be developed into 3x precincts:
 1. East of Urbans Boulevard (Erf 25237), a residential estate, consisting of ±259 single residential erven, of which the layout was informed by environmental constraints.
 2. West of Urbans Boulevard (Erven 25238 & 25541), A higher density residential estate, consisting of group housing erven (207x) and apartments (220x), as well as
 3. A remaining extent that will be “undetermined”. A development proposal on this node will be informed by future market conditions.
- Environmentally sensitive areas (wetlands, water courses, steep slopes, sensitive vegetation, etc, will be retained as communal open spaces for the proposed development.
- The existing water tower/reservoir will be retained and accommodated in the layout.

Access

- Given the steep topography of the site and the topography and visibility on Urbans Boulevard, access to the proposed development can only really be provided at a point centrally on Urbans Boulevard. A new traffic circle can be constructed at this point, and then this circle will provide access to the east and west of Urbans Boulevard. No other direct access will be provided off Urbans Boulevard.
- A left-in-only slip lane is proposed near Portion 400 of Farm No 195.

Proposed Zoning / George Zoning Scheme Bylaw

- The proposal is to rezone to a subdivisional area and then subdivision into “Residential Zone II” (Estate Housing)” erven.
- The new limitation of a maximum size of 5ha for estate housing is noted. The western precinct, excluding the future development area is ± 23 ha in extent, and then the eastern precinct will be ±37 ha in extent. Given the fact that the application area is on the eastern edge of the municipal urban edge, the natural informants and the topography, it is not reasonable and feasible to provide more public roads, in order to obtain more access to provide 7 gates villages/estates on the eastern precinct. There is no future urban expansion where future public roads can expand. A departure from this development parameter will be applied for.

Environmental Authorisation

The proposed development will require an application for environmental authorisation.



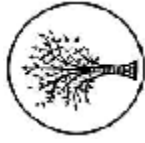
George Municipal SDF

- The Application area is located inside the urban edge of George. The SDF states that Properties that are currently vacant, without a development proposal or number of erven have been conservatively calculated at 80u/ha for the first 150m from primary transport corridors, 60u/ha from 151m to 350m from primary transport corridors and 45 u/ha from 351m to 500m.
- Erf 25538 and 25541 are earmarked as a “tourism precinct” for tourist-related facilities and accommodation. This may include tourism-related small shops (convenience), restaurants, sport- and recreation- and services conditions to be included in land use application.
- The current Farmers Market will be retained and will not be removed.

1.2 Description of Property and Affected Environment

The proposed Kraaibosch residential development project lies to the east of the N2 highway which bypasses George en route to Wilderness. A series of completed housing estates lie north of the study site and immediately border the proposed development which will extend the urban footprint of George. The Modderrugrivier and Swartrivier form two deep valleys on which the new and existing housing estates are perched. The complex of ruins of the Urbans sawmill are prominently situated on the northwestern side of the project and most of the premises are being used for the local nursery. The Outeniqua Family Market lies directly west of the old sawmill and the Garden Route Mall is further west over the other side of the highway. Additional developments are also present to the southwest of the study site with a series of fuel stations, a church and various businesses.

The entire site has been transformed over many years for the forestry which provided wood to the sawmills. Alien bluegum and pine trees are still very much a part of the lower reaches of the Swartrivier river corridor which will border the new houses that are planned on the cleared areas. These cleared areas are currently covered in grass and are being maintained with some basic access roads already in place that have utilised the former forestry roads. The forested sections are nearly impenetrable with dense brush and trees but a couple of disused and overgrown forestry paths are present which provide some access down to the river.



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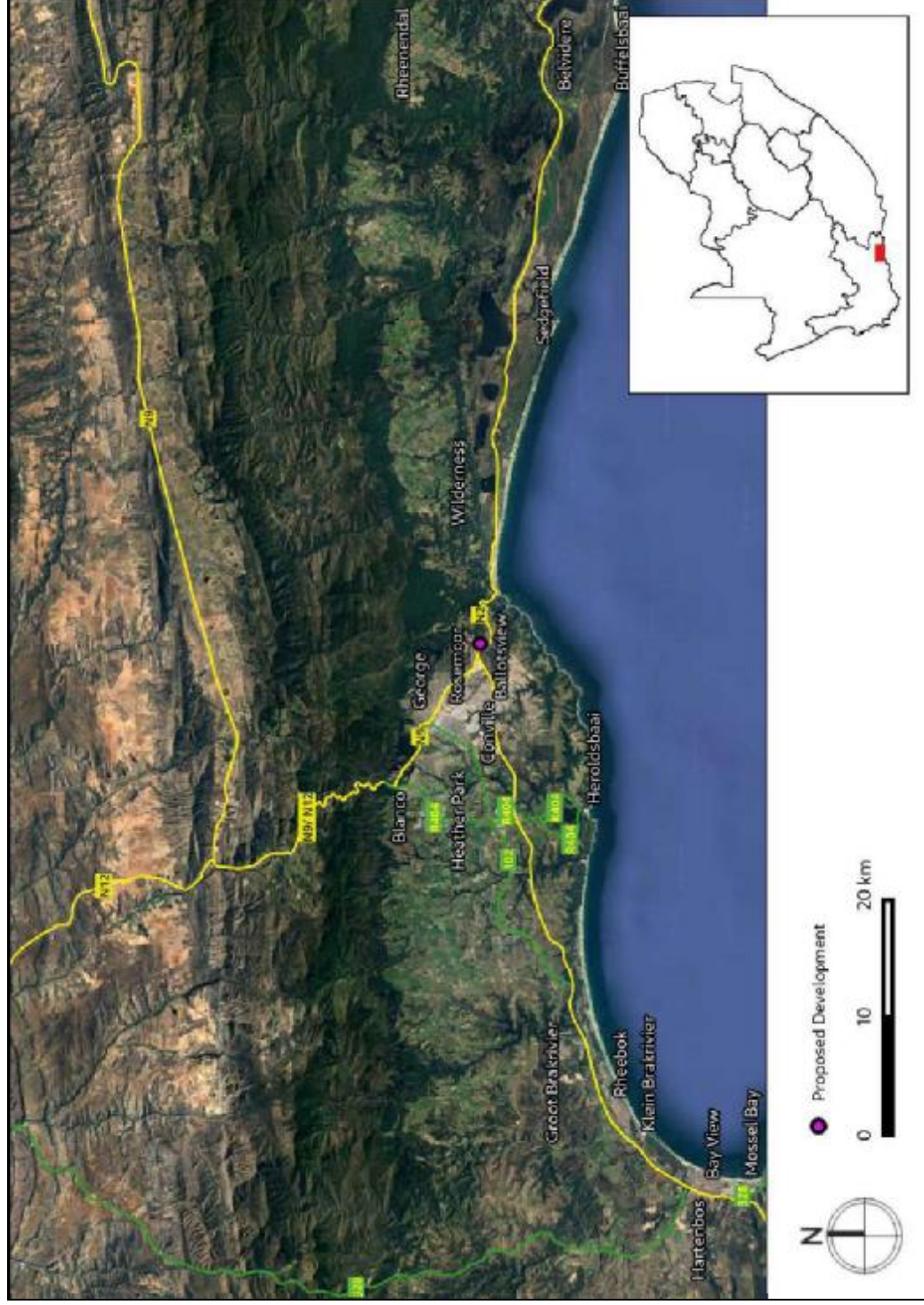


Figure 11: Satellite image indicating proposed location of development

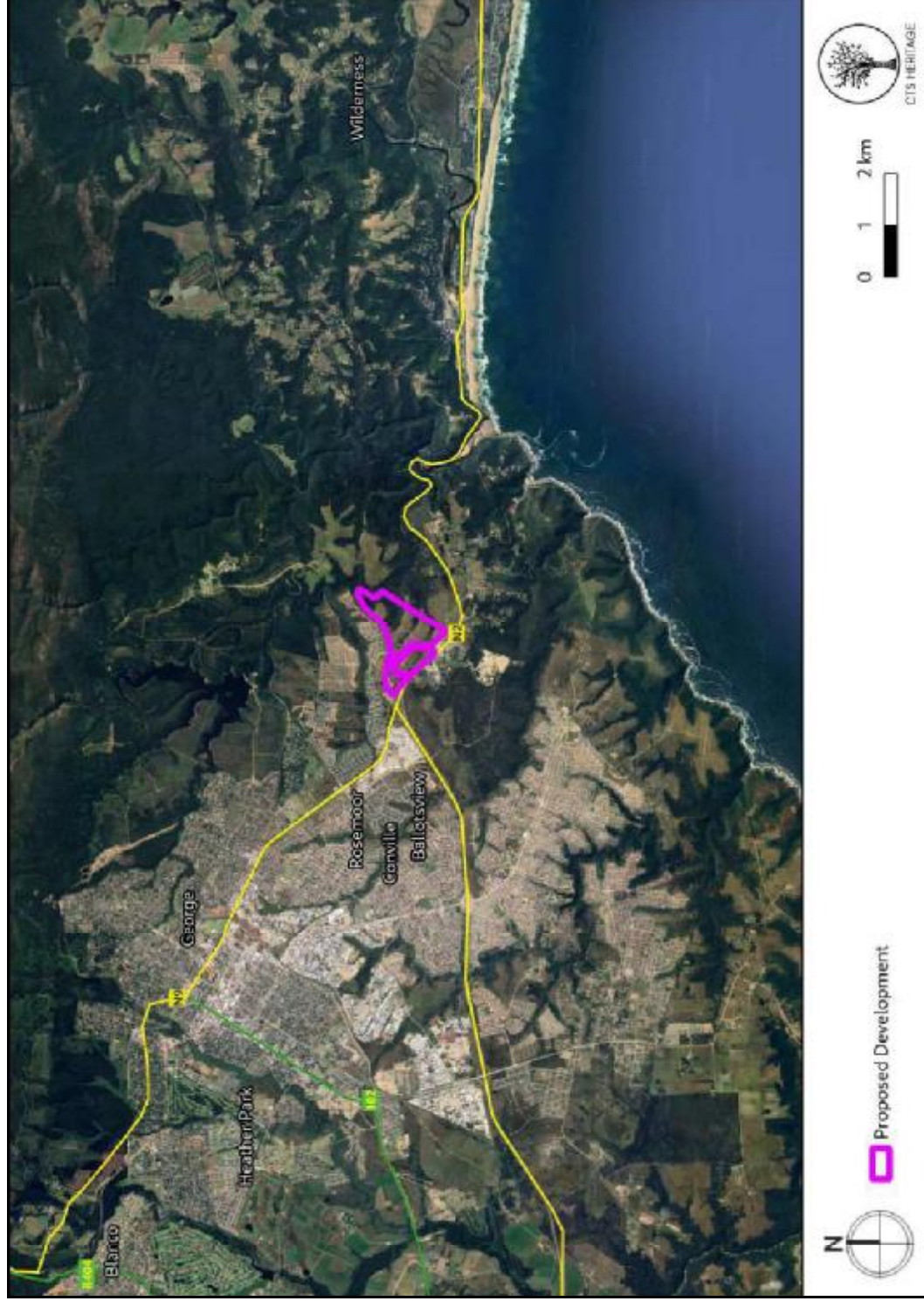


Figure 12: Proposed project boundary



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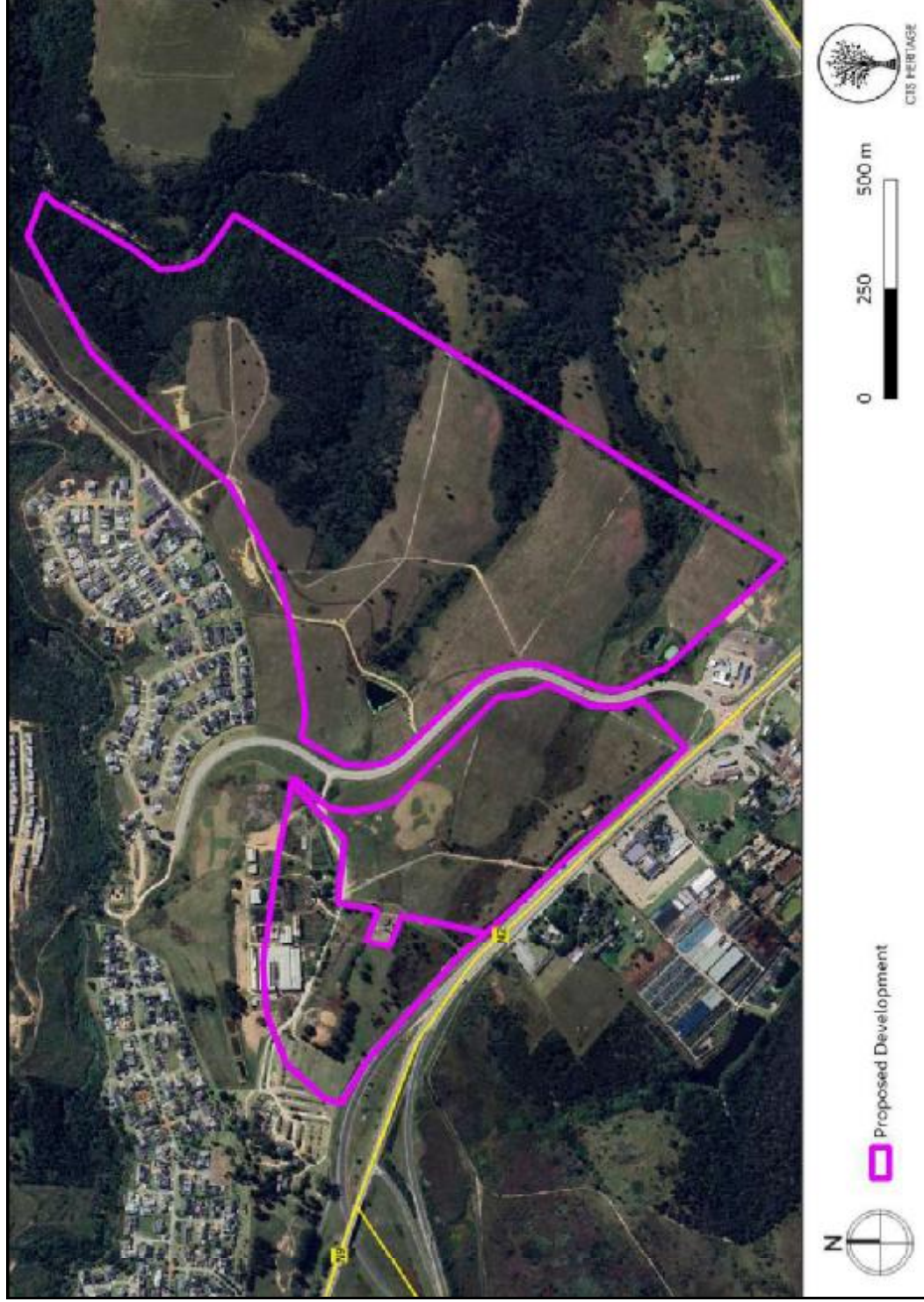


Figure 1.3: Proposed project boundary



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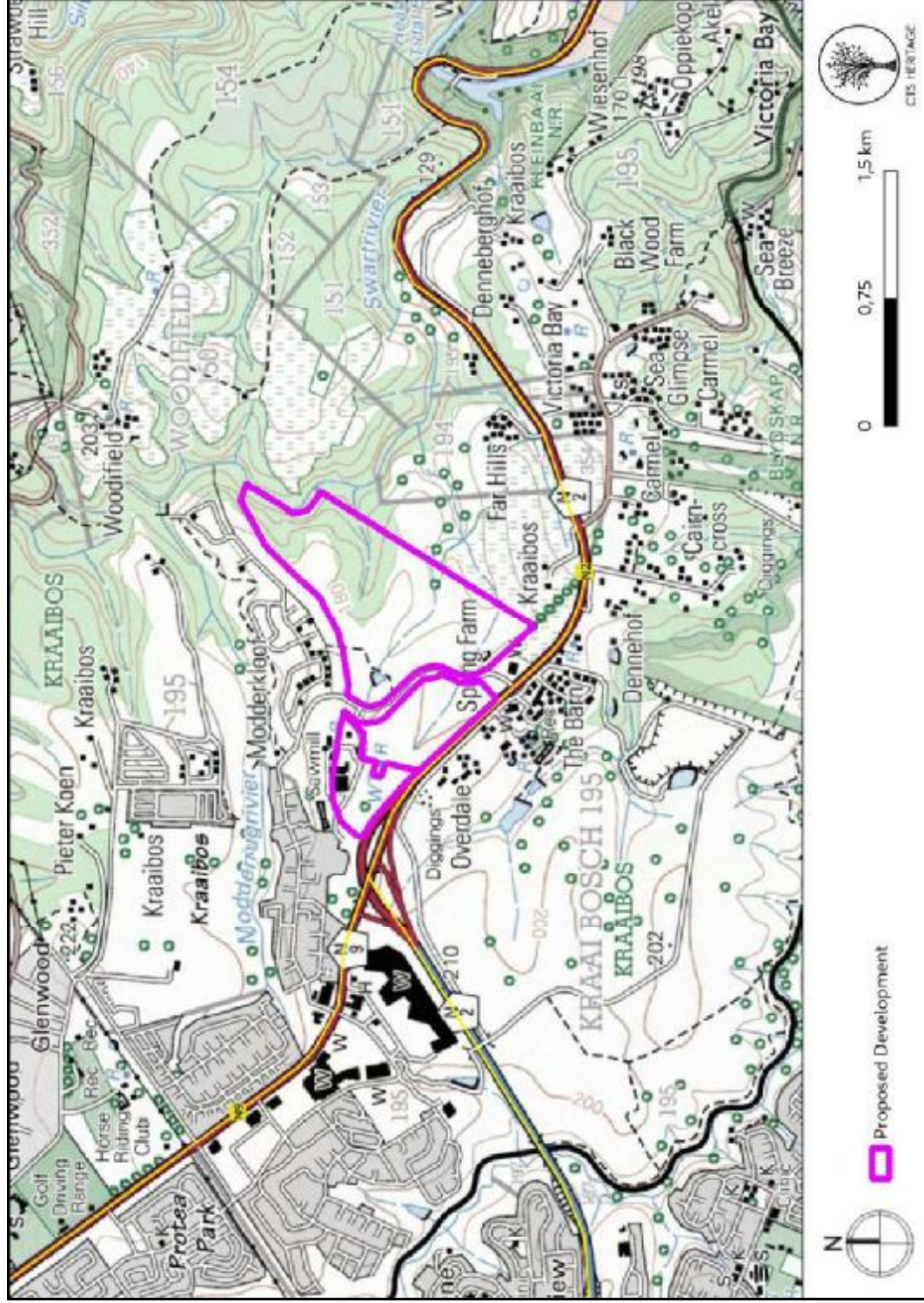


Figure 14: Proposed project boundary indicated on the 1:50 000 Topo Map

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2. METHODOLOGY

2.1 Purpose of Archaeological Study

The purpose of this archaeological study is to satisfy the requirements of section 38(8), and therefore section 38(3) of the National Heritage Resources Act (Act 25 of 1999) in terms of impacts to archaeological resources.

2.2 Summary of Steps Followed

- An archaeologist conducted a survey of the site and its environs on 28 September 2024 to determine what archaeological resources are likely to be impacted by the proposed development of the PV facility and grid connection.
- The area proposed for development was assessed on foot, photographs of the context and finds were taken, and tracks were recorded using a GPS.
- The identified resources were assessed to evaluate their heritage significance in terms of the grading system outlined in section 3 of the NHRA (Act 25 of 1999).
- Alternatives and mitigation options were discussed with the Environmental Assessment Practitioner.

2.3 Constraints & Limitations

The dense vegetation in the forested areas is impenetrable but the housing development is not planned in these sections of the old forestry lands. The areas designated for the new estate have been cleared and are being kept clear and are covered in grass. While the archaeological material at surface level has been entirely transformed across the site, other potential sites within the study area were easily visible due to the clearing such as graves or ruins (none were found besides the well documented old sawmill).

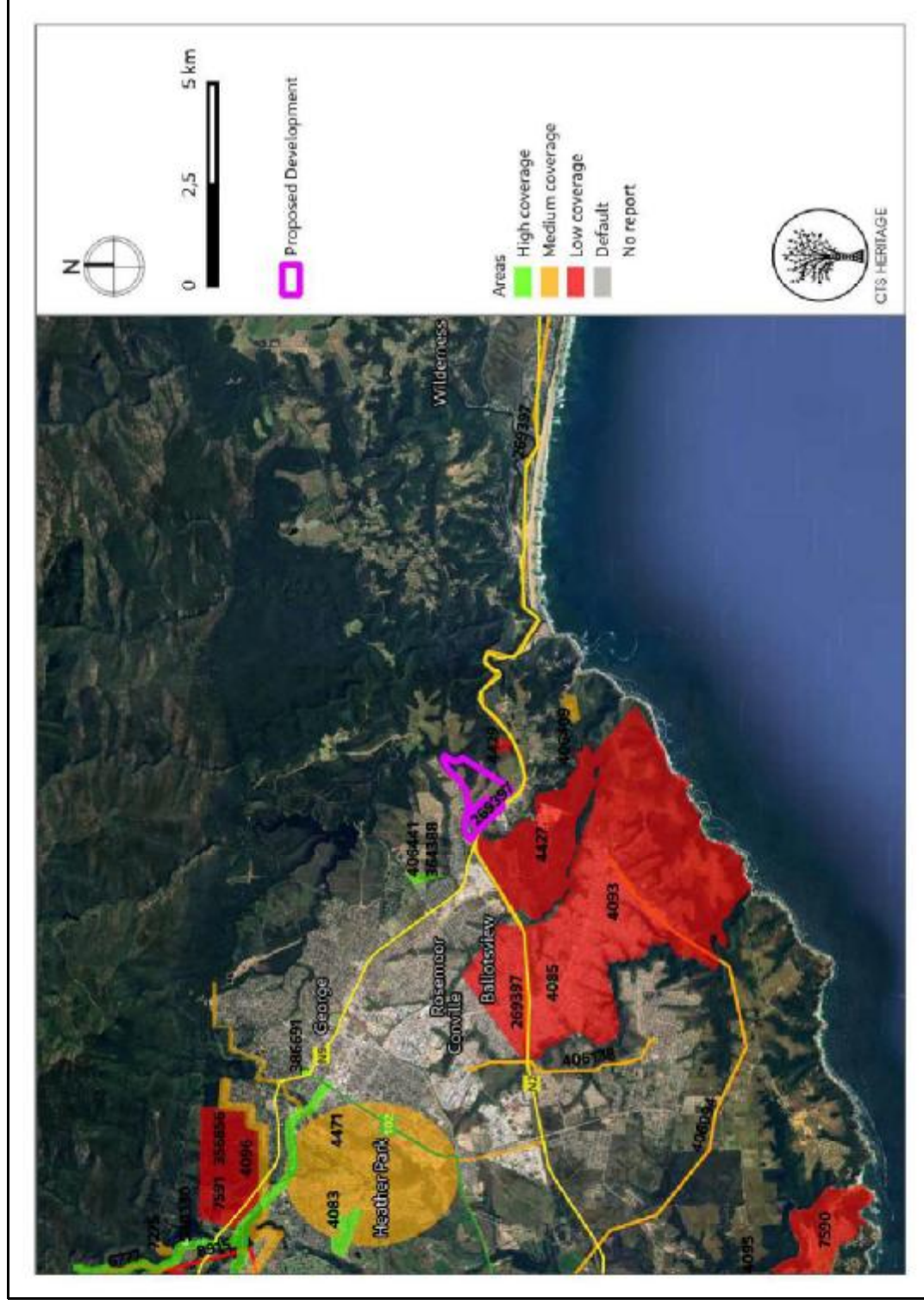


Figure 2: Close up satellite image indicating proposed location of development in relation to heritage studies previously conducted



3. HISTORY AND EVOLUTION OF THE SITE AND CONTEXT

3.1 Background

This application is for the proposed development of George erven 25537, 25538 & 25541. The project area is located approximately 6km east of the George town centre, within the broader Kraaibosch area. According to Raper et al (2018) in *“The Dictionary for Southern African Place Names”*, George was *“the first town to be established after the British Occupation of 1806, it was proclaimed in 1811 under the name George Town, after King George III of England, who donated a Bible to the church. It became a municipality in 1884.”*

3.2 History, Cultural Landscape and Built Environment

Even though George was only proclaimed as a town in 1806, inhabitation of the area predates the town. Archaeologists have found that the pastoralist Khoi-khoi people moved into the southern Cape with their sheep about 2,000 years ago. Place names like the Outeniqua Mountains and Gwayang Road reflect their historical presence. The Attaqua and Inqua groups were prominent in the region between Mossel Bay and Plettenberg Bay, trading with the Dutch in the 18th century. By the early 1700s, the Khoi-khoi lost control of the area due to internal conflicts, diseases like smallpox, and wars with European settlers. They continued to exist as a community at Hoogekraal, and the Pacaltsdorp mission station was established in 1813 (Aikman, 2009, SAHRIS NID 329565).

The region saw significant development under Dutch and later British colonial rule, especially after the reports of Swedish botanists in the 1770s highlighted the vast forests. A timber industry emerged, leading to the establishment of George and the construction of key roads and passes, such as the Montagu Pass, built between 1844 and 1847 under the direction of engineer Henry Fancourt White. White, a significant figure in the area's development, also constructed several roads and built a mansion on the Modder River farm. After his death in 1861, the property changed hands several times until his son, Montagu White, acquired and remodelled it, living there until his death in 1916 (Aikman, 2009, SAHRIS NID 329565).

In 2008, Thompson compiled an extensive history of the area surrounding the proposed residential development. Only key points are summarised here. The historical background document for the Kraaibosch Bulk Sewer project details the early settlement and development of Victoria Bay and the surrounding area:

1. **Early Timber and Grazing Activities:** The shortage of timber in the western Cape by the 1700s led to the establishment of “Buiteposte” by the Dutch East India Company (VOC) to control timber cutting and cattle barter in Outeniqualand. The area saw increased activity from explorers, hunters, woodcutters, and settlers who began to occupy the region
2. **Settlement and Agricultural Development:** The 1777 establishment of a VOC “Buitepost” in Outeniqualand on the Swart River (visible in Figures 1.3 and 3.3) helped to manage the transport and supply of timber to the Cape. The initial route to the Karoo and Eastern Frontier went over Duivelskloof Pass to the Langkloof, with Pampoenkraal serving as a key outspan for travellers
3. **Expansion of Grazing and Farming:** From the early 1800s, the Victoria Bay valley was used for grazing cattle, and over time the area became a popular destination for campers and travellers. Efforts by individuals like Edmeades, who experimented with various grasses and grains, marked a shift from basic agricultural practices to more diversified farming.

4. Local Infrastructure and Economic Shifts: The construction of roads and other infrastructure, such as the 1928 George to Knysna railway line, impacted the region's development. The area saw various ownership changes and land sales throughout the 19th and 20th centuries, reflecting shifting economic activities, including farming, forestry, and more recently, development initiatives. (Thompson, 2008)

Another extensive heritage survey for erven 25541 & 25538 was conducted by De Kock in 2012. *“The site forms part of an undulating landscape sloping towards the Modderrug River, which defines the northern property boundary and is bounded by the N2 (South). Predominant land use within the direct proximity of the site is residential, which lands between the N2 and historic George – Knysna Road having been earmarked for future urban development. Present vehicular access is from the National Road N2, off the Sasol Petrol Station.*

The subject site holds the former “Urbans” industrial sawmill which was liquidated during December 2001 and has since been in a general state of disuse. The condition and structural integrity of the majority of remaining buildings (some of which are older than 60 years) are rapidly deteriorating.” Some of the sawmill structures appear on the First Edition Topo Map (Figure 3.3). De Kock (2012) graded each structure that forms part of the sawmill complex. His findings were that the site's unique sense of place comes not from individual buildings, but from the



overall arrangement and orientation of its large, industrial structures. While Buildings 18 and 19 are of high cultural significance due to their historical ties to forestry, the entire precinct's spatial qualities and identity are important. Buildings 18 and 19 (see figure on right) should be restored, replaced, or adapted for future use, and Building 10's unique design elements should be preserved in redevelopment. Future design efforts should focus on creating an architectural manual that respects the existing scale, materials, and functionality of the structures. Additionally, an urban design framework should be developed to guide detailed planning and capture the site's historic context.

De Kock's (2012) other findings were that the proposed development site is slightly elevated and partially visible from the N2 National Road, especially since most of the original pine plantation screening has been removed, leaving only two rows of pine trees. These trees enhance the site's visual prominence and frame the views, suggesting that planting more pine trees could reinforce the site's connection to its forestry history.

The site's remaining linear features, such as drainage lines and old forestry grid patterns, along with its location and layout, contribute to its visual structure and should be preserved in the urban design framework. The sawmill complex blends well with the surrounding landscape without disrupting the natural skyline, as indicated by various viewpoints from the N2 (De Kock, 2012).

Future redevelopment should maintain important view corridors and avoid creating monotonous structures that could detract from the area's visual appeal. Instead, an overall urban design framework should guide redevelopment to



respect the site's historical forestry associations and existing visual and spatial qualities. The redevelopment should incorporate traditional landscape features and the remaining building structures in a way that preserves the site's unique sense of place. Additionally, maintaining certain structures, like Building 10 and the modern water tower, should be considered to retain their contributions to the site's overall character (De Kock, 2012).

3.3 Archaeology

Archaeological sites spanning the Earlier, Middle and Later Stone Age have been found in the region despite the extensive agricultural transformation of the area. Kaplan (2006, SAHRIS NID 4427) provides a short summary of archaeological finds from the greater area, *"A few Early Stone Age (ESA) tools were located during a study of the proposed Kraaibosch residential housing estate directly to the north of the N2 and the study site (Kaplan 2003).*

Further afield, relatively large numbers of ESA and Middle Stone Age (MSA) tools have been documented at Oubaai (Kaplan 2002) and The Brink (Kaplan 2004) near Herolds Bay. Shell middens have also been recorded on the high coastal cliffs at Oubaai (Kaplan 2002).

It is important to note that up to 70,000 ESA tools have been documented and collected during monitoring of earthmoving operations at Pinnacle Point near Mossel Bay (Dr Peter Nilssen pers. comm.). According to Dr Nilssen, the majority of tools are located in sandy deposits underlying the top soil about 1 m below the surface. Fewer artefacts appear in the underlying clay deposits, but several Pleistocene hyena lairs with well-preserved bone were documented in limestone deposits nearly 3 m below the surface. The key point is that the archaeology below the surface is undisturbed (as opposed to the surface disturbance of the site) and it is precisely the context of the finds that is so important for conservation purposes."

In Kaplan's heritage impact assessment of four portions of Kraaibosch 195, located less than 1km south of the project area, he identified the following, *"Low-density scatters of mostly Early Stone Age (ESA) tools were located during the study, but these are spread very thinly and unevenly over the surrounding landscape. All the tools were found in highly disturbed and degraded areas such as gravel roads and tracks, road cuttings, collapsed sections, scarred areas, erosion dongas, flood washes and slopes.*

Stone tools were located in both the western and eastern portions of the study site, while tools were also found in a severely flood-damaged and silted-up area in a river course alongside the railway line in the south eastern portion of the property. No tools were found in the quarry area, and only two ESA flakes were found close to the large quarry spoil dumps.

It is interesting to note that eight tools (including a broken hand axe) documented in the network of gravel roads were found bedded in compacted sands. The bulk of the tools were, however, found near collapsed slopes, in sandy deposits, between 1.0 and 2.0 m below the overburden alongside the railway line.

Apart from one large bifacial handaxe in rough-grained quartzite and one vehicle-damaged handaxe in finer-grained quartzite, the remainder of the tools comprises large ESA flakes, chunks and several smaller MSA flakes and blade tools."



According to De Kock in a heritage statement for a site located less than 1km north of the project area (2012, SAHRIS NID 364388), *“No heritage resources of archaeological significance could be identified on the subject property. Furthermore, in light of historical background research done, we are of the view further archaeological impact assessment would not be warranted in this instance.”* However, due to the high levels of archaeological sensitivity of the broader area, it is recommended that potential impacts to archaeological heritage are assessed further.



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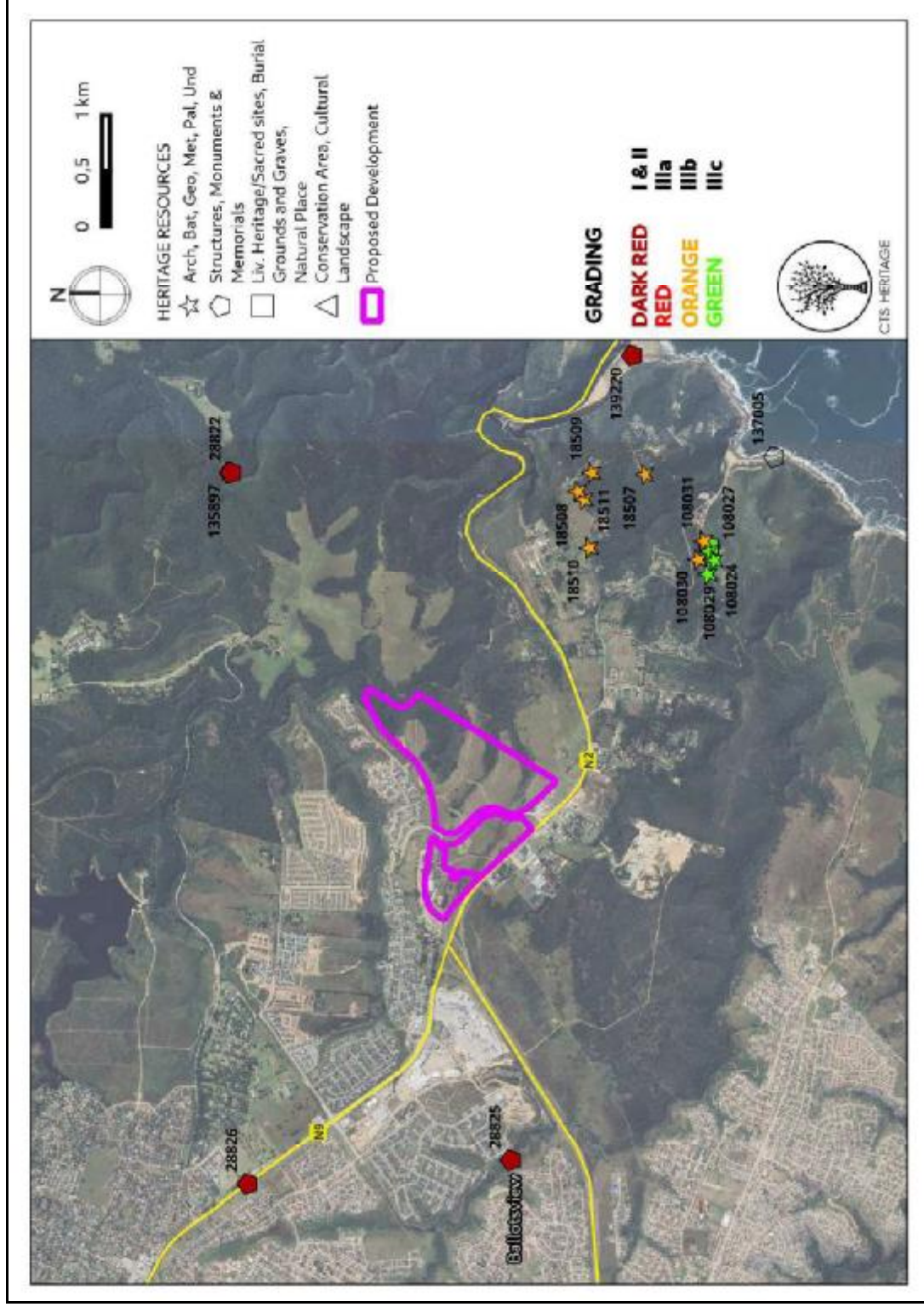


Figure 3.1 Heritage Resources Map. Heritage Resources previously identified in and near the study area, with SAHRIS Site IDs indicated

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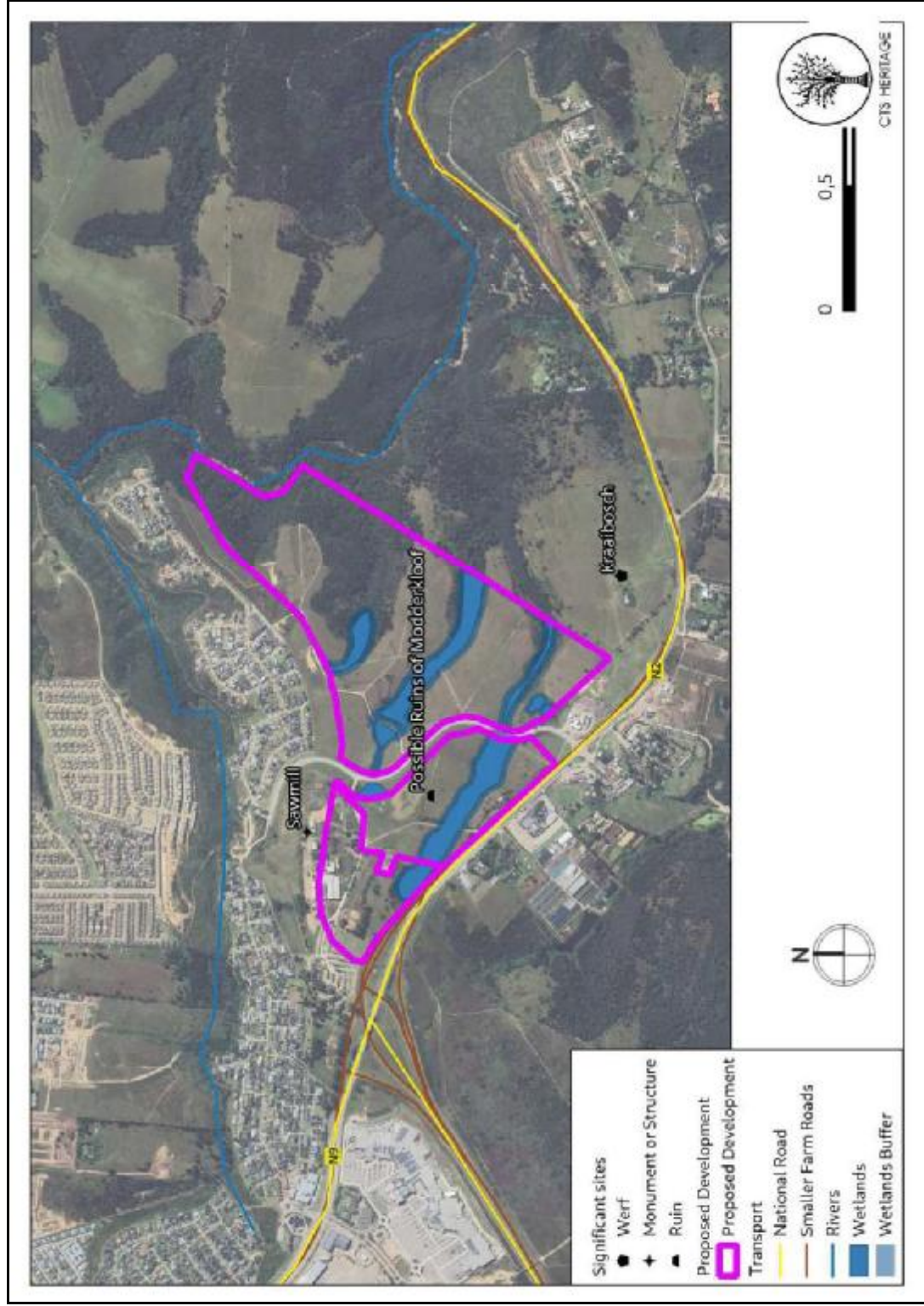
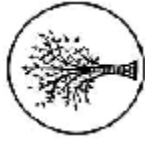


Figure 3.2 Cultural Landscape Map. Map indication sensitive receptors near the proposed development, extracted from the Topo 1:50 000 map (Wetlands area and buffer provided by client).



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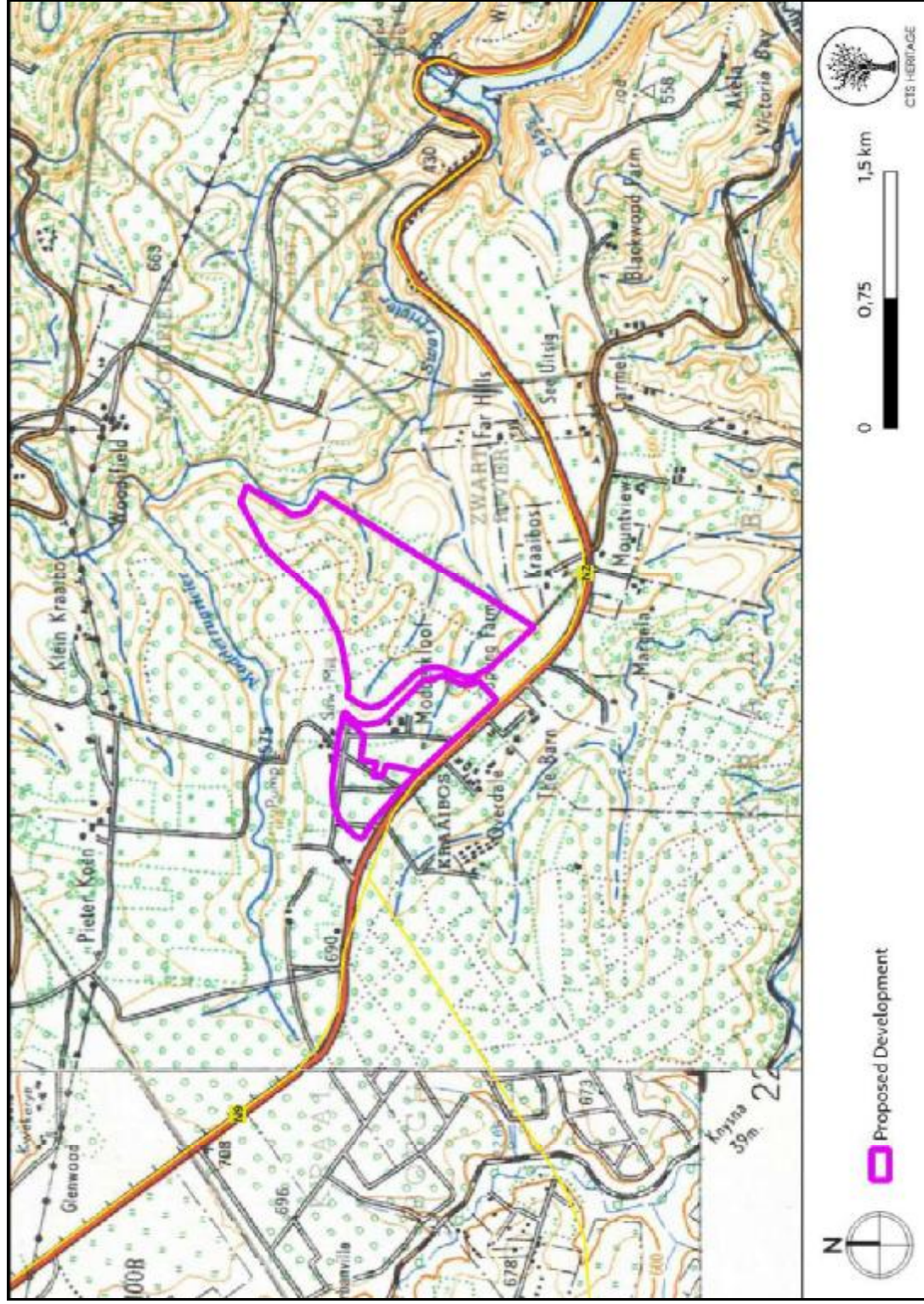


Figure 3.3 First Edition Topo Map. First Edition Topo Map indicating location of historical farm werfs

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4. IDENTIFICATION OF HERITAGE RESOURCES

4.1 Field Assessment

The ruins of the Urbans sawmill were revisited in detail and rephotographed to ascertain whether the buildings had maintained their cultural value since the 2012 assessment by De Kock. The active use of most of the areas occupied by the sawmill for the local nursery has led to some retention of the state of the buildings but, for the most part, the condition of the sawmill complex is extremely poor. One of the buildings has been used to store a large volume of rubbish and much of the salvageable machinery and fittings have been stripped and sold for scrap. There are many other historic sawmills around South Africa that are in a much better condition than the Urbans sawmill and, given the ongoing deterioration it is likely more of the buildings will collapse in the near future. The site has therefore been graded as not conservation worthy. The rest of the study site lies on transformed forestry land and no graves or further ruins were found.



Figure 4.1: View of the study site looking northwest.



Figure 4.2: View of the nursery facilities in the old sawmill.



Figure 4.3: View towards the N2 highway from the study site.



Figure 4.4: View near the Outeniqua Family Market looking east towards the old sawmill buildings.



Figure 4.5: View across the study site - note the undulating hilly terrain formerly planted for the forestry.



Figure 4.6: Small dam in the proposed residential development. Welgelegen estate in the background.



Figure 4.7: View from one of the cleared areas in the study site.



Figure 4.8: Edge of the cleared areas near the existing plantations.



Figure 4.9: Old forestry tracks leading down to the Swartrivier.



Figure 4.10: Impenetrable thicket and trees in the forest.

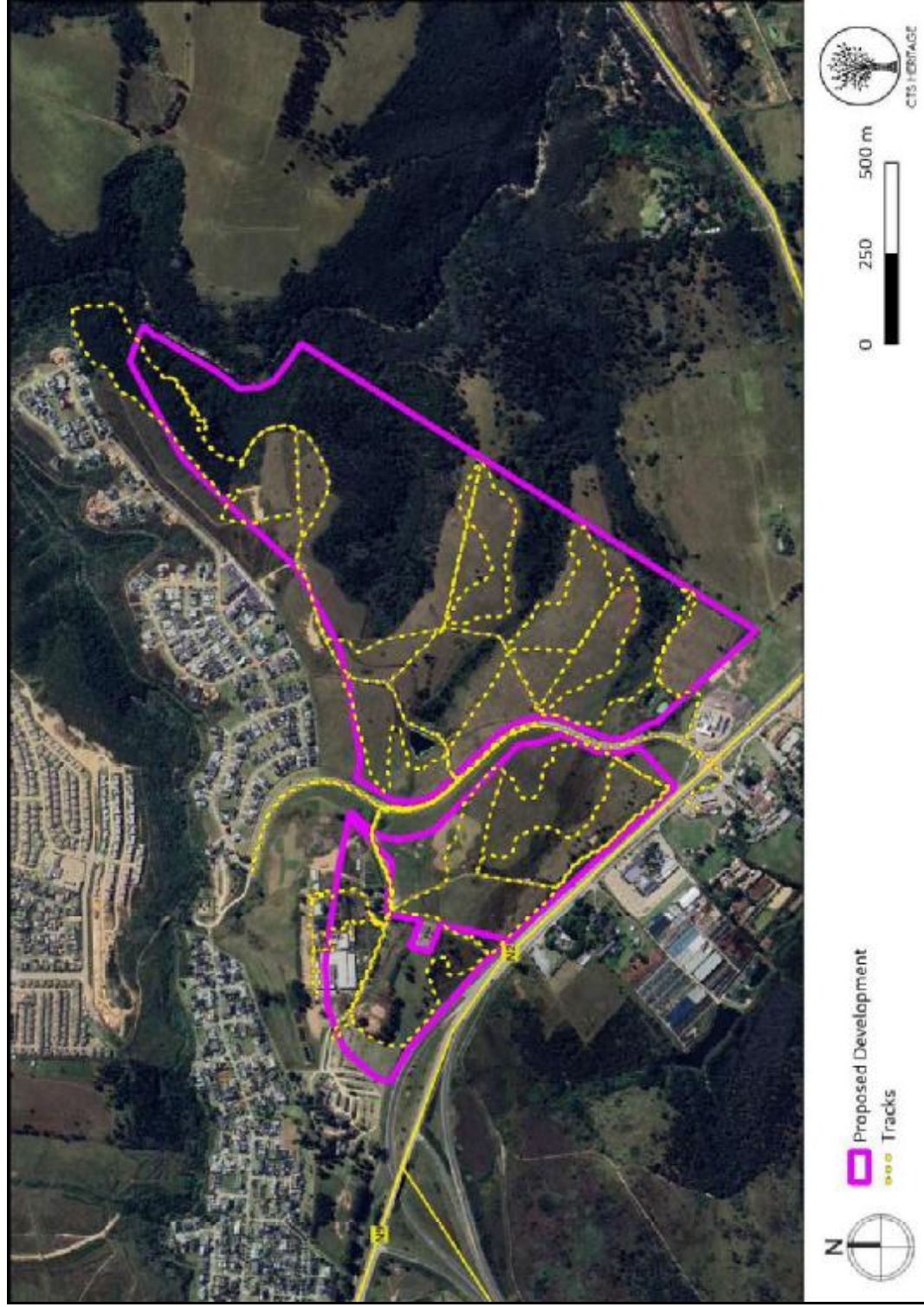


Figure 5. Track paths of archaeological field assessment



4.2 Archaeological Resources Identified

Table 1: Observations noted during the field assessment

POINT ID	Description	Density	Type	Period	Co-ordinates		Grading	Mitigation
001	Ruined sawmill building, green painted mill machinery inside but most of roof and walls missing, derelict	n/a	Ruin	Modern, Historical	-33.984501	22.515256	NCW	n/a
002	Concrete block building, IBR roofing, still in use for storage and nursery	n/a	Structure	Modern, Historical	-33.984315	22.515101	NCW	n/a
003	Ruined open shed	n/a	Ruin	Modern, Historical	-33.984104	22.515146	NCW	n/a
004	Roofless concrete block ruin, large metal doors. Rubbish dumped inside	n/a	Ruin	Modern, Historical	-33.983901	22.515105	NCW	n/a
005	Large warehouse shed, timber posts and rafters, corrugated iron roof	n/a	Structure	Modern, Historical	-33.984114	22.514418	NCW	n/a
006	IBR roof building, fair condition	n/a	Structure	Modern, Historical	-33.983757	22.513691	NCW	n/a
007	Concrete block building, large metal sliding doors	n/a	Structure	Modern, Historical	-33.983798	22.515915	NCW	n/a
008	Corrugated iron sheds adjoining each other	n/a	Ruin, Structure	Modern, Historical	-33.983748	22.516611	NCW	n/a
009	Concrete block buildings, one without a roof, old bathroom	n/a	Ruin	Modern, Historical	-33.983969	22.516403	NCW	n/a
009	Concrete block buildings, one without a roof, old bathroom	n/a	Ruin	Modern, Historical	-33.983917	22.51648	NCW	n/a
010	Double-storey ruin, fire hydrant	n/a	Ruin	Modern, Historical	-33.984037	22.51618	NCW	n/a
011	Wooden clad and constructed shed, iron roof frame	n/a	Ruin	Modern, Historical	-33.984323	22.51596	NCW	n/a



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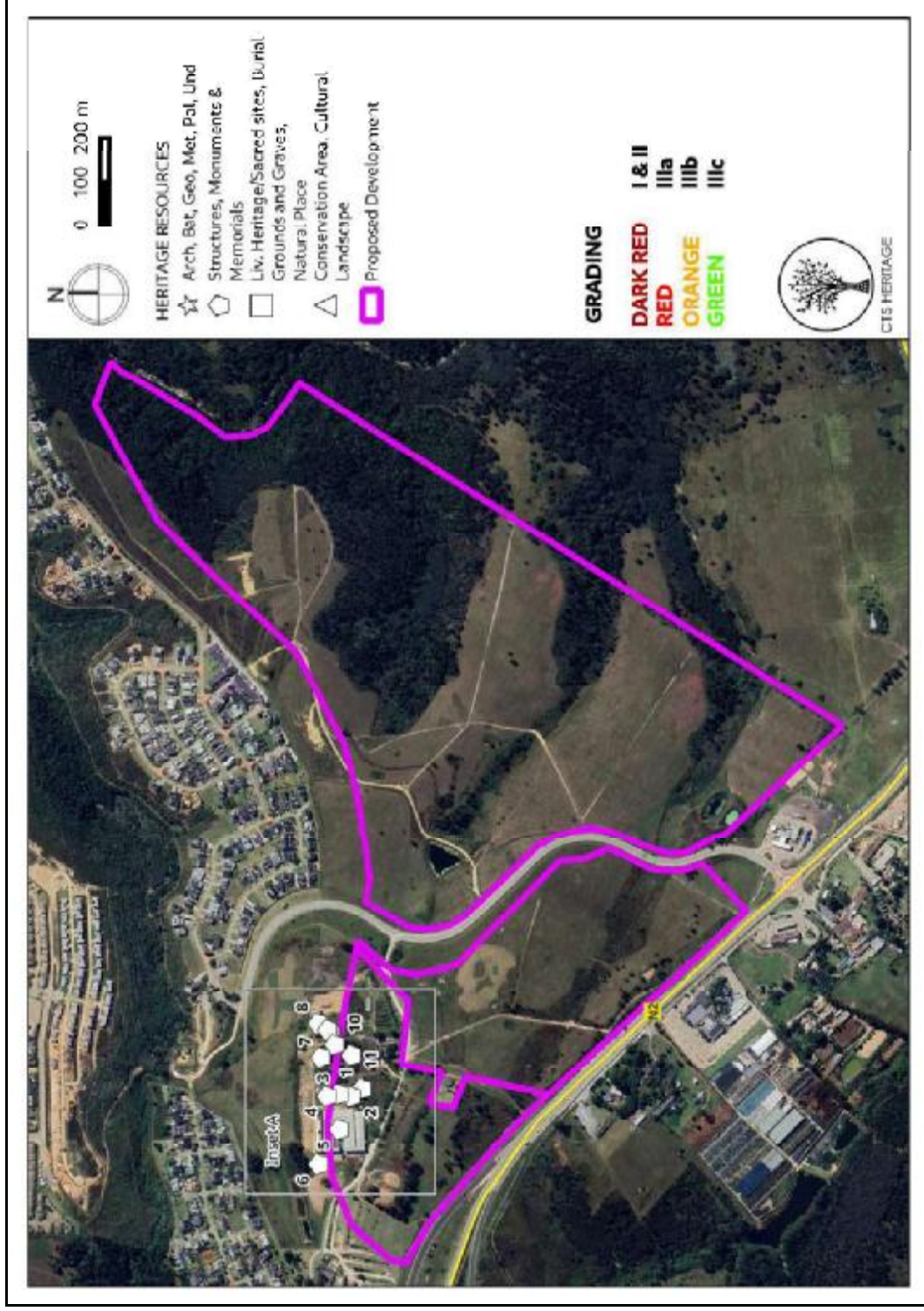


Figure 6.1: Map of all sites and observations noted within the development area

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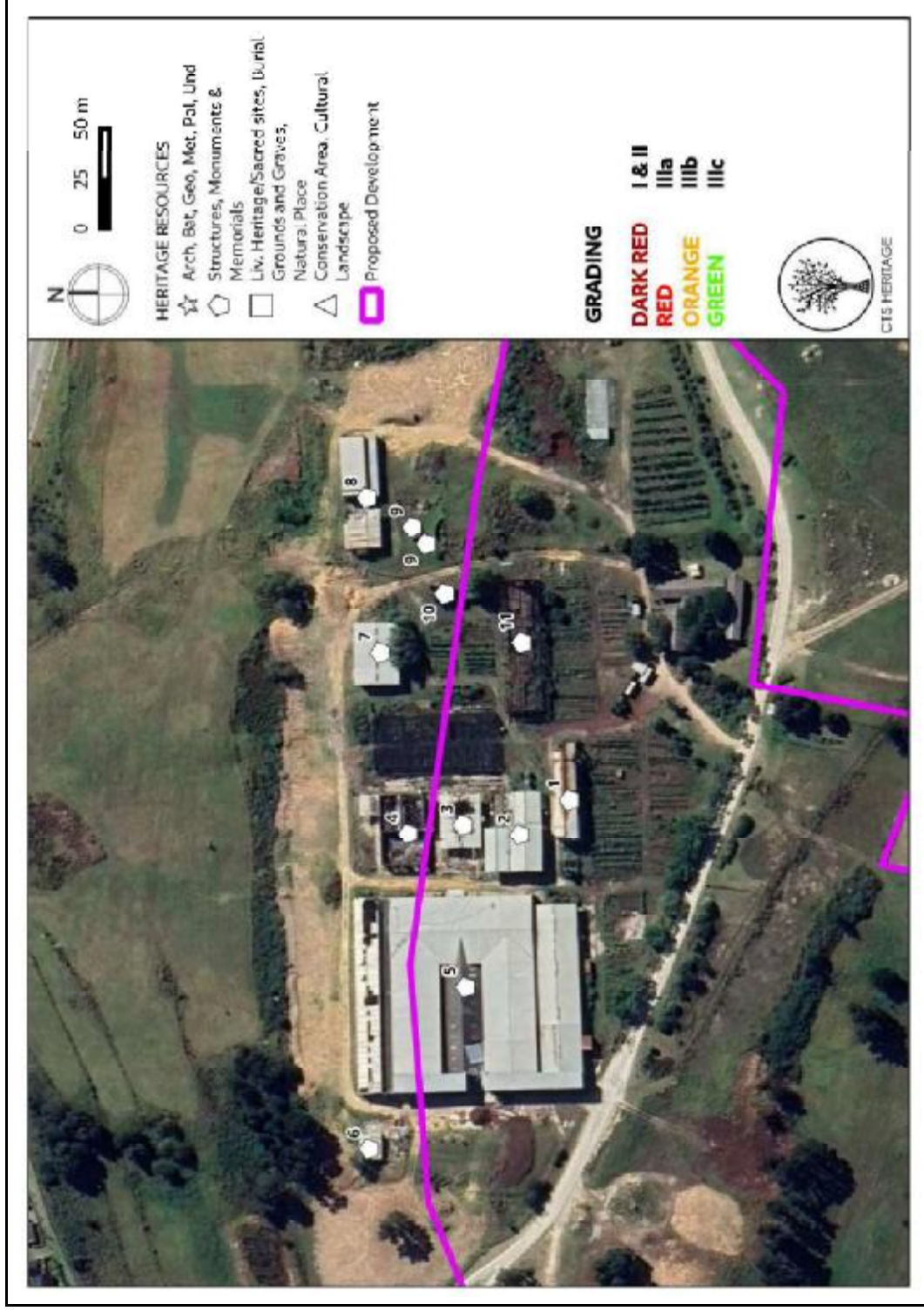


Figure 6.2: Map of all sites and observations noted within the development area

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4.3 Selected photographic record

(a full photographic record is available upon request)



Figure 7.1: Observation 001



Figure 7.2: Observation 002



Figure 7.3: Observation 003



Figure 7.4: Observation 004



Figure 7.5: Observation 005



Figure 7.6: Observation 006



Figure 7.7: Observation 007



Figure 7.8: Observation 008



Figure 7.9: Observation 009



Figure 7.10: Observation 010



Figure 7.11: Observation 011



5. ASSESSMENT OF THE IMPACT OF THE DEVELOPMENT

5.1 Assessment of Impact to Archaeological Resources

No significant archaeological resources were identified during the field assessment. This is likely due to the extensive transformation of the area in the past resulting from the forestry activities that have taken place here. The ruins of the Modderkloof farm werf were not visible on the ground surface, but may be present beneath the ground surface.

No impact to significant buried archaeology is likely, however it is possible that the remnant foundations of the Modderkloof farm werf may be impacted. The remnant foundations of the Modderkloof farm werf have limited cultural value and are considered to be Not Conservation-Worthy.

The significant structures identified by De Kock in 2012 were re-evaluated. Although the remnants of the saw mill industrial infrastructure speak to the forestry past of the property, the structures that remain are not rare or unique, and have no other cultural value that would warrant their retention. Unfortunately, since 2012, the identified structures have further deteriorated and as such, it has been determined that there are no conservation-worthy elements that remain at these structures.

6. CONCLUSION AND RECOMMENDATIONS

The survey proceeded with no major constraints or limitations, and the project area was comprehensively surveyed for heritage resources. No significant archaeological resources were identified during the field assessment. No impact to significant buried archaeology is likely, however it is possible that the remnant foundations of the Modderkloof farm werf may be impacted. The remnant foundations of the Modderkloof farm werf have limited cultural value and are considered to be Not Conservation-Worthy.

As such, no impact to significant archaeological heritage resources is anticipated.

Recommendations

There is no objection to the proposed development from an archaeological perspective on condition that:

- Should any buried archaeological resources or human remains or burials be uncovered during the course of development activities, work must cease in the vicinity of these finds. The South African Heritage Resources Agency (SAHRA) must be contacted immediately in order to determine an appropriate way forward.



7. REFERENCES

Heritage Impact Assessments				
NID	Author(s)	Date	Type	Title
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4083	Peter Nilssen	04/12/2003	AIA Phase 1	Earls Court - Lifestyle Estate Portion of Erf 464, George, Western Cape Proposed Residential - "Lifestyle" - Development Heritage Impact Assessment Final Report
4085	Peter Nilssen	08/06/2007	AIA Phase 1	Archaeological Heritage Impact Assessment Erf 7524, a Portion of Erf 1821, Tyolora: Proposed Thembaletu Plaza and Nursery School, Corner of Sandkraaland Ngcakani Roads, Tyolora, Thembaletu, George, Western Cape Province
4093	Cobus Dreyer	23/06/2006	AIA Phase 1	First Phase Archaeological and Cultural Heritage Assessment of the Proposed Ballot's Bay Field School Development at Sand Kraal 197, George, South Western Cape
4096	Cobus Dreyer	05/12/2007	AIA Phase 1	First Phase Archaeological and Cultural Heritage Assessment of the Proposed Upgrading of the Blanco Water Supply, George, South Western Cape
4427	Jonathan Kaplan	01/11/2006	AIA Phase 1	Phase 1 Archaeological Impact Assessment: Proposed Development Destiny Africa Portion 12 Kraaibosch 195 Remainder Portion 23 Kraaibosch 195 Remainder Portion 7 Kraaibosch 195 Remainder Portion 8 Kraaibosch 195 Portion 48 Sandkraal (a Portion of Portion 13)
4429	Jonathan Kaplan	01/06/2007	AIA Phase 1	Phase 1 Archaeological Impact Assessment: Proposed Development Far Hills Hotel Extension and Hotel Suites Portions 47 and 50 of Farm 194 Zwart River George
4471	Jonathan Kaplan	13/04/2007	AIA Phase 1	Archaeological Investigation the Proposed Development of the North Western Bulk Water Reservoirs at Denneoord and Bulk Water Supply Line from Denneoord to Pacaltsdorp, George
7275	Peter Nilssen	17/04/2007	AIA Phase 1	Archaeological Impact Assessment Portion 2 of the Farm Malgaskraal 142 Rem, District of George, Western Cape Province: Application for Mining Right - Extension of Witfontein Quarry
7590	Jonathan Kaplan	01/11/2001	AIA Phase 1	Heritage Impact Assessment: Proposed Development Oubaai Golf Estate, George
7591	Dave Halkett, Timothy Hart	01/02/1997	AIA Phase 1	Archaeological Assessment of Proposed Road Links Between the Outeniqua Pass and the National Road (N2) near George
8915	John E Almond	08/04/2011	PIA Phase 1	FibreCO Data Cable Project: Route 3 from Graaff-Reinet via George and Cape Town to Yzerfontein, Western and Eastern Cape Provinces
269397	Celeste Booth	02/03/2015	AIA Phase 1	FibreCo Repeater Sites Routes 3 and 4_Heritage_2015 AIA report
269397	Robart Gess	11/03/2011	PIA Phase 1	Palaeontological heritage component of FibreCo telecommunications, basic assessment for the proposed fibre optic data cable project: Route 4: George to port Elizabeth. DEA reference: 12/12/20/2160
329565	Henry Aikman	31/01/2009	HIA Phase 1	FANCOURT RETIREMENT VILLAGE PORTION 111 OF THE FARM MODDER RIVER 209 GEORGE
356856	Stefan de Kock	01/04/2009	Heritage Statement	Heritage Statement: MALGAS RIVER WATER PUMPING SCHEME: PORTIONS OF THE FARM MALGASKRAAL 142, DISTRICT GEORGE
357438	Peter Nilssen	15/03/2011	AIA Phase 1	Archaeological Impact Assessment Proposed residential development, Portion 52



				Kraaibosch Farm 195, George, Western Cape Province
364388	Stefan de Kock	01/11/2010	Heritage Statement	NID and Heritage Statement: Proposed Development of Kraaibosch 195/52, District George

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De Kock, S. (2012) Preliminary Heritage Survey With Relation To Proposed Development: Erven 25541& 25538, George District (Old Urbans Sawmill)

Raper, P.E., Moller, L.A. and Plessis, T. (2018) Dictionary of Southern African Place Names. Jeppestown: Jonathan Ball.

Thompson, L. (2008) Kraaibosch Bulk Sewer (Phase 2) Victoria Bay: Historical Background Report for the ENVIRONS



APPENDIX 2: Visual Impact Assessment 2025a and b

THE PROPOSED MEULENZICHT ESTATE, GEORGE LOCAL MUNICIPALITY IN THE WESTERN CAPE PROVINCE, SOUTH AFRICA

Landscape & Visual Impact Assessment

Draft v_3 (Finalisation pending EIA Comments)

DATE: 04 August 2025

Document prepared for HillLand Environmental (Pty) Ltd
On behalf of Atterbury Management Company (Pty) Ltd



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LIST OF ACRONYMS

<i>APHP</i>	Association of Professional Heritage Practitioners
<i>BLM</i>	Bureau of Land Management (United States)
<i>BPEO</i>	Best Practicable Environmental Option
<i>CALP</i>	Collaborative for Advanced Landscape Planning
<i>DEM</i>	Digital Elevation Model
<i>DoC</i>	Degree of Contrast
<i>EIA</i>	Environmental Impact Assessment
<i>EMPr</i>	Environmental Management Plan
<i>GIS</i>	Geographic Information System
<i>GPS</i>	Global Positioning System
<i>IDP</i>	Integrated Development Plan
<i>IEMA</i>	Institute of Environmental Management and Assessment (United Kingdom)
<i>KOP</i>	Key Observation Point
<i>LVIA</i>	Landscape and Visual Impact Assessment
<i>MAMSL</i>	Metres above mean sea level
<i>NELPAG</i>	New England Light Pollution Advisory Group
<i>PNR</i>	Private Nature Reserve
<i>SDF</i>	Spatial Development Framework
<i>SEA</i>	Strategic Environmental Assessment
<i>VAC</i>	Visual Absorption Capacity
<i>VIA</i>	Visual Impact Assessment
<i>VRM</i>	Visual Resource Management
<i>VRMA</i>	Visual Resource Management Africa
<i>ZVI</i>	Zone of Visual Influence

GLOSSARY OF TECHNICAL TERMS

Technical Terms Definition (Oberholzer, 2005)

Degree of Contrast	of	The measure in terms of the form, line, colour and texture of the existing landscape in relation to the proposed landscape modification in relation to the defined visual resource management objectives.
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Visual intrusion	Issues are concerns related to the proposed development, generally phrased as questions, taking the form of “what will the impact of some activity be on some element of the visual, aesthetic or scenic environment”.
Receptors	Individuals, groups or communities who would be subject to the visual influence of a particular project.
Sense of place	The unique quality or character of a place, whether natural, rural or urban.
Scenic corridor	A linear geographic area that contains scenic resources, usually, but not necessarily, defined by a route.
Viewshed	The outer boundary defining a view catchment area, usually along crests and ridgelines. Similar to a watershed. This reflects the area, or the extent thereof, where the landscape modification would probably be seen.
Visual Absorption Capacity	The potential of the landscape to conceal the proposed project.

Technical Term	Definition (USDI., 2004)
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Key Observation Point	Receptors refer to the people located in the most critical locations, or key observation points, surrounding the landscape modification, who make consistent use of the views associated with the site where the landscape modifications are proposed. KOPs can either be a single point of view that an observer/evaluator uses to rate an area or panorama, or a linear view along a roadway, trail, or river corridor.
Visual Resource Management	A map-based landscape and visual impact assessment method development by the Bureau of Land Management (USA).
Zone of Visual Influence	The ZVI is defined as ‘the area within which a proposed development may have an influence or effect on visual amenity.’

1 DFFE SPECIALIST REPORTING REQUIREMENTS

1.1 Specialist declaration of independence

Table 1. Specialist declaration of independence

All intellectual property rights and copyright associated with VRM Africa's services are reserved, and project deliverables, including electronic copies of reports, maps, data, shape files and photographs, may not be modified or incorporated into subsequent reports in any form, or by any means, without the written consent of the author. Reference must be made to this report, should the results, recommendations or conclusions in this report be used in subsequent documentation. Any comments on the draft copy of the Visual Impact Assessment (VIA) must be put in writing. Any recommendations, statements or conclusions drawn from, or based upon, this report, must make reference to it. This document was completed by Silver Solutions 887 cc trading as VRM Africa, a Visual Impact Study and Mapping organisation located in George, South Africa. VRM Africa cc was appointed as an independent professional visual impact practitioner to facilitate this VIA. I, Stephen Stead, hereby declare that VRM Africa, an independent consulting firm, has no interest or personal gains in this project whatsoever, except receiving fair payment for rendering an independent professional service.  Stephen Stead APHP accredited VIA Specialist
--

1.2 Specialist report requirements in terms of Appendix 6 of the EIA Regulations (2014), as amended in 2017

Table 2: Specialist report requirements table (Pending EIA Process)

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
Details of the specialist who prepared the report	Stephen Stead, owner / director of Visual Resource Management Africa. steve@vrma.co.za Cell: 0835609911
The expertise of that person to compile a specialist report including a curriculum vitae	Registration with Association of Professional Heritage Practitioners
A declaration that the person is independent in a form as may be specified by the competent authority	Table 1

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
An indication of the scope of, and the purpose for which, the report was prepared	Terms of Reference
A description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change	Baseline Assessment
The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment	NA
A description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Methodology
Details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternative;	Baseline Visual Inventory
An identification of any areas to be avoided, including buffers	Visual Resource Management Classes
A map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Landscape Constraints Map
A description of any assumptions made and any uncertainties or gaps in knowledge;	Assumptions and Limitations
The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment	25 May 2024
A description of the findings and potential implications of such findings on the impact of the proposed activity or activities	Visual Impact Assessment
Any mitigation measures for inclusion in the EMPr	Environmental Management Plan
Any conditions for inclusion in the environmental authorisation	Review of architectural guidelines & detailed landscape plan prior to development.
Any monitoring requirements for inclusion in the EMPr or environmental authorisation	Not applicable
A reasoned opinion as to whether the proposed activity or portions thereof should be authorised	Opportunities and Constraints
Regarding the acceptability of the proposed activity or activities; and	Authorisation with mitigation (Pending EIA process PPP)
If the opinion is that the proposed activity or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan	Pending EIA comments

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
A description of any consultation process that was undertaken during the course of carrying out the study	Preliminary discussion with local planners and architects.
A summary and copies if any comments that were received during any consultation process	Pending EIA
Any other information requested by the competent authority.	Pending EIA

1.3 DFFE Screening Tool Site Sensitivity Verification

In terms of Part A of the Assessment Protocols published in GN 320 on 20 March 2020, site sensitivity verification is required relevant to the DFFE Screening Tool. No landscape issues were flagged in the DFFE Screening Tool. As the area is located in a tourist area where landscapes are being used as a visual resource, visual input into the proposed development was a requirement. A detailed Site Sensitivity Verification was undertaken with survey points documenting the existing landscape context. The site photographs and sensitivity rating table can be viewed in Annexure A.

A site visit was undertaken on 25 May 2024. The site survey found five landscape impact points that are likely to be flagged as High as described in the survey table. These pertain to significant cultural landscape views from the Urbans Boulevard to the Outeniqua Mountains and the eastern 'wilderness' areas of the Garden Route, as well as the cultural landscape framing of the old Urbans Sawmill and associated plantation land uses.

2 EXECUTIVE SUMMARY

Visual Resource Management Africa CC (VRMA) was appointed by HillLand Environmental to undertake a **Visual Impact Assessment** for proposed Meulenzicht Estates on behalf of Atterbury Management Company (Pty) Ltd. The Proponent proposes to construct a residential estate and group house complex on a site located in the Kraaibosch area within the George Municipality Urban Edge, Western Cape Province.

CONCLUSION

The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred.

However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.

Two key mitigation measures are proposed:

1. A 10-meter setback from the Urbans Boulevard road reserve to reduce the visual dominance of the proposed buildings proposed adjacent to the road. This setback allows the natural drop in slope to better contain the height of double-storey units, following the Welgelegen Estate precedent, where buildings are set back $\pm 30\text{m}$ and allow for partial views over the buildings.
2. The removal/ relocation of four erven located between the Boulevard and the small farm dam. This would create a clear visual break in the linear development, retain a sense of the rural context, and preserve depth of view towards the eastern Garden Route. It would also enhance views along the two natural drainage lines, helping to reduce the perceived massing of the development.

With these measures in place, the development would still deliver economic and housing benefits while reducing visual intrusion. Although the character of the Boulevard would change with housing on both sides (Oumeulen Estate to the west and Meulenzicht to the east), the setback and visual break would help transition the area from rural edge to a more urbanised corridor. From a landscape and visual perspective, the project, in its mitigated form, could set a positive precedent for future developments along the Garden Route urban edge—balancing growth with partial retention of local landscape character.

Limitations pertaining to the assessment, include the limited architectural guidelines as well as a strong emphasis on landscaping that will only be generated after project approval. Furthermore, the basic impact assessment process does not allow for public comments to be reviewed prior to EIA. To address these procedural related risks, the following is proposed:

- Public submissions from the EIA process pertaining to the Urbans Boulevard should be reviewed and considered prior to the finalisation of the LVIA.
- The final architectural guidelines and detailed landscaping plans should be submitted to the George Aesthetics Committee for review, to ensure they align with the broader, emerging 'garden city' identity of George.

In conclusion, from a landscape and visual perspective, the mitigated proposal would establish a positive precedent for future development along the Garden Route urban edge, balancing growth with partial preservation of landscape character. For this reason, the **mitigated layout is the visual and landscape preference, and the recommendation is that the above key specified mitigations, should be taken into consideration by the relevant authority when granting authorisation.**

LANDSCAPE PLANNING POLICY FIT: Medium to High Positive

Policy fit refers to the degree to which the proposed landscape modifications align with International, National, Provincial and Local planning and policy. In terms of regional and local planning fit for planned landscape and visual related themes, the appraisal of visual/landscape policy fit of the landscape change is rated Medium to High Positive.

Of importance to international best practice for Landscape and Visual Impact Assessment as outlined by the Landscape Institute (IEMA, 2002), there is landscape relevance to the site that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the transition from the built landscapes of the town of George, into the undulating, rural landscape that characterise the wilderness area of the Garden Route. This is supported in the Garden Route Environmental Management Framework, where the views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained.

In particular, the views along the Urbans Boulevard are likely to result in significant landscape change, detracting from this wide cadastral, curving road that does have valuable vistas to the eastern Garden Route with background views to the Outeniqua Mountains.

METHODOLOGY

Visual Resource Management

The methodology for determining landscape significance is based on the United States Bureau of Land Management's Visual Resource Management (VRM) method (USDI., 2004). This GIS-based method allows for increased objectivity and consistency by using standard assessment criteria to classify the landscape type into four VRM Classes, with Class I being the most valued and Class IV, the least. The Classes are derived from *Scenic Quality*, *Visual Sensitivity Levels*, and *Distance Zones*. Specifically, the methodology involved: site survey; review of legal framework; determination of Zone of Visual Influence (ZVI); identification of Visual Issues and Visual Resources; assessment of Potential Visual Impacts; and formulation of Mitigation Measures.

VISUAL ABSORPTION CAPACITY Medium to Low

Land use is a crucial factor in determining landscape character, especially regarding the Visual Absorption Capacity (VAC) of the landscapes. Oberholzer defines VAC as the potential of the landscape to conceal the proposed project (Oberholzer, 2005). i.e.

- High VAC – e.g., effective screening by vegetation and structures.
- Moderate VAC - e.g., partial screening by vegetation and structures.
- Low VAC - e.g., little screening by vegetation or structures.

The Visual Absorption Capability (VAC) for most of the proposed development site is rated as Low, due to limited tree vegetation and the absence of significant man-made modifications. The local area VAC level is rated as Medium because of the existing developments around the Kraaibosch/N2 Highway and the old Urban Mill structures. In summary, the overall VAC is rated as Medium to Low, indicating that proposed residential development would be clearly visible but generally viewed within the existing urban and peri-urban landscape context.

ZONE OF VISUAL INFLUENCE: Wide Area (Moderate)

The visible extent, or viewshed, is “the outer boundary defining a view catchment area, usually along crests and ridgelines” (Oberholzer, 2005). In order to define the extent of the possible influence of the proposed project, a viewshed analysis was undertaken from the proposed site at a specified height above ground level. The extent of the Zone of Visual Influence is defined as Wide Area and most likely to be contained within the foreground/mid-ground distance zone (6km) for the following reasons:

- The strongly undulating terrain of the Meulen River to the west, and the Swart and Kaaimans Rivers to the east.
- The high ground to the south limiting views beyond 1km.
- High ground and higher VAC levels to the north and west where the built nature of the urban landscape is likely to contain views of the landscape change.

The Zone of Visual Influence is thus rated Moderate but with Very High Visual Exposure for receptors.

RECEPTORS AND KOPS: Multiple Receptors and 2 KOPs

Key Observation Points (KOPs) are the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. The following receptors were located within the expected ZVI:

- N2 Highway east and westbound (Very High Exposure).
- Urban Boulevard (Very High Exposure).
- Southern portions of the Welgelegen Estate (Very High Exposure).
- Western facing properties of upper Wilderness Heights (Medium to Low Exposure).

Due to the importance of the landscape heritage views from the N2 Highway, three KOPs were defined and used as reference points to determine the suitability of the landscape change:

- N2 Highway (Westbound).
- Urban Boulevard.

Welgelegen was not included as a KOP as the proposed future N2 Highway is located between this estate and the proposed development.

SCENIC QUALITY: Medium to High

The scenic quality of the site is rated as medium to high. The landforms are characterized by strong undulations, contributing to the landscape's visual associations with the eastern Garden Route vistas. The vegetation primarily consists of veld grasslands, with some larger (mainly non-native) trees along the drainage lines. The veld grasslands visually connect with eastern rural landscapes. Cultural modifications are minimal and limited to historic agricultural land uses that do add to the experience of landscape heritage. The property also offers significant views to the east into the Garden Route, with background views of the Outeniqua Mountains, enhancing the scenic quality of the site.

RECEPTOR SENSITIVITY: Medium to High

The expected receptor sensitivity to landscape change is rated Medium to High. The zone of visual influence includes the N2 Highway, an important tourist route and planned scenic view corridor as well as the Urbans Boulevard. As the property has been included in the George Municipality urban edge in the 2023 SDF, residential/ tourist related development is unlikely to result in public controversy. However, the views from the Urbans Boulevard to the eastern Garden Route are significant and add to the aesthetics of the route. As the road enhances the scenic quality, intrusion into the view is likely to evoke negative responses from George communities who have used this route to access the Outeniqua Farmers Market.

CUMULATIVE EFFECTS

Due to the combined developments of the Oumeulen and Meulenzicht Estates, there is a risk in degrading the existing, designed aesthetics of the Urbans Boulevard. It is possible that the proposed development may also result in planning pressure for the expansion of urban edge to the west on adjacent properties, that without mitigation could reflect ribbon development along the N2 Highway and facilitate the experience of urban sprawl. However, this would need to be addressed in future planning and future EIAs. With mitigation, as specified, the cumulative effects would be contained to some degree, and the development would be in alignment with the George Municipality Urban Edge planning.

VISUAL IMPACT SIGNIFICANCE

Without mitigation, the visual impact significance is rated Medium to High. The development is expected to set a negative visual precedent, particularly along the Urbans Boulevard, which was originally designed with a wide verge, sensitivity to the natural landform, and open views toward the eastern Garden Route landscape. The site spans a broad area that is visually connected to the rural, undulating landscapes to the east and is familiar to the George community, many of whom use the route to access the Outeniqua Farmers Market. While not a fatal flaw due to the location of the site within the urban edge, the unmitigated development would result in adverse visual impact and is therefore strongly not recommended.

With mitigation measures, the visual impact significance is expected to reduce to Medium. The development would still provide economic and housing benefits while moderating visual intrusion. Although the character of the Boulevard would change due to built form on

both sides (Oumeulen Estate to the west and Meulenzicht to the east), the proposed interventions would support a more gradual transition from rural edge to urban corridor. From a landscape and visual perspective, the mitigated proposal would establish a positive precedent for future development along the Garden Route urban edge, balancing growth with partial preservation of landscape character. For this reason, the mitigated layout is the visual and landscape preference, and the recommendation is that they should be a consideration of the relevant authority when granting authorisation.

KEY MTIGATIONS

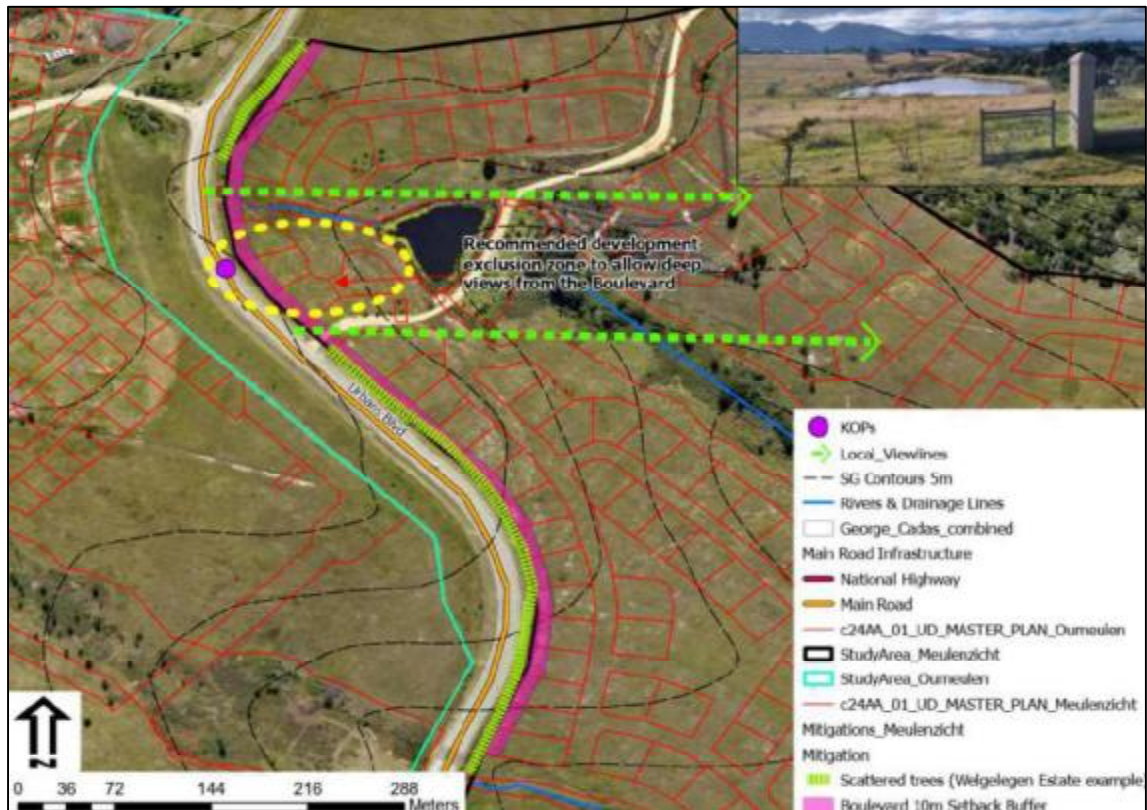
N2 National Highway Eastbound Peri-Urban Views: Phase 2B Apartments

- Six apartment dwellings are located in a relatively prominent location and are currently viewed from a peri-urban landscape context as seen from the N2 Highway receptors eastbound. The row of double storey structures would be clearly visible from the N2 Highway in the foreground, where there is no other similar residential dwelling context, other than the proposed background views of the proposed development single residential houses. To retain the existing peri-urban sense of place that does add value, a row of fast growing indigenous trees should be planted to the south of these structures following the existing farm wind break alignment with a 15m spacing between stems.



Southern Apartments/ Phase B2 Peri-Urban context.

Urbans Boulevard



Urbans Boulevard Mitigations Map.

- The recommendation is that the proposed erven along the Urbans Boulevard (Refer to map above) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen Estate where the natural drop in the terrain from the road allows for more effective views over the dwellings, thus reducing the 'walling' effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments on either side of the road. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.
- The recommendations is that the proposed erven along the Urbans Boulevard (Refer to map above) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen where the natural drop in the terrain further from the road allows for more effective views over the dwellings, thus reducing the massing effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.

- To allow for a vista gap to break the 'walling effect' created by the proposed line of dwellings along the Urbans Boulevard from the Oumeulen (west of road), and the Meulenzicht (east of road), is recommended that four erven should be removed to create a significant visual 'pause' area. This would allow an vista opening along the portion of the road to the small dam and background views of the eastern Garden Route. This would ensure that key views that benchmark the landscape heritage of the Boulevard are not all lost behind estate houses, to the detriment of the those using the road to access the tourist precinct/ residential areas or simply enjoying the road as a walking space. The photograph inserted into the above map, taken from the boulevard should be retained as open. The area should be retained as natural vegetation allowing the fynbos vegetation (specifically Erica species) to regrow as an extension of the natural vegetation landscaping along the drainage line.
- To ensure that security fencing does not impact the views, Clear-View type security fencing should be used along the road. For the section along the farm dam 'view-gap', the Clear-View fencing should be set back 10m from the road reserve to afford views over the security fencing.
- Planting of medium sized indigenous trees along the boulevard following the effective precedent set by the Welgelegen Estate. The trees should be scatted to create more organic plantings. The section of road overlooking the farm dam should not have trees to enhance the view down the valley. Trees planted along the road would need to have 1m x 1m holes dug and the tree planted with a suitable compost mix (subject to detailed landscaping planning and review by George Aesthetic Committee). The following photograph of Welgelegen landscaping should inform the final landscaping plan. The landscape plan should also take into consideration that this is optimal location for the growing of Ericaceae family if veld areas are not cut.
- Along the verges of the Urbans Boulevard where suitable, natural veld-grass 'patches' can also be created to allow Erica species growth and reduce the burden of the municipality having to cut the verges. This would reduce the maintenance burden placed on the municipality, but with management of the gardens by the estate.
- The existing Welgelegen Estate entrance should also be used as a positive precedent. The walling is set back from the road with intensive, indigenous vegetation landscaping to partially screen the entrance from the road. This precedent should be used as a reference for the Meulenzicht Estate entrance.



Welgelegen Estate landscaping suitable precedent that should be followed for the areas along the boulevard.

General Development

- The proposed Club House should be restricted to single-storey height to reduce visual intrusion and walls well screened by indigenous vegetation without the vegetation blocking views over the clubhouse structure. The vehicle parking area for the clubhouse should not dominate the local landscape context and should be screened from view with a variety of medium sized indigenous vegetation.
- To ensure that the proposed Water Treatment Plan does not become visually intrusive, this structure needs to visually screened by the planting of fast growing indigenous trees.
- All interior roads and 'tree-gap' areas should be planted as an avenue of indigenous trees at 15m spacings on both sides of the road. As the topsoil is limited in the area overlaying clay soils, the detailed landscape plan should specifically take the inherent constraints of the soils into consideration.
- In principle, **with the exception of the flat topped roof proposals**, the concept architectural guidelines provided to inform the LVIA are suitable to provide sufficient confidence in the assessment. However, as this is a large area development that does have the potential to significantly alter the eastern entrance into the George, more detailed architectural guidelines should be generated, and be subject to external review, prior to construction phase. **These guidelines should be provided to George Aesthetics Committee for review.**
- A key mitigation is that landscape planning is incorporated into the design. **As this is a key factor influencing the proposed amendment to the sense of place of the Urbans Boulevard, these plans should be provided to George Aesthetics Committee for review.**

3 INTRODUCTION

Visual Resource Management Africa CC (VRMA) was appointed by HillLand Environmental to undertake a **Visual Impact Assessment** for proposed Meulenzicht Estates on behalf of Atterbury Management Company (Pty) Ltd. The Proponent proposes to construct a residential estate and townhouse complex on a site located in the Kraaibosch area within the George Municipality Urban Edge, Western Cape Province. The proposed property is located directly adjacent to the N2 Highway and is accessed via the Urbans Boulevard.

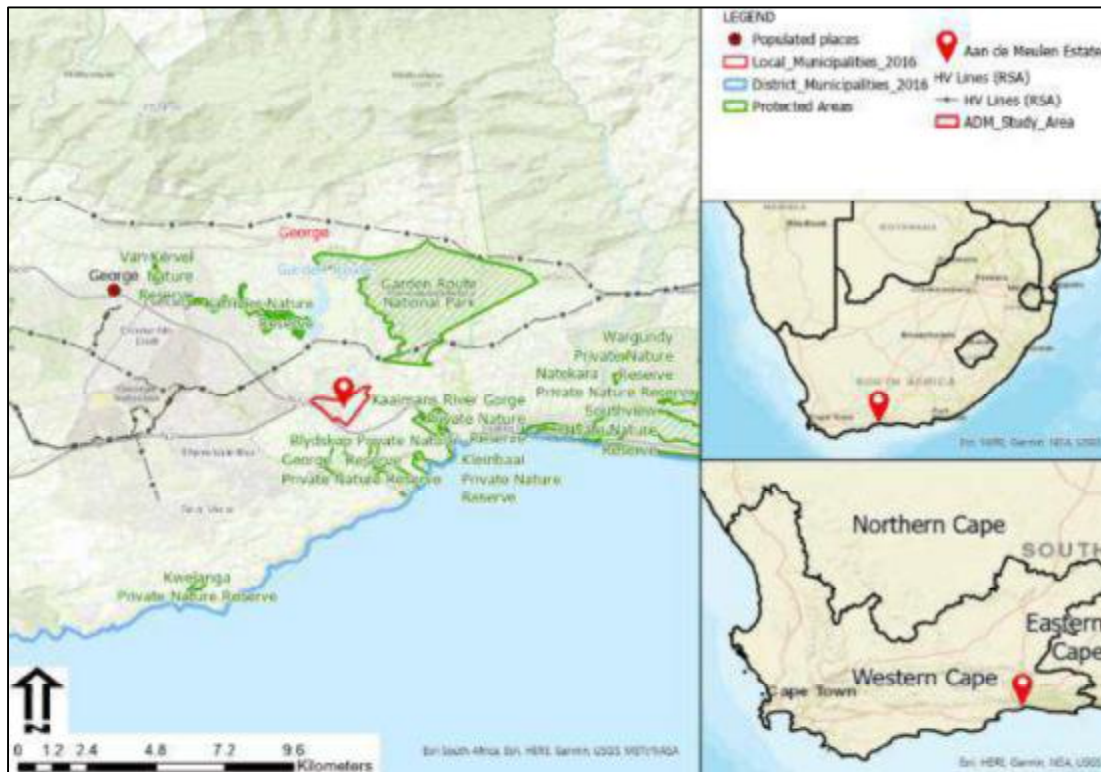


Figure 1: National and regional locality map.

3.1 Terms of Reference

The scope of this study is to cover the entire proposed project area. The broad terms of reference for the study are as follows:

- Collate and analyse all available secondary data relevant to the affected proposed project area. This includes a site visit of the full site extent, as well as of areas where potential impacts may occur beyond the site boundaries.
- Specific attention is to be given to the following:
 - Quantifying and assessing existing scenic resources/visual characteristics on, and around, the proposed site.
 - Evaluation and classification of the landscape in terms of sensitivity to a changing land use.
 - Determining viewsheds, view corridors and important viewpoints in order to assess the visual impacts of the proposed project.
 - Determining visual issues, including those identified in the public participation process.

- Reviewing the legal framework that may have implications for visual/scenic resources.
- Assessing the significance of potential visual impacts resulting from the proposed project for the construction, operation and decommissioning phases of the proposed project.
- Assessing the potential cumulative impacts associated with the visual impact.
- Generate photomontages of the proposed landscape modification.
- Identifying possible mitigation measures to reduce negative visual impacts for inclusion into the proposed project design, including input into the Environmental Management Programme report (EMPr).

3.2 Study Team

Contributors to this study are summarised in the table below.

Table 3: Authors and contributors to this report.

Aspect	Person	Organisation / Company	Qualifications
Landscape and Visual Assessment (author of this report)	Stephen Stead MSc Geography, 2023 (UKZN)	VRMA	• 20 years of experience in visual assessments of 264 landscape changes in five sub-Saharan African countries. • Registered with the Association of Professional Heritage Practitioners since 2014.
Landscape Consulting	Liesel Stokes (SACLAP)	Private	• 40 years experience as a landscape architect with recognised experience in heritage landscapes.

3.3 Visual Assessment Approach

The full methodology used in the assessment can be found in Annexure B, with this section outlining the key elements of the assessment process. The process that VRM Africa follows when undertaking a VIA is based on the United States Bureau of Land Management's (BLM) Visual Resource Management method (USDI., 2004). This mapping and GIS-based method of assessing landscape modifications allows for increased objectivity and consistency by using standard assessment criteria.

- *“Different levels of scenic values require different levels of management. For example, management of an area with high scenic value might be focused on preserving the existing character of the landscape, and management of an area with little scenic value might allow for major modifications to the landscape. Determining how an area should be managed first requires an assessment of the area’s scenic values”.*
- *“Assessing scenic values and determining visual impacts can be a subjective process. Objectivity and consistency can be greatly increased by using the basic design elements of form, line, colour, and texture, which have often been used to describe and evaluate landscapes, to also describe proposed projects. Projects that repeat these design elements are usually in harmony with their surroundings; those that don’t create contrast. By adjusting project designs so the elements are repeated, visual impacts can be minimized” (USDI., 2004).*

Baseline Phase Summary

The VRM process involves the systematic classification of the broad-brush landscape types within the receiving environment into one of four VRM Classes. Each VRM Class is associated with management objectives that serve to guide the degree of modification of the proposed site. The Classes are derived by means of a simple matrix with the three variables being the scenic quality, the expected receptor sensitivity to landscape change, and the distance of the proposed landscape modification from key receptor points. The Classes are not prescriptive and are utilised as a guideline to determine visual carrying capacity, where they represent the relative value of the visual resources of an area. Classes I and II are the most valued, Class III represents a moderate value; and Class IV is of least value. The VRM Classes are not prescriptive and are used as a guideline to determine the carrying capacity of a visually preferred landscape as a basis for assessing the suitability of the landscape change associated with the proposed project.

Table 4: VRM Class Matrix table

		VISUAL SENSITIVITY LEVELS								
		High			Medium			Low		
SCENIC QUALITY	A (High)	II	II	II	II	II	II	II	II	II
	B (Medium)	II	III	III/IV *	III	IV	IV	IV	IV	IV
	C (Low)	III	IV	IV	IV	IV	IV	IV	IV	IV
DISTANCE ZONES		Fore/middle ground	Background	Seldom seen	Fore/middle ground	Background	Seldom seen	Fore/middle ground	Background	Seldom seen

* If adjacent areas are **Class III** or lower, assign **Class III**, if higher, assign **Class IV**

The visual objectives of each of the classes are listed below:

- The Class I objective is to preserve the existing character of the landscape and the level of change to the characteristic landscape should be very low and must not attract attention. Class I is assigned when a decision is made to maintain a natural landscape.
- The Class II objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be low. The proposed development may be seen but should not attract the attention of the casual observer, and should repeat the basic elements of form, line, colour and texture found in the predominant natural features of the characteristic landscape.
- The Class III objective is to partially retain the existing character of the landscape, where the level of change to the characteristic landscape should be moderate. The proposed development may attract attention, but should not dominate the view of the casual observer, and changes should repeat the basic elements found in the predominant natural features of the characteristic landscape; and
- The Class IV objective is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the

landscape can be high, and the proposed development may dominate the view and be the major focus of the viewer's (s') attention without significantly degrading the local landscape character.

Impact Phase Summary

To determine impacts, a degree of contrast exercise is undertaken. This is an assessment of the expected change to the receiving environment in terms of the form, line, colour and texture, as seen from the surrounding Key Observation Points. This determines if the proposed project meets the visual objectives defined for each of the Classes. If the expected visual contrast is strong, mitigation recommendations are to be made to assist in meeting the visual objectives. To assist in the understanding of the proposed landscape modifications, visual representation, such as photomontages or photos depicting the impacted areas, can be generated. There is an ethical obligation in the visualisation process, as visualisation can be misleading if not undertaken ethically.

3.4 VIA Process Outline

The following approach was used in understanding the landscape processes and informing the magnitude of the impacts of the proposed landscape modification. The table below lists a number of standardised procedures recommended as a component of best international practice.

Table 5: Methodology Summary table

Action	Description
Site Survey	The identification of existing scenic resources and sensitive receptors in and around the study area to understand the context of the proposed development within its surroundings to ensure that the intactness of the landscape and the prevailing sense of place are taken into consideration.
Project Description	Provide a description of the expected project, and the components that will make up the landscape modification.
Reviewing the Legal Framework	The legal, policy and planning framework may have implications for visual aspects of the proposed development. The heritage legislation tends to be pertinent in relation to natural and cultural landscapes, while Strategic Environmental Assessments (SEAs) for renewable energy provide a guideline at the regional scale.
Determining the Zone of Visual Influence	This includes mapping of viewsheds and view corridors in relation to the proposed project elements, in order to assess the zone of visual influence of the proposed project. Based on the topography of the landscape as represented by a Digital Elevation Model, an approximate area is defined which provides an expected area where the landscape modification has the potential to influence landscapes (or landscape processes) or receptor viewpoints.
Identifying Visual Issues and Visual Resources	Visual issues are identified during the public participation process, which is being carried out by others. The visual, social or heritage specialists may also identify visual issues. The significance and proposed mitigation of the visual issues are addressed as part of the visual assessment.

Action	Description
Assessing Potential Visual Impacts	An assessment is made of the significance of potential visual impacts resulting from the proposed project for the construction, operational and decommissioning phases of the project. The rating of visual significance is based on the methodology provided by the Environmental Assessment Practitioner (EAP).
Formulating Mitigation Measures	Possible mitigation measures are identified to avoid or minimise negative visual impacts of the proposed project. The intention is that these would be included in the project design, the Environmental Management Programme report (EMPr) and the authorisation conditions.

3.5 Impact Assessment Methodology

The following impact criteria were used to assess visual impacts. The criteria were defined by the Western Cape *DEA&DP Guideline for involving Visual and Aesthetic Specialists in EIA Processes* (Oberholzer, 2005).

Table 6. DEA&DP Visual and Aesthetic Guideline Impact Assessment Criteria table

Criteria	Definition
<u>Extent</u>	The spatial or geographic area of influence of the visual impact, i.e.: • <i>site-related</i>: extending only as far as the activity. • <i>local</i>: limited to the immediate surroundings. • <i>regional</i>: affecting a larger metropolitan or regional area. • <i>national</i>: affecting large parts of the country. • <i>international</i>: affecting areas across international boundaries.
<u>Duration</u>	The predicted life-span of the visual impact: • <i>short term</i>, (e.g., duration of the construction phase). • <i>medium term</i>, (e.g., duration for screening vegetation to mature). • <i>long term</i>, (e.g., lifespan of the project). • <i>permanent</i>, where time will not mitigate the visual impact.
<u>Intensity</u>	The magnitude of the impact on views, scenic or cultural resources. • <i>low</i>, where visual and scenic resources are not affected. • <i>medium</i>, where visual and scenic resources are affected to a limited extent. • <i>high</i>, where scenic and cultural resources are significantly affected.
<u>Probability</u>	The degree of possibility of the visual impact occurring: • <i>improbable</i>, where the possibility of the impact occurring is very low. • <i>probable</i>, where there is a distinct possibility that the impact will occur. • <i>highly probable</i>, where it is most likely that the impact will occur.

	• <i>definite</i>, where the impact will occur regardless of any prevention measures.
<u>Significance</u>	The significance of impacts can be determined through a synthesis of the aspects produced in terms of their nature, duration, intensity, extent and probability, and be described as: • <i>low</i>, where it will not have an influence on the decision. • <i>medium</i>, where it should have an influence on the decision unless it is mitigated. • <i>high</i>, where it would influence the decision regardless of any possible mitigation.

3.6 Assumptions and Uncertainties

- Digital Elevation Models (DEM) and viewsheds were generated using ASTER elevation data (NASA, 2009). Although every effort to maintain accuracy was undertaken, as a result of the DEM being generated from satellite imagery and not being a true representation of the earth's surface, the viewshed mapping is approximate and may not represent an exact visibility incidence. Thus, specific features identified from the DEM and derive contours (such as peaks and conical hills) would need to be verified once a detailed survey of the project area has taken place.
- The use of open-source satellite imagery was utilised for base maps in the report.
- Some of the mapping in this document was created using Bing Maps, Open-Source Map, ArcGIS Online and Google Earth Satellite imagery.
- The project deliverables, including electronic copies of reports, maps, data, shape files and photographs are based on the author's professional knowledge, as well as available information.
- VRM Africa reserves the right to modify aspects of the project deliverables if and when new/additional information may become available from research or further work in the applicable field of practice or pertaining to this study.
- As access to farms and private property is often limited due to security reasons, limiting access to private property in order that photographs from specific locations are taken. 3D modelling is used to reflect the expected landscape change area where applicable.
- Mapping makes use of the SANBI BGIS webmap (SANBI, 2018)
- The slopes analysis is approximate and is subject to detailed survey and detailed slopes analysis.
- Where site specific 3D visualisations were not provided, 3D block models were used to depict the structural development change at key focus point areas. The blocks are scaled, but as they do not depict a realistic interpretation of the landscape change, they depict a worst case scenario and should be views as an approximation.
- **Detailed landscape planning is a key mitigation that is proposed for the Urbans Boulevard. This would only be undertaken post EIA, and as such, this is a limitation. The external review by the George Aesthetics Committee would reduce the risk of this limitation.**

4 PROJECT DESCRIPTION

The following project information was provided by the client that will be incorporated into the assessment and proposed infrastructure relating to the project. The following table outlines the scope of the project, with reference to the extent, heights, and expected landscape change depiction as provided by the proponent/ architects involved in the project design and development.

Table 7: Project Information table

PROPONENT SPECIFICATIONS	
Applicant Details	Description
Applicant Name:	Atterbury Developments ((Pty) Ltd
Project Name:	Meulenzicht Estate

	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type
1	George	25537	0	33°59'10.18S	22°31'26.67E	Erven

Table 8: Project Information table

DEVELOPMENT DETAILS			
MEULENZICHT LANDGOED			
		Units	GLA
Phase B1	13,2258 ha		
Main entrance / Gatehouse			
Full title erven		83	-
Phase B2	3,9348 ha		
Full title erven		49	-
Phase B3	4,2971 ha		
Full title erven		25	-
Phase B4	15,2092 ha		
Full title erven		70	-
Phase B5	0,7482 ha		
Treatment plant			-
Phase B6	28,5678 ha		
Future Expansion			-
		227 units	0 m ²

The following images of the proposed development were provided by the architect (Nuvorm).

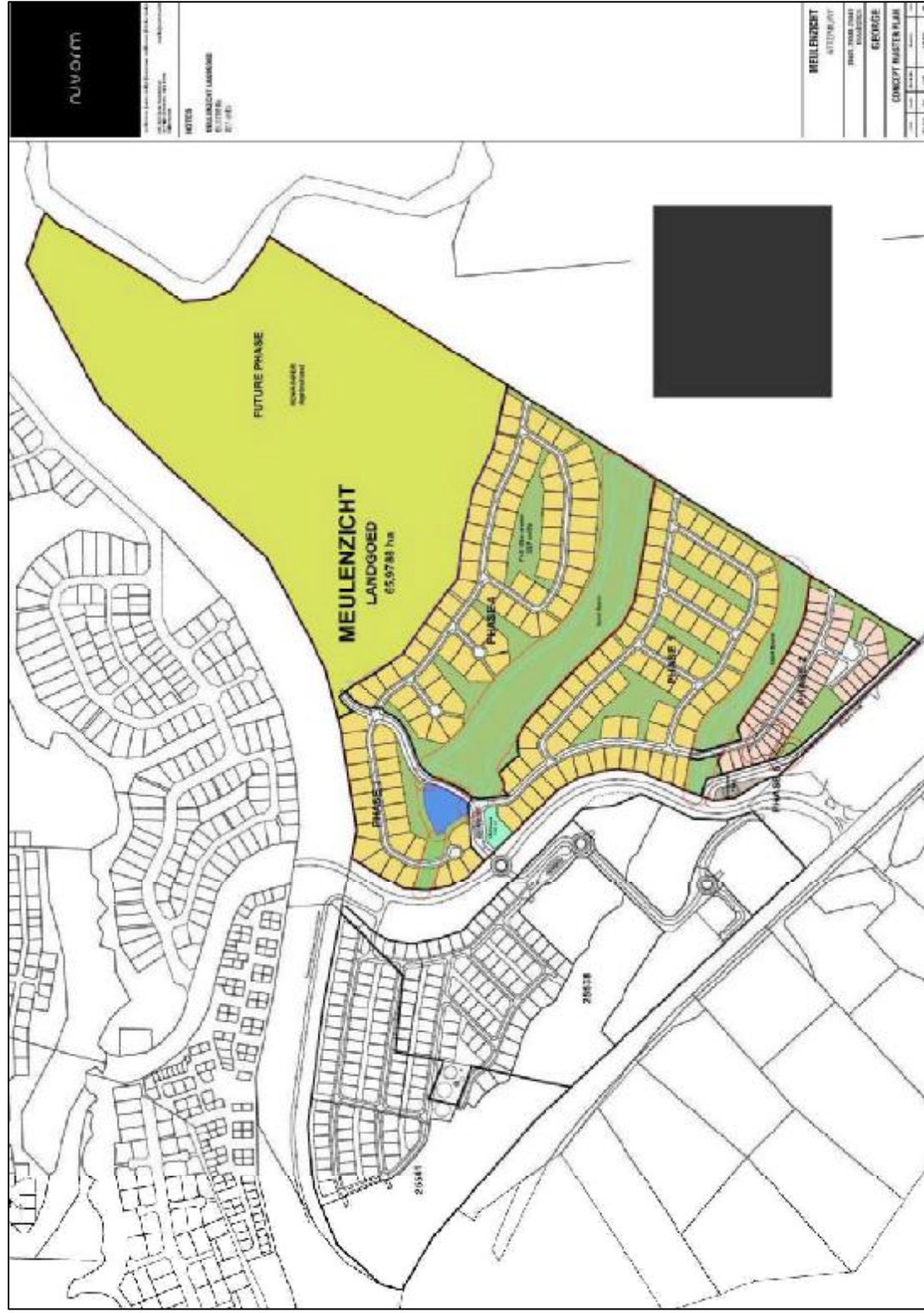
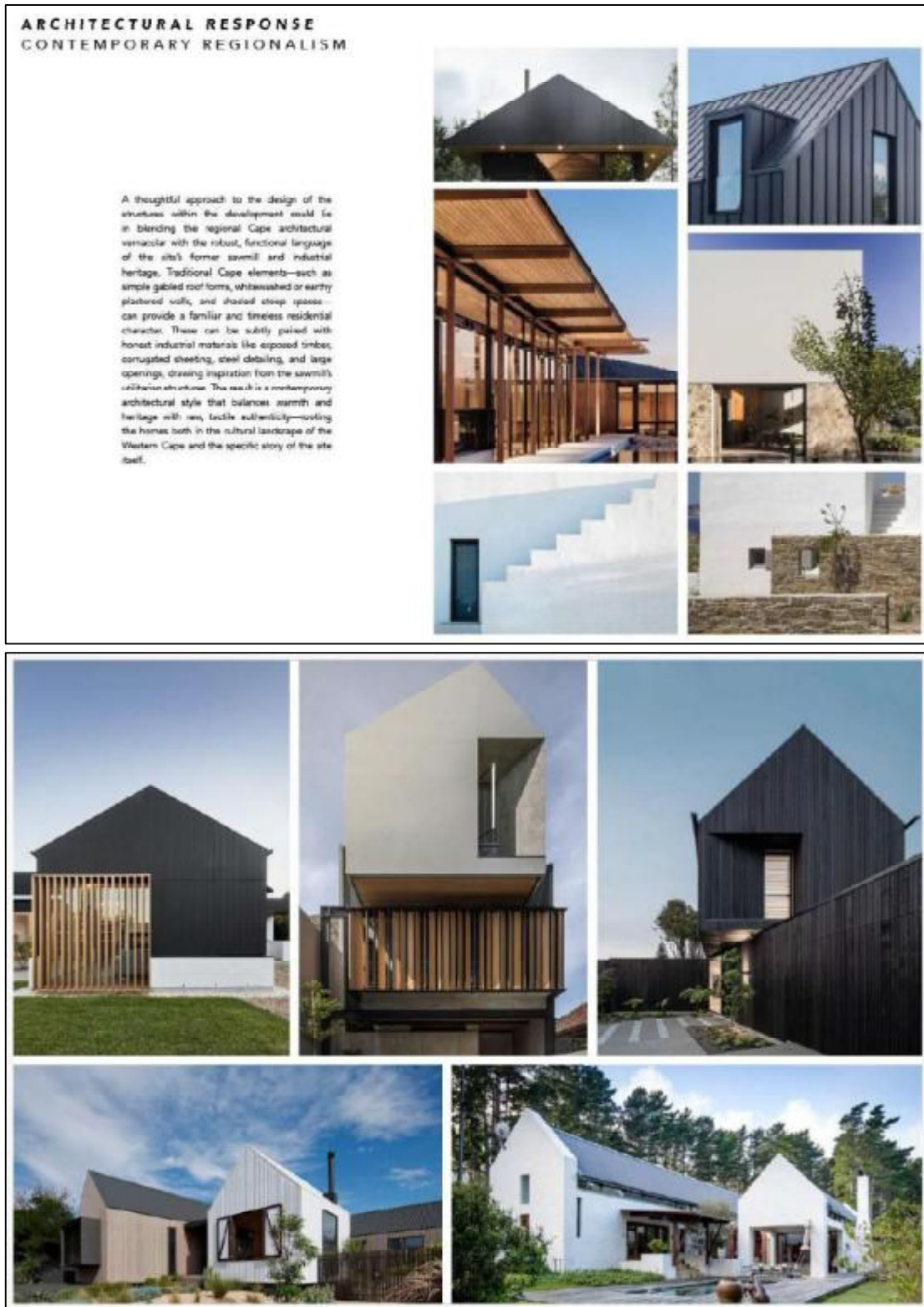


Figure 2: Proposed layout plan.



4.1 Concept Architectural Framing







5 LEGAL FRAMEWORK

In order to comply with the Visual Resource Management requirements, it is necessary to relate the proposed landscape modification in terms of international best practice in understanding landscapes and landscape processes. The proposed project also needs to be evaluated in terms of 'policy fit'. This requires a review of International, National and Regional best practice, policy and planning for the area to ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the planned sense of place and character of the area.

5.1 International Good Practice

For international good practice in assessment of landscapes, the following documentation is relevant, specifically:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA), Second Edition.

5.1.1 Guidelines for Landscape and Visual Impact Assessment, Second Edition

The Landscape Institute and the Institute of Environmental Management and Assessment (United Kingdom) have compiled a book outlining best practice in landscape and visual impact assessment. This has become a key guideline for LVIA in the United Kingdom. "The principal aim of the guideline is to encourage high standards for the scope and context of landscape and visual impact assessments, based on the collegiate opinion and practice of the members of the Landscape Institute and the Institute of Environmental Management and Assessment. The guidelines also seek to establish certain principles and will help to achieve consistency, credibility and effectiveness in landscape and visual impact assessment, when carried out as part of an EIA" (The Landscape Institute, 2003);

In the introduction, the guideline states that 'Landscape encompasses the whole of our external environment, whether within village, towns, cities or in the countryside. The nature and pattern of buildings, streets, open spaces and trees – and their interrelationships within the built environment – are an equally important part of our landscape heritage" (The Landscape Institute, 2003: Pg. 9). The guideline identifies the following reasons why landscape is important in both urban and rural contexts, in that it is:

- An essential part of our natural resource base.
- A reservoir of archaeological and historical evidence.
- An environment for plants and animals (including humans).
- A resource that evokes sensual, cultural and spiritual responses and contributes to our urban and rural quality of life; and
- Valuable recreation resources. (The Landscape Institute, 2003).

In terms of international best practice for Landscape and Visual Impact Assessment, there is relevance to the site landscape that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the views to the east of the Garden Route that effectively depict the gateway to the more Wilderness related areas of the Garden Route. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained.

5.2 National and Regional Legislation and Policies

In order to comply with the Visual Resource Management requirements, it is necessary to clarify which National and Regional planning policies govern the proposed development area to ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the sense of place and character of the area.

- DFFE Garden Route Environmental Management Framework (EMF)
- DEA&DP Visual and Aesthetic Guidelines.
- Regional and Local Municipality Planning and Guidelines.

Table 9: List of key planning informants to the project

Theme	Requirements
Province	Western Cape
District Municipality	Garden Route
Local Municipality	George

5.2.1 Garden Route Environmental Management Framework (EMF)

The Garden Route EMF (Department of Forestry, Fisheries and the Environment, 2010) report was produced in conjunction with the Western Cape DEA&DP. The following extract from the report outlines the need for the report:

“This particular EMF has been developed as a direct response to a specific set of drivers and pressures. The National Lakes Area, commonly known and referred to as the Garden Route, is characterised as such due to its outstanding scenic quality and beauty. Similarly, the unique coastal lake systems, indigenous forests and rugged coastline comprise an extensive network of protected areas, South African National Parks and Provincial Natural Reserves, often interspersed by Urban Development” (Department of Forestry, Fisheries and the Environment, 2010, p. 6).

In Chapter 3.2. that identified Topographical Sensitive Areas the following landscapes are listed:

- The greater topography. Topography constituting the Garden Route, especially the landscape surrounding scenic routes, then into high tourism areas illustrating higher viewer incidence.
- The Outeniqua Mountains as backdrop to the Garden Route.
- The coastline of the Garden Route.
- The National Lakes Basin.
- Steep slopes, especially over steep slopes throughout the study area. Steep slopes on sandy dunes are extremely sensitive to structural risk as well as steep slopes overlaid by cover sands.
- Unique topographical features such as exposed rocky headlands along the coastline as well as ancient, petrified dunes (Department of Forestry, Fisheries and the Environment, 2010, p. 10).

In terms of areas with significant visual qualities that require protection, the following are listed:

- Areas of protection status, such as national parks or nature reserves.
- Areas with proclaimed heritage sites or scenic routes.
- Areas with intact woodiness qualities or pristine ecosystems.

- Areas with the recognise special character or sense of place.
- Areas with important vistas or scenic corridors. Areas with visually prominent Ridge lines or skylines (Department of Forestry, Fisheries and the Environment, 2010, p. 85).

As per the EMF, views from the N2 Highway, which is an important scenic corridor, have important vistas in relation to the Outeniqua Mountains as backdrop to the Garden Route. These vistas should be retained as open views to ensure that the N2 Highway sense of place, and the first view into the Garden Route landscapes, are retained as a destination experience.

5.2.2 DEA&DP Visual and Aesthetic Guidelines

Reference to the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) Guideline for involving visual and aesthetic specialists in Environmental Impact Assessment (EIA) processes is provided in terms of southern African best practice in Visual Impact Assessment. The report compiled by Oberholzer states that the Best Practicable Environmental Option (BPEO) should address the following:

- Ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the sense of place and character of the area. The BPEO must also ensure that development must be located to prevent structures from being a visual intrusion (i.e., to retain open views and vistas).
- Long term protection of important scenic resources and heritage sites.
- Minimisation of visual intrusion in scenic areas.
- Retention of wilderness or special areas intact as far as possible.
- Responsiveness to the area's uniqueness, or sense of place.” (Oberholzer, 2005)

As highlighted in the international best practices for landscape assessment, the views to the eastern Garden Route landscapes are a significant feature of the site. As seen from the N2 Highway, these views would be considered an important scenic and heritage resource, that would require the retention of the wilderness or special area to ensure that the area's unique sense of place is retained to some extent. Views as seen from the N2 Highway that currently allow for uninhibited views to the eastern Outeniqua Mountains should be remain open and un-cluttered.

5.2.3 Conservation Planning

As can be seen in Figure 4 on the following page, the Blydskap and George Private Nature Reserves are located approx. 1km to the south of the study areas. However, these areas do not fall within the project zone of visual influence. The Garden Route National Park is located 2km to the northeast of the site, but also mainly outside of the project viewshed and views of the proposed development would be viewed against an existing urban development landscape context. **Risk to conservation management is thus rated Low.**

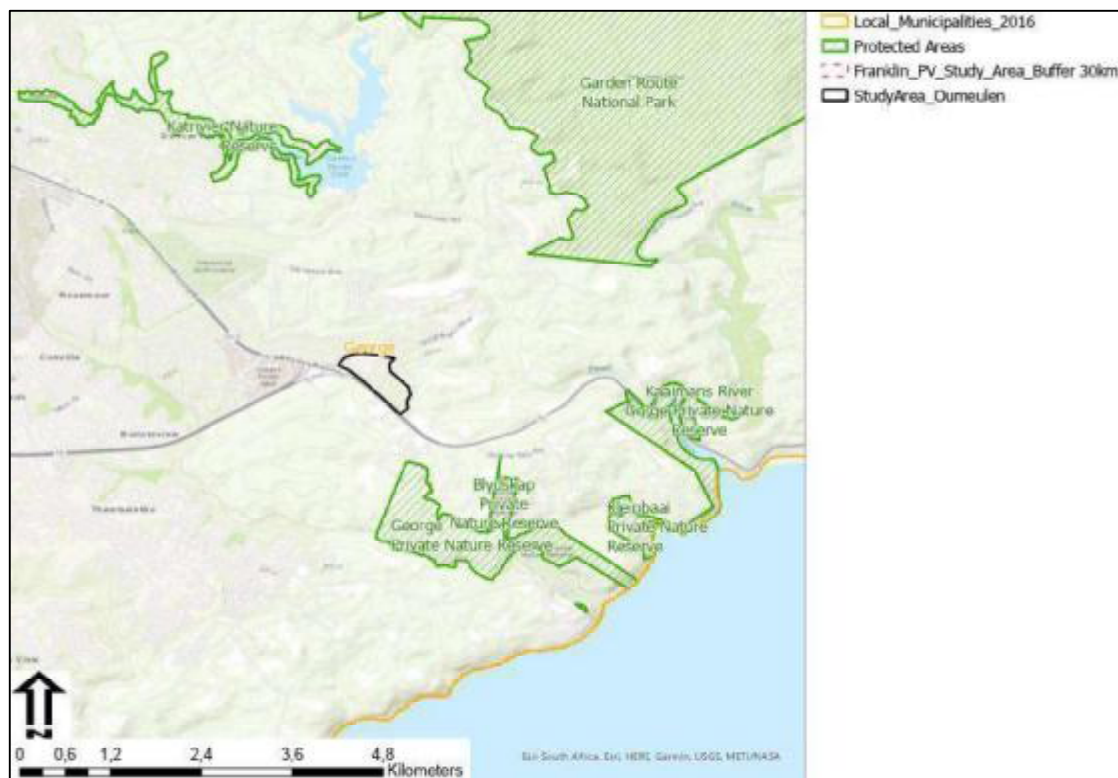
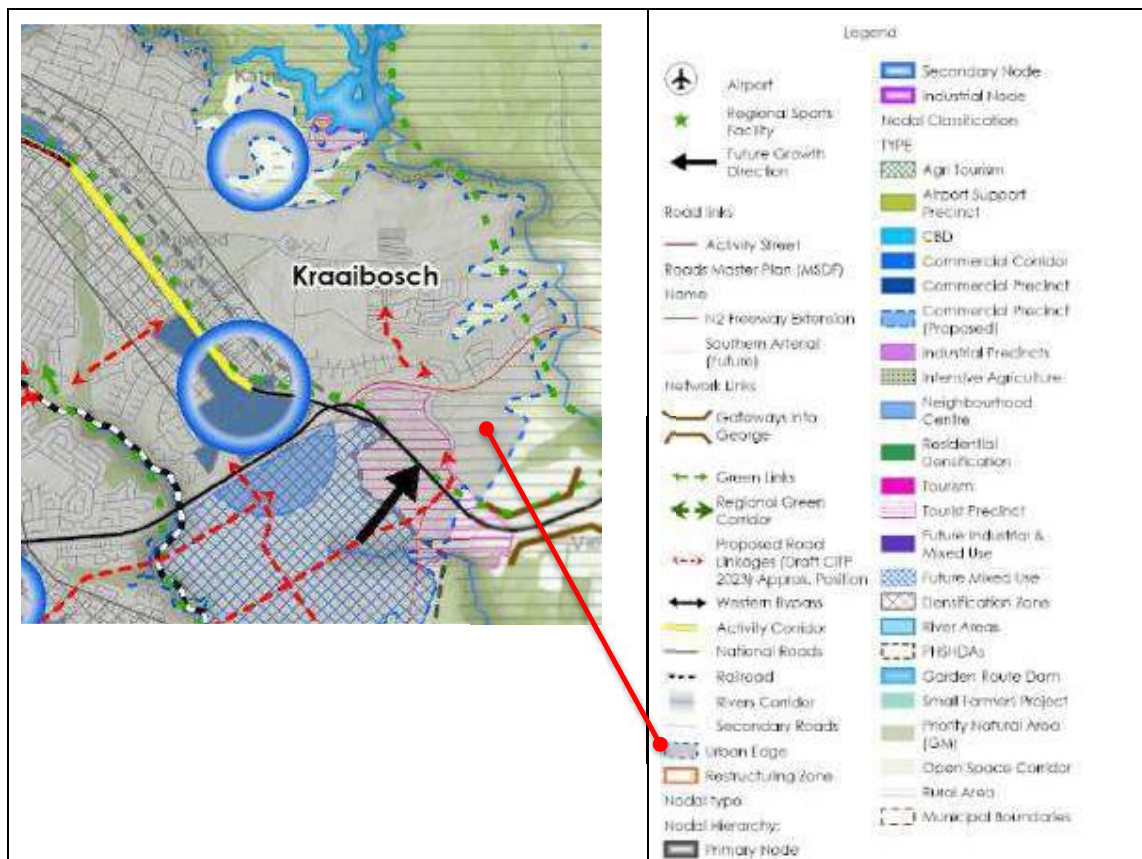


Figure 4: Proclaimed Conservation Areas map.

5.2.4 Local and Regional Planning

The following tables list key regional and local planning that has relevance to the project pertaining to landscape-based tourism, and residential/retail projects. In terms of the planning mapping, the proposed development does fall within the George Municipality Urban Edge where residential development is supported. The maps of the following page depict the George SDF planning in relation to the proposed development site.



5.2.5 Heritage Planning

As previously indicated in the international best practice section as outlined by the Landscape Institute, there is landscape relevance to the site in that evokes a sensual and cultural response to the urban and rural quality of life related to the old Urbans Sawmill and associated plantations within the broader Garden Route landscape context. Also of value are the arboreal landscapes created by the remnants of the pine trees, and other climax trees that reflect the forestry land use heritage around the old Urban sawmill. This theme is highlighted by De Kock in the 2012 Heritage Report undertaken for Magnolia Ridge Properties 77 (Pty) Ltd. De Kock states that “historically, the sawmill complex was entirely surrounded by pine plantations which effectively screened the site from view, the only remaining screening in place is two rows of linear-planted pine trees (L-shape) directly south and west of the building precinct. These trees enhance the overall visual prominence of the site while framing the views of the building precinct. Therefore, in light of the overall forestry theme inherent to the complex, it is recommended that planting of pine trees along this corridor be encouraged” (De Kock, 2012, p. 19).

The property is also visually associated with significant vistas from the Urbans Boulevard which is a wide road reserve that effectively reflects the undulations of the terrain, creating an interesting meandering route with opens views to the east towards the Garden Route and Outeniqua Mountains. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained. Given the

heritage relevance of the property, the following development criteria would need to be clearly depicted in the SDP:

- Plan for a medium-density settlement pattern within an 8m height restriction to allow for an urban-forest landscape to be the resulting landscape sense of place and ensure that the heritage vistas along the Urbans Boulevard retain some element of open views such that the eastern views do not become ‘walled off’ by continuous development along the road. Key vista point should be un-cluttered with views over structures. The following map depicts the significant landscape heritage views to the east from the N2 Highway.

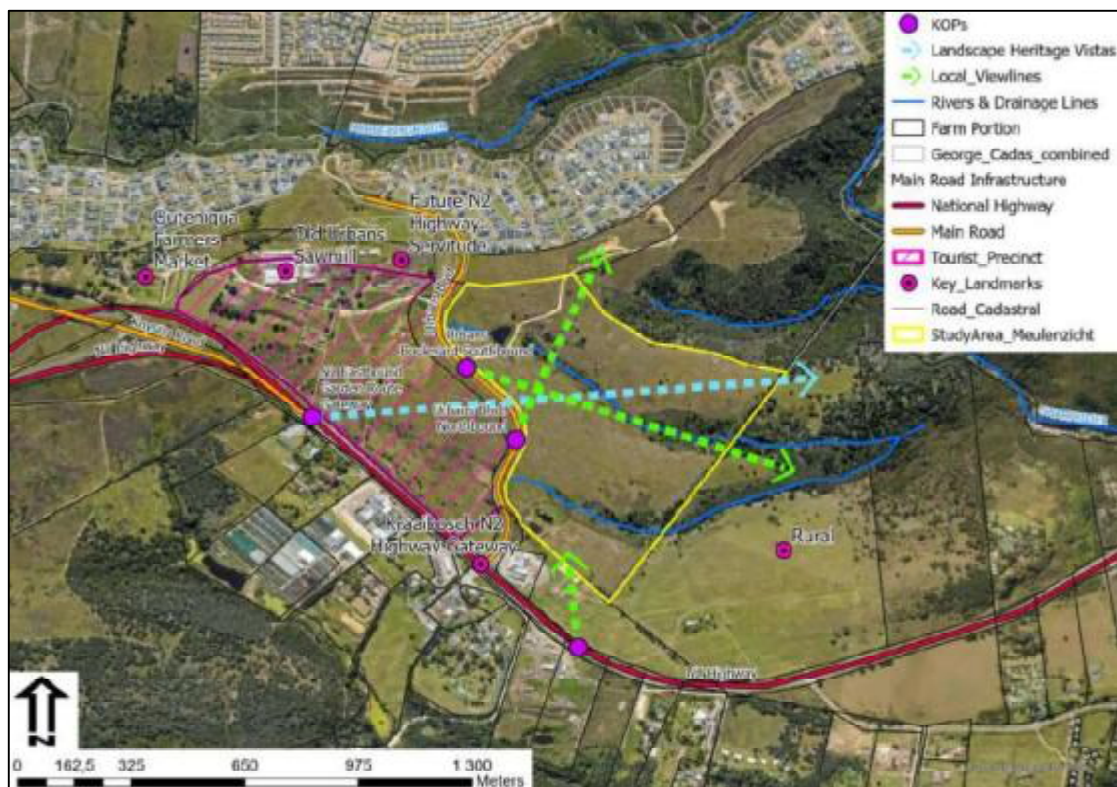


Figure 5: Key landscape planning context map.

5.2.6 District Municipality Landscape Planning

The following table depicts extracts from the Garden Route District Municipality Spatial Development Framework.

Table 10: District Planning reference table relevant to the project

Garden Route District Municipality SDF (Previously Eden DM) (Garden Route District Municipality, 2017)		
Theme	Requirements	Page
Tourism	Garden Route District Municipality defined mandate: • Promotion of local tourism for the area of the district municipality	21
	The Southern Cape region is identified as being a provincial leisure and tourism coastal belt and priority urban functional region.	25

	The District is also known for its indigenous forests and plantations, attractive water bodies and coastline. In combination with the District's natural beauty, biodiversity and mild climate, it attracts visitors throughout the year. Eden District is the only District in the Western Cape that represents all of the Western Cape's cultural and scenic landscape types.	106
Urban Edge Planning	Urban edges should be determined within the context of the urban and rural environment. Urban edges aid in establishing where development should not occur to protect and conserve significant environmental and agricultural resources. The management of urban edges should be carried out by local authorities and ensure the reduction of urban sprawl.	
Economy and Environment	In line with WC DEA&DP guidelines for rural land use development, new investment in rural areas should not have significant impact on biodiversity; • Be inconsistent with cultural and scenic landscapes within which it is situated; • Infringe on the authenticity of the rural landscape and heritage assets.	110

5.2.7 Local Municipality Landscape Planning

The following table depicts extracts from the George Local Municipality Spatial Development Framework.

Table 11: Local Planning reference table relevant to the project

George Municipality SDF (George Municipality, 2023)		
Theme	Requirements	Page
SDF Planning	The space economy is concentrated in a triangle of opportunity comprising of the existing CBD Business node, the Kraaibosch / Blue Mountain Commercial Node, and the Pacaltsdorp Industrial Node (See Map 12).	43
	• There has been a significant uptake of opportunities in estate/security type development, catering for urban based, affluent residents in developments such as Welgelegen, Kraaibosch, Kingswood, Blue Mountain, etc	44
	• There is a significant increase (2016-2021) in population (households) in specific urban areas such as Thembaletu, Kraaibosch, Pacaltsdorp, and Ballotsview functional areas, although residential growth (densification/uptake) is noticeable in all functional areas. • The Kaaimans Road extension to Glenwood Road and Glenwood Road re-instatement form part of the existing road network planning. The Draft CIP notes the importance of the link between Kraaibosch development area and the Kraaibosch south (Welgelegen) area, Urbans Boulevard extension.	47

	B8: PG a: Encouraging integrated development (spatial integration -shared uses/access) with mixed typologies and densities in private/public development Identified mixed use sites include Garden Route Dam mixed use area, Kraaibosch South extension area (nodal portion).	118
	Medium – Long Term Urban Growth Area (5 – 20 years): - Given the rapid uptake of bonded housing opportunities (private development) and the support of healthy property markets (supporting upward mobility opportunities) continuous urban growth is anticipated (based on motivation as per the George Urban Growth Proposal Framework and due process), in the longer term, in the following directions: - Growth area between the Kraaibosch Node-south area and Welgelegen.	173
Environmental Threats	The non-urban areas of George are under continual threat of development and degradation, albeit in a small, incremental manner. Clear distinction is to be made between various categories of land outside of the urban edges. Whether these properties are legally referred to as farm portions (i.e., the legal registration category) or erven and whether these properties are zoned for agriculture, open space or other appropriate purpose reconcilable with the rural landscape. The positions of the property within the context of the urban areas, natural areas, conservation areas and arable areas should guide the permitted land use, within the allocated zoning.	32
Economic Development	- Eastern Commercial Node Sub-regional mixed-use node, focused presently on the commercial potential of the N2, but also containing a mix of residential and work opportunities, comprising the Garden Route Mall, the Eden Meander, surrounding zoned business and commercial zoned land adjacent to the N2. In time this node will include the future development of the ‘Kraaibosch South Extension” site. (South and west of the N2) - Economic precincts do not necessarily constitute urban areas. Residential development and neighbourhood orientated land use are not supported in precincts and nodes situated in peripheral economic precincts. Precincts proposed are noted in Map 24.	70
Gateways	Likewise, passing George and heading east past Kraaibosch and moving on towards the Victoria Bay area gives one the feeling of leaving the built-up area as the	59

	vistas are generally of farm fields in the foreground with trees including pine plantations and rolling hills in the mid ground and then the Outeniqua Mountains in the background. This is the gateway to the Wilderness approach and in fact where the experience of the Garden Route starts. It is the area where the Kaaimans Corridor starts, which is unique not only for the spectacular Kaaimans George, but also because it is where the distance between the ocean and mountain is the shortest in the Southern Cape. If travelling along the Garden Route from Cape Town this is the first encounter with the dense indigenous forest characteristic of the Garden Route and, along with the commercial forestry plantations, an important part of the cultural history of the area. • Scenic routes provide public access to the enjoyment of these landscapes. The routes and the land use alongside these routes should be managed in such a way as to not compromise the views offered but to mark and celebrate the landscapes and the origins or nature of their significance.	
Green Gateways	Green gateways are strategic access points that must provide public access to the green system/network, including coastal access points, access to tourist precincts and protected areas.	86
Scenic Routes	• Scenic routes refer to routes that provide vistas over scenic landscapes and the experience of a sense of place. All main roads (highways and main arterials are considered scenic routes to a degree, but the main scenic routes are noted in Par 4.3.1.1). • Land use management for scenic routes should be aimed at retaining the sense of place and important vistas from these routes. The focus is thus largely on managing development adjacent to these routes.	87
N2 Eastern Approach	If travelling along the Garden Route from Cape Town this is the first encounter with the dense indigenous forest characteristic of the Garden Route and, along with the commercial forestry plantations, an important part of the cultural history of the area. The eastern approach to the George City Area along the N2, the airport road (R102) and the R404 traverses a rural landscape with views of the mountain range. This landscape is a strong part of the identity of George and connects to a rural tourism sector that is central to George's identity and has much potential.	59
Tourism Precinct	• Areas identified to contain a combination of tourist related facilities and accommodation. • Not a retail node but may include tourism relates small shops (convenience), restaurants, sport-and recreation-and services- conditions to be included in land use application.	85

	• Mitigation of environmental issues and impacts of climate change to be addressed during development process. • Visual impact to be mitigated in areas of scenic value and along landscapes. • Public access to be protected in all instances. • Applicable heritage and cultural resources to be protected and incorporated.	
Visual Impact	• In addition to support of the ecological functioning of the natural systems, the visual impact of development on George's natural assets/heritage in both urban and rural areas, must be managed. • The treatment of Gateways (Par. 4.3.1.1) to George, where transitioning from rural to urban areas occurs, imply a "green gateway" transition when moving from urban areas into the rural area. • All rural development must be congruent to the rural (natural or agricultural) character of the surrounding area. I.e., the visual impact of development at gateways to be managed to show transition from urban to rural and to re-enforce the "Garden City" character of a marketable, 'liveable' George, situated at the heart of the Garden Route. • Gateways to urban development nodes and tourism precincts must be managed at a street level, urban design level and via managing the graded intensity of use.	61

5.3 Landscape Planning Policy Fit

Policy fit refers to the degree to which the proposed landscape modifications align with International, National, Provincial and Local planning and policy. In terms of regional and local planning fit for planned landscape and visual related themes, the preliminary appraisal of visual/ landscape policy fit of the landscape change is rated Medium to High Positive.

Of importance to international best practice for Landscape and Visual Impact Assessment as outlined by the Landscape Institute (IEMA, 2002), there is landscape relevance to the site that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the transition from the built landscapes of the George town, into the undulating, rural landscape that characterise the wilderness area of the Garden Route. This is supported in the Garden Route Environmental Management Framework, the views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained.

In particular, the views along the Urbans Boulevard are likely to result in landscape 'walling', detracting from this wide cadastral, curving road that does have valuable vistas to the eastern Garden Route with background views to the Outeniqua Mountains.

6 BASELINE VISUAL INVENTORY

6.1 Local Landscape Context

Landscape character is defined by the U.K. Institute of Environmental Management and Assessment (IEMA) as the 'distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement'. It creates the specific sense of place or essential character and 'spirit of the place' (IEMA, 2002). This section of the VIA identified the main landscape features that define the landscape character.



Figure 6. Local landscape themes map.

As mapped in Figure 6 above, the key landscape themes within the Foreground / Middle Ground (6km) distance are tabled below:

Table 12:Key Landscape Themes

Theme	Description
Kraaibosch/ N2 Highway Gateway	The Kraaibosch / N2 Highway comprises two garages complexes that cater for N2 Highway traffic and tourism, as well as a number of other activities. The N2 Highway is currently being upgraded and the previous traffic circle intersection with Urbans Boulevard upgraded. This area creates two important gateways with access to the town of George for westbound travellers, and the gateway to the

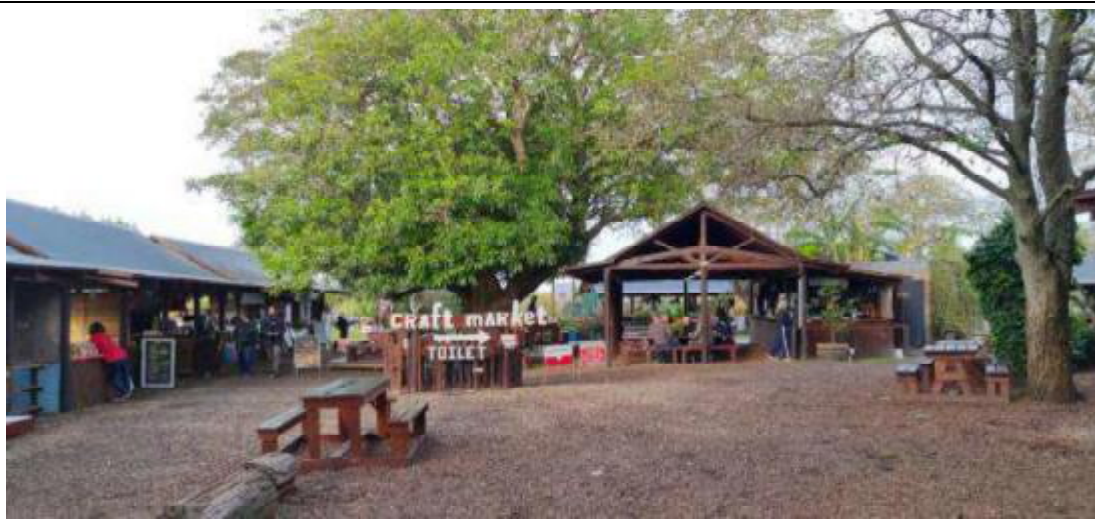
	main Garden Route landscape for eastbound travellers. Both these gateways are highlighted in the George Local Municipality SDF as important landscape features that need to be taken into consideration in future planning.
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Old Urbans Sawmill	The northern portion of the site comprises the old Urban sawmill, now decommissioned. The old buildings are degraded and would need to be taken down. While the old structure is well screened from most of the key observation points, the landscape heritage of the previous forestry areas that were located around the mill is still within living memory of the older residents of the town, with the remaining pine trees adding to this landscape context. While the pine trees will need to be removed (pending Heritage Assessment findings), a similar sense of place can be created with the planting of indigenous Yellowwood trees that have a similar form and texture.
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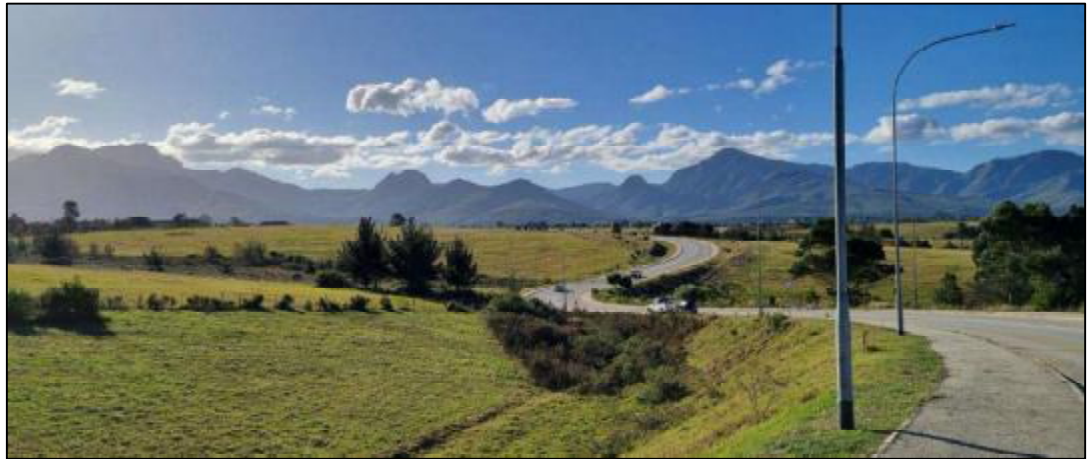
Future N2 Highway Servitude	Located to the north of the property is the proposed future N2 Highway routing and servitude. The area must be retained as vacant or temporary land uses as there are indications that this section of the N2 Highway will be built to exclude the Kaaimans Pass and lower lying sections along the Wilderness coast. Taking this into consideration, higher density developments have been authorized adjacent to the road reserve.
	
Outeniqua Farmers Market	The Outeniqua Farmers Market is located to the northwest of the property and has become an important local destination for George residents and tourists. The market is located within the N2 Highway servitude and as such is a temporary structure. Access to the market is via the property and a new temporary access is proposed to the north of the property along the N2 Highway servitude. This concept works well and aligns positively with the tourist precinct planning proposed for the portions of the property along the N2 Highway. However, should the N2 be built, this attraction would be lost.



Southeastern Peri-urban	Rural/ The areas to the east of the site are located outside of the urban edge and are essentially rural in landscape. The areas to the south of the N2 Highway have become sub-divided and are now peri-urban in context, with many of these properties catering for N2 Highway base tourism. While these areas do cater for tourism, they lack clear tourism planning alignment and appear to have a tendency to landscape fragmentation. With the new proposed tourist precincts, this ‘cluttering’ of the landscape should be avoided. The more rural landscapes that form the foreground to the background views of the Garden Route vistas should be retained.
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Lack of tree-scape planning limitation	A key component of retaining / making a George Garden City landscape, is the re-incorporation of street trees into the urban landscape. Much of George suburban areas depict urban forest of indigenous trees that are now heritage trees significantly adding to the value of these spaces, providing passive carbon sequestration as well as assisting to reduce urban heat island effects. However, these are lower density areas and there is a clear planning imperative for higher density urban landscapes. As a result, there has been a recent trend for higher density development such as Groenkloof, which do meet this higher density objective but
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	with no effective planting of trees due to limited street tree planning and reduce garden space for planting of shade trees by the homeowners. Increasingly, these types of developments create hard urban landscapes and appear as urban sprawl.
	
Urbans Boulevard aesthetic design	The Urbans Boulevard was specifically designed with a wide road reserve and a strong curvature to reflect the natural undulations of the landscape. The combination of both of the above design criteria create high levels of scenic quality that afford open views to the eastern Garden Route landscapes. This design feature of the Boulevard should not be compromised by excessive development along the road.
	

Eastern Urban Edge Transition	Swart River to the east (and tributaries with steep slopes) should be recognised as a medium to long term urban edge where a transitional development sense of place should take place. There should also be a sense of depth in the views from the Urbans Boulevard with the views to the eastern Garden Route undulating areas not completely walled off.
	
	
<i>Source: Google Earth Pro</i>	

6.2 Visual Absorption Capacity

Land use and vegetation are a crucial factor in determining landscape character, especially regarding the Visual Absorption Capacity (VAC) of the landscapes. Oberholzer defines VAC as the potential of the landscape to conceal the proposed project (Oberholzer, 2005). i.e.

- High VAC – e.g., effective screening by vegetation and structures.
- Moderate VAC - e.g., partial screening by vegetation and structures.
- Low VAC - e.g., little screening by vegetation or structures.

Vegetation type is a large factor in determining the scenic quality or the site in terms of colour and texture, as well as influencing the local ability of the landscape to absorb the landscape change if larger trees species or prolific vegetation is located on the site or within the local

region. The map below outlines the vegetation type based on BGIS mapping (South African National Biodiversity Institute, 2018).

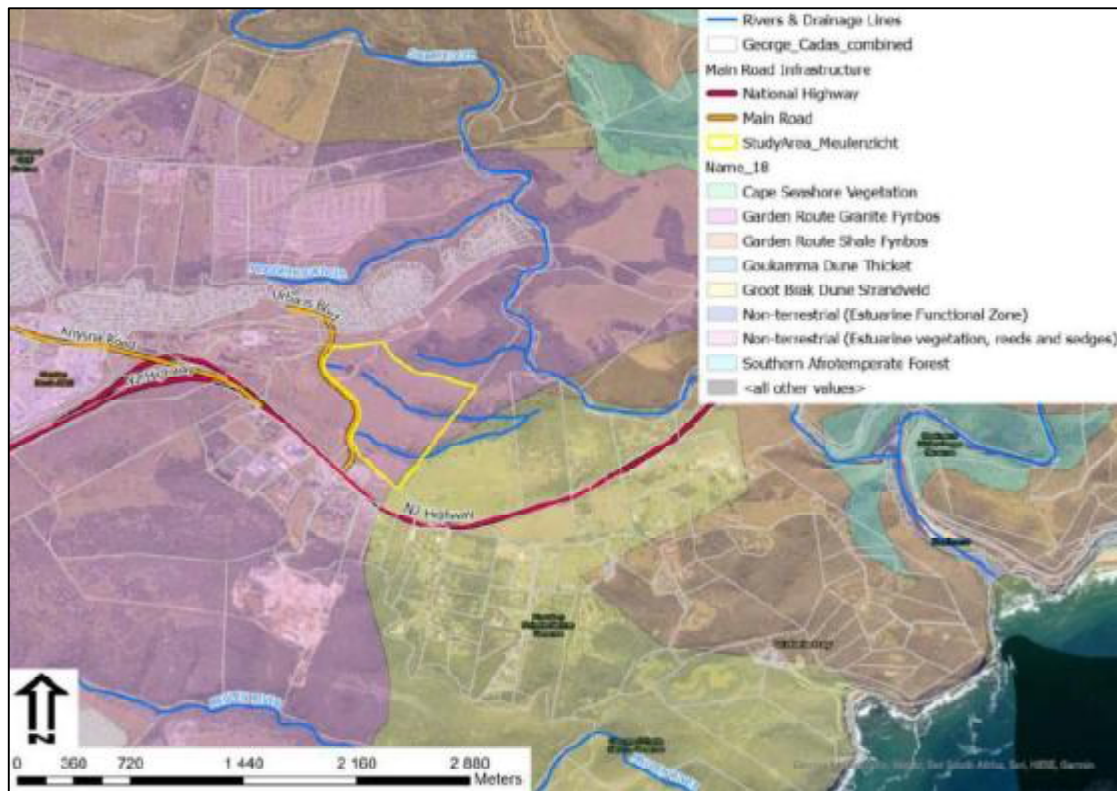


Figure 7. BGIS Biome and Vegetation Type Map (South African National Biodiversity Institute, 2018).

According to the South African National Biodiversity Institute (SANBI) 2012 Vegetation Map of South Africa, Lesotho and Swaziland (South African National Biodiversity Institute, 2012) the project area is located in the Fynbos Biome with the main vegetation types being Garden Route Granite Fynbos. As depicted in the photograph below, the previous forestry and agricultural land uses have effectively transformed most of the vegetation on the site, with a few exceptions in the shallow drainage lines to the west.



Figure 8. Typical veld grasslands vegetation of the site with Black Wattle infestation in the eastern drainage lines.

The majority of the site vegetation is veld grasses, with a few small patches of fynbos vegetation. Most of the more prominent drainage lines draining into the eastern Swart River, depict Black Wattle alien plant infestations that detracts from the Garden Route landscape context.

The Visual Absorption Capability (VAC) for most of the proposed development site is rated as Low, due to limited tree vegetation and the absence of significant man-made modifications. The local area VAC level is rated as Medium because of the existing developments around the Kraaibosch/N2 Highway and the old Urban Mill structures. In summary, the overall VAC is rated as Medium to Low, indicating that proposed residential development would be clearly visible but generally viewed within the existing urban and peri-urban landscape context.

6.3 Landscape Topography

Landform is a key variable informing the aesthetic nature of the landscape within the VRM methodology. The viewshed is strongly associated with the regional topography where topographic screening from undulating terrain would restrict views of the proposed landscape change. The site-specific characteristics are also analysed by gradient analysis to determine if any steep slopes are located on the proposed development site.

6.3.1 Regional Landscape Topography

Making use of the NASA STRM digital elevation model, profile lines were generated for the area within 12km on either side of the project area predominantly in the North to South and East to West compass point reference. The map depicting the regional elevation profile lines can be viewed on the following page.

The general topography of the region is defined as undulating, due to the numerous river systems that drain the coastal plateau located between the northern Outeniqua Mountains the southern Indian Ocean coastline. The two river systems strongly influencing the undulating topography that typify the 'Garden Route' are the Kaaimans River and Swart River. Other than the undulating terrain, no dominating local landforms are apparent. A key component of the vistas adding value to the site are the views of the undulating landscapes with the Outeniqua Mountains in the background. These vistas are currently available from the N2 Highway adjacent to the property and afford views to the east, overlooking the property with iconic "Garden Route' views. The generally undulating terrain of the Garden Route topography is clearly visible in the North to South Profile, and clearly visible in the East to West profile, where the more pronounced undulations east of the property are more apparent.

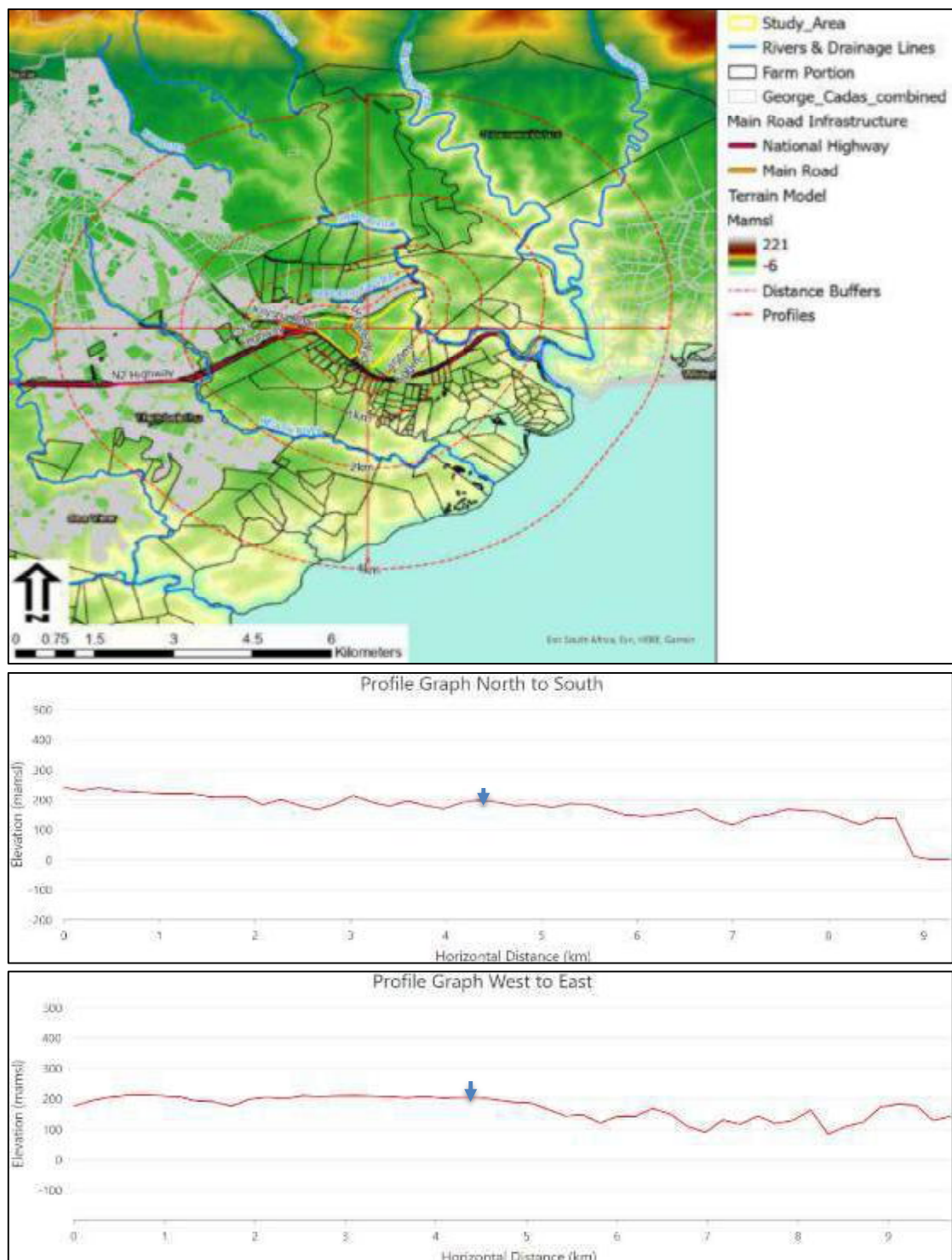


Figure 9: Regional Digital Elevation Mapping and Profiles Graphs with centrelines depicted.

6.3.2 Key local topographic features and site slopes analysis

To ensure that significant landforms related to steep slopes are not located on the site or surrounds, a slopes analysis was undertaken. As mapped below, the site does depict some steeper slopes in the valley areas, but nothing that exceeds 1 in 4m. Two pronounced drainage lines drain the property to the east, as well as form small wetlands. A number of

farm dams are located on the site that also add local landscape value to the site. The southern dam is proposed to be filled as it is not within a natural drainage line, but the other dam to the north-central sections of the property, will be retained as a feature. As this dam forms a central viewpoint along the Urbans Boulevard, views of the dam in the foreground, with open vistas to the Outeniqua Mountains in the background, should be retained as open views as much as possible to retain the scenic corridor effect of this widened road. The wetland area would have to be excluded for hydrological integrity proposes, with a minimum of a 32m buffer on all drainage lines.

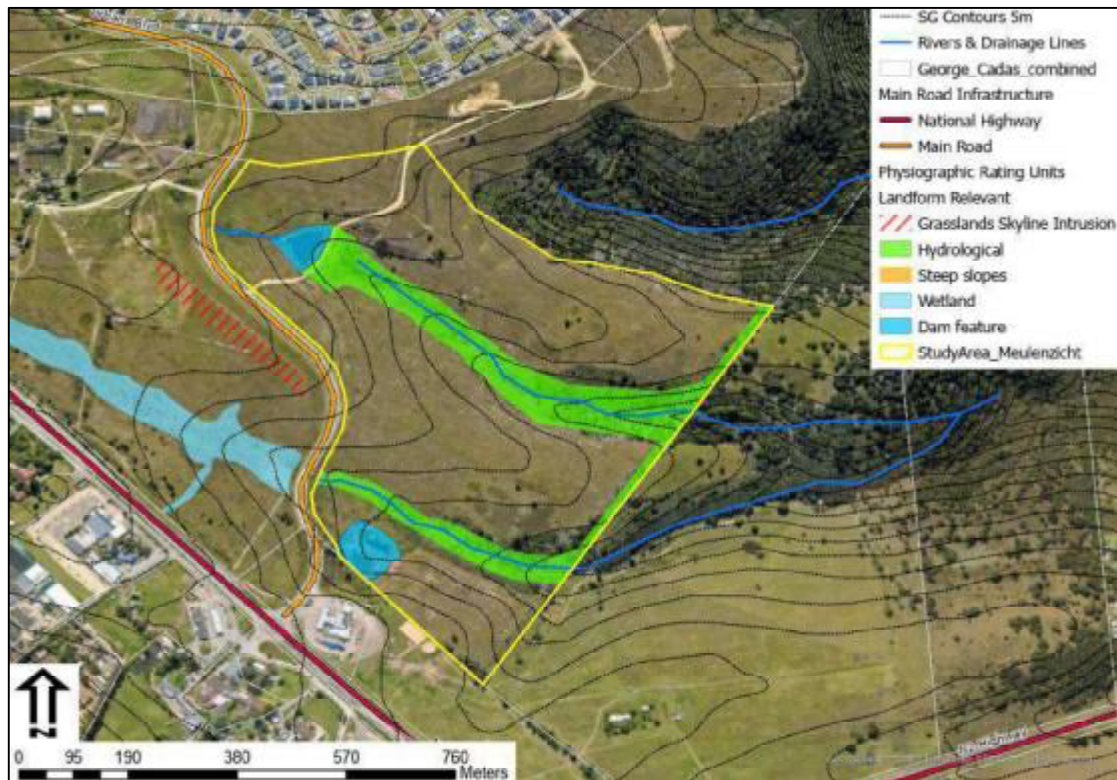


Figure 10: Key topographic features map.

6.4 Project Zone of Visual Influence

The visible extent, or viewshed, is “the outer boundary defining a view catchment area, usually along crests and ridgelines” (Oberholzer, 2005). In order to define the extent of the possible influence of the proposed landscape change, a viewshed analysis was undertaken from the proposed site at a specified height above ground level. This is to assess the **theoretical extent** where the proposed landscape change could be visible from. This theoretical viewshed excludes vegetation, structural development as well as distance from the location where atmospheric influence would reduce visual clarity over increasing distance. The viewshed analysis makes use of open-source NASA ASTER Digital Elevation Model data (NASA, 2009).

Based on the theoretical viewshed and the site visit appraisal of the nature of the landscape, an assessment of the **Zone of Visual Influence (ZVI)** is made. The ZVI is the area where the proposed landscape change is most likely to be noticed by the casual observer, taking the site visit into account where vegetation, existing development and distance is taken into

consideration. This is a subjective appraisal but informed by the viewshed and the other factors mentioned.

A viewshed analysis was undertaken for the site making use of an Offset value representing the height of the proposed development as reflected in the table below. The model extent of the viewshed analysis was restricted to a defined distance from the site that represents the expected zone of visual influence (ZVI) of the proposed activities. This takes the scale, and size of the proposed projects into consideration in relation to the natural visual absorption capacity of the receiving environment. The maps are informative only as visibility tends to diminish exponentially with distance, which is well recognised in visual analysis literature (Hull & Bishop, 1988).

Table 13: Proposed Project Heights table

Proposed Activity	Height (m)	Model Extent	Motivation
Structures	8m	12km	Undulating terrain and urban/ peri-urban landscape context is likely to reduce the extent of the zone of visual influence to some degree where it is unlikely that the proposed landscape change would be visible beyond the 12km distance.

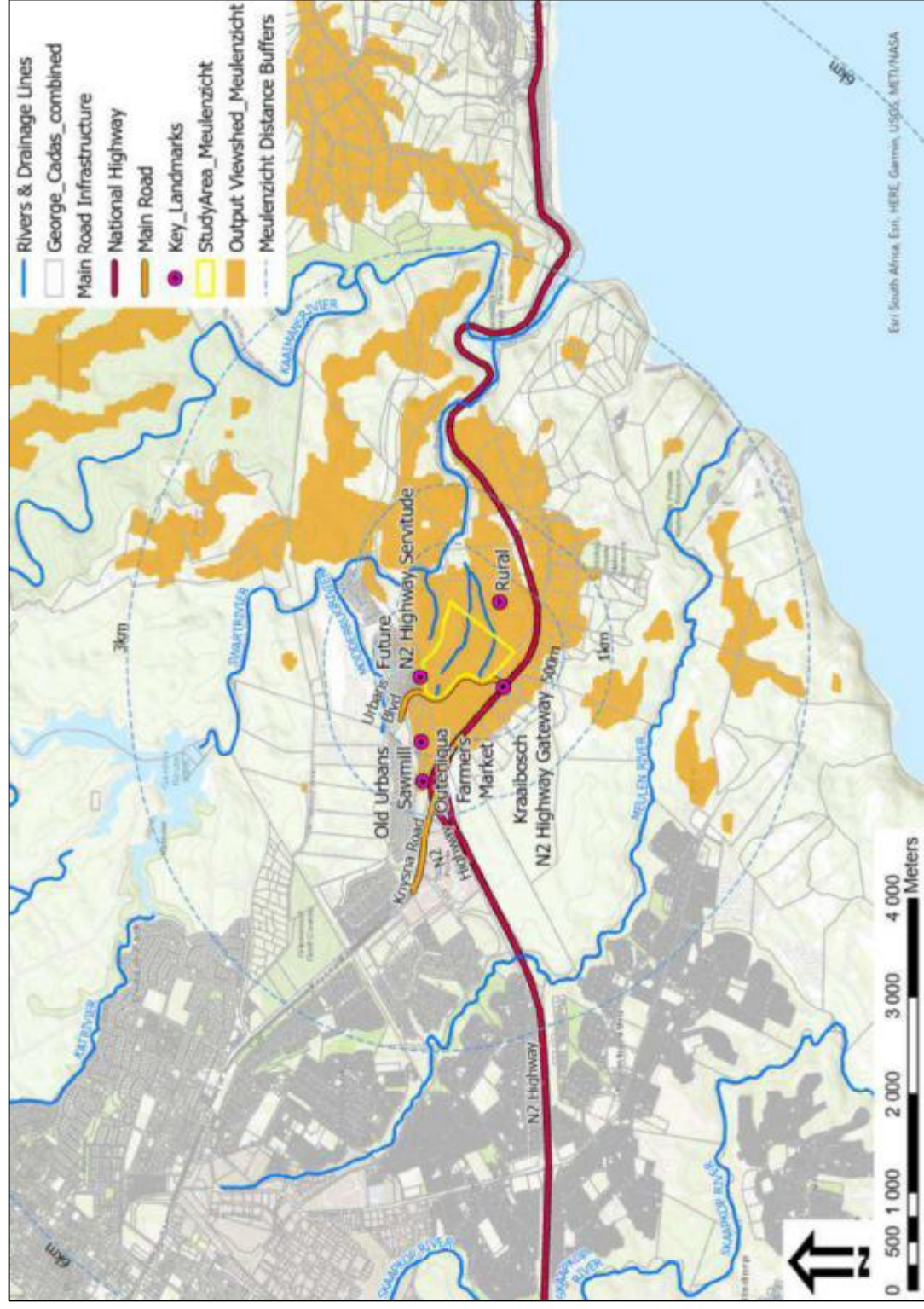
The viewshed is mapped and can be viewed in Figure 11 on the following page. This depicts the theoretical area where the proposed landscape change could be visible. The theoretical viewshed is defined as Wide-area as the proposed landscape change has the potential to extend beyond the 6km Foreground/ Mid Ground distance area up to the 12km distance zone in the eastern areas. To better understand which portion of the proposed development areas will be more visible, a frequency thematic display was generated. The darker brown portions of the theoretical viewshed depict where more of the 100 points will be visible. The lighter colours depict where less of the points will be visible. The lighter colours of the viewshed are more to the west of the site, with only 19 points visible from these urban areas. The areas to the north would have limited views of the proposed development. The areas depicting more intensity views (more points visible) are located to the south in the Kraaibosch region, the west facing, upper portions of rural lands to the east of the Swart River, and then the small holding areas of the upper Wilderness Heights areas. The key characteristic of the theoretical viewshed is the fragmentation of visibility potential, with much of the lower lying, undulating terrain of the Swart and Kaaimans Rivers depicting no visual potential.

The extent of the Zone of Visual Influence is defined as Wide Area and most likely to be contained within the foreground/ mid-ground distance zone for the following reasons:

- The strongly undulating terrain of the Meulen River to the west, and the Swart and Kaaimans Rivers to the east.
- The high ground to the south limiting views beyond 1km.
- High ground and higher VAC levels to the north and west where the built nature of the urban landscape is likely to contain views of the landscape change.

The Zone of Visual Influence is thus rated Moderate but with Very High Visual Exposure for receptors. The following receptors were located within the expected ZVI with expected Visual Exposure to the proposed landscape change:

- N2 Highway east and westbound (Very High Exposure).
- Urban Boulevard (Very High Exposure).
- Knysna Road (Very High Exposure).
- Outeniqua Farmers Market (Very High Exposure).
- Kraaibosch proximate developments (Very High Exposure).
- Southern portions of the Welgelegen Estate (Very High Exposure).
- South facing portions of Groenkloof Retirement Village (Very High Exposure).
- Western facing properties of upper Wilderness Heights. (Medium Exposure)



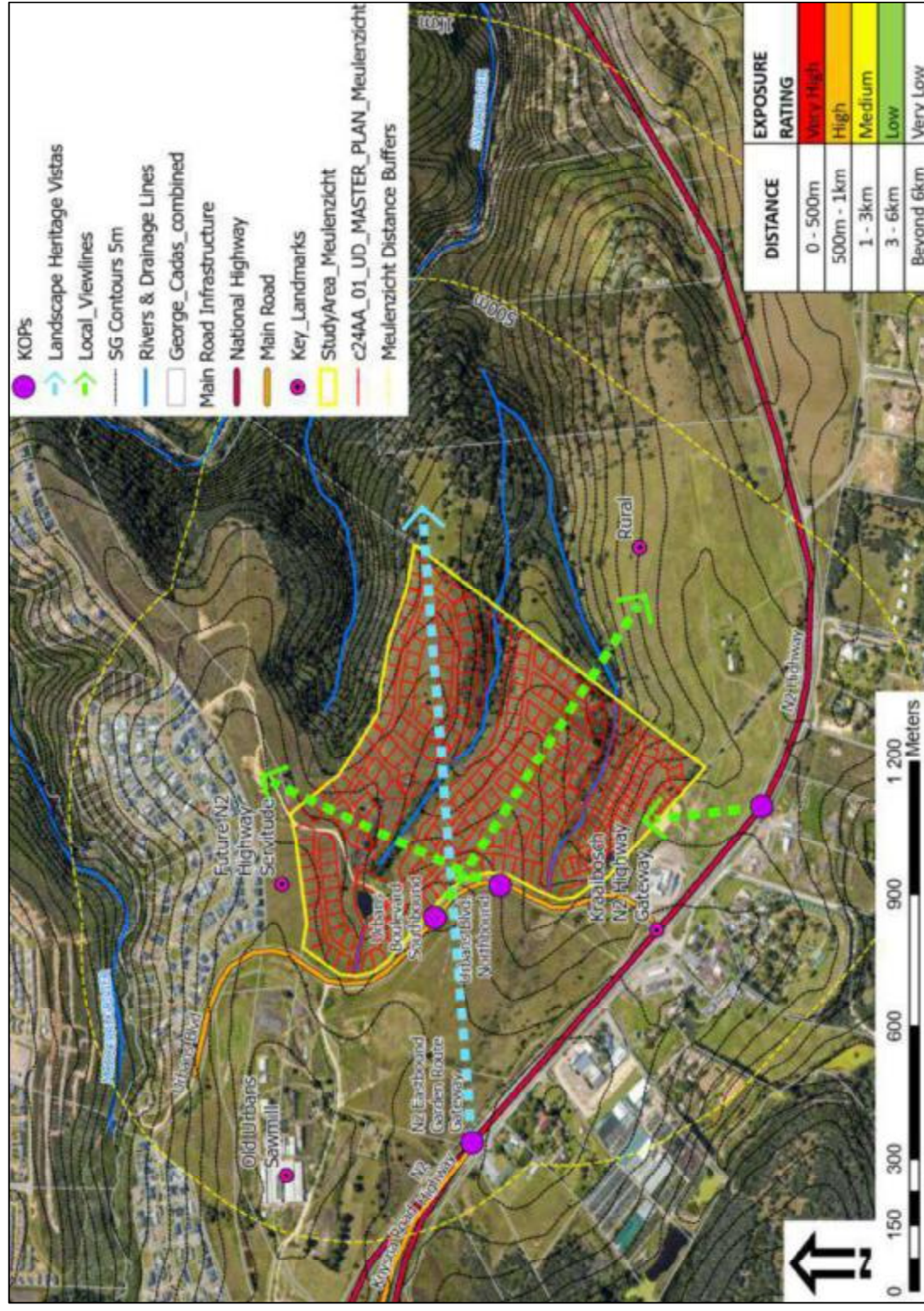


Figure 12: Receptor Key Observation Point and Visual Exposure Map.

6.5 Receptors and Key Observation Points

As defined in the methodology, KOPs are defined by the Bureau of Land Management as the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. The following table identifies the receptors identified within the ZVI, as well as motivates if they have significance and should be defined as KOP. The receptors located within the ZVI, and KOPs view lines are indicated on the map on the following page. As motivated and mapped in Table 14 below and mapped in Figure 12 on the previous page, the following receptors have been identified as Key Observation Points and should be used as locations to assess the suitability of the landscape change.

Table 14: KOP Motivation table

Name	Theme	Exposure	Motivation
N2 Highway east and westbound	National Road	Very High (150m)	The N2 Highway is the most important road along the length of the Garden Route. The importance of the road is flagged in local and district municipality planning as an important tourist view corridor where adjacent land uses need to take the scenic quality into account. The N2 Highway creates two 'gateway' experiences into George for westbound traffic, and into the Garden Route for eastbound traffic. The views of the proposed property are central to both of these gateways, where views to the background Outeniqua Mountains need to be retained to retain the landscape heritage vistas.
Urbans Boulevard north and southbound	Main road	Very High (sub 50m)	The Urbans Boulevard provides access from the Kaaimans/ N2 intersection to the eastern gated estates of Welgelegen. The Boulevard sense of place has been retained by design, allowing for a winding road that takes the undulating terrain into account providing open views to the Outeniqua Mountains that add to the sense of place.

The following receptors were not chosen as KOPs:

- Welgelegen Estate.
- Groenkloof Retirement Village.
- Wilderness Heights.

The two estates are located to the north of the site, and both would look over the N2 Highway where views would be changed to accommodate a future major transport route. The sense of place of these areas is similar to the proposed estate development, creating a similar landscape context.

The Wilderness Heights areas are located 4km to the east of the site, with views from these areas already depicting a built landscape. While the proposed development will accentuate the urban sense of place, it will be a continuation of the existing urban vistas.

7 VISUAL RESOURCE MANAGEMENT

In terms of the VRM methodology, landscape character is derived from a combination of scenic quality, receptor sensitivity to landscape change, and distance of the proposed landscape modification from key receptor points. Making use of the key landscape elements defined in the landscape contextualisation sections above, landscape units are defined which are then rated to derive their intrinsic scenic value, as well as how sensitive people living in the area would be to changes taking place in these landscapes.

7.1 Physiographic Rating Units

The Physiographic Rating Units are the areas within the proposed development area that reflect specific physical and graphic elements that define a particular landscape character. These unique landscapes within the project development areas are rated to assess the scenic quality and receptor sensitivity to landscape change, which is then used to define a Visual Resource Management Class for each of the site's unique landscape/s. The exception is Class I, which is determined based on national and international policy / best practice and landscape significance and as such are not rated for scenic quality and receptor sensitivity to landscape change. Based on the SANBI vegetation mapping and the site visit to define key landscape features, the following broad-brush areas were tabled and mapped in Figure 13 below.

Table 15: Physiographic Landscape Rating Units

Landscapes	Motivation
Undulating Grasslands	The majority of the site is characterised by veld grassland from historic timber and agricultural land uses.
Urbans Boulevard Vista Sensitivity	As seen from portions of the Urbans Boulevard, there is a medium sized ridgeline where skyline intrusion is likely to take place where higher levels of visual intrusion would take place for taller structures.
Wetlands and hydrological relevant.	A wetland is located on the flatter terrain to the west of the site, with prominent drainage lines on the eastern portions of the site that clearly define the area as riverine.
Urban Edge Buffer (10m Approx)	To protect the rural sense of place to some degree in the areas to the southeast of the proposed development, a 10m buffer is proposed for no development and for security fencing maintenance.

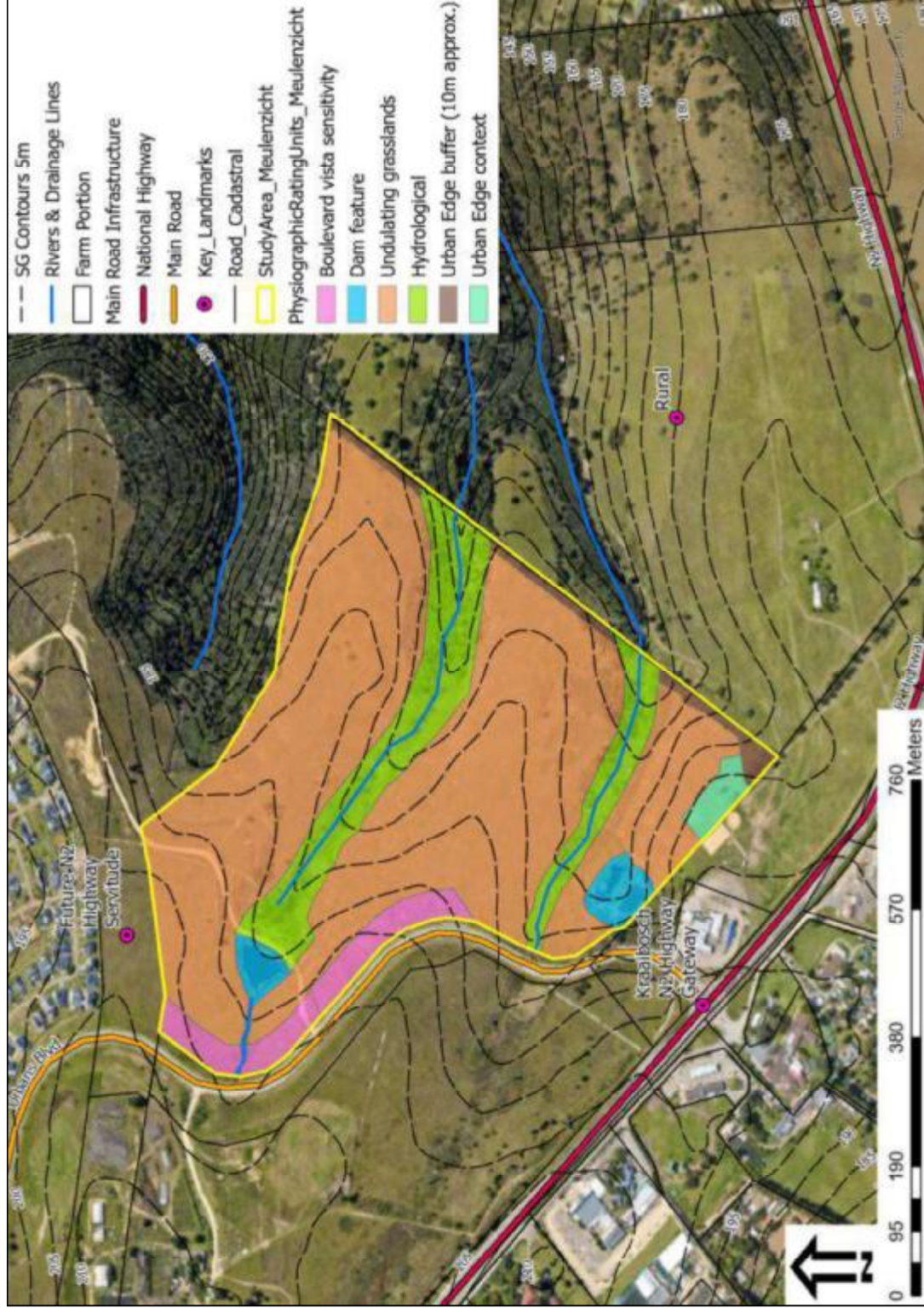


Figure 13: Physiographic Rating Units identified within the defined study area.

Table 16: Scenic Quality and Receptor Sensitivity Rating

Landscape Rating Units	Scenic Quality										Receptor Sensitivity						VRM	
	Landform	Vegetation	Water	Colour	Scarcity	Adjacent Landscape	Cultural Modifications	Sum	Rating	Type of Users	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Rating	Inventory Class	Management Class	Development Sensitivity
Attribute In general, significant Heritage / Ecological / Hydrology. With specific reference to the project: • Wetland/ Riverine (as the aquatic specialist findings) • Urbans Boulevard Vista Sensitive • Urban Edge Peri-urban Context • Undulating grasslands																		
	2	2	1	2	3	4	2	16	MH	H	H	M	H	H	H	II	II	Low Intrusion (Height Constrained)
	2	2	1	2	3	4	2	16	MH	H	H	M	H	M	MH	III	III	With mitigation

Red colour indicates change in rating from Visual Inventory to Visual Resource Management Classes motivated in the following section.

The **Scenic Quality** scores are totalled and assigned an A (High scenic quality), B (Moderate scenic quality) or C (Low scenic quality) category based on the following split: A= scenic quality rating of ≥ 19 ; B = rating of 12 – 18, C= rating of ≤ 11 (USDl., 2004).

Receptor Sensitivity levels are a measure of public concern for scenic quality. Receptor sensitivity to landscape change is determined by rating the key factors relating to the perception of landscape change in terms of Low to High (H = High; M = Medium; L = Low).

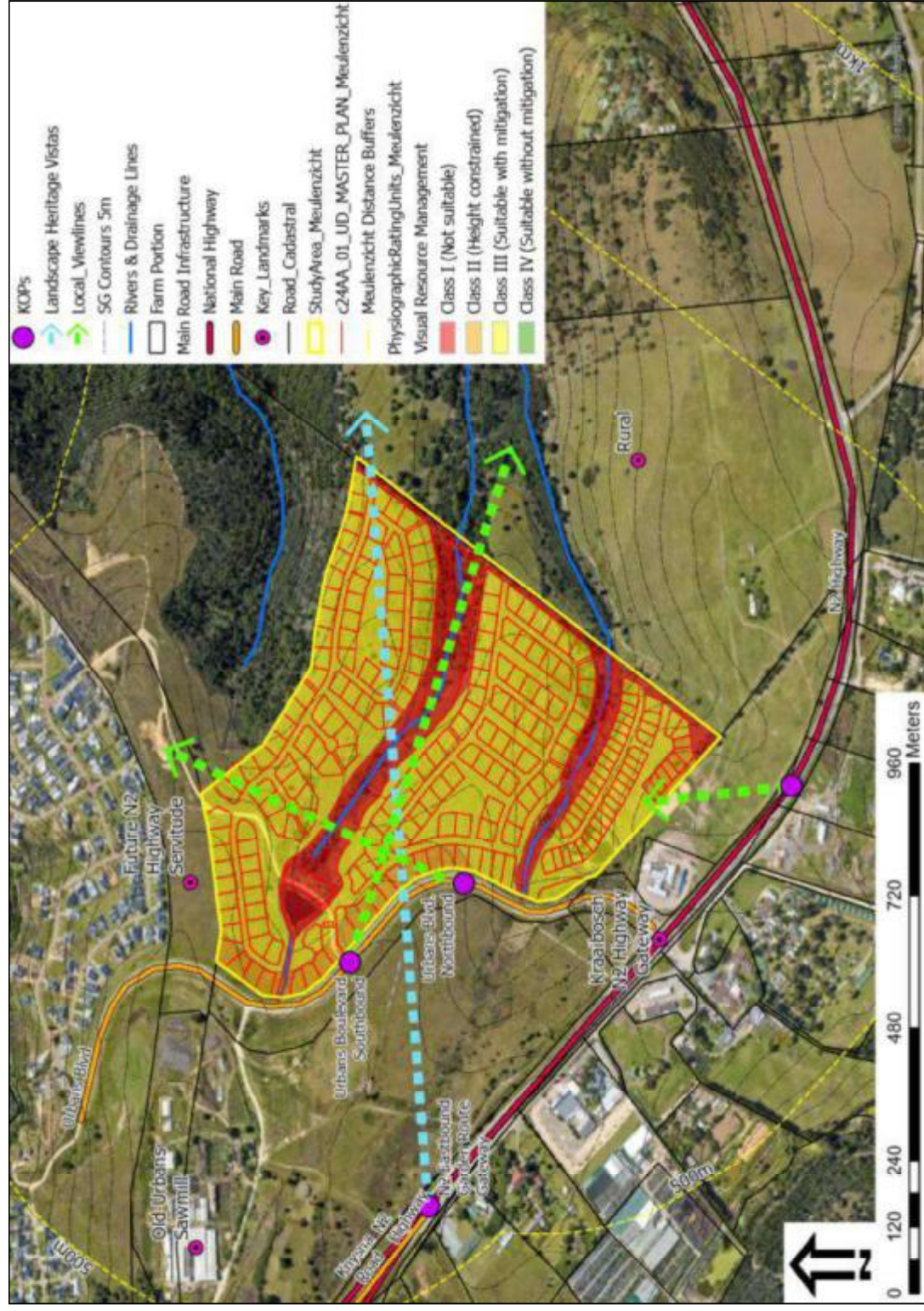


Figure 14: Visual Resource Management Classes and development constraints map.

7.2 Scenic Quality Assessment

The scenic quality is determined making use of the VRM Scenic Quality Checklist that identifies seven scenic quality criteria which are rated with 1 (low) to 5 (high) scale. The scores are totalled and assigned an A (High), B (Moderate) or C (low) based on the following split:

A = scenic quality rating of ≥ 19 (High).

B = rating of 12 – 18 (Medium).

C = rating of ≤ 11 (Low).

Table 17: Scenic Quality Rating table

Landscapes	Rating	Motivation
Landform <i>Topography becomes more of a factor as it becomes steeper, or more severely sculptured.</i>	Medium	The site landforms are defined as strongly undulating and create landscape value from the visual associations with the eastern Garden Route vistas.
Vegetation Primary consideration given to the variety of patterns, forms, and textures created by plant life.	Medium High	Much of the vegetation is veld grasslands, with some larger (mainly alien) trees in along the drainage lines.
Water <i>That ingredient which adds movement or serenity to a scene. The degree to which water dominates the scene is the primary consideration.</i>	Medium Low	While not a dominating presence, there are two small farm dams on the property that do add to the local scenic quality, but with eastern pronounced drainage lines alluding to the presence of water and small streams that drain into the Swart River.
Colour <i>The overall colour(s) of the basic components of the landscape (e.g., soil, rock, vegetation, etc.) are considered as they appear during seasons or periods of high use.</i>	Medium	Colours are primarily from vegetation, with the grey greens of the veld grasslands the main colour theme, but with the darker greens of the northwestern climax trees dominating the colour theme of this area.
Scarcity <i>This factor provides an opportunity to give added importance to one, or all, of the scenic features that appear to be relatively unique or rare within one physiographic region.</i>	High	The two gateway areas associated with views, from and into the Garden Route, are significant and have landscape heritage value.
Adjacent Landscapes <i>Degree to which scenery and distance enhance, or starts to influence, the overall impression of the scenery within the rating unit.</i>	High	The eastern areas of the undulating terrain between the northern Outeniqua Mountains and southern Indian Ocean coastline, are iconic views of the Garden Route landscapes.
Cultural Modifications <i>Cultural modifications should be considered and may detract from the scenery or</i>	Medium	Cultural modifications are limited to the northern portions of the property and related to the old Urbans mill and

<i>complement or improve the scenic quality of an area.</i>		associated remaining pine trees/ and other alien vegetation surrounding this site.
Scenic Quality	Medium to High	
The scenic quality of the site is rated as medium to high. The landforms are characterized by strong undulations, contributing to the landscape's visual associations with the eastern Garden Route vistas. The vegetation primarily consists of veld grasslands, with some larger (mainly non-native) trees along the drainage lines. The veld grasslands visually connect with eastern rural landscapes. Cultural modifications are minimal and limited to historic agricultural land uses that do add to the experience of landscape heritage. The property also offers significant views to the east into the Garden Route, with background views of the Outeniqua Mountains, enhancing the scenic quality of the site.		

7.3 Receptor Sensitivity Assessment

Table 18: Receptor Sensitivity Rating table.

Landscapes	Rating	Motivation
Type of Users <i>Visual sensitivity will vary with the type of users, e.g., recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.</i>	High	The zone of visual influence includes the N2 Highway an important tourist route and planned scenic view corridor. The ZVI also includes the Urbans Boulevard that allows access to Groenkloof Estate. As the views are currently rural and scenic, visual sensitivity from these receptors is likely to be experienced as High.
Amount of use <i>Areas seen or used by large numbers of people are potentially more sensitive.</i>	High	The N2 Highway is the main route from the eastern areas of the George Municipality, and Garden Route, carrying large volumes of traffic. The Urbans Boulevard also carries tourist traffic.
Public interest <i>The visual quality of an area may be of concern to local, or regional, groups. Indicators of this concern are usually expressed via public controversy created in response to proposed activities.</i>	Medium	The area has been included in the George Municipality urban edge in the 2023 SDF and residential/ tourist related development is unlikely to result in public controversy.
Adjacent land Users <i>The interrelationship with land uses in adjacent lands. For example, an area within the viewshed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be as visually sensitive.</i>	Medium to High	Residential receptors currently making use of this property landscapes are gated estates, where the landscape context is likely to be similar.
Special Areas Management <i>objectives for special areas such as Natural Areas, Wilderness Areas or</i>	High	The views from the N2 to the eastern Garden Route are iconic and should be

Landscapes	Rating	Motivation
<i>Wilderness Study Areas, Wild and Scenic Rivers, Scenic Areas, Scenic Roads or Trails, and Critical Biodiversity Areas frequently require special consideration for the protection of their visual values.</i>		considered as landscape heritage vista.
Receptor Sensitivity	Medium to High	
The expected receptor sensitivity to landscape change is rated Medium to High. The zone of visual influence includes the N2 Highway, an important tourist route and planned scenic view corridor as well as the Urbans Boulevard. As the property has been included in the George Municipality urban edge in the 2023 SDF, residential/ tourist related development is unlikely to result in public controversy. However, the views from the Urbans Boulevard to the eastern Garden Route are iconic and should be considered as landscape heritage vista. The Urbans Boulevard was also designed as a view corridor, allowing wide verges and sweeping curves reflecting the undulating of the terrain. The road enhances the scenic quality and intrusion into the view is likely to evoke strong negative responses from road users.		

7.4 Visual Resource Management (VRM) Classes

The BLM has defined four Classes that represent the relative value of the visual resources of an area and are defined in terms of the VRM Matrix as follows:

- i. **Classes I and II** are the most valued.
- ii. **Class III** represent a moderate value.
- iii. **Class IV** is of least value.

7.4.1 VRM Class I (No-Go)

Class I is assigned when legislation restricts development in certain areas, or where landscape and visual impact significantly degrade high value landscape resources. The visual objective is to preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention. A Class I visual objective was assigned to the following features within the proposed development area due to their protected status within the South African legislation:

- Generic Landscape Issues
 - Rivers / streams and associated flood lines buffers identified as significant in terms of the Water Use Licence Application (WULA) process.
 - Wetlands identified as significant in terms of the WULA process.
 - Ecological areas (or plant species) identified as having a high significance.
 - Heritage area identified as having a high significance.
- Specific Landscape Issues
 - **Not applicable. The property is within the urban edge and as such, a development footprint is expected to meet planned objectives.**

To protect the rural sense of place to some degree in the areas to the southeast of the proposed development, a 10m buffer is proposed for no development and for security fencing maintenance. As the aquatic sensitive areas have been excluded from the development footprint, and the development area falls within the George LM Urban Edge where future development is planned and would be expected, no other Class I areas were defined.

7.4.2 VRM Class II (Height restricted)

The Class II objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be low. The proposed development may be seen but should not attract the attention of the casual observer, and should repeat the basic elements of form, line, colour and texture found in the predominant natural features of the characteristic landscape. The following landscape was defined as having Class II Visual Objectives where development would be most suitable:

- Urbans Boulevard vista sensitive.

The Urbans Boulevard was designed as a view corridor with wide verges to accommodate views over residential units. To ensure that the existing view corridor sense of place of the Urbans Boulevard are retained, a 6m average height above ground level is recommended for these units proposed along the Boulevard. To ensure that some views over the proposed structures take place, a 10m buffer from the road cadastral is also recommended as a non development area. The combination of these two mitigations with landscaping, would effectively allow for maintenance of the wide road, Boulevard sense of place with open views to the east.

7.4.3 VRM Class III (Suitable with mitigation)

The Class III objective is to partially retain the existing character of the landscape, where the level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer, and changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The following landscape was defined as having Class III Visual Objectives where development would be most suitable:

- Undulating grasslands.

The majority of the remaining portions of the property are characterised by veld grassland on undulating terrain. Located within the urban edge and zoned for residential, these areas would be suitable for lower/ medium density residential related development. The following mitigations have relevance to these areas:

- Maximum 8.5m height restriction to an effective transition to the eastern medium to long term urban edge.
- Street trees planted every 15m on one side of all streets.
- Planting of trees every 15m along the identified 'green' rows in the residential areas.

7.4.4 VRM Class IV (Suitable without mitigation)

The Class IV objective is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the landscape can be high, and the proposed development may dominate the view and be the major focus of the viewer's (s') attention without significantly degrading the local landscape character. Due to the degraded sense of place, the following areas were rated Class IV:

- Not applicable.

As the area depicts higher scenic quality and where receptors would be more sensitive to very intensive residential/ industrial developments, and there is no planning for industrial/ mixed used type development, no Class IV areas were defined.

8 VISUAL IMPACT ASSESSMENT

Impacts are defined in terms of the standardised impact assessment criteria provided by the environmental practitioner. Using the defined impact assessment criteria, the potential environmental impacts identified for the project were evaluated according to severity, duration, extent and significance of the impact. The potential occurrence of cumulative impact (as defined in the methodology) was also assessed. In order to better understand the nature of the severity of the visual impacts, a Contrast Rating exercise was undertaken from the assumed view of the defined Key Observation Point where photomontages were generated. The outcomes of the contrast rating inform the visual impact magnitude and mitigations.

8.1 Photomontages and Model Proof

To better depict the proposed landscape change, a 3D block modelling exercise was undertaken. This enabled a better understanding of massing and 'walling' effects where no detailed planning was provided such as in the proposed Apartments areas. Blocks reflecting double (8m) or single storey (4m) were mapped into the development areas to depict a building footprint. In the apartment areas where no details were provided, an approximate row of housing was mapped out reflecting higher density settlement patterns as proposed. In the erven areas, the building block was sized to fit within the erven. The building blocks could then be viewed in the 3D viewer as seen from the defined Key Observation Points. The following mitigation scenarios 3D massing model images were used to generate the photomontages of the key visual impact points.



Figure 15: Example of the 3D massing model was used along the Urbans Boulevard View East.

To take the cut and fill into account, the blocks were extruded on maximum ground level height but reduced in elevation by a metre for the eight metre extrusion. The image below depicts the 8m block, with the high section of the erven 7m above ground level to take the cut and fill balance into account.

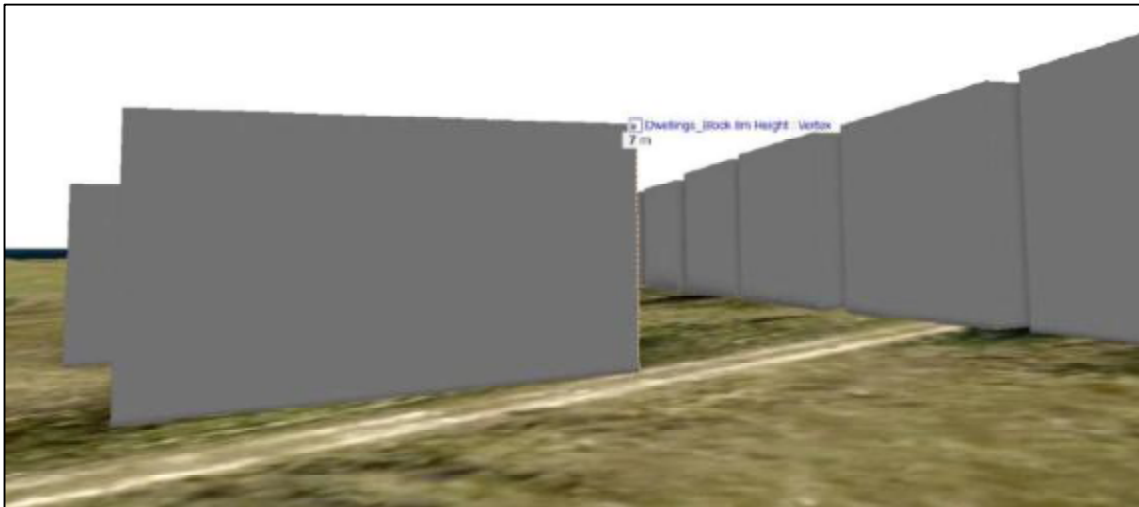


Figure 16: 3D Mass Model cut and fill example.

Notes:

- *The 3D blocks are an approximation of a building 3D footprint and for visualisation purposes only. They were generated as no detailed 3D modelling was provided. They reflect a worse case scenario as required in the Western Cape Visual and Aesthetic Guidelines. To reduce this effect, the neutral colour of grey was used for the block shapes.*
- *To take cumulative effects into account, the adjacent proposed Meulenzicht Estate was also included in the 3D modelling to better understand the 'walling effects' along the Urbans Boulevard.*

8.1.1 Urbans Boulevard Central View.

Existing View



Proposed landscape change: 8m Height



Proposed landscape change: Removal of four units the visual preference.

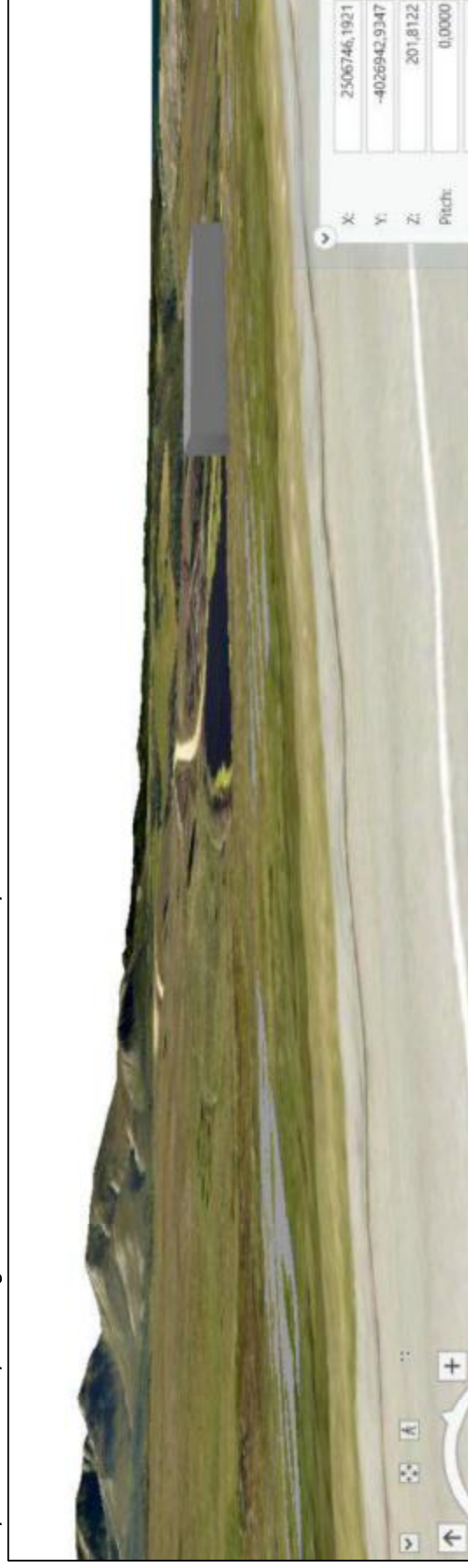
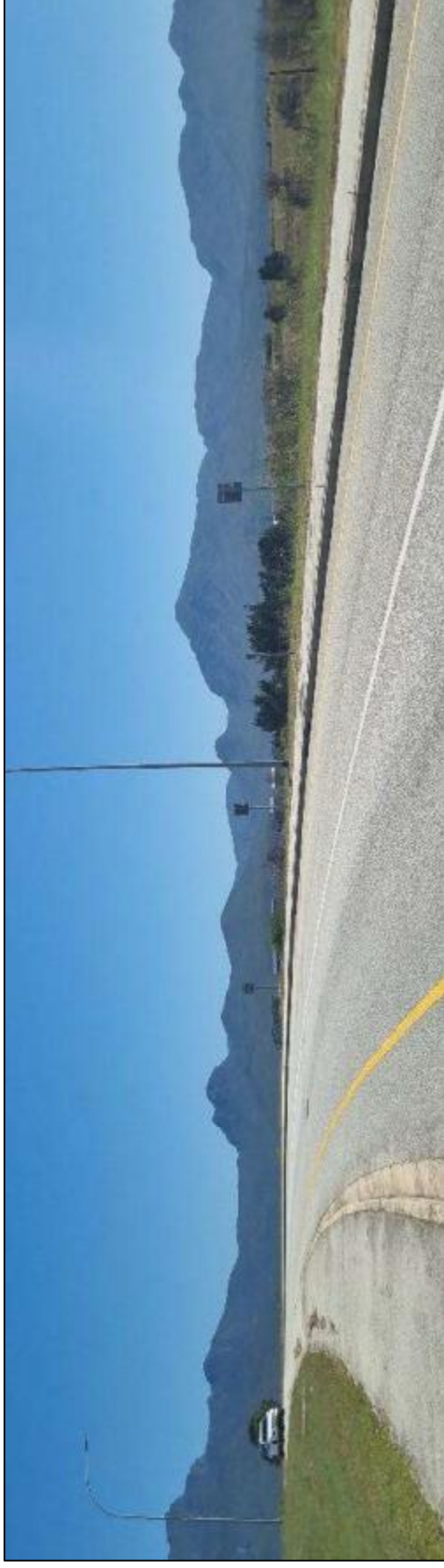


Figure 17: KOP Photograph: Urbans Boulevard Central View 3D Block Model.

8.1.2 Urbans Boulevard Northbound 1.

Existing View



Proposed landscape change: 8.5m Height (Generated by Nuvorm Architects)



8.2 Contrast Rating

As indicated in the methodology, a contrast rating is undertaken to determine if the VRM Class Objectives are met. The suitability of a landscape modification is assessed by comparing and contrasting the receiving landscape to the expected contrast that the proposed landscape change will generate. This is done by evaluating the level of change to the existing landscape by assessing the line, colour, texture and form, in relation to the visual objectives defined for the area.

The following criteria are utilised in defining the degree of contrast (DoC):

- **None:** The element contrast is not visible or perceived.
- **Weak:** The element contrast can be seen but does not attract attention.
- **Moderate:** The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- **Strong:** The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

Table 19: Contrast Rating Key Observation points table

Key Observation Point	Exposure		Mitigation	Landscape Elements					Visual Objectives Met?
	Distance	Exposure		Form	Line	Colour	Texture	Degree of Contrast	
N2 National Highway	150m Avg.	Very High	W/Out	S	S	S	S	S	No
			With	M	M	M	M	M	Yes
Urbans Boulevard	20m Avg.	Very High	W/Out	S	S	S	S	S	No
			With	M	S	M	M	M	Yes

* S = Strong, M = Medium, W = Weak, N = None

8.2.1 Urbans Boulevard

The Urban Boulevard provides access from the Kaaimans/ N2 intersection to the eastern gated estates of Welgelegen. The Boulevard sense of place has been created by design, allowing for a winding road that takes the undulating terrain into account, providing open views to the Outeniqua Mountains that significantly add to the sense of place. A large road reserve was proclaimed allows for suitable setbacks such that views over residential structures takes place. This effect is reflected in the adjacent Welgelegen Estate to the north of the site, the wide road reserve allows for more open views of the eastern residential dwellings that are located below the height of the road users as depicted in the map on the following page.

The recommendation is that, as this was the intention of the design, the openness of the existing experience of the landscape context should remain to some extent. The location of 8m dwellings in close proximity to the road would detract from the intended experience of the road if residential 'walling' effect took place. As the site has previously been excluded from the George Municipality Urban Edge, the land uses are rural, with open views to the east. Some plantings of indigenous trees have taken place, but the tree growth remains stunted and

many of the trees have died. The trees that remain will become feature trees over time, an effect that would enhance the sense of place and should be encouraged.



Figure 18. Welgelegen Estate to the northeast of the Urbans Boulevard with suitable development precedent from views over the structures that are well set back from the road.

Without mitigation, there is a risk from residential ‘walling’ effects from residential erven from both the Oumeulen and Meulenzicht Estates where the line of 8.5m high dwellings located along the road would significantly alter the openness of the Urbans Boulevard current sense of place. Contrast generated from these two rows of development would result in strong levels of visual contrast and the Class III Visual Objective would not be met. The closing in of the residential units around the small dam would obscure the view of this feature, detracting from the existing boulevard sense of place. Without mitigation, the Class II Visual Objective defined for the road would not be met.

However, within the urban edge development context, there is an expectation for some development. The photomontages generated for a section of the Urbans Boulevard by the project architects depicts that with a setback, and landscaping along the road, the proposed development would be similar to the Welgelegen Estate example (but with some higher visual intrusion due to less of a drop in slope and a larger setback buffer. However, this effect along the length of the route would effectively wall off the depth of view to the eastern Garden Route over the Swart River. To ensure that the route sense of place is retained to some degree where depth views beyond the front line of proposed dwellings can take place, the

recommendation is that four erven to the west of the small dam (north of the main gate), are removed.

8.2.2 N2 National Highway Westbound: Peri-urban Areas

The existing views from N2 Highways receptors travelling westbound into George are currently peri-urban, transitioning from rural to urban. As such, which the VAC levels are higher, there is no precedent for double storey structures. To protect the areas to the east that are outside of the urban edge, the proposed structures should appear to be single residential, following the exist landscape context. With this mitigation, the units that are set back 150m from the road would meet the Class II Visual Objective.

8.3 Project Impact Ratings and Motivation

The impact assessment focuses on the combined visual effects of the proposed landscape change. The following phase of development area assessed:

- Construction.
- Operation.
- Decommissioning (Not applicable as the development will become a permanent feature in the landscape).

Cumulative effects for the area assessed are:

- A long-term change in land use setting a precedent for other similar types of residential/ retail development around the property, resulting in a loss of scenic quality of the N2 National Highway and Urbans Boulevard.

8.3.1 Construction Phase Impact Assessment

Table 20: Construction Phase Impacts table

Project phase	Construction Phase	
Impact	Loss of landscape character from construction and long-term (phased) development	
Description of impact	• Loss of site landscape character due to the removal of vegetation and the construction of the project infrastructure. • Construction and laydown camps on the site. • The movement of large earth moving and building equipment. • Wind-blown dust due to the removal of large areas of vegetation. • Wind-blown litter from the laydown and construction sites. • Movement of larger vehicles along local roads and traffic congestion. • On-going building of structures.	
Mitigability	Low	The mitigation will partially reduce the significance of the visual and landscape impacts.
Key Mitigations	• Dust management. • Setback of the laydown area. • General best practice in construction EMP. • Implementation and planting of berms and trees screening areas. • Careful management and rehabilitation of the cut and fills. • Exclusion of No-Go areas and height restriction buffers.	
Assessment	Without mitigation	With mitigation

Nature	Negative		Negative	
Duration	Short-term	The construction phase is expected to be concluded within 1 year (per phase).	Short-term	The construction phase is expected to be concluded within 1 year (per phase).
Extent	Local	The visual impact will be locally contained.	Local	The visual impact will be locally contained.
Intensity	High	Without mitigation of dust, the construction of the development will be strongly perceived from the residential receptors.	Medium to High	With mitigation, the construction of the development will be intermittently perceived from the residential receptors.
Probability	Sure	The site is adjacent to the N2 Highway and Urbans Boulevard with clear views.	Sure	The site is adjacent to the N2 Highway and Urbans Boulevard with clear views.
Reversibility	Low	Once construction has started, the impact will not be reversible.	Low	Once construction has started, the impact will not be reversible.
Visual Significance	High -Ve		Medium to High -Ve	
Motivation	During construction without mitigation, dust could become a nuisance factor, and the construction site/ laydown area can be visually intrusive. With mitigation dust will be managed, and the layout will be set back from the road and less visually intrusive where construction will not take place directly in front of significant vistas. The construction phase will, however, be clearly visible and visually intensive to some degree due to the movement of large vehicles. The removal of the pine trees will result in a significant change to the local landscape but will open up views to the eastern Garden Route that are currently obscured.			
Cumulative Effects	Medium -Ve		Low -Ve	
Motivation	With mitigation, it is unlikely that the short-term landscape degradation will result in local landscape degradation. Positive alignment with George Municipality planning within the urban edge (with mitigation).			

8.3.2 Operational Phase Impact Assessment

Table 21: Operation Phase Impacts Table

Project phase	Operation Phase	
Impact	Loss of landscape character from operation of the development	
Description of impact	- Massing effect in the landscape from a large-scale residential landscape modification. - Increased vehicular movement along the road. - Lights at night intruding into the eastern rural residential areas.	
Mitigability	Medium	The mitigation will reduce the significance of the visual and landscape impacts
Key Mitigations	Landscaping consolidation and continuous planting/ maintenance of street trees.	

	- Lights at night mitigation to reduce light spillage to eastern. Rural Garden Route landscape (taking into consideration that there is an existing lights at night footprint from George Urban areas). - Re-establishment of indigenous vegetation plantings along the Urbans Boulevard. - Use of natural, earth colours with a mid-grey hue for structures/ roof areas. Preference for lower pitch, rough textured roofing tiles as in many instances, views from receptors would look onto the dwelling roof areas. - Continued maintenance of landscaping berms and trees.			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Positive	
Duration	Permanent	The development will become a permanent feature in the landscape.	Permanent	The development will become a permanent feature in the landscape.
Extent	Local	The visual impact will be locally contained.	Local	The visual impact will be locally contained.
Intensity	Medium to High	The operation of the development will be strongly perceived from the rural residential receptors and strongly change the local landscape character.	Medium to Low	With mitigation, the operation of the development will moderately change the local landscape character.
Probability	Sure	The site is adjacent to the rural residential receptors with clears views of the urban landscape change.	Sure	The site is adjacent to the rural residential receptors with clears views of the urban landscape change.
Reversibility	Low	Once construction has started, the impact will not be reversible.	Low	Once construction has started, the impact will not be reversible.
Visual Significance	High -Ve (No-Go)		Medium +Ve	
Motivation	Without mitigation and not addressing the visual intrusion to significant views from the Urbans Boulevard, these visual and landscape resources could significantly be degraded and set a negative precedent for ‘walling’ development along scenic view corridor in the George. With mitigation to create a suitable ‘pause’ space, with height restraint as well as further landscaping around the dwellings, the area has the potential to become a potential positive asset to the local landscape.			
Cumulative Effects	High -Ve		Low -Ve	
Motivation	Without mitigation described above, there is strong potential for setting a negative precedent for intensive development along the significant view corridors. With mitigation, it is unlikely that the long-term operation of the development will result in local landscape degradation setting a suitable development precedent along the urban edge. It is possible that the proposed development may result in planning pressure for the expansion of urban edge to the west on adjacent properties. However, this would need to be addressed in future planning and future EIAs.			

8.4 Summary of Visual Impact Findings

A summary of the visual impacts assessed is located on the following page. The headings below refer to the identified impact assessment criteria.

Nature of the Impact

During construction phase the nature of the impact will be Negative with and without mitigation. Without mitigation, the Operational Phase is likely to be Medium to High Negative, as some landscape degradation will take place. With mitigation, this phase has the potential to be Medium Positive, once the landscaping has become established.

Extent of the Impact

The Extent of the expected ZVI is Local Area with and without mitigation. This is due to the raised ground to the west, with urban built landscape and trees containing the extent of the zone of visual influence on the local, rural area in the east. There will be some expansion of the intensity of the George urban landscape ZVI into the rural Garden Route sense of place in the west.

Magnitude of the Impact

Without mitigation, the Magnitude of the impact is likely to be High Negative with the proposed development becoming a dominating visual feature in the local landscape detracting from the landscapes and heritage vista from the N2 Highway/ Urbans Boulevard. With mitigation, the development has the potential to become a suitable example of transitional development, setting a positive precedent for development along the urban edge without necessarily assisting/ forcing an urban sprawl/ ribbon development sense of place along these view corridors.

Duration of the Impact

Construction Phase is likely to be Short-term (per phase), with Operational Phase being a permanent landscape change. As the development is large, the construction phase is likely to extend over a long period of time.

Probability of the Impact

The probability of the impact taking place is rated Sure, as the property is in close proximity to the eastern rural residential area, with clear views of the proposed development from road receptors using the N2 Highway and Urbans Boulevard.

Confidence of the Impact

A site visit was undertaken and a review of planning for the area. 3D modelling of the proposed development was also undertaken, depicting scenarios with structure height and massing/ walling effects created by these development scenarios. The proposed development is also in alignment with local planning. As such, confidence is rated High.

Reversibility of the Impact

The reversibility of the impact is rated Low as once construction phase begins, the structures will be very difficult to remove and will be permanent features.

Resource Irreplaceability of the Impact

The impact area as a landscape resource is rated Medium to High as there is landscape value generated by the undulating terrain of these rural landscapes. There is also intense, nodal development sense of place around the N2 Highway/ Urbans Boulevard interchange that does detract from the local landscape, where the intensity of the development will become more established over time.

Mitigability of the Impact

Mitigation potential is rated Medium to High. The setback from the Urbans Boulevard would effectively reduce the heights of the row of double-storey structures proposed adjacent to the road. The removal/ relocation of the four units between the dam and the Boulevard, would effectively allow for depth of view to the east, breaking up the perceived massing effect from the development, as well as create a more effective development 'pause' along this section of the road.

Cumulative Impact Assessment

Due to the combined developments of the Oumeulen and Meulenzicht Estates, there is a risk in degrading the existing, designed aesthetics of the Urbans Boulevard. It is possible that the proposed development may also result in planning pressure for the expansion of urban edge to the west on adjacent properties, that without mitigation could reflect ribbon development along the N2 Highway and facilitate the experience of urban sprawl. However, this would need to be addressed in future planning and future EIAs. With mitigation, as specified, the cumulative effects would be contained to some degree, and the development would be in alignment with the George Municipality Urban Edge planning.

Visual Significance of the Impact

Without mitigation, the visual impact significance is rated Medium to High. The development is expected to set a negative visual precedent, particularly along the Urbans Boulevard, which was originally designed with a wide verge, sensitivity to the natural landform, and open views toward the eastern Garden Route landscape. The site spans a broad area that is visually connected to the rural, undulating landscapes to the east and is familiar to the George community, many of whom use the route to access the Outeniqua Farmers Market. While not a fatal flaw due to the location of the site within the urban edge, the unmitigated development would result in adverse visual impact and is therefore strongly not recommended.

With mitigation measures, the visual impact significance is expected to reduce to Medium. The development would still provide economic and housing benefits while moderating visual intrusion. Although the character of the Boulevard would change due to built form on both sides (Oumeulen Estate to the west and Meulenzicht to the east), the proposed interventions would support a more gradual transition from rural edge to urban corridor. From a landscape and visual perspective, the mitigated proposal would establish a positive precedent for future development along the Garden Route urban edge, balancing growth with partial preservation of landscape character. For this reason, the mitigated layout is the visual and landscape preference, and the recommendation is that they should be a consideration of the relevant authority when granting authorisation.

9 ENVIRONMENTAL MANAGEMENT PLAN

9.1 General Mitigations

9.1.1 Planning Phase

- The key mitigations defined in the *Specific Mitigations section below* would need to be incorporated into the design.
- Appoint a suitably qualified landscape architect to generate a detailed landscaping plan prior to construction phase that addresses the following:
 - Retaining and maintaining of existing higher value fynbos and wetland areas.
 - Removal of the alien vegetation along the drainage lines and rehabilitation of the drainage lines to indigenous vegetation (as per the rehabilitation specialists recommendations).
 - Internal landscaping such that trees can be incorporated into the design to soften the massing of the erven and apartments areas. Generate a planting and management plan in alignment with the GM tree planting strategy) such that tree growth with thrive and depict suitable growth within two years of planting. Trees that die during this period need to be replaced (refer to Annexure E for George Municipality tree planting specifications).
- In principle, the concept architectural guidelines provided to inform the LVIA are suitable to provide sufficient confidence in the assessment. However, as this is a large area development that does have the potential to significantly alter the eastern entrance into the George. More detailed architectural guidelines should be generated after authorisation, and be subject to external review, prior to construction phase. These guidelines should be provided to George Aesthetics Committee for review.
- A key mitigation is that landscape planning is incorporated into the design. As this is a key factor influencing the sense of place of the Urbans Boulevard, these plans should be provided to George Aesthetics Committee for review.

9.1.2 Construction Phase

- Dust management for moving vehicles and wind-blown dust.
- Set the laydown back from the road area and screen with green shade cloth (2m high).
- No construction over the weekend or during the night.
- Other than security personal, no overnight accommodation for workers.
- Walling sections should be restricted to gate areas, be a maximum 1.4m height and can include electrical wiring security. Wall colours need to be natural with a mid-grey hue and be constructed from brick and be aesthetically pleasing and simple in design. These areas should also be landscaped such that the walling does not become visually intrusive.
- The laydown should not be located in a prominent or within close proximity (100m) in relation to the Urbans Boulevard.

9.1.3 Operation Phase

- Landscaping consolidation as per the detailed landscaping plan.
- Lights at night mitigation to ensure that undue light spillage does not take place recognising that the proposed development is within the GM Urban Edge (Refer to Annexure D for generic lighting mitigation).

- Internal street lighting should preferably be low in height and downward facing so as to not extend the urban lights at night sense of place into the eastern rural areas.
- Downward or inward facing light such that direct lighting is not visible to the casual observer without compromising security.
- Advertising should be constrained and not be visually dominating from the N2 Highway and Urbans Boulevard:
 - Subject to George Municipality advertising guidelines and stipulations.

9.2 Specific Mitigations

9.2.1 N2 National Highway Eastbound Peri-Urban Views: Phase 2B Apartments

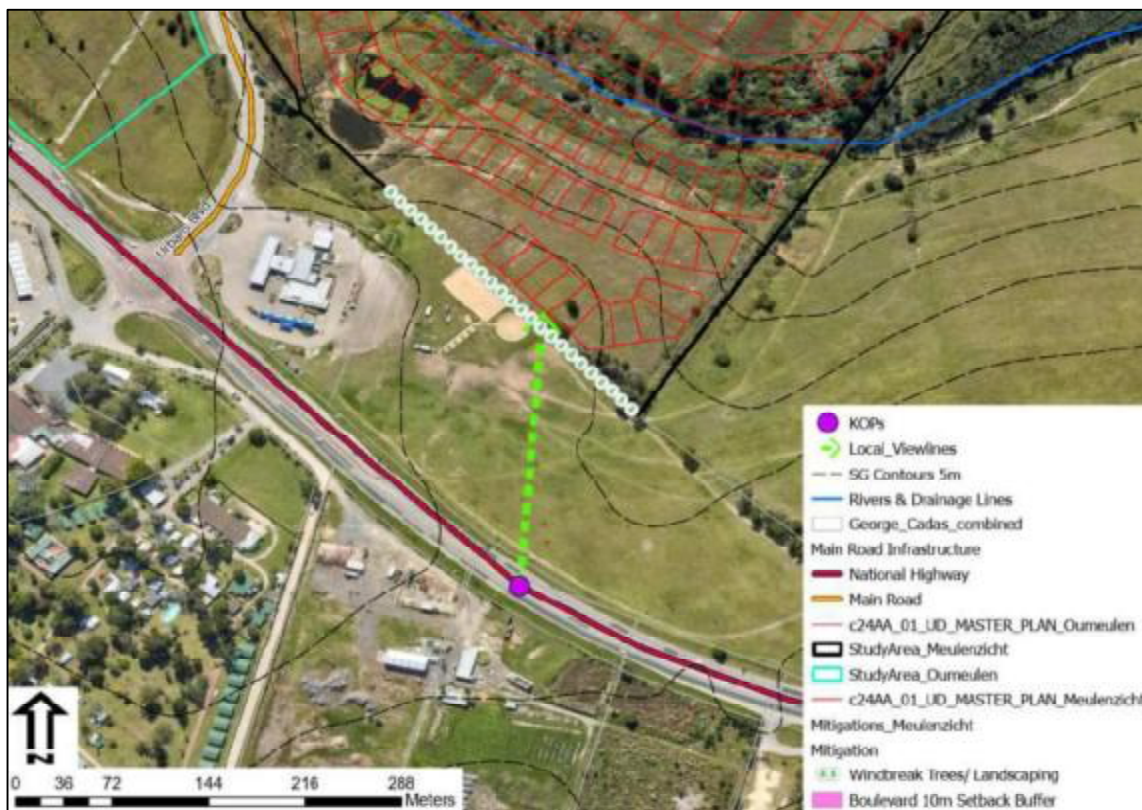


Figure 19: Southern Apartments/ Phase B2 Peri-Urban context.

- Six apartment dwellings are located in a relatively prominent location and are currently viewed from a peri-urban landscape context as seen from the N2 Highway receptors eastbound. The row of double storey structures would be clearly visible from the N2 Highway in the foreground, where there is no other similar residential dwelling context, other than the proposed background views of the proposed development single residential houses. To retain the existing peri-urban sense of place that does add value, a row of fast growing indigenous trees should be planted to the south of these structures following the existing farm wind break alignment with a 15m spacing between stems.

9.2.2 Urbans Boulevard

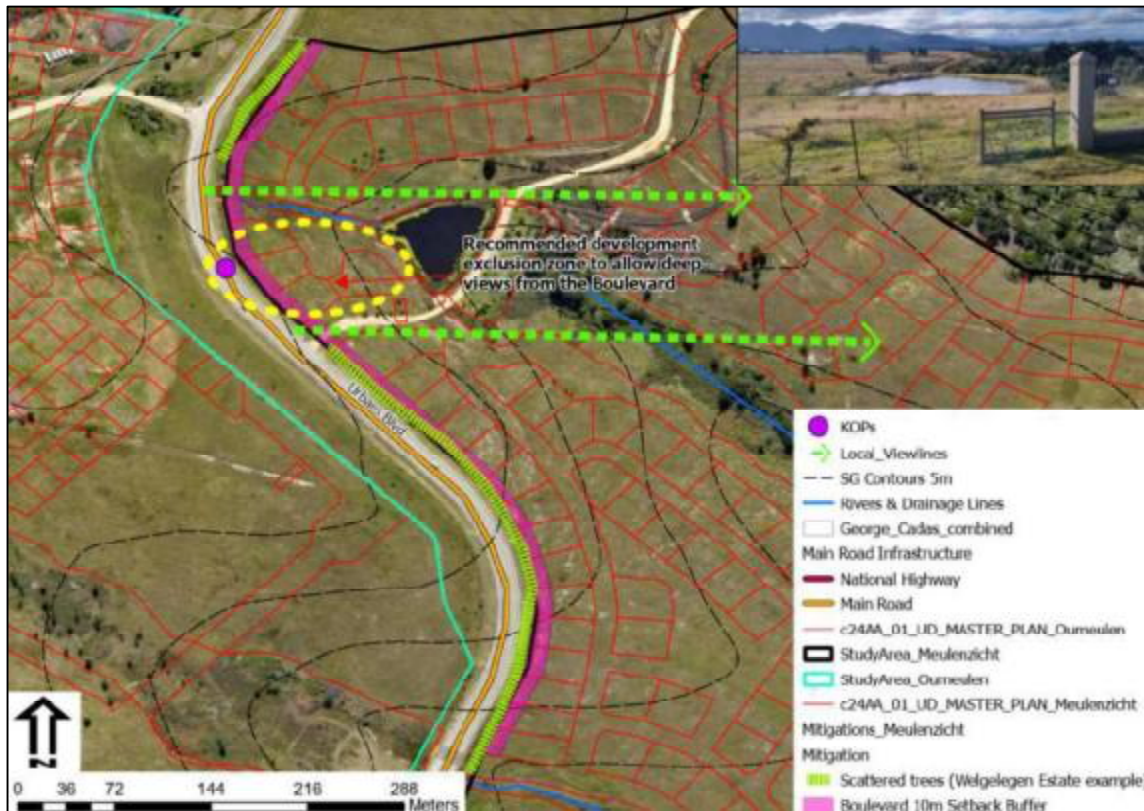


Figure 20: Urbans Boulevard Mitigations Map.

- The recommendation is that the proposed erven along the Urbans Boulevard (Refer to map above) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen Estate where the natural drop in the terrain from the road allows for more effective views over the dwellings, thus reducing the 'walling' effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments on either side of the road. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.
- The recommendations is that the proposed erven along the Urbans Boulevard (Refer to map above) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen where the natural drop in the terrain further from the road allows for more effective views over the dwellings, thus reducing the massing effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.

- To allow for a vista gap to break the 'walling effect' created by the proposed line of dwellings along the Urbans Boulevard from the Oumeulen (west of road), and the Meulenzicht (east of road), is recommended that four erven should be removed to create a significant visual 'pause' area. This would allow an vista opening along the portion of the road to the small dam and background views of the eastern Garden Route. This would ensure that key views that benchmark the landscape heritage of the Boulevard are not all lost behind estate houses, to the detriment of the those using the road to access the tourist precinct/ residential areas or simply enjoying the road as a walking space. The photograph inserted into the above map, taken from the boulevard should be retained as open. The area should be retained as natural vegetation allowing the fynbos vegetation (specifically Erica species) to regrow as an extension of the natural vegetation landscaping along the drainage line.
- To ensure that security fencing does not impact the views, Clear-View type security fencing should be used along the road. For the section along the farm dam 'view-gap', the Clear-View fencing should be set back 10m from the road reserve to afford views over the security fencing.
- Planting of medium sized indigenous trees along the boulevard following the effective precedent set by the Welgelegen Estate. The trees should be scatted to create more organic plantings. The section of road overlooking the farm dam should not have trees to enhance the view down the valley. Trees planted along the road would need to have 1m x 1m holes dug and the tree planted with a suitable compost mix (subject to detailed landscaping planning and review by George Aesthetic Committee). The following photograph of Welgelegen landscaping should inform the final landscaping plan. The landscape plan should also take into consideration that this is optimal location for the growing of Ericaceae family if veld areas are not cut.
- Along the verges of the Urbans Boulevard where suitable, natural veld-grass 'patches' can also be created to allow Erica species growth and reduce the burden of the municipality having to cut the verges. This would reduce the maintenance burden placed on the municipality, but with management of the gardens by the estate.
- The existing Welgelegen Estate entrance should also be used as a positive precedent. The walling is set back from the road with intensive, indigenous vegetation landscaping to partially screen the entrance from the road. This precedent should be used as a reference for the Meulenzicht Estate entrance.



Figure 21: Welgelegen Estate landscaping suitable precedent that should be followed for the areas along the boulevard.



Figure 22: Example of patches of Erica species growth along the road that add landscape value.



Figure 23: Welgelegen Estate landscaping suitable precedent for estate entrance.

9.2.3 General Development

- The proposed Club House should be restricted to single-storey height to reduce visual intrusion and walls well screened by indigenous vegetation without the vegetation blocking views over the clubhouse structure. The vehicle parking area for the clubhouse should not dominate the local landscape context and should be screened from view with a variety of medium sized indigenous vegetation.
- To ensure that the proposed Water Treatment Plan does not become visually intrusive, this structure needs to visually screened by the planting of fast growing indigenous trees.
- All interior roads and 'tree-gap' areas should be planted as an avenue of indigenous trees at 15m spacings on both sides of the road. As the topsoil is limited in the area overlaying clay soils, the detailed landscape plan should specifically take the inherent constraints of the soils into consideration.
- In principle, **with the exception of the flat topped roof proposals**, the concept architectural guidelines provided to inform the LVIA are suitable to provide sufficient confidence in the assessment. However, as this is a large area development that does have the potential to significantly alter the eastern entrance into the George, more detailed architectural guidelines should be generated, and be subject to external review, prior to construction phase. **These guidelines should be provided to George Aesthetics Committee for review.**

- A key mitigation is that landscape planning is incorporated into the design. **As this is a key factor influencing the proposed amendment to the sense of place of the Urbans Boulevard, these plans should be provided to George Aesthetics Committee for review.**

10 OPPORTUNITIES AND CONSTRAINTS

10.1 Preferred Development Option: Without mitigation

Opportunities

- Economic and employment opportunities for the local area.
- Removal of alien trees on the property.

Constraints

- Walling effects along the Urbans Boulevard that would detract from the essence of the initial road design which has aesthetic value as an urban view corridor.

10.2 Preferred Development Option: With mitigation

Opportunities

- Residential development without significant loss of local visual resources and with moderated visual intrusion to local receptors with mitigation (medium to long-term).
- Removal of alien trees on the property.
- Economic and employment opportunities for the local area.

Constraints

- Potential for the residential development to set a precedent for other residential areas to the southwest, outside of the urban edge (Medium risk).
- Loss of some landscape character and sense of place from the existing peri-urban landscape context / eastern Garden Route areas as the visual presence of George expands to the west.

10.3 No-Go Option

Opportunities

- Retaining existing peri-urban landscape context.
- Retaining open views to the east along the Urbans Boulevard.

Constraints

- Limited economic benefit to the local area, and the continuation of the fairly fragmented peri-urban sense of place at this section of the Kraaibosch traffic circle development node.

Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred. However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the

George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore not recommended.

11 CONCLUSION

The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred.

However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.

Two key mitigation measures are proposed:

- A 10-meter setback from the Urbans Boulevard road reserve to reduce the visual dominance of the proposed buildings proposed adjacent to the road. This setback allows the natural drop in slope to better contain the height of double-storey units, following the Welgelegen Estate precedent, where buildings are set back $\pm 30\text{m}$ and allow for partial views over the buildings.
- The removal/ relocation of four erven located between the Boulevard and the small farm dam. This would create a clear visual break in the linear development, retain a sense of the rural context, and preserve depth of view towards the eastern Garden Route. It would also enhance views along the two natural drainage lines, helping to reduce the perceived massing of the development.

With these measures in place, the development would still deliver economic and housing benefits while reducing visual intrusion. Although the character of the Boulevard would change with housing on both sides (Oumeulen Estate to the west and Meulenzicht to the east), the setback and visual break would help transition the area from rural edge to a more urbanised corridor. From a landscape and visual perspective, the project, in its mitigated form, could set a positive precedent for future developments along the Garden Route urban edge—balancing growth with partial retention of local landscape character.

Limitations pertaining to the assessment, include the limited architectural guidelines as well as a strong emphasis on landscaping that will only be generated after project approval. Furthermore, the basic impact assessment process does not allow for public comments to be reviewed prior to EIA. To address these procedural related risks, the following is proposed:

- Public submissions from the EIA process pertaining to the Urbans Boulevard should be reviewed and considered prior to the finalisation of the LVIA.
- The final architectural guidelines and detailed landscaping plans should be submitted to the George Aesthetics Committee for review, to ensure they align with the broader, emerging 'garden city' identity of George.

In conclusion, from a landscape and visual perspective, the mitigated proposal would establish a positive precedent for future development along the Garden Route urban edge, balancing growth with partial preservation of landscape character. For this reason, the **mitigated layout is the visual and landscape preference, and the recommendation is that the above key specified mitigations, should be taken into consideration by the relevant authority when granting authorisation.**

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13 ANNEXURE A: SITE VISIT PHOTOGRAPHS AND COMMENTS

The following photographs were taken during the field survey as mapped below. The text below the photograph describes the landscape and visual issues of the locality, if applicable.

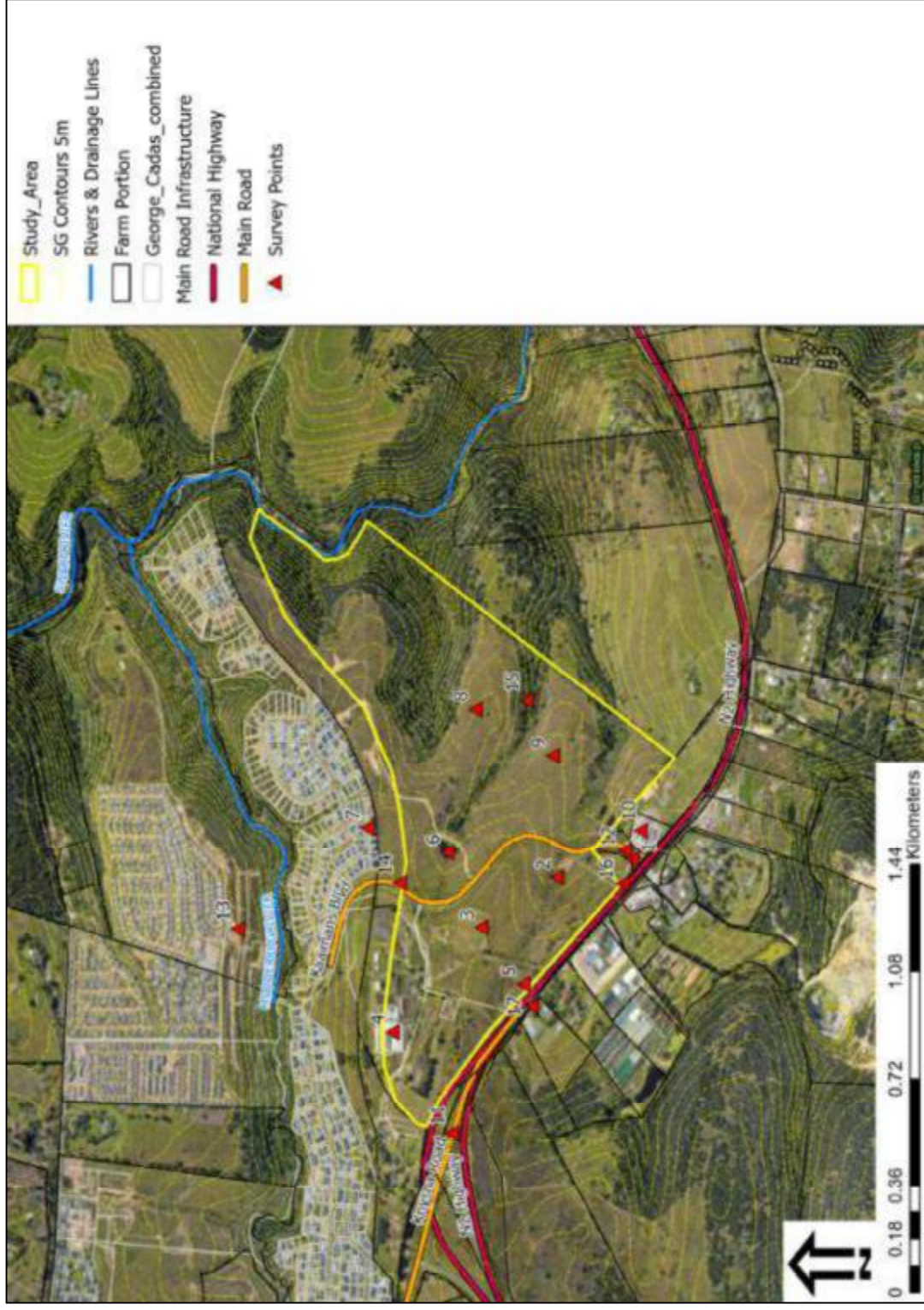


Figure 24: Survey point and project locality map.

Table 22. Site Visit Landscape Risks table

ID	Remarks	Time	Geometry	Risk	Motivation
1	Future development node adjacent to Sasol garage	05/23/2024 08:53:28.000 GMT+02:00	POINT Z (22,51972449 -33,99142613 227,742)	High	Future development node adjacent to Sasol garage. Within the urban edge but within area adjacent to the N2 that has significant gateway views and as such was planned as a Tourist Precinct. The proposed development has a risk of visual intrusion to the background mountain. Development should be cut into ground and lower in height to allow for undisturbed view from the traffic circle gateway.
2	Drainage wetland	05/23/2024 09:03:10.258 GMT+02:00	POINT Z (22,51916740 -33,98916951 0,000)	Low	Excluded from the development footprint.
3	Peri urban grasslands	05/23/2024 09:12:34.000 GMT+02:00	POINT Z (22,51766926 -33,98687624 242,123)	Medium	Single residential development. Prominent topographic area that could result in skyline intrusion as seen from N2 eastbound. 8m height restriction.
4	Outeniqua Farmers Market context	05/23/2024 09:15:25.392 GMT+02:00	POINT Z (22,51449566 -33,98418803 0,000)	Low	Local attraction adjacent to old sawmill. Old structure does increase Visual Absorption Capacity level.
5	Apartments	05/23/2024 09:22:40.999 GMT+02:00	POINT Z (22,51594823 -33,98814524 237,686)	High	Potential for obscuring significant views of Outeniqua Mountains to east as seen from adjacent N2 highway.
6	Small dam	05/23/2024 09:29:37.828 GMT+02:00	POINT Z (22,51992378 -33,98584577 0,000)	Medium	Small dam as Focal point for background views of Outeniqua Mountains.

7	Welgelegen Views Estate precedent	05/23/2024 09:31:27.911 GMT+02:00		POINT Z (22,52067983 -33,98343017 0,000)	Low	Precedent development adjacent to future N2 highway routing.
8	Undulating peri-urban grasslands	05/23/2024 09:34:39.731 GMT+02:00		POINT Z (22,52425220 -33,98669396 0,000)	Medium	Landscape fragmentation. Undulating grasslands with current rural landscape context. Areas east of urban edge would require access via the west (the proposed estate). This could set a precedent for pushing urban edge to areas west of the Swartvriër. This is outside of the urban edge and unlikely to take place.
9	Undulating grasslands adjacent to rural land uses outside of urban edge	05/23/2024 09:39:53.344 GMT+02:00		POINT Z (22,52286416 -33,98903663 0,000)	Medium	Proposed single residential. Agricultural land use with strong ties to Garden Route undulating terrain sense of place. Low profile and not visually intrusive.
10	Sasol garage node	05/23/2024 09:43:53.845 GMT+02:00		POINT Z (22,52059232 -33,99169864 0,000)	Low	Tourist zoning in relation to N2 highway stop.
11	N2 Bridge Eastbound	06/12/2024 14:52:12.999 GMT+02:00		POINT Z (22,51143477 -33,98597836 241,409)	Medium	Higher VAC levels from N2 Bridge infrastructure and lighting, but view linked to heritage of old sawmill and previous pine plantations. Suitable with mitigation with exterior berm and tree landscaping, setback 50m for structures and internal landscaping of trees along roadways. Structures adjacent to the highway should preferably be single-storey and partially screened with a landscaped berm/screening trees.
12	KOP Kaaimans Boulevard northbound	06/12/2024 15:00:53.999 GMT+02:00		POINT Z (22,51998119 -33,99121450 229,617)	Medium	Some existing development that does increase the precedent for development with the Sasol garage, N2 and Welgelegen Estate. Mitigate for road view corridor with setbacks from the road and reduced massing to allow for transition to eastern rural land use and associated landscape.

13	Groenkloof urban context	06/12/2024 15:08:17.122 GMT+02:00		POINT Z (22,51761943 -33,97951430 0,000)	Medium	Higher density of the Groenkloof Residential Village with the limitation that the smaller erven don't have sufficient space for garden trees. As such, a more stark urban landscape is created if urban tree planting is not incorporated into the landscape design.
14	Kaaimans Blvd Southbound	06/12/2024 15:11:47.000 GMT+02:00		POINT Z (22,51900237 -33,98440886 237,687)	Medium	Peri-urban sense of place with Sasol garage and Kraaibosch development node visible in the background. Suitable with mitigation of buffer on road, internal landscaping, colour, architecture and lights spillage.
15	Alien tree invaded drainage line	06/12/2024 15:15:51.631 GMT+02:00		POINT Z (22,52453081 -33,98825130 0,000)	Medium	Alien invasive vegetation in rivers detracts from landscape and inhibits views east form the proposed residential areas.
16	KOP N2 circle gateway	06/12/2024 15:20:00.000 GMT+02:00		POINT Z (22,51898788 -33,99116166 232,490)	High	Iconic, landscape heritage views of Garden Route landscape a key component of the entrance to George sense of place, as well as the eastern entrance to the Garden Route 'wilderness' landscapes. Mitigate with setback and development such that views over structures take place where views to background Outeniqua Mountains not impaired.
17	KOP N2 eastbound	06/12/2024 15:28:31.000 GMT+02:00		POINT Z (22,51528228 -33,98840150 239,872)	High	Once the pine trees are removed, iconic views to the east open up as seen from this elevated portion of the N2. Mitigate with No-Go buffer along this portion of the N2 to ensure that the open views are retained .

ID	1
PHOTO	Future development node adjacent to Sasol garage with very high visual exposure to the N2 Highway where visual intrusion could take place.
RISK	High
DIRECTION	NE



ID	2
PHOTO	Drainage lines that have been excluded from the development footprint
RISK	Low
DIRECTION	W



ID	3
PHOTO	Peri urban grasslands within N2 Zone of Visual Influence (ZVI)
RISK	Medium
DIRECTION	W



ID	4
PHOTO	Old sawmill farmers market context
RISK	Medium
DIRECTION	N



ID	5
PHOTO	Apartment development proposed on skyline that will increase the potential for visual intrusion.
RISK	High
DIRECTION	E



ID	6
PHOTO	Views of the small farm dam should be retained.
RISK	Medium
DIRECTION	E



ID	7
PHOTO	Welgelegen Views Estate precedent
RISK	Low (Context)
DIRECTION	NE
COMMENT	Previous development adjacent to future N2 highway routing.



ID	8
PHOTO	Undulating grasslands adjacent to rural land uses outside of urban edge
RISK	Medium
DIRECTION	SE



ID	9
PHOTO	Undulating peri-urban grasslands
RISK	Medium
DIRECTION	E
COMMENT	Proposed single residential. Agricultural land use with strong ties to Garden Route undulating terrain sense of place. Low profile and not visually intrusive.



ID	10
PHOTO	Sasol garage node
RISK	Low
DIRECTION	E
COMMENT	Tourist zoning in relation to N2 highway stop.



ID	11
PHOTO	N2 Highway Eastbound with key views of the Outeniqua Farmers Market and pine trees related to old sawmill heritage.
RISK	Medium
DIRECTION	NE



ID	12
PHOTO	KOP Kaaimans Blvd northbound
RISK	High
DIRECTION	East



ID	13
PHOTO	Groenkloof Retirement Village urban development context
RISK	High Negative (Context)
DIRECTION	NE



ID	14
PHOTO	Kaaimans Blvd Southbound with higher levels of scenic quality.
RISK	High
DIRECTION	NE



ID	15
PHOTO	Alien invaded drainage line
RISK	Medium
DIRECTION	NE
	

ID	16
PHOTO	KOP N2 circle gateway
RISK	High
DIRECTION	NE
	

ID	17
PHOTO	KOP N2 eastbound potential for visual intrusion.
RISK	High
DIRECTION	SE
	

14 ANNEXURE B: SPECIALIST INFORMATION

14.1 Professional Registration Certificate



14.2 Curriculum Vitae (CV)

1. **Position:** Owner / Director
2. **Name of Firm:** Visual Resource Management Africa cc (www.vrma.co.za)
3. **Name of Staff:** Stephen Stead
4. **Date of Birth:** 9 June 1967
5. **Nationality:** South African
6. **Contact Details:** Cell: +27 (0) 83 560 9911
Email: steve@vrma.co.za
7. **Educational qualifications:**
 - University of Natal (Pietermaritzburg):
 - Bachelor of Arts: Psychology and Geography
 - Bachelor of Arts (Hons): Human Geography and Geographic Information Management Systems
 - MSc Geography, University of KwaZulu-Natal (2023)
8. **Professional Accreditation**
 - Association of Professional Heritage Practitioners (APHP) Western Cape
 - Accredited VIA practitioner member of the Association (2011)
9. **Association involvement:**
 - International Association of Impact Assessment (IAIA) South African Affiliate
 - Past President (2012 - 2013)
 - President (2012)
 - President-Elect (2011)
 - Conference Co-ordinator (2010)
 - National Executive Committee member (2009)
 - Southern Cape Chairperson (2008)
10. **Conferences Attended:**
 - International Geographical Congress, Lisbon (2017)
 - IAIAAsa 2012
 - IAIAAsa 2011
 - IAIA International 2011 (Mexico)
 - IAIAAsa 2010
 - IAIAAsa 2009
 - IAIAAsa 2007
11. **Continued Professional Development:**
 - Integrating Sustainability with Environment Assessment in South Africa (IAIAAsa Conference, 1 day)
 - Achieving the full potential of SIA (Mexico, IAIA Conference, 2 days 2011)

- Researching and Assessing Heritage Resources Course (University of Cape Town, 5 days, 2009)

12. Countries of Work Experience:

- South Africa, Mozambique, Malawi, Lesotho, Kenya and Namibia

13. Relevant Experience:

Stephen gained six years of experience in the field of Geographic Information Systems mapping and spatial analysis working as a consultant for the KwaZulu-Natal Department of Health and then with an Environmental Impact Assessment company based in the Western Cape. In 2004 he set up the company Visual Resource Management Africa that specializes in visual resource management and visual impact assessments in Africa. The company makes use of the well-documented Visual Resource Management methodology developed by the Bureau of Land Management (USA) for assessing the suitability of landscape modifications. Stephen has assessed of over 150 major landscape modifications throughout southern and eastern Africa. The business has been operating for eighteen years and has successfully established and retained a large client base throughout Southern Africa which include amongst other, Rio Tinto (Pty) Ltd, Bannerman (Pty) Ltd, Anglo Coal (Pty) Ltd, Eskom (Pty) Ltd, NamSolar and Vale (Pty) Ltd, Ariva (Pty) Ltd, Harmony Gold (Pty) Ltd, Millennium Challenge Account (USA), Pretoria Portland Cement (Pty) Ltd

14. Languages:

- English – First Language
- Afrikaans – fair in speaking, reading and writing.

15. Projects:

Table 23: VRM Africa Projects Assessments Table

DESCRIPTION	COUNT	DESCRIPTION	COUNT
Dam	1	UISP	8
Mari-culture	1	Structure	8
Port	1	OHPL	12
Railway	1	Industrial	12
Power Station	3	Wind Energy	22
Hydroelectric	4	Battery Storage	14
Resort	4	Mine	20
Golf/Residential	1	Residential	45
Road Infrastructure	5	Solar Energy	62
Substation	5	TOTAL	237

15 ANNEXURE C: METHODOLOGY DETAIL

15.1 Baseline Analysis Stage

In terms of VRM methodology, landscape character is derived from a combination of **scenic quality**, **receptor sensitivity** to landscape change and **distance** from the proposed landscape change. The objective of the analysis is to compile a mapped inventory of the visual resources found in the receiving landscape, and to derive a mapped Visual Resource sensitivity layer from which to evaluate the suitability of the landscape change.

15.1.1 Scenic Quality

The scenic quality is determined making use of the VRM Scenic Quality Checklist that identifies seven scenic quality criteria which are rated with 1 (low) to 5 (high) scale. The scores are totalled and assigned an A (High), B (Moderate) or C (low) based on the following split:

A = scenic quality rating of ≥ 19 ;

B = rating of 12 – 18,

C = rating of ≤ 11

The seven scenic quality criteria are defined below:

- **Land Form:** Topography becomes more of a factor as it becomes steeper, or more severely sculptured.
- **Vegetation:** Primary consideration given to the variety of patterns, forms, and textures created by plant life.
- **Water:** That ingredient which adds movement or serenity to a scene. The degree to which water dominates the scene is the primary consideration.
- **Colour:** The overall colour(s) of the basic components of the landscape (e.g., soil, rock, vegetation, etc.) are considered as they appear during seasons or periods of high use.
- **Scarcity:** This factor provides an opportunity to give added importance to one, or all, of the scenic features that appear to be relatively unique or rare within one physiographic region.
- **Adjacent Land Use:** Degree to which scenery and distance enhance, or start to influence, the overall impression of the scenery within the rating unit.
- **Cultural Modifications:** Cultural modifications should be considered and may detract from the scenery or complement or improve the scenic quality of an area.

15.1.2 Receptor Sensitivity

Receptor sensitivity to landscape change is determined by rating the following factors in terms of Low to High:

- **Type of Users:** Visual sensitivity will vary with the type of users, e.g. recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.
- **Amount of Use:** Areas seen or used by large numbers of people are potentially more sensitive.
- **Public Interest:** The visual quality of an area may be of concern to local, or regional, groups. Indicators of this concern are usually expressed via public controversy created in response to proposed activities.
- **Adjacent Land Uses:** The interrelationship with land uses in adjacent lands. For example, an area within the viewshed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be as visually sensitive.

- **Special Areas:** Management objectives for special areas such as Natural Areas, Wilderness Areas or Wilderness Study Areas, Wild and Scenic Rivers, Scenic Areas, Scenic Roads or Trails, and Critical Biodiversity Areas frequently require special consideration for the protection of their visual values.
- **Other Factors:** Consider any other information such as research or studies that include indicators of visual sensitivity.

15.1.3 Exposure

The area where a landscape modification starts to influence the landscape character is termed the Zone of Visual Influence (ZVI) and is defined by the U.K. Institute of Environmental Management and Assessment's (IEMA) *'Guidelines for Landscape and Visual Impact Assessment'* as 'the area within which a proposed development may have an influence or effect on visual amenity (of the surrounding areas).'

The inverse relationship of distance and visual impact is well recognised in visual analysis literature (*Hull, R.B. and Bishop, I.E., 1988*). According to Hull and Bishop, exposure, or visual impact, tends to diminish exponentially with distance. The areas where most landscape modifications would be visible are located within 2 km from the site of the landscape modification. Thus, the potential visual impact of an object diminishes at an exponential rate as the distance between the observer and the object increases due to atmospheric conditions prevalent at a location, which causes the air to appear greyer, thereby diminishing detail. For example, viewed from 1000 m from a landscape modification, the impact would be 25% of the impact as viewed from 500 m from a landscape modification. At 2000m it would be 10% of the impact at 500 m.

Distance from a landscape modification influences the size and clarity of the landscape modification viewing. The Bureau of Land Management defines three distance categories:

- Foreground / Middle ground**, up to approximately 6km, which is where there is potential for the sense of place to change;
- Background areas**, from 6km to 24km, where there is some potential for change in the sense of place, but where change would only occur in the case of very large landscape modifications; and
- Seldom seen areas**, which fall within the Foreground / Middle ground area but, as a result of no receptors, are not viewed or are seldom viewed.

15.1.4 Key Observation Points

During the Baseline Inventory Stage, Key Observation Points (KOPs) are identified. KOPs are defined by the Bureau of Land Management as the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. These locations are important in terms of the VRM methodology, which requires that the Degree of Contrast (DoC) that the proposed landscape modifications will make to the existing landscape be measured from these most critical locations, or receptors, surrounding the property. To define the KOPs, potential receptor locations were identified in the viewshed analysis, and screened, based on the following criteria:

- Angle of observation.
- Number of viewers.
- Length of time the project is in view.
- Relative project size.

- Season of use.
- Critical viewpoints, e.g., views from communities, road crossings; and
- Distance from property.

15.2 Assessment and Impact Stage

The analysis stage involves determining whether the potential visual impacts from proposed surface-disturbing activities or developments will meet the management objectives established for the area, or whether design adjustments will be required. This requires a contrast rating to assess the expected DoC the proposed landscape modifications would generate within the receiving landscape in order to define the Magnitude of the impact.

15.2.1 Contrast Rating

The contrast rating is undertaken to determine if the VRM Class Objectives are met. The suitability of landscape modification is assessed by comparing and contrasting existing receiving landscape to the expected contrast that the proposed landscape change will generate. This is done by evaluating the level of change to the existing landscape by assessing the line, colour, texture and form, in relation to the visual objectives defined for the area. The following criteria are utilised in defining the DoC:

- **None:** The element contrast is not visible or perceived.
- **Weak:** The element contrast can be seen but does not attract attention.
- **Moderate:** The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- **Strong:** The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

As an example, in a Class I area, the visual objective is to preserve the existing character of the landscape, and the resultant contrast to the existing landscape should not be notable to the casual observer and cannot attract attention. In a Class IV area example, the objective is to provide for proposed landscape activities that allow for major modifications of the existing character of the landscape. Based on whether the VRM objectives are met, mitigations, if required, are defined to avoid, reduce or mitigate the proposed landscape modifications so that the visual impact does not detract from the surrounding landscape sense of place.

Based on the findings of the contrast rating, the Magnitude of the Landscape and Visual Impact Assessment is determined.

15.2.2 Photomontages

As a component in this contrast rating process, visual representation, such as photo montages are vital in large-scale modifications, as this serves to inform Interested & Affected Parties and decision-making authorities of the nature and extent of the impact associated with the proposed project/development. There is an ethical obligation in this process, as visualisation can be misleading if not undertaken ethically. In terms of adhering to standards for ethical representation of landscape modifications, VRMA subscribes to the Proposed Interim Code of Ethics for Landscape Visualisation developed by the Collaborative for Advanced Landscape Planning (CALP) (Sheppard, 2000). This code states that professional presenters of realistic landscape visualisations are responsible for promoting full understanding of proposed landscape changes, providing an honest and neutral visual representation of the expected

landscape, by seeking to avoid bias in responses and demonstrating the legitimacy of the visualisation process. Presenters of landscape visualisations should adhere to the principles of:

- Access to Information
- Accuracy
- Legitimacy
- Representativeness
- Visual Clarity and Interest

The Code of Ethical Conduct states that the presenter should:

- Demonstrate an appropriate level of qualification and experience.
- Use visualisation tools and media that are appropriate to the purpose.
- Choose the appropriate level of realism.
- Identify, collect and document supporting visual data available for, or used in, the visualisation process.
- Conduct an on-site visual analysis to determine important issues and views.
- Seek community input on viewpoints and landscape issues to address in the visualisations.
- Provide the viewer with a reasonable choice of viewpoints, view directions, view angles, viewing conditions and timeframes appropriate to the area being visualised.
- Estimate and disclose the expected degree of uncertainty, indicating areas and possible visual consequences of the uncertainties.
- Use more than one appropriate presentation mode and means of access for the affected public.
- Present important non-visual information at the same time as the visual presentation, using a neutral delivery.
- Avoid the use, or the appearance of, 'sales' techniques or special effects.
- Avoid seeking a particular response from the audience.
- Provide information describing how the visualisation process was conducted and how key decisions were taken (Sheppard, 2000).

16 ANNEXURE D: GENERIC LIGHTS AT NIGHT MITIGATION

Mitigation:

- Effective light management needs to be incorporated into the design of the lighting to ensure that the visual influence is limited to the project, without jeopardising project operational safety and security (See lighting mitigations by The New England Light Pollution Advisory Group (NELPAG) and Sky Publishing Corp in 14.2).
- Utilisation of specific frequency LED lighting with a green hue on perimeter security fencing.
- Directional lighting on the more exposed areas of operation, where point light source is an issue.
- No use of overhead lighting and, if possible, locate the light source closer to the operation.

Mesopic Lighting

Mesopic vision is a combination of photopic vision and scotopic vision in low, but not quite dark, lighting situations. The traditional method of measuring light assumes photopic vision and is often a poor predictor of how a person sees at night. The light spectrum optimized for mesopic vision contains a relatively high amount of bluish light and is therefore effective for peripheral visual tasks at mesopic light levels. (CIE, 2012)

The Mesopic Street Lighting Demonstration and Evaluation Report by the Lighting Research Centre (LRC) in New York found that the ‘replacement of white light sources (induction and ceramic metal halide) were tuned to optimize human vision under low light levels while remaining in the white light spectrum. Therefore, outdoor electric light sources that are tuned to how humans see under mesopic lighting conditions can be used to reduce the luminance of the road surface while providing the same, or better, visibility. Light sources with shorter wavelengths, which produce a “cooler” (bluer and greener) light, are needed to produce better mesopic vision. Based on this understanding, the LRC developed a means of predicting visual performance under low light conditions. This system is called the unified photometry system. Responses to surveys conducted on new installations revealed that area residents perceived higher levels of visibility, safety, security, brightness, and colour rendering with the new lighting systems than with the standard *High-Purity Standards* (HPS) systems. The new lighting systems used 30% to 50% less energy than the HPS systems. These positive results were achieved through tuning the light source to optimize mesopic vision. Using less wattage and photopic luminance also reduces the reflectance of the light off the road surface. Light reflectance is a major contributor to light pollution (sky glow).’ (Lighting Research Centre. New York. 2008)

‘Good Neighbour – Outdoor Lighting’

Presented by the New England Light Pollution Advisory Group (NELPAG) (<http://cfa/www.harvard.edu/cfa/ps/nelpag.html>) and Sky & Telescope (<http://SkyandTelescope.com/>). NELPAG and Sky & Telescope support the International Dark-Sky Association (IDA) (<http://www.darksky.org/>). (NELPAG)

What is good lighting? Good outdoor lights improve visibility, safety, and a sense of security, while minimizing energy use, operating costs, and ugly, dazzling glare.

Why should we be concerned? Many outdoor lights are poorly designed or improperly aimed. Such lights are costly, wasteful, and distractingly glary. They harm the night-time environment and neighbours' property values. Light directed uselessly above the horizon creates murky skyglow — the "light pollution" that washes out our view of the stars.

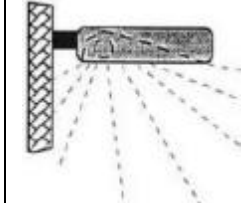
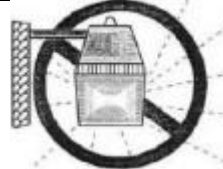
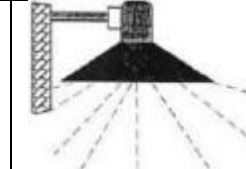
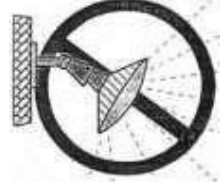
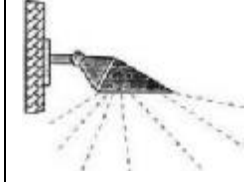
Glare Here's the basic rule of thumb: If you can see the bright bulb from a distance, it's a bad light. With a good light, you see lit ground instead of the dazzling bulb. "Glare" is light that beams directly from a bulb into your eye. It hampers the vision of pedestrians, cyclists, and drivers.

Light Trespass Poor outdoor lighting shines onto neighbours' properties and into bedroom windows, reducing privacy, hindering sleep, and giving the area an unattractive, trashy look.

Energy Waste Many outdoor lights waste energy by spilling much of their light where it is not needed, such as up into the sky. This waste results in high operating costs. Each year we waste more than a billion dollars in the United States needlessly lighting the night sky.

Excess Lighting Some homes and businesses are flooded with much stronger light than is necessary for safety or security.

Good and Bad Light Fixtures

Typical "Wall Pack"	Typical "Shoe Box" (forward throw)
	
BAD Waste light goes up and sideways	GOOD Directs all light down
Typical "Yard Light"	Opaque Reflector (lamp inside)
	
BAD Waste light goes up and sideways	GOOD Directs all light down
Area Flood Light	Area Flood Light with Hood
	
BAD Waste light goes up and sideways	GOOD Directs all light down

How do I switch to good lighting?

Provide only enough light for the task at hand; don't over-light, and don't spill light off your property. Specifying enough light for a job is sometimes hard to do on paper. Remember that a full Moon can make an area quite bright. Some lighting systems illuminate areas 100 times more brightly than the full Moon! More importantly, by choosing properly shielded lights, you can meet your needs without bothering neighbours or polluting the sky.

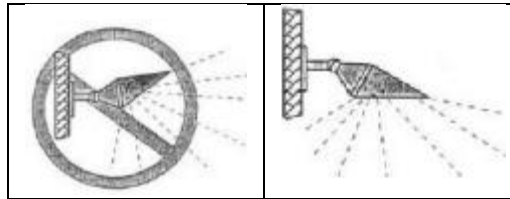
- Aim lights down. Choose “full-cut-off shielded” fixtures that keep light from going uselessly up or sideways. Full-cut-off fixtures produce minimum glare. They create a pleasant-looking environment. They increase safety because you see illuminated people, cars, and terrain, not dazzling bulbs.
- Install fixtures carefully to maximize their effectiveness on the targeted area and minimize their impact elsewhere. Proper aiming of fixtures is crucial. Most are aimed too high. Try to install them at night, when you can see where all the rays actually go. Properly aimed and shielded lights may cost more initially, but they save you far more in the long run. They can illuminate your target with a low-wattage bulb just as well as a wasteful light does with a high-wattage bulb.
- If colour discrimination is not important, choose energy- efficient fixtures utilising yellowish high-pressure sodium (HPS) bulbs. If “white” light is needed, fixtures using compact fluorescent or metal-halide (MH) bulbs are more energy-efficient than those using incandescent, halogen, or mercury-vapour bulbs.
- Where feasible, put lights on timers to turn them off each night after they are no longer needed. Put home security lights on a motion-detector switch, which turns them on only when someone enters the area; this provides a great deterrent effect!

What You Can Do To Modify Existing Fixtures

Change this . . .

to this

(aim downward)

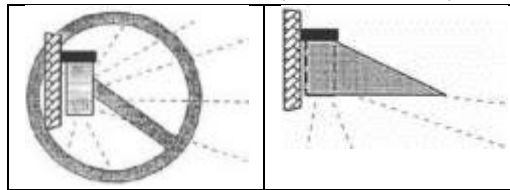


Floodlight:

Change this . . .

to this

(aim downward)

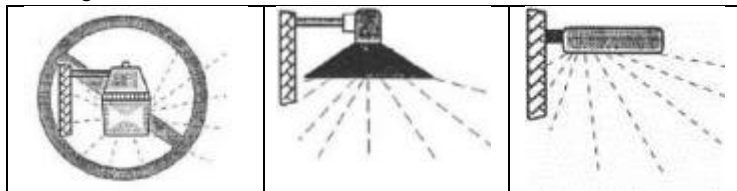


Wall Pack

Change this . . .

to this

or this



Yard Light

Opaque Reflector

Show Box

Replace bad lights with good lights.

You'll save energy and money. You'll be a good neighbour. And you'll help preserve our view of the stars.

17 ANNEXURE E: GEORGE MUNICIPALITY TREE PLANTING SPECIFICATIONS

GUIDELINES FOR THE PLANTING OF TREES (part of Annexure B)

GUIDELINES FOR THE PLANTING OF TREES

(part of Annexure A)

Position of the Tree:

1. Trees may only be planted at a distance that would ensure a 1.5m passageway throughout the life span of the tree.
2. Trees should not be placed less than 8m apart.
3. No trees may be planted closer than 10m from a street intersection.
4. No trees may be planted closer than 2m from any of the following structures: Fire hydrants; any electrical or Telkom boxes, drainage catch pits, stay wires
5. No trees may be planted within 1m from any wall.
6. No trees may be planted within 5m of a streetlight or power pole.
7. Trees should not be planted within 3m from a driveway.
8. Trees should not be planted within 5m from any road sign.
9. Trees should not be planted that may interfere with any overhead or underground services.

Hole Preparation and Planting

1. Dig a square hole of 1 x 1 m and approximately 1m deep and insert a root barrier where necessary
2. Mix the soil that was dug out with ¼ volume of good compost.
3. Add the following:
 - ½ kg of Super phosphate fertilizer or ½ kg of bone meal
 - ½ kg of 2:3:2 or 3:1:5 fertilizer
4. Mix this soil mixture thoroughly
5. Put this soil mixture back in the tree hole, leaving enough space for the root ball of the new tree
6. Remove the tree from its plastic bag or container. Care must be taken not to damage the roots.
7. Plant the tree carefully. The soil level around the tree should remain the same as in the nursery container.
8. Firm the soil, make a neat dam around the tree to hold at least 60 liter of water and water immediately.
9. Use two wooden stakes and tie the tree to the stakes with old rubber hose or similar soft material so that the stakes do not damage the tree.
10. Add a layer of mulch which will assist in preventing water loss due to evaporation. The mulch should be replaced regularly.

After Care

Due to the windy and dry summer season in the Western Cape, irrigation is a crucial factor for successful tree establishment.

The following watering schedule is recommended for all trees;

- 1st year 30 litre per week



GUIDELINES FOR THE PLANTING OF TREES
(part of Annexure B)

- 2nd year 30 litre every second week
- 3rd year 30 litre every third week

Application might vary according to local climate/soil conditions

Fertilizing - 3 year program

- 1st Year: 3:1:5 (28) or 2:3:2 120 - 300 grams per growing season
- 2nd Year: 2:3:2 120 - 300 grams per growing season
- 3rd Year: 2:3:2 120 - 300 grams per growing season



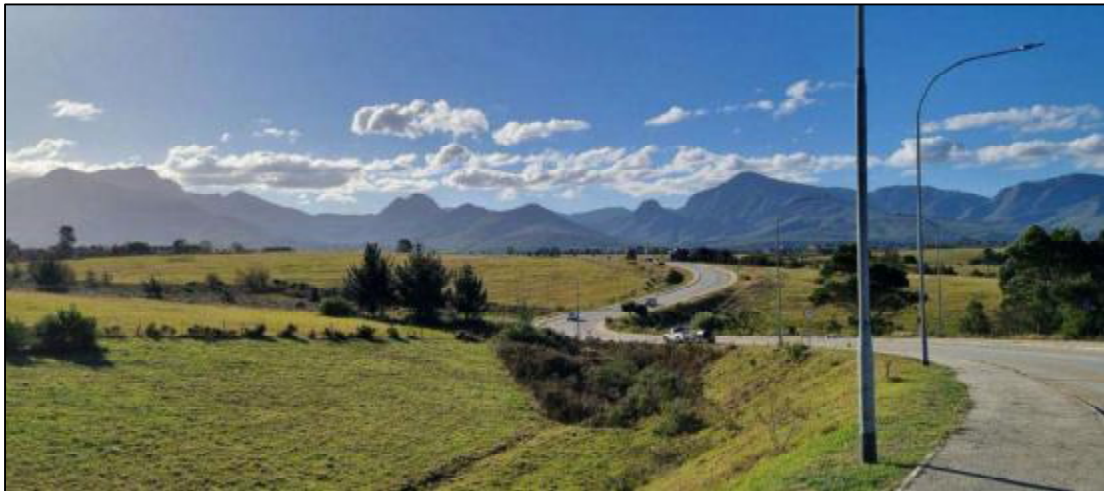
THE PROPOSED OUMEULEN ESTATE, GEORGE LOCAL MUNICIPALITY IN THE WESTERN CAPE PROVINCE, SOUTH AFRICA

Landscape & Visual Impact Assessment

Draft v_3 (Finalisation pending EIA Comments)

DATE: 04 August 2025

Document prepared for HillLand Environmental (Pty) Ltd
On behalf of Cape Estates (Pty) Ltd



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LIST OF ACRONYMS

<i>APHP</i>	Association of Professional Heritage Practitioners
<i>BLM</i>	Bureau of Land Management (United States)
<i>BPEO</i>	Best Practicable Environmental Option
<i>CALP</i>	Collaborative for Advanced Landscape Planning
<i>DEM</i>	Digital Elevation Model
<i>DoC</i>	Degree of Contrast
<i>EIA</i>	Environmental Impact Assessment
<i>EMPr</i>	Environmental Management Plan
<i>GIS</i>	Geographic Information System
<i>GPS</i>	Global Positioning System
<i>IDP</i>	Integrated Development Plan
<i>IEMA</i>	Institute of Environmental Management and Assessment (United Kingdom)
<i>KOP</i>	Key Observation Point
<i>LVIA</i>	Landscape and Visual Impact Assessment
<i>MAMSL</i>	Metres above mean sea level
<i>NELPAG</i>	New England Light Pollution Advisory Group
<i>PNR</i>	Private Nature Reserve
<i>SDF</i>	Spatial Development Framework

SEA	Strategic Environmental Assessment
VAC	Visual Absorption Capacity
VIA	Visual Impact Assessment
VRM	Visual Resource Management
VRMA	Visual Resource Management Africa
ZVI	Zone of Visual Influence

GLOSSARY OF TECHNICAL TERMS

Technical Terms	Definition (Oberholzer, 2005)
Degree of Contrast	The measure in terms of the form, line, colour and texture of the existing landscape in relation to the proposed landscape modification in relation to the defined visual resource management objectives.
Visual intrusion	Issues are concerns related to the proposed development, generally phrased as questions, taking the form of “what will the impact of some activity be on some element of the visual, aesthetic or scenic environment”.
Receptors	Individuals, groups or communities who would be subject to the visual influence of a particular project.
Sense of place	The unique quality or character of a place, whether natural, rural or urban.
Scenic corridor	A linear geographic area that contains scenic resources, usually, but not necessarily, defined by a route.
Viewshed	The outer boundary defining a view catchment area, usually along crests and ridgelines. Similar to a watershed. This reflects the area, or the extent thereof, where the landscape modification would probably be seen.
Visual Absorption Capacity	The potential of the landscape to conceal the proposed project.

Technical Term	Definition (USDI., 2004)
Key Observation Point	Receptors refer to the people located in the most critical locations, or key observation points, surrounding the landscape modification, who make consistent use of the views associated with the site where the landscape modifications are proposed. KOPs can either be a single point of view that an observer/evaluator uses to rate an area or panorama, or a linear view along a roadway, trail, or river corridor.
Visual Resource Management	A map-based landscape and visual impact assessment method development by the Bureau of Land Management (USA).
Zone of Visual Influence	The ZVI is defined as ‘the area within which a proposed development may have an influence or effect on visual amenity.’

1 DFFE SPECIALIST REPORTING REQUIREMENTS

1.1 Specialist declaration of independence

Table 1. Specialist declaration of independence

All intellectual property rights and copyright associated with VRM Africa's services are reserved, and project deliverables, including electronic copies of reports, maps, data, shape files and photographs, may not be modified or incorporated into subsequent reports in any form, or by any means, without the written consent of the author. Reference must be made to this report, should the results, recommendations or conclusions in this report be used in subsequent documentation. Any comments on the draft copy of the Visual Impact Assessment (VIA) must be put in writing. Any recommendations, statements or conclusions drawn from, or based upon, this report, must make reference to it. This document was completed by Silver Solutions 887 cc trading as VRM Africa, a Visual Impact Study and Mapping organisation located in George, South Africa. VRM Africa cc was appointed as an independent professional visual impact practitioner to facilitate this VIA. I, Stephen Stead, hereby declare that VRM Africa, an independent consulting firm, has no interest or personal gains in this project whatsoever, except receiving fair payment for rendering an independent professional service.  Stephen Stead APHP accredited VIA Specialist
--

1.2 Specialist report requirements in terms of Appendix 6 of the EIA Regulations (2014), as amended in 2017

Table 2: Specialist report requirements table (Pending EIA Process)

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
Details of the specialist who prepared the report	Stephen Stead, owner / director of Visual Resource Management Africa. steve@vrma.co.za Cell: 0835609911
The expertise of that person to compile a specialist report including a curriculum vitae	Registration with Association of Professional Heritage Practitioners
A declaration that the person is independent in a form as may be specified by the competent authority	Table 1

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
An indication of the scope of, and the purpose for which, the report was prepared	Terms of Reference
A description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change	Baseline Assessment
The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment	NA
A description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Methodology
Details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternative;	Baseline Visual Inventory
An identification of any areas to be avoided, including buffers	Visual Resource Management Classes
A map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Landscape Constraints Map
A description of any assumptions made and any uncertainties or gaps in knowledge;	Assumptions and Limitations
The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment	25 May 2024
A description of the findings and potential implications of such findings on the impact of the proposed activity or activities	Visual Impact Assessment
Any mitigation measures for inclusion in the EMPr	Environmental Management Plan
Any conditions for inclusion in the environmental authorisation	Review of architectural guidelines & detailed landscape plan prior to development.
Any monitoring requirements for inclusion in the EMPr or environmental authorisation	Not applicable
A reasoned opinion as to whether the proposed activity or portions thereof should be authorised	Opportunities and Constraints
Regarding the acceptability of the proposed activity or activities; and	Authorisation with mitigation (Pending EIA process PPP)
If the opinion is that the proposed activity or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan	Pending EIA

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
A description of any consultation process that was undertaken during the course of carrying out the study	Preliminary discussion with local planners and architects.
A summary and copies if any comments that were received during any consultation process	Pending EIA
Any other information requested by the competent authority.	Pending EIA

1.3 DFFE Screening Tool Site Sensitivity Verification

In terms of Part A of the Assessment Protocols published in GN 320 on 20 March 2020, site sensitivity verification is required relevant to the DFFE Screening Tool. No landscape issues were flagged in the DFFE Screening Tool. As the area is located in a tourist area where landscapes are being used as a visual resource, visual input into the proposed development was a requirement. A detailed Site Sensitivity Verification was undertaken with survey points documenting the existing landscape context. The site photographs and sensitivity rating table can be viewed in Annexure A.

A site visit was undertaken on 25 May 2024. The site survey found five landscape impact points that are likely to be flagged as High as described in the survey table. These pertain to significant cultural landscape views to the east from the N2 Highway to the Outeniqua Mountains and the eastern 'wilderness' areas of the Garden Route, as well as the cultural landscape framing of the old Urbans Sawmill and associated plantation land uses.

2 EXECUTIVE SUMMARY

Visual Resource Management Africa CC (VRMA) was appointed by HillLand Environmental to undertake a **Visual Impact Assessment** for proposed Oumeulen Estate on behalf of Atterbury Management Company (Pty) Ltd. The Proponent proposes to construct a residential estate, flats and a retail component on a site located in the Kraaibosch area within the George Municipality Urban Edge, Western Cape Province.

CONCLUSION

The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred.

However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.

Two key mitigation measures are proposed:

1. Detailed landscaping for the section along the N2 Highway to ensure that the intensity of the proposed landscape change can be effectively mitigated by strategic planning of trees.
2. Detailed landscaping for the section along the Urbans Boulevard such that the natural constraints of the soil can be overcome, and with the introduction of a low topsoil berm to create a natural landscaped area that offers partial screening to the proposed double-storey dwellings, as well as create an aesthetically pleasing landscape along the Boulevard.

With these measures in place, the development would deliver economic and housing benefits while reducing visual intrusion. Although the character of the Boulevard would change with housing on both sides (Oumeulen Estate to the west and Meulenzicht to the east), the intensive landscaping would help soften the magnitude of the visual intrusion created by the dwellings located on elevated terrain to the west of the road. From a landscape and visual perspective, the project, in its mitigated form, would set a positive precedent for future developments along the Garden Route urban edge, balancing growth with partial retention of local landscape character.

Limitations pertaining to the assessment, include the limited architectural guidelines as well as a strong emphasis on landscaping for mitigation, that will only be generated after project approval. To address these procedural risks, the architectural guidelines and detailed landscaping plans should be reviewed prior to construction and submitted to the George Aesthetics Committee to ensure they align with the broader, emerging 'garden city' identity of George.

In conclusion, from a landscape and visual perspective, the mitigations proposed for the preferred development layout would be suitable to ensure that significant landscape degradation of the existing landscape and visual resources would not be degraded. The Preferred Development Option, with additional landscaping, is the visual and landscape preference.

LANDSCAPE PLANNING POLICY FIT: Medium to High Positive

Of importance to international best practice for Landscape and Visual Impact Assessment as outlined by the Landscape Institute (IEMA, 2002), there is landscape relevance to the site that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the transition from the built landscapes of the George town, into the undulating, rural landscape that characterise the wilderness area of the Garden Route. This is supported in the Garden Route Environmental Management Framework, the views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained. Of relevance to gateway planning that is not specifically included in the GM SDF, is that the proposed development site is included in the initial vistas of the eastern Garden Route as seen from the N2 Highway travelling eastbound. From the elevated vantage point of the highway, there is an open view to the east that does have significance and should be retained.

Further queries on the planning pertain to the Tourist Precinct planning specified in the George Municipality SDF in relation to public access to the area to be protected at all times, and with the area to contain a combination of tourist and accommodation. Other than the Undetermined Areas (no details provided), there appears to be little alignment with the Tourist Precinct planning, with almost all of the 'tourist area' gated and residential. The following bullets from the George Municipality SDF should be incorporated in the layout.

- "Areas identified to contain a combination of tourist related facilities and accommodation.
- Not a retail node but may include tourism related small shops (convenience), restaurants, sport-and recreation- and services- conditions to be included in land use application.
- Public access to be protected in all instances" (George Municipality, 2023, p. 85).

While this is flagged as a possible non alignment, this would need to be addressed in the required planning for the proposed development. As Tourist Precincts do require visual impact assessment as per the GM SDF, this is raised as an issue that does require further evaluation/ input from the EIA process by George Municipality/ preliminary comments from the relevant authority.

METHODOLOGY

Visual Resource Management

The methodology for determining landscape significance is based on the United States Bureau of Land Management's Visual Resource Management (VRM) method (USDI., 2004). This GIS-based method allows for increased objectivity and consistency by using standard assessment criteria to classify the landscape type into four VRM Classes, with Class I being the most valued and Class IV, the least. The Classes are derived from *Scenic Quality*, *Visual Sensitivity Levels*, and *Distance Zones*. Specifically, the methodology involved: site survey; review of legal framework; determination of Zone of Visual Influence

(ZVI); identification of Visual Issues and Visual Resources; assessment of Potential Visual Impacts; and formulation of Mitigation Measures.

VISUAL ABSORPTION CAPACITY Medium

Land use is a crucial factor in determining landscape character, especially regarding the Visual Absorption Capacity (VAC) of the landscapes. Oberholzer defines VAC as the potential of the landscape to conceal the proposed project (Oberholzer, 2005). i.e.

- High VAC – e.g., effective screening by vegetation and structures.
- Moderate VAC - e.g., partial screening by vegetation and structures.
- Low VAC - e.g., little screening by vegetation or structures.

The Visual Absorption Capability (VAC) for most of the proposed development site is rated as Low, due to limited tree vegetation and the absence of significant man-made modifications. However, the northwest section, which includes the old Urban mill structures, a concrete water reservoir and associated trees, has higher VAC levels. The local area VAC level is rated as Medium because of the existing developments around the Kraaibosch/N2 Highway and the old urban structures. In summary, the overall VAC is rated as Medium, indicating that proposed residential development would be clearly visible but generally viewed within the existing urban and peri-urban landscape context.

ZONE OF VISUAL INFLUENCE: Wide Area (Moderate)

The visible extent, or viewshed, is “the outer boundary defining a view catchment area, usually along crests and ridgelines” (Oberholzer, 2005). In order to define the extent of the possible influence of the proposed project, a viewshed analysis was undertaken from the proposed site at a specified height above ground level. The extent of the Zone of Visual Influence is defined as Wide Area and most likely to be contained within the foreground/mid-ground distance zone (6km) for the following reasons:

- The strongly undulating terrain of the Meulen River to the west, and the Swart and Kaaimans Rivers to the east.
- The high ground to the south limiting views beyond 1km.
- High ground and higher VAC levels to the north and west where the built nature of the urban landscape is likely to contain views of the landscape change.

The Zone of Visual Influence is thus rated Moderate but with Very High Visual Exposure for receptors.

RECEPTORS AND KOPS: Multiple Receptors and 3 KOPs

Key Observation Points (KOPs) are the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. The following receptors were located within the expected ZVI:

- N2 Highway east and westbound (Very High Exposure).
- Urban Boulevard (Very High Exposure).
- Knysna Road (Very High Exposure).
- Outeniqua Farmers Market (Very High Exposure).

- Kraaibosch proximate developments (Very High Exposure).
- Southern portions of the Welgelegen Estate (Very High Exposure).
- South facing portions of Groenkloof Retirement Village (Very High Exposure).
- Western facing properties of upper Wilderness Heights. (Medium Exposure).

Due to the importance of the landscape heritage views from the N2 Highway, three KOPs were defined and used as reference points to determine the suitability of the landscape change:

- Knysna Road.
- N2 Highway (East and Westbound).
- Urbans Boulevard.

SCENIC QUALITY:

Medium to High

The scenic quality of the site is rated as medium to high. The landforms are characterized by strong undulations, contributing to the landscape's visual associations with the eastern Garden Route vistas. The vegetation primarily consists of veld grasslands, with some larger (mainly non-native) trees in the northwest portion of the property. These trees are associated with the heritage of the old Urbans Sawmill and forestry. The veld grasslands visually connect with eastern rural landscapes. Cultural modifications are limited to the northern portions of the property and are related to the old Urbans mill and the remaining pine trees and other non-native vegetation around this site. Although the old mill currently results in some local landscape degradation, it holds some value in terms of cultural heritage. The property also offers significant views to the east into the Garden Route, with background views of the Outeniqua Mountains, enhancing the scenic quality of the site.

RECEPTOR SENSITIVITY:

Medium to High

The expected receptor sensitivity to landscape change is rated Medium to High. The zone of visual influence includes the N2 Highway, an important tourist route and planned scenic view corridor. As the property has been included in the George Municipality urban edge in the 2023 SDF, residential/ tourist related development is unlikely to result in public controversy. However, the views from the N2 to the eastern Garden Route are of value and should be considered as landscape heritage vista. The Urbans Boulevard was also designed as a view corridor, allowing wide verges and sweeping curves reflecting the undulating of the terrain. The road enhances the scenic quality and intrusion into the views from the road is likely to evoke negative responses from road users.

CUMULATIVE EFFECTS

Due to the combined developments of the Oumeulen and Meulenzicht Estates, there is a risk in degrading the existing, designed aesthetics of the Urbans Boulevard. It is possible that the proposed development may also result in planning pressure for the expansion of urban edge to the west on adjacent properties, that without mitigation could reflect ribbon development along the N2 Highway and facilitate the experience of urban sprawl. However, this would need to be addressed in future planning and future EIAs. With mitigation, as specified, the cumulative effects would be contained to some degree, and the development would be in alignment with the George Municipality Urban Edge planning.

VISUAL IMPACT SIGNIFICANCE

Without mitigation, there is risk for setting a negative precedent for development along the eastern section of Gerge along the N2 Highway, as well as the creation of 'walling' effects from continuous residential development along the Urbans Boulevard. With mitigation that includes intensive landscaping along the N2 Highway and the Urban Boulevard, the area has the potential to become a potential positive asset to the local landscape in the medium to long term, without setting a precedent for urban sprawl encroaching into eastern Garden Route landscapes and along the N2 Highway.

SPECIFIC MITIGATIONS

N2 National Highway Eastbound: Western Apartments (phase un-named on plan) along Knysna Road.

- Maximum 8.5m height restriction with natural/ earth colours for walls and roof areas.
- 10m buffer around the exterior sections of the Apartment area for 2m high berm and intensive indigenous landscaping as per the existing Kraaibosch Estate berm landscaping depicted below.
- Street trees on both sides of all main roads at 15m between stems to reduce massing effects and more effective landscape transition to the eastern Garden Route landscapes. Single row of street trees along each of the internal roads also at 15m intervals.
- In relation to views from the elevated bridge of Knysna Road, Phase A2 needs to reflect a similar tree "row" landscaping as Phase A1 to allow for visual continuity and reduction of massing effects from the higher density apartments. The green space rows need to extend into the apartment area with these areas depicted in the layout. Planting of trees 15m stems along the identified 'green' breaks in the apartment residential areas.

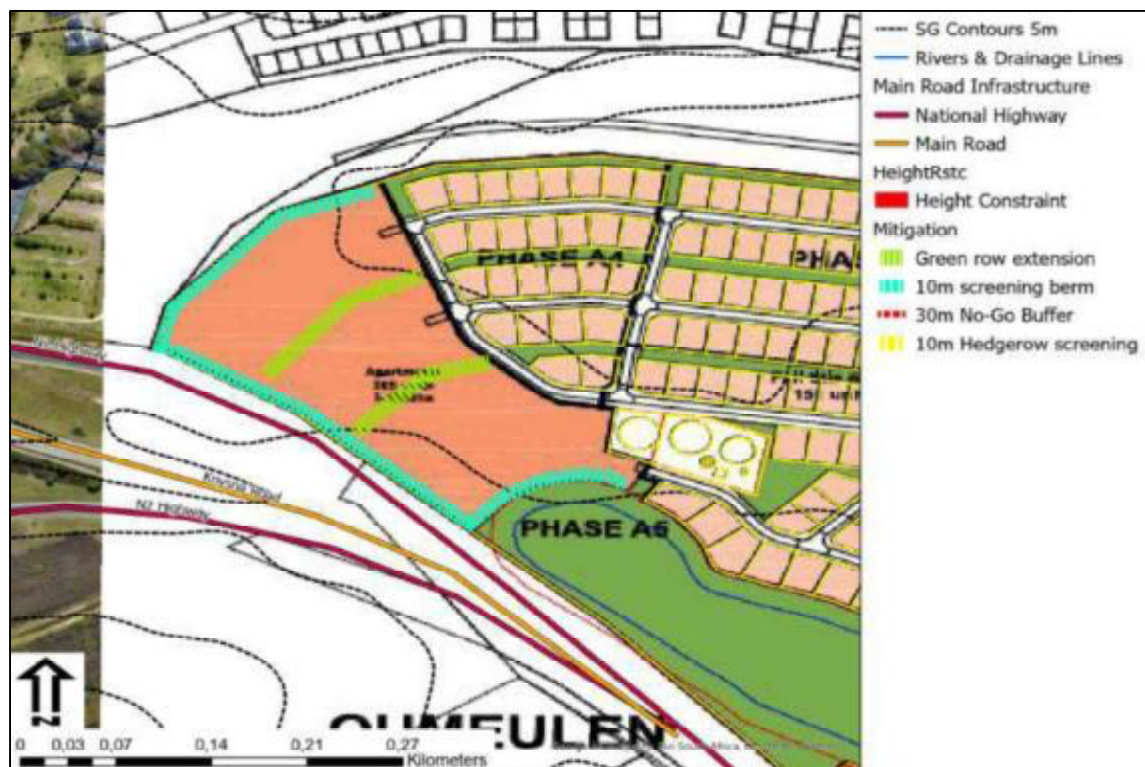


Figure 1: Western Apartments Section concept mitigation map.



Figure 2: Kraaibosch Estate suitable screening berm example that should be used as a landscaping design template.

N2 National Highway Eastbound and Westbound: Southern Apartments and Phase A2.

- The areas adjacent to the N2 Highway and the wetland need to be retained as open space and all pine trees need to be removed in this area to allow for the initial Garden Route view to the east for N2 Highway receptors travelling east.
- The single, northern townhouse structure should well screened with the planting of at least 3 x medium sized fast growing indigenous trees.
- The area where Teachers Apartments are proposed, should retain the pine trees that are not a fall risk to the proposed structures, as temporary visual screening. This area adjacent to the highway needs to reflect a similar landscape context of scattered trees, but with indigenous trees grown between the pines. Once the indigenous trees become established, the pine trees can slowly be removed as they will become a fall risk when they get very tall.
- Black Thru-view type fencing that allows for security without visual restriction.
- Natural earth-based colours with a grey hue for all structures.

Urbans Boulevard

- The existing indigenous trees within the Urbans Blvd. road reserve on the embankment areas have not taken due to very shallow topsoil on top of clay subsoils. The trees are stunted and unlikely to grow effectively without specific measures to introduce topsoil. Detailed landscape planning around a wide 2m high planted berm to reduce the visual intrusion of the proposed double storey structures along this route should be generated and provided to the George Aesthetics Committee for review.
- The areas around the current entrance to the Outeniqua Farmers Market that have been landscaped, should be retained as a component of the new estate entrance. The small wetland area to the south of the entrance should be incorporated into this indigenous tree landscaping as part of the open space 'pause' area that is proposed for the Meulenzicht areas to the east of the Boulevard as a continuity open-space.

- In order to not change the wide road reserve design, as well as not set a precedent for sale of road reserve that could add to the sense of place, the proposed sale of a portion of the Urban Boulevard for development expansion is not supported.

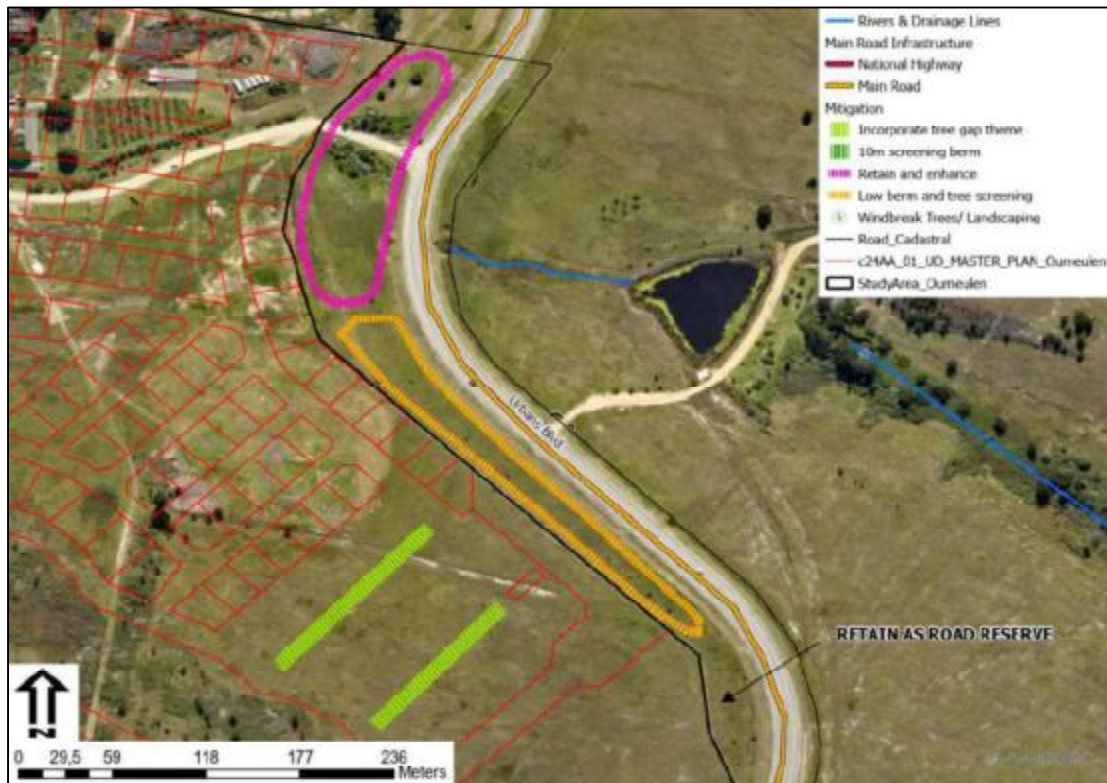


Figure 3. Phase 2A and Eastern Phases concept mitigation map.

3 INTRODUCTION

Visual Resource Management Africa CC (VRMA) was appointed by HillLand Environmental to undertake a **Visual Impact Assessment** for proposed Oumeulen Estate on behalf of Cape Estates (Pty) Ltd. The Proponent proposes to construct a residential estate, townhouses and a retail component on a site located in the Kraaibosch area within the George Municipality Urban Edge, Western Cape Province. The proposed property is located directly adjacent to the N2 Highway and is accessed via the Urbans Boulevard.

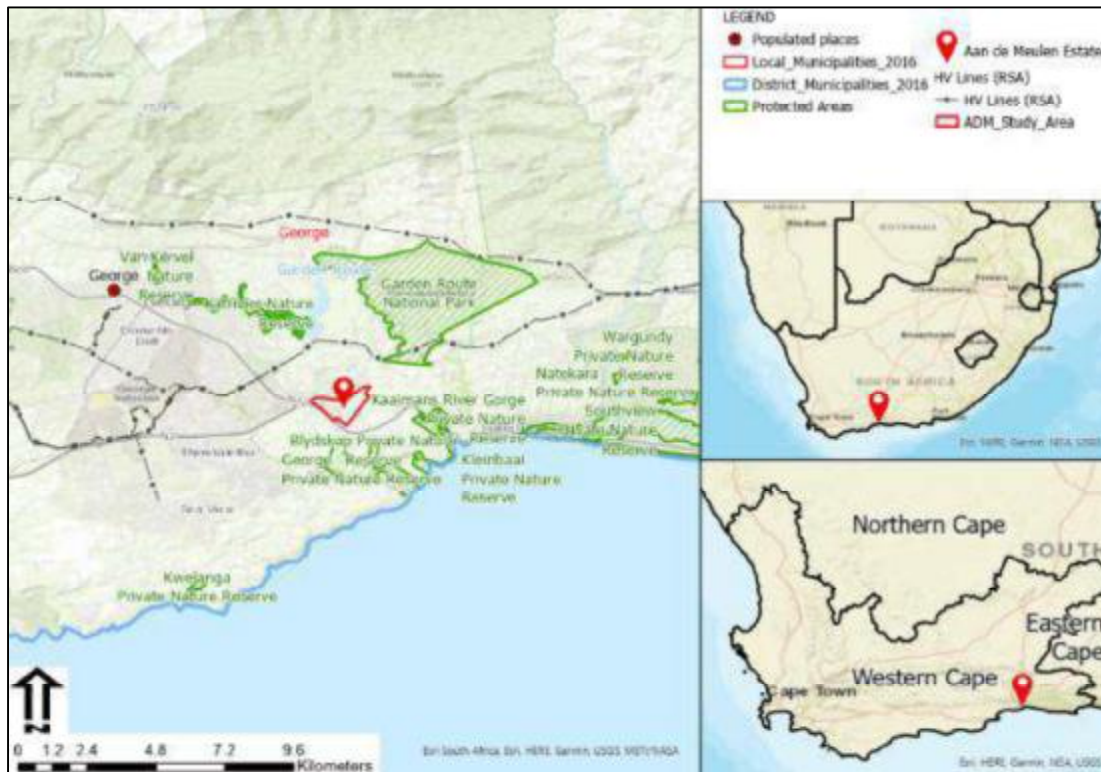


Figure 4: National and regional locality map.

3.1 Terms of Reference

The scope of this study is to cover the entire proposed project area. The broad terms of reference for the study are as follows:

- Collate and analyse all available secondary data relevant to the affected proposed project area. This includes a site visit of the full site extent, as well as of areas where potential impacts may occur beyond the site boundaries.
- Specific attention is to be given to the following:
 - Quantifying and assessing existing scenic resources/visual characteristics on, and around, the proposed site.
 - Evaluation and classification of the landscape in terms of sensitivity to a changing land use.
 - Determining viewsheds, view corridors and important viewpoints in order to assess the visual impacts of the proposed project.
 - Determining visual issues, including those identified in the public participation process.

- Reviewing the legal framework that may have implications for visual/scenic resources.
- Assessing the significance of potential visual impacts resulting from the proposed project for the construction, operation and decommissioning phases of the proposed project.
- Assessing the potential cumulative impacts associated with the visual impact.
- Generate photomontages of the proposed landscape modification.
- Identifying possible mitigation measures to reduce negative visual impacts for inclusion into the proposed project design, including input into the Environmental Management Programme report (EMPr).

3.2 Study Team

Contributors to this study are summarised in the table below.

Table 3: Authors and contributors to this report.

Aspect	Person	Organisation / Company	Qualifications
Landscape and Visual Assessment (author of this report)	Stephen Stead MSc Geography, 2023 (UKZN, Pietermaritzburg)	VRMA	• 20 years of experience in visual assessments including 230 large scale landscape changes in five sub-Saharan African countries. • Registered with the Association of Professional Heritage Practitioners since 2014.
Landscape Consulting	Liesel Stokes (SACLAP)	Private	• 40 years experience as a landscape architect with recognised experience in heritage landscapes.

3.3 Visual Assessment Approach

The full methodology used in the assessment can be found in Annexure B, with this section outlining the key elements of the assessment process. The process that VRM Africa follows when undertaking a VIA is based on the United States Bureau of Land Management's (BLM) Visual Resource Management method (USDI., 2004). This mapping and GIS-based method of assessing landscape modifications allows for increased objectivity and consistency by using standard assessment criteria.

- *“Different levels of scenic values require different levels of management. For example, management of an area with high scenic value might be focused on preserving the existing character of the landscape, and management of an area with little scenic value might allow for major modifications to the landscape. Determining how an area should be managed first requires an assessment of the area’s scenic values”.*
- *“Assessing scenic values and determining visual impacts can be a subjective process. Objectivity and consistency can be greatly increased by using the basic design elements of form, line, colour, and texture, which have often been used to describe and evaluate landscapes, to also describe proposed projects. Projects that repeat these design elements are usually in harmony with their surroundings; those that don’t create contrast. By adjusting project designs so the elements are repeated, visual impacts can be minimized” (USDI., 2004).*

Baseline Phase Summary

The VRM process involves the systematic classification of the broad-brush landscape types within the receiving environment into one of four VRM Classes. Each VRM Class is associated with management objectives that serve to guide the degree of modification of the proposed site. The Classes are derived by means of a simple matrix with the three variables being the scenic quality, the expected receptor sensitivity to landscape change, and the distance of the proposed landscape modification from key receptor points. The Classes are not prescriptive and are utilised as a guideline to determine visual carrying capacity, where they represent the relative value of the visual resources of an area. Classes I and II are the most valued, Class III represents a moderate value; and Class IV is of least value. The VRM Classes are not prescriptive and are used as a guideline to determine the carrying capacity of a visually preferred landscape as a basis for assessing the suitability of the landscape change associated with the proposed project.

Table 4: VRM Class Matrix table

		VISUAL SENSITIVITY LEVELS								
		High			Medium			Low		
SCENIC QUALITY	A (High)	II	II	II	II	II	II	II	II	II
	B (Medium)	II	III	III/IV *	III	IV	IV	IV	IV	IV
	C (Low)	III	IV	IV	IV	IV	IV	IV	IV	IV
DISTANCE ZONES		Fore/middle ground	Background	Seldom seen	Fore/middle ground	Background	Seldom seen	Fore/middle ground	Background	Seldom seen

* If adjacent areas are **Class III** or lower, assign **Class III**, if higher, assign **Class IV**

The visual objectives of each of the classes are listed below:

- The Class I objective is to preserve the existing character of the landscape and the level of change to the characteristic landscape should be very low and must not attract attention. Class I is assigned when a decision is made to maintain a natural landscape.
- The Class II objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be low. The proposed development may be seen but should not attract the attention of the casual observer, and should repeat the basic elements of form, line, colour and texture found in the predominant natural features of the characteristic landscape.
- The Class III objective is to partially retain the existing character of the landscape, where the level of change to the characteristic landscape should be moderate. The proposed development may attract attention, but should not dominate the view of the casual observer, and changes should repeat the basic elements found in the predominant natural features of the characteristic landscape; and
- The Class IV objective is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the

landscape can be high, and the proposed development may dominate the view and be the major focus of the viewer's (s') attention without significantly degrading the local landscape character.

Impact Phase Summary

To determine impacts, a degree of contrast exercise is undertaken. This is an assessment of the expected change to the receiving environment in terms of the form, line, colour and texture, as seen from the surrounding Key Observation Points. This determines if the proposed project meets the visual objectives defined for each of the Classes. If the expected visual contrast is strong, mitigation recommendations are to be made to assist in meeting the visual objectives. To assist in the understanding of the proposed landscape modifications, visual representation, such as photomontages or photos depicting the impacted areas, can be generated. There is an ethical obligation in the visualisation process, as visualisation can be misleading if not undertaken ethically.

3.4 VIA Process Outline

The following approach was used in understanding the landscape processes and informing the magnitude of the impacts of the proposed landscape modification. The table below lists a number of standardised procedures recommended as a component of best international practice.

Table 5: Methodology Summary table

Action	Description
Site Survey	The identification of existing scenic resources and sensitive receptors in and around the study area to understand the context of the proposed development within its surroundings to ensure that the intactness of the landscape and the prevailing sense of place are taken into consideration.
Project Description	Provide a description of the expected project, and the components that will make up the landscape modification.
Reviewing the Legal Framework	The legal, policy and planning framework may have implications for visual aspects of the proposed development. The heritage legislation tends to be pertinent in relation to natural and cultural landscapes, while Strategic Environmental Assessments (SEAs) for renewable energy provide a guideline at the regional scale.
Determining the Zone of Visual Influence	This includes mapping of viewsheds and view corridors in relation to the proposed project elements, in order to assess the zone of visual influence of the proposed project. Based on the topography of the landscape as represented by a Digital Elevation Model, an approximate area is defined which provides an expected area where the landscape modification has the potential to influence landscapes (or landscape processes) or receptor viewpoints.
Identifying Visual Issues and Visual Resources	Visual issues are identified during the public participation process, which is being carried out by others. The visual, social or heritage specialists may also identify visual issues. The significance and proposed mitigation of the visual issues are addressed as part of the visual assessment.

Action	Description
Assessing Potential Visual Impacts	An assessment is made of the significance of potential visual impacts resulting from the proposed project for the construction, operational and decommissioning phases of the project. The rating of visual significance is based on the methodology provided by the Environmental Assessment Practitioner (EAP).
Formulating Mitigation Measures	Possible mitigation measures are identified to avoid or minimise negative visual impacts of the proposed project. The intention is that these would be included in the project design, the Environmental Management Programme report (EMPr) and the authorisation conditions.

3.5 Impact Assessment Methodology

The following impact criteria were used to assess visual impacts. The criteria were defined by the Western Cape *DEA&DP Guideline for involving Visual and Aesthetic Specialists in EIA Processes* (Oberholzer, 2005).

Table 6. DEA&DP Visual and Aesthetic Guideline Impact Assessment Criteria table

Criteria	Definition
<u>Extent</u>	The spatial or geographic area of influence of the visual impact, i.e.: • <i>site-related</i>: extending only as far as the activity. • <i>local</i>: limited to the immediate surroundings. • <i>regional</i>: affecting a larger metropolitan or regional area. • <i>national</i>: affecting large parts of the country. • <i>international</i>: affecting areas across international boundaries.
<u>Duration</u>	The predicted life-span of the visual impact: • <i>short term</i>, (e.g., duration of the construction phase). • <i>medium term</i>, (e.g., duration for screening vegetation to mature). • <i>long term</i>, (e.g., lifespan of the project). • <i>permanent</i>, where time will not mitigate the visual impact.
<u>Intensity</u>	The magnitude of the impact on views, scenic or cultural resources. • <i>low</i>, where visual and scenic resources are not affected. • <i>medium</i>, where visual and scenic resources are affected to a limited extent. • <i>high</i>, where scenic and cultural resources are significantly affected.
<u>Probability</u>	The degree of possibility of the visual impact occurring: • <i>improbable</i>, where the possibility of the impact occurring is very low. • <i>probable</i>, where there is a distinct possibility that the impact will occur. • <i>highly probable</i>, where it is most likely that the impact will occur.

	• <i>definite</i>, where the impact will occur regardless of any prevention measures.
<u>Significance</u>	The significance of impacts can be determined through a synthesis of the aspects produced in terms of their nature, duration, intensity, extent and probability, and be described as: • <i>low</i>, where it will not have an influence on the decision. • <i>medium</i>, where it should have an influence on the decision unless it is mitigated. • <i>high</i>, where it would influence the decision regardless of any possible mitigation.

3.6 Assumptions and Uncertainties

- Digital Elevation Models (DEM) and viewsheds were generated using ASTER elevation data (NASA, 2009). Although every effort to maintain accuracy was undertaken, as a result of the DEM being generated from satellite imagery and not being a true representation of the earth's surface, the viewshed mapping is approximate and may not represent an exact visibility incidence. Thus, specific features identified from the DEM and derive contours (such as peaks and conical hills) would need to be verified once a detailed survey of the project area has taken place.
- The use of open-source satellite imagery was utilised for base maps in the report.
- Some of the mapping in this document was created using Bing Maps, Open-Source Map, ArcGIS Online and Google Earth Satellite imagery.
- The project deliverables, including electronic copies of reports, maps, data, shape files and photographs are based on the author's professional knowledge, as well as available information.
- VRM Africa reserves the right to modify aspects of the project deliverables if and when new/additional information may become available from research or further work in the applicable field of practice or pertaining to this study.
- As access to farms and private property is often limited due to security reasons, limiting access to private property in order that photographs from specific locations are taken. 3D modelling is used to reflect the expected landscape change area where applicable.
- Mapping makes use of the SANBI BGIS webmap (SANBI, 2018)
- The slopes analysis is approximate and is subject to detailed survey and detailed slopes analysis.
- As detailed 3D models were not provided, 3D block models were used to depict the structural development change at key focus point areas. The blocks are scaled, but as they do not depict a realistic interpretation of the landscape change, they depict a worst-case scenario and should be viewed as an approximation.

4 PROJECT DESCRIPTION

The following project information was provided by the client that will be incorporated into the assessment and proposed infrastructure relating to the project. The following table outlines the scope of the project, with reference to the extent, heights, and expected landscape change depiction as provided by the proponent/ architects involved in the project design and development.

Table 7: Project Information table

PROPONENT SPECIFICATIONS	
Applicant Details	Description
Applicant Name:	Cape Estate (Pty) Ltd
Project Name:	Oumeulen Estate

	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type
1	George	25538	0	33°59'14.89S	22°31'2.4E	Erven
2	George	25541	0	33°59'6.29S	22°30'51.25E	Erven
3	Kraaibosch	195	0	33°59'25.54S	22°30'37.33E	Farm

Table 8: Project Information table

DEVELOPMENT DETAILS			
OUMEULEN VILLAGE			
	Area	Units	GLA
Phase A1	6,6520 ha		
Main entrance / Gatehouse			
Full title erven		70	-
Phase A2	1,5228 ha		
Apartments		90	-
Phase A3	4,0262 ha		
Full title erven		54	-
Phase A4	2,2029 ha		
Full title erven		27	-
Phase A5	7,8895 ha		
Apartments		205	-
Phase A6	2,4605 ha		
Restaurant, Clubhouse, Deli, Gym		-	2 500 m ²
Phase A7	2,5095 ha		
Apartments (School teachers)		40	-
Nursery School		-	1 000 m ²
Phase A8	1,5754 ha		
Undetermined / Subdivisional Area		-	-
		486 units	3 500 m ²

The following images of the proposed development were provided by the architect (Nuvorm).



Figure 5: 3D model example of the proposed development as seen from the N2 Highway at the location just north of the traffic circle travelling northbound (**not all buildings are depicted in the 3D model**).

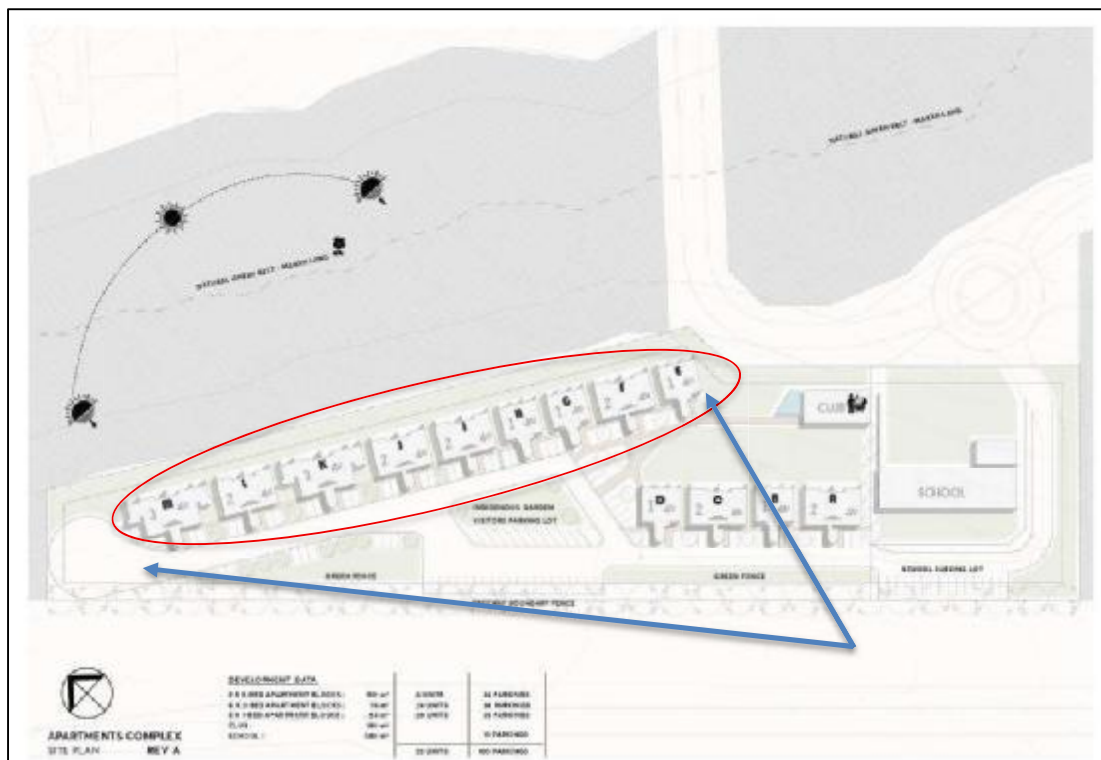


Figure 6: Corresponding plan of the area proposed for development adjacent the N2 Highway with the building in the above 3D model outlined.



Figure 7: Concept 3D modelling of the proposed Teachers Units.

ARCHITECTURAL RESPONSE
CONTEMPORARY REGIONALISMARCHITECTURAL RESPONSE
CONTEMPORARY REGIONALISM

A thoughtful approach to the design of the structure within the development could lie in blending the regional Cape architectural vernacular with the robust, functional language of the site's former sawmill and industrial heritage. Traditional Cape elements—such as simple gabled roof forms, whitewashed or earthy-plastered walls, and shaded stoep openings—can provide a familiar and timeless residential character. These can be subtly paired with forest industrial materials like exposed timber, corrugated sheeting, steel detailing, and large openings, drawing inspiration from the sawmill's utilitarian ethos. The result is a contemporary architectural style that balances warmth and heritage with raw, tactile authenticity—evoking the homes built in the cultural landscape of the Western Cape and the specific story of the site itself.









Figure 8: Proposed layout plan (Blue area Phase A8 Excluded from EIA/ LVIA process).



5 LEGAL FRAMEWORK

In order to comply with the Visual Resource Management requirements, it is necessary to relate the proposed landscape modification in terms of international best practice in understanding landscapes and landscape processes. The proposed project also needs to be evaluated in terms of 'policy fit'. This requires a review of International, National and Regional best practice, policy and planning for the area to ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the planned sense of place and character of the area.

5.1 International Good Practice

For international good practice in assessment of landscapes, the following documentation is relevant, specifically:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA), Second Edition.

5.1.1 Guidelines for Landscape and Visual Impact Assessment, Second Edition

The Landscape Institute and the Institute of Environmental Management and Assessment (United Kingdom) have compiled a book outlining best practice in landscape and visual impact assessment. This has become a key guideline for LVIA in the United Kingdom. "The principal aim of the guideline is to encourage high standards for the scope and context of landscape and visual impact assessments, based on the collegiate opinion and practice of the members of the Landscape Institute and the Institute of Environmental Management and Assessment. The guidelines also seek to establish certain principles and will help to achieve consistency, credibility and effectiveness in landscape and visual impact assessment, when carried out as part of an EIA" (The Landscape Institute, 2003);

In the introduction, the guideline states that 'Landscape encompasses the whole of our external environment, whether within village, towns, cities or in the countryside. The nature and pattern of buildings, streets, open spaces and trees – and their interrelationships within the built environment – are an equally important part of our landscape heritage" (The Landscape Institute, 2003: Pg. 9). The guideline identifies the following reasons why landscape is important in both urban and rural contexts, in that it is:

- An essential part of our natural resource base.
- A reservoir of archaeological and historical evidence.
- An environment for plants and animals (including humans).
- A resource that evokes sensual, cultural and spiritual responses and contributes to our urban and rural quality of life; and
- Valuable recreation resources. (The Landscape Institute, 2003).

In terms of international best practice for Landscape and Visual Impact Assessment, there is relevance to the site landscape that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the views to the east of the Garden Route that effectively depict the gateway to the more Wilderness related areas of the Garden Route. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained.

5.2 National and Regional Legislation and Policies

In order to comply with the Visual Resource Management requirements, it is necessary to clarify which National and Regional planning policies govern the proposed development area to ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the sense of place and character of the area.

- DFFE Garden Route Environmental Management Framework (EMF)
- DEA&DP Visual and Aesthetic Guidelines.
- Regional and Local Municipality Planning and Guidelines.

Table 9: List of key planning informants to the project

Theme	Requirements
Province	Western Cape
District Municipality	Garden Route
Local Municipality	George

5.2.1 Garden Route Environmental Management Framework (EMF)

The Garden Route EMF (Department of Forestry, Fisheries and the Environment, 2010) report was produced in conjunction with the Western Cape DEA&DP. The following extract from the report outlines the need for the report:

“This particular EMF has been developed as a direct response to a specific set of drivers and pressures. The National Lakes Area, commonly known and referred to as the Garden Route, is characterised as such due to its outstanding scenic quality and beauty. Similarly, the unique coastal lake systems, indigenous forests and rugged coastline comprise an extensive network of protected areas, South African National Parks and Provincial Natural Reserves, often interspersed by Urban Development” (Department of Forestry, Fisheries and the Environment, 2010, p. 6).

In Chapter 3.2. that identified Topographical Sensitive Areas the following landscapes are listed:

- The greater topography. Topography constituting the Garden Route, especially the landscape surrounding scenic routes, then into high tourism areas illustrating higher viewer incidence.
- The Outeniqua Mountains as backdrop to the Garden Route.
- The coastline of the Garden Route.
- The National Lakes Basin.
- Steep slopes, especially over steep slopes throughout the study area. Steep slopes on sandy dunes are extremely sensitive to structural risk as well as steep slopes overlaid by cover sands.
- Unique topographical features such as exposed rocky headlands along the coastline as well as ancient, petrified dunes (Department of Forestry, Fisheries and the Environment, 2010, p. 10).

In terms of areas with significant visual qualities that require protection, the following are listed:

- Areas of protection status, such as national parks or nature reserves.
- Areas with proclaimed heritage sites or scenic routes.

- Areas with intact woodiness qualities or pristine ecosystems.
- Areas with the recognise special character or sense of place.
- Areas with important vistas or scenic corridors. Areas with visually prominent Ridge lines or skylines (Department of Forestry, Fisheries and the Environment, 2010, p. 85).

As per the EMF, views from the N2 Highway, which is an important scenic corridor, have important vistas in relation to the Outeniqua Mountains as backdrop to the Garden Route. These vistas should be retained as open views to ensure that the N2 Highway sense of place, and the first view into the Garden Route landscapes, are retained as a destination experience.

5.2.2 DEA&DP Visual and Aesthetic Guidelines

Reference to the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) Guideline for involving visual and aesthetic specialists in Environmental Impact Assessment (EIA) processes is provided in terms of southern African best practice in Visual Impact Assessment. The report compiled by Oberholzer states that the Best Practicable Environmental Option (BPEO) should address the following:

- Ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the sense of place and character of the area. The BPEO must also ensure that development must be located to prevent structures from being a visual intrusion (i.e., to retain open views and vistas).
- Long term protection of important scenic resources and heritage sites.
- Minimisation of visual intrusion in scenic areas.
- Retention of wilderness or special areas intact as far as possible.
- Responsiveness to the area's uniqueness, or sense of place." (Oberholzer, 2005)

As highlighted in the international best practices for landscape assessment, the views to the eastern Garden Route landscapes are a significant feature of the site. As seen from the N2 Highway, these views would be considered an important scenic and heritage resource, that would require the retention of the wilderness or special area to ensure that the area's unique sense of place is retained to some extent. Views as seen from the N2 Highway that currently allow for uninhibited views to the eastern Outeniqua Mountains should be remain open and un-cluttered.

5.2.3 Conservation Planning

As can be seen in Figure 10 on the following page, the Blydskap and George Private Nature Reserves are located approx. 1km to the south of the study areas. However, these areas do not fall within the project zone of visual influence. The Garden Route National Park is located 2km to the northeast of the site, but also mainly outside of the project viewshed and views of the proposed development would be viewed against an existing urban development landscape context. **Risk to conservation management is thus rated Low.**

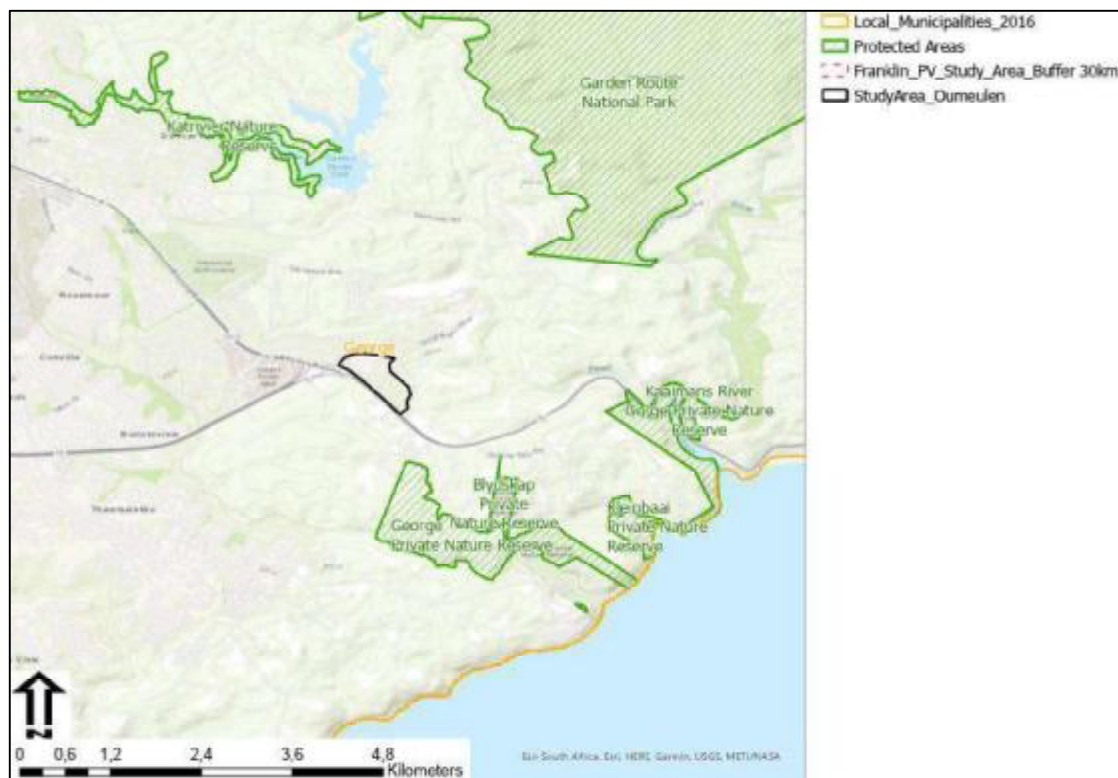


Figure 10: Proclaimed Conservation Areas map.

5.2.4 Local and Regional Planning

The following tables list key regional and local planning that has relevance to the project pertaining to landscape-based tourism, and residential/retail projects. In terms of the planning mapping, the proposed development does fall within the George Municipality Urban Edge where residential development is supported. The area adjacent to the N2 Highway falls within the tourist precincts planning zone as well as significant gateways from George to the east into the Garden Route 'wilderness' areas, as well as the gateway into George from the east. The maps of the following page depict the George SDF planning as well as the overlay of the tourist precinct onto the satellite imagery.

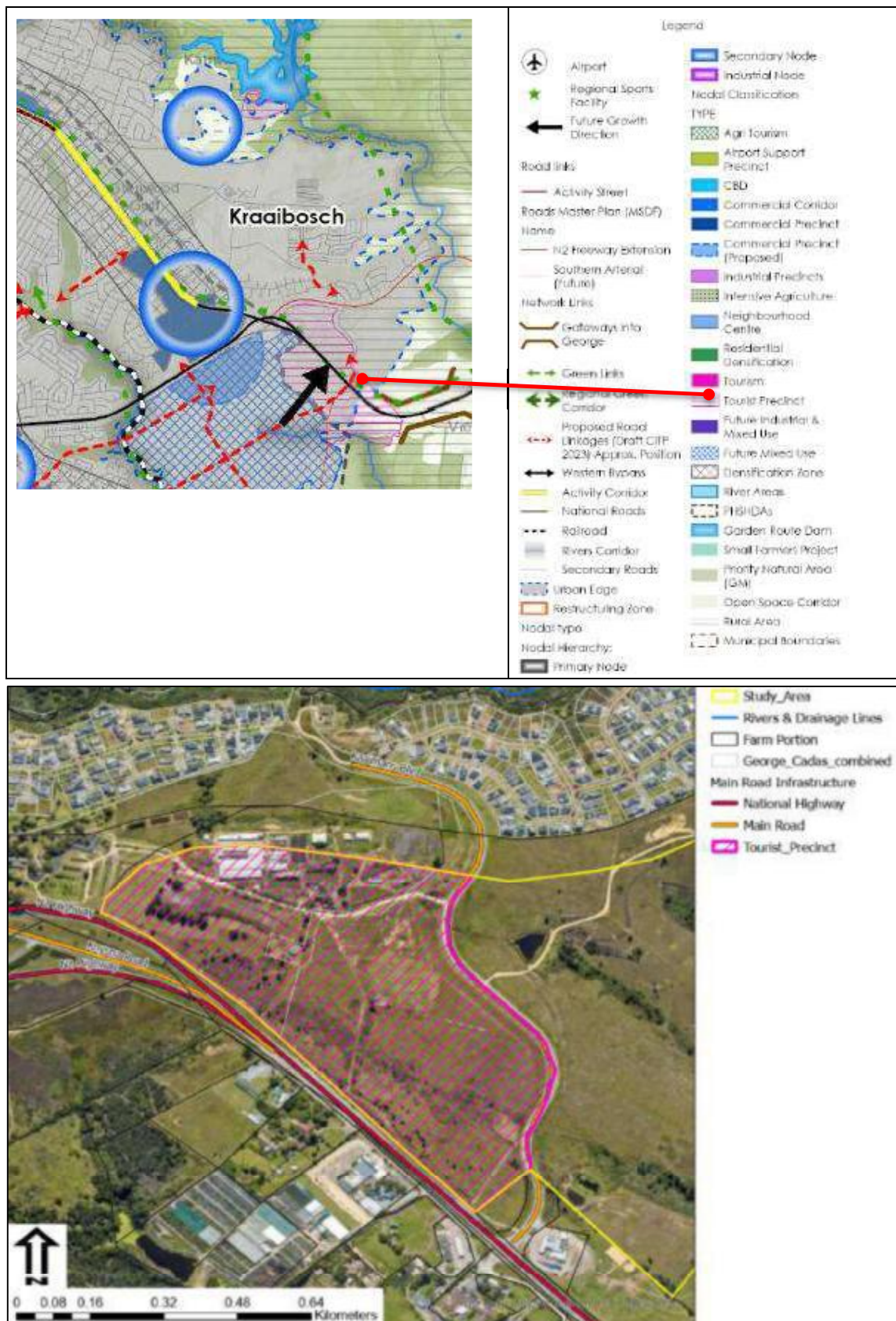


Figure 11: Tourist precinct zone overlay onto satellite images extracted from Map 24: George City Area: Nodal Areas and Precincts (Page 69).

5.2.5 Heritage Planning

As previously indicated in the international best practice section as outlined by the Landscape Institute, there is landscape relevance to the site in that it evokes a sensual and cultural response to the urban and rural quality of life related to the old Urbans Sawmill and associated plantations within the broader Garden Route landscape context. Also of value are the arboreal landscapes created by the remnants of the pine trees, and other climax trees that reflect the forestry land use heritage around the old Urban sawmill. This theme is highlighted by De Kock in the 2012 Heritage Report undertaken for Magnolia Ridge Properties 77 (Pty) Ltd. De Kock states that “historically, the sawmill complex was entirely surrounded by pine plantations which effectively screened the site from view, the only remaining screening in place is two rows of linear-planted pine trees (L-shape) directly south and west of the building precinct. These trees enhance the overall visual prominence of the site while framing the views of the building precinct. Therefore, in light of the overall forestry theme inherent to the complex, it is recommended that planting of pine trees along this corridor be encouraged” (De Kock, 2012, p. 19). The sawmill is also highlighted as a heritage resource by De Kock, stating that “from a historical perspective, Buildings 18 and 19 are considered to be of the highest cultural significance by reason of its former functionality and resultant association with forestry as important local historic theme, we need to highlight the importance of considering the wider spatial qualities and identity of the building precinct as a whole” (De Kock, 2012).

The property is also visually associated with significant vistas from the N2 Highway in both east and westbound directions. While the property does not specifically fall within one of the defined ‘gateways’ of the George SDF, the property does fall within vistas from the N2 towards the east that are effectively the initial view of the main wilderness section of the Garden Route. This specifically pertains to the eastern vistas of the Garden Route areas that effectively depict the ‘de facto’ gateway to the more wilderness related areas of the Garden Route. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained. Given the heritage relevance of the property, the following development criteria would need to be clearly depicted in the SDP:

- Heritage structures retained in the old Urbans Sawmill as specified in the De Kock heritage report (De Kock, 2012). The recent HIA assessment undertaken by CTS Heritage found that the structures were now in serious decay and as they pose a health and safety risk, with recommendation that they should be removed.
- Retain key pine trees windrows (or slowly replace with Yellowwood trees) as per the De Kock heritage report, ensuring that an urban-arboreal landscape concept is retained to reflect the old Urbans Sawmill and forestry heritage. As the trees are alien invasive species and prone to wind-fall in isolation of a plantation, the recommendation is that the trees be felled. The design of the new layout allows for tree rows between the erven which, in conjunction with the street trees (mitigation requirement), would effectively reflect the old Urban Mill plantation sense of place in the medium to long-term. This would need to be a key component of the general mitigation and landscaping.
- Plan for a medium-density settlement pattern within an 8m height restriction to allow for an urban-forest landscape to be the resulting landscape sense of place and ensure that the heritage vistas along the N2 Highway and Urbans Boulevard are

retained as open and un-cluttered with views over structures. The following map depicts the significant landscape heritage views to the east from the N2 Highway.

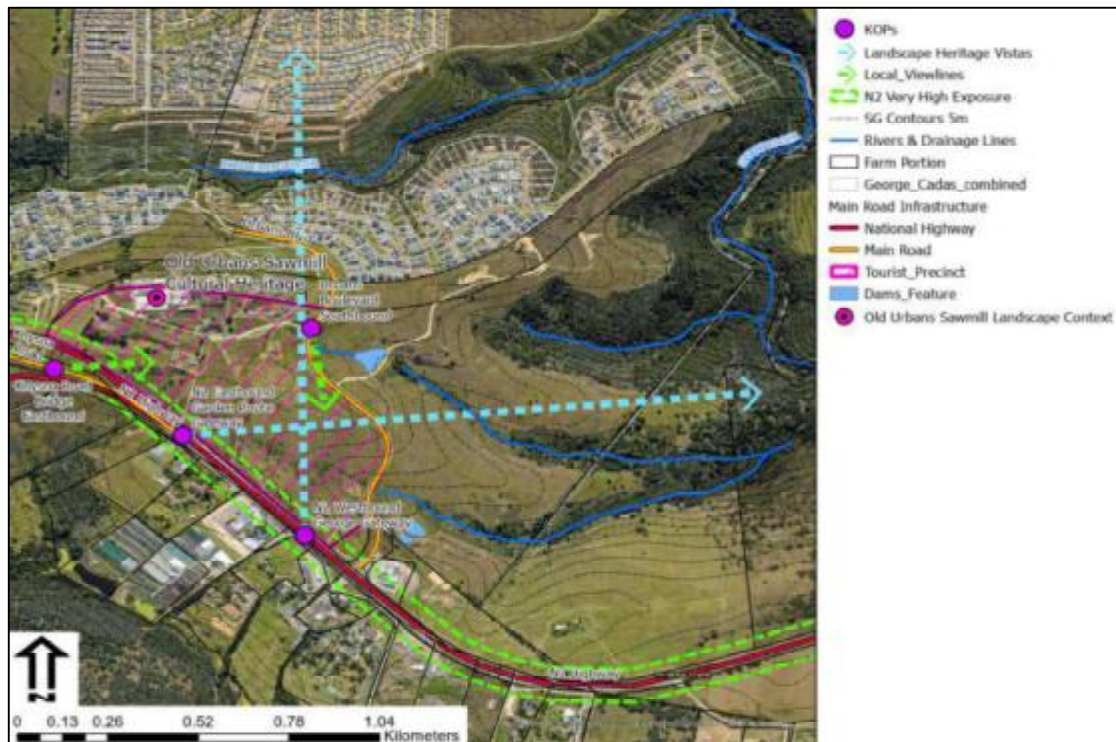


Figure 12: Key landscape planning context map.

5.2.6 District Municipality Landscape Planning

The following table depicts extracts from the Garden Route District Municipality Spatial Development Framework.

Table 10: District Planning reference table relevant to the project

Garden Route District Municipality SDF (Previously Eden DM) (Garden Route District Municipality, 2017)		
Theme	Requirements	Page
Tourism	Garden Route District Municipality defined mandate: Promotion of local tourism for the area of the district municipality	21
	The Southern Cape region is identified as being a provincial leisure and tourism coastal belt and priority urban functional region.	25
	The District is also known for its indigenous forests and plantations, attractive water bodies and coastline. In combination with the District's natural beauty, biodiversity and mild climate, it attracts visitors throughout the year. Eden District is the only District in the Western Cape that represents all of the Western Cape's cultural and scenic landscape types.	106
Urban Edge Planning	Urban edges should be determined within the context of the urban and rural environment. Urban edges aid in establishing where	

	development should not occur to protect and conserve significant environmental and agricultural resources. The management of urban edges should be carried out by local authorities and ensure the reduction of urban sprawl.	
Economy and Environment	In line with WC DEA&DP guidelines for rural land use development, new investment in rural areas should not have significant impact on biodiversity; • Be inconsistent with cultural and scenic landscapes within which it is situated; • Infringe on the authenticity of the rural landscape and heritage assets.	110

5.2.7 Local Municipality Landscape Planning

The following table depicts extracts from the George Local Municipality Spatial Development Framework.

Table 11: Local Planning reference table relevant to the project

George Municipality SDF (George Municipality, 2023)		
Theme	Requirements	Page
SDF Planning	The space economy is concentrated in a triangle of opportunity comprising of the existing CBD Business node, the Kraaibosch / Blue Mountain Commercial Node, and the Pacaltsdorp Industrial Node (See Map 12).	43
	• There has been a significant uptake of opportunities in estate/security type development, catering for urban based, affluent residents in developments such as Welgelegen, Kraaibosch, Kingswood, Blue Mountain, etc	44
	• There is a significant increase (2016-2021) in population (households) in specific urban areas such as Thembaletu, Kraaibosch, Pacaltsdorp, and Ballotsview functional areas, although residential growth (densification/uptake) is noticeable in all functional areas. • The Kaaimans Road extension to Glenwood Road and Glenwood Road re-instatement form part of the existing road network planning. The Draft CIP notes the importance of the link between Kraaibosch development area and the Kraaibosch south (Welgelegen) area, Urbans Boulevard extension.	47
	B8: PG a: Encouraging integrated development (spatial integration -shared uses/access) with mixed typologies and densities in private/public development • Identified mixed use sites include Garden Route Dam mixed use area, Kraaibosch South extension area (nodal portion).	118

	Medium – Long Term Urban Growth Area (5 – 20 years): - Given the rapid uptake of bonded housing opportunities (private development) and the support of healthy property markets (supporting upward mobility opportunities) continuous urban growth is anticipated (based on motivation as per the George Urban Growth Proposal Framework and due process), in the longer term, in the following directions: - Growth area between the Kraaibosch Node-south area and Welgelegen.	173
Environmental Threats	The non-urban areas of George are under continual threat of development and degradation, albeit in a small, incremental manner. Clear distinction is to be made between various categories of land outside of the urban edges. Whether these properties are legally referred to as farm portions (i.e., the legal registration category) or erven and whether these properties are zoned for agriculture, open space or other appropriate purpose reconcilable with the rural landscape. The positions of the property within the context of the urban areas, natural areas, conservation areas and arable areas should guide the permitted land use, within the allocated zoning.	32
Economic Development	- Eastern Commercial Node Sub-regional mixed-use node, focused presently on the commercial potential of the N2, but also containing a mix of residential and work opportunities, comprising the Garden Route Mall, the Eden Meander, surrounding zoned business and commercial zoned land adjacent to the N2. In time this node will include the future development of the ‘Kraaibosch South Extension” site. (South and west of the N2) - Economic precincts do not necessarily constitute urban areas. Residential development and neighbourhood orientated land use are not supported in precincts and nodes situated in peripheral economic precincts. Precincts proposed are noted in Map 24.	70
Gateways	Scenic routes provide public access to the enjoyment of these landscapes. The routes and the land use alongside these routes should be managed in such a way as to not compromise the views offered but to mark and celebrate the landscapes and the origins or nature of their significance.	59
Green Gateways	Green gateways are strategic access points that must provide public access to the green system/network, including coastal access points, access to tourist precincts and protected areas.	86

Scenic Routes	• Scenic routes refer to routes that provide vistas over scenic landscapes and the experience of a sense of place. All main roads (highways and main arterials are considered scenic routes to a degree, but the main scenic routes are noted in Par 4.3.1.1). • Land use management for scenic routes should be aimed at retaining the sense of place and important vistas from these routes. The focus is thus largely on managing development adjacent to these routes.	87
N2 Eastern Approach	If travelling along the Garden Route from Cape Town this is the first encounter with the dense indigenous forest characteristic of the Garden Route and, along with the commercial forestry plantations, an important part of the cultural history of the area. The eastern approach to the George City Area along the N2, the airport road (R102) and the R404 traverses a rural landscape with views of the mountain range. This landscape is a strong part of the identity of George and connects to a rural tourism sector that is central to George's identity and has much potential.	59
Tourism Precinct	• Areas identified to contain a combination of tourist related facilities and accommodation. • Not a retail node but may include tourism related small shops (convenience), restaurants, sport-and recreation-and services- conditions to be included in land use application. • Mitigation of environmental issues and impacts of climate change to be addressed during development process. • Visual impact to be to be mitigated in areas of scenic value and along landscapes. • Public access to be protected in all instances. • Applicable heritage and cultural resources to be protected and incorporated.	85
Visual Impact	• In addition to support of the ecological functioning of the natural systems, the visual impact of development on George's natural assets/heritage in both urban and rural areas, must be managed. • The treatment of Gateways (Par. 4.3.1.1) to George, where transitioning from rural to urban areas occurs, imply a "green gateway" transition when moving from urban areas into the rural area. • All rural development must be congruent to the rural (natural or agricultural) character of the surrounding area. I.e., the visual impact of development at gateways to be managed to show transition from urban to rural and to re-enforce the "Garden City" character of a marketable, 'liveable' George, situated at the heart of the Garden Route.	61

	Gateways to urban development nodes and tourism precincts must be managed at a street level, urban design level and via managing the graded intensity of use.	
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5.3 Landscape Planning Policy Fit

Policy fit refers to the degree to which the proposed landscape modifications align with International, National, Provincial and Local planning and policy. In terms of regional and local planning fit for planned landscape and visual related themes, the preliminary appraisal of visual/ landscape policy fit of the landscape change is rated Medium to High Positive.

Of importance to international best practice for Landscape and Visual Impact Assessment as outlined by the Landscape Institute (IEMA, 2002), there is landscape relevance to the site that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the transition from the built landscapes of the George town, into the undulating, rural landscape that characterise the wilderness area of the Garden Route. This is supported in the Garden Route Environmental Management Framework, the views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained. Of relevance to gateway planning that is not specifically included in the GM SDF, is that the proposed development site is included in the initial vistas of the eastern Garden Route as seen from the N2 Highway travelling eastbound. From the elevated vantage point of the highway, there is an open view to the east that does have significance and should be retained.

Further queries on the planning pertain to the Tourist Precinct planning specified in the George Municipality SDF in relation to public access to the area to be protected at all times, and with the area to contain a combination of tourist and accommodation. Other than the Undetermined Areas (no details provided), there appears to be little alignment with the Tourist Precinct planning, with almost all of the 'tourist area' gated and residential. The following bullets from the George Municipality SDF should be incorporated in the layout.

- "Areas identified to contain a combination of tourist related facilities and accommodation.
- Not a retail node but may include tourism related small shops (convenience), restaurants, sport-and recreation- and services- conditions to be included in land use application.
- Public access to be protected in all instances" (George Municipality, 2023, p. 85).

While this is flagged as a possible non alignment, this would need to be addressed in the required planning for the proposed development. As Tourist Precincts do require visual impact assessment as per the GM SDF, this is raised as an issue that does require further evaluation/ input from the EIA process by George Municipality/ preliminary comments from the relevant authority.

6 BASELINE VISUAL INVENTORY

6.1 Local Landscape Context

Landscape character is defined by the U.K. Institute of Environmental Management and Assessment (IEMA) as the 'distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement'. It creates the specific sense of place or essential character and 'spirit of the place' (IEMA, 2002). This section of the VIA identified the main landscape features that define the landscape character.

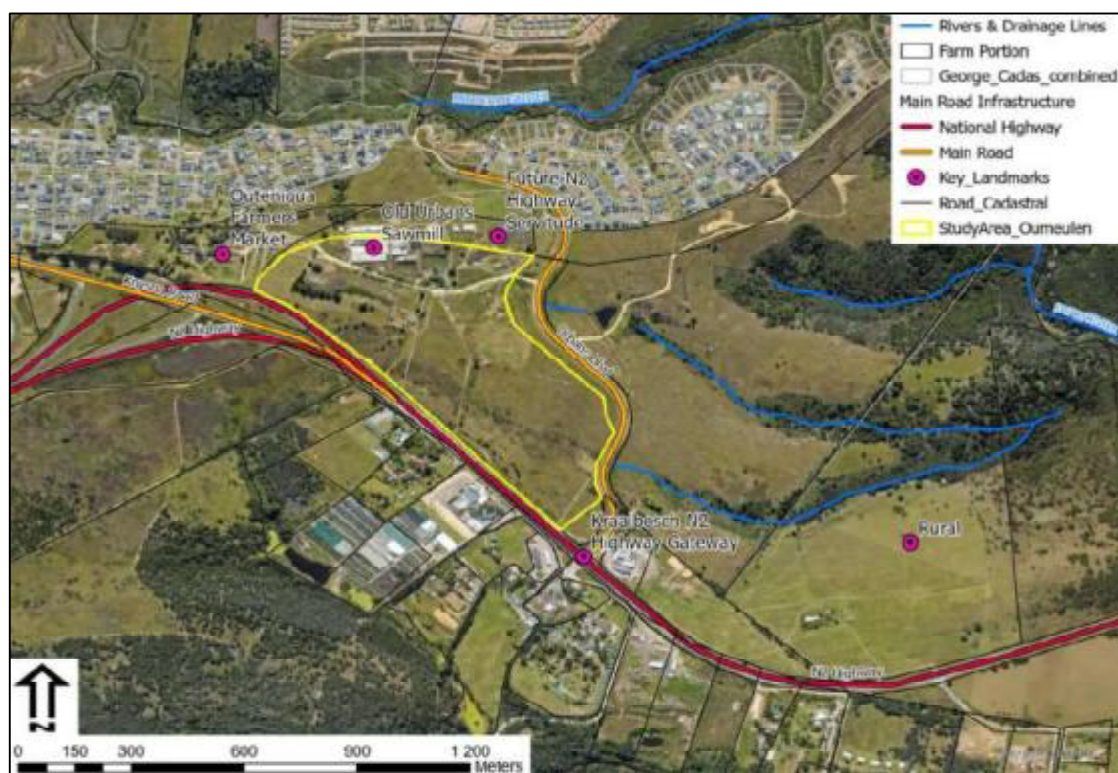


Figure 13. Local landscape themes map.

As mapped on the previous page, the key landscape themes within the Foreground / Middle Ground (6km) distance are tabled below:

Table 12: Key Landscape Themes

Theme	Description
Kraaibosch/ N2 Highway Gateway	The Kraaibosch / N2 Highway comprises two garage complexes that cater for N2 Highway traffic and tourism, as well as a number of other activities. The N2 Highway is currently being upgraded and the previous traffic circle intersection with Urbans Boulevard upgraded. This area creates two important gateways with access to the town of George for westbound travellers, and the gateway to the main Garden Route landscape for eastbound

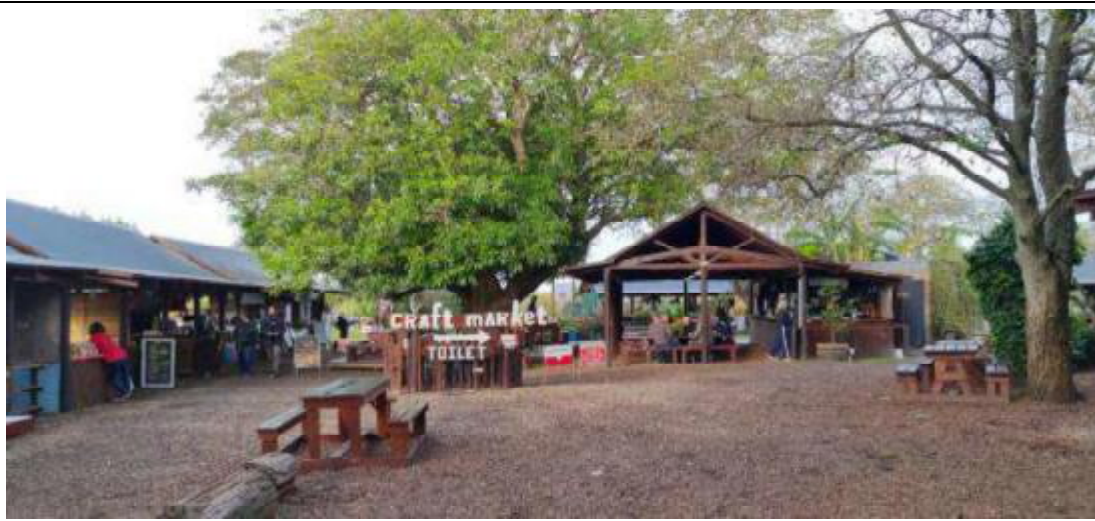
	travellers. Both these gateways are highlighted in the George Local Municipality SDF as important landscape features that need to be taken into consideration in future planning.
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Old Urbans Sawmill	The northern portion of the site comprises the old Urban sawmill, now decommissioned. The old buildings are degraded and would need to be taken down. While the old structure is well screened from most of the key observation points, the landscape heritage of the previous forestry areas that were located around the mill is still within living memory of the older residents of the town, with the remaining pine trees adding to this landscape context. While the pine trees will need to be removed, a similar sense of place can be created with the planting of indigenous trees that have a similar form and texture. As the old mill no longer has structure integrity, the heritage recommendation has been to remove the structures.
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Future N2 Highway Servitude	Located to the north of the property is the proposed future N2 Highway routing and servitude. The area must be retained as vacant or temporary land uses as there are indications that this section of the N2 Highway will be built to exclude the Kaaimans Pass and lower lying sections along the Wilderness coast. Taking this into consideration, higher density developments have been authorized adjacent to the road reserve.
	
Outeniqua Farmers Market	The Outeniqua Farmers Market is located to the northwest of the property and has become an important local destination for George residents and tourists. The market is located within the N2 Highway servitude and as such is a temporary structure. Access to the market is via the property and a new temporary access is proposed to the north of the property along the N2 Highway servitude. This concept works well and aligns positively with the tourist precinct planning proposed for the portions of the property along the N2 Highway. However, should the N2 be built, this attraction would be lost.



Eastern rural/ peri-urban

The areas to the east of the site are located outside of the urban edge and are essentially rural in landscape. The areas to the south of the N2 Highway have become subdivided and are now peri-urban in context, with many of these properties catering for N2 Highway base tourism. While these areas do cater for tourism, they lack clear tourism planning alignment and appear to have a tendency to landscape fragmentation. With the new proposed tourist precincts, this 'cluttering' of the landscape should be avoided. The more rural landscapes that form the foreground to the background views of the Garden Route vistas should be retained.



Lack of tree-scape planning limitation

A key component of retaining / making a George Garden City landscape, is the re-incorporation of street trees into the urban landscape. Much of George suburban areas depict urban forest of indigenous trees that are now heritage trees significantly adding to the value of these spaces, providing passive carbon sequestration as well as assisting to reduce urban heat island effects. However, these are lower density areas and there is a clear planning imperative for higher density urban landscapes. As a result, there has been a recent trend for higher density development such as Groenkloof, which do meet this higher

	density objective but with no effective planting of trees due to limited street tree planning and reduced garden space for planting of shade trees by the homeowners. Increasingly, these types of developments create hard urban landscapes and appear as urban sprawl.
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N2 and Urbans Boulevard Scenic View Corridors	Both the N2 Highway and the Urbans Boulevard provide open views of the eastern Garden Route areas that are a key component of this areas sense of place. Recognising that the development is within the Urban Edge, significant vistas from these routes would need to be left open.
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6.2 Visual Absorption Capacity

Land use and vegetation are a crucial factor in determining landscape character, especially regarding the Visual Absorption Capacity (VAC) of the landscapes. Oberholzer defines VAC as the potential of the landscape to conceal the proposed project (Oberholzer, 2005). i.e.

- High VAC – e.g., effective screening by vegetation and structures.
- Moderate VAC - e.g., partial screening by vegetation and structures.
- Low VAC - e.g., little screening by vegetation or structures.

Vegetation type is a large factor in determining the scenic quality or the site in terms of colour and texture, as well as influencing the local ability of the landscape to absorb the landscape

change if larger trees species or prolific vegetation is located on the site or within the local region. The map below outlines the vegetation type based on BGIS mapping (South African National Biodiversity Institute, 2018).

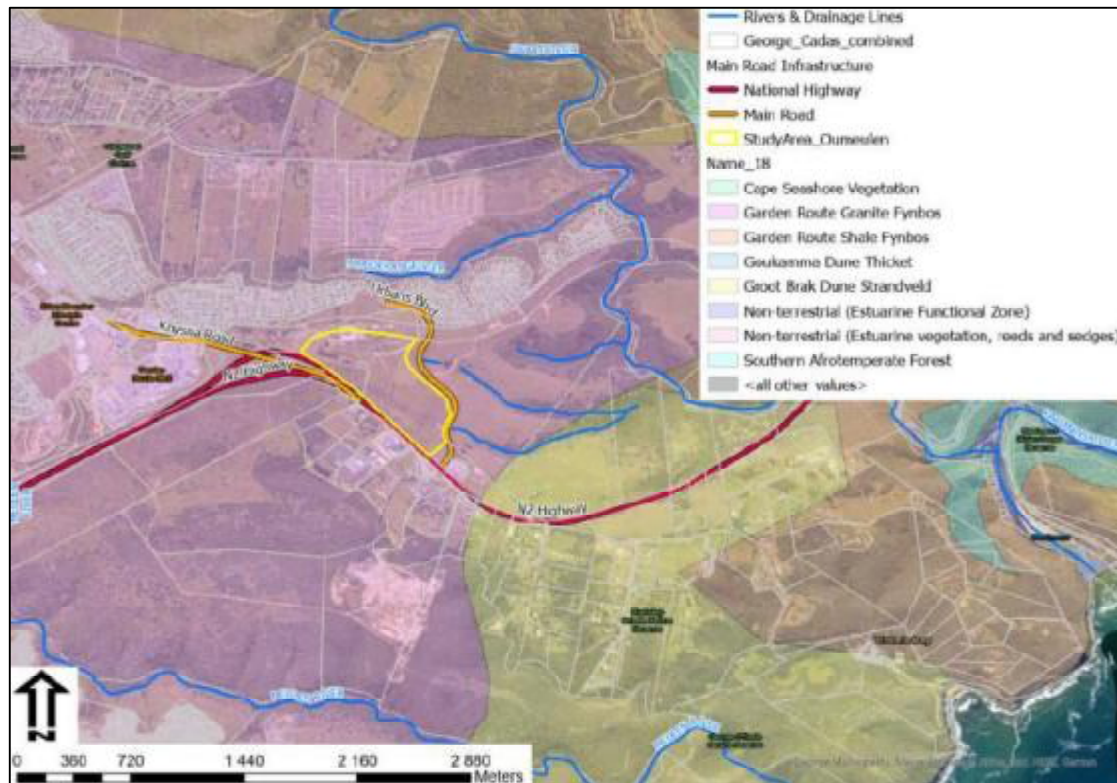


Figure 14. BGIS Biome and Vegetation Type Map (South African National Biodiversity Institute, 2018)

According to the South African National Biodiversity Institute (SANBI) 2012 Vegetation Map of South Africa, Lesotho and Swaziland (South African National Biodiversity Institute, 2012) the project area is located in the **Fynbos Biome with the main vegetation types being Garden Route Granite Fynbos**. As depicted in the photograph below, the previous forestry and agricultural land uses have effectively transformed most of the vegetation on the site, with a few exceptions in the shallow drainage lines to the west. The majority of the site vegetation is veld grasses, with a few small patches of fynbos vegetation. Most of the more prominent drainage lines draining into the eastern Swart River, depict Black Wattle alien plant infestations that detracts from the Garden Route landscape context.

Of interest from a heritage perspective, as a result of the previous forestry land uses, is that there are many pine trees located along the N2 Highway that do add to the cultural landscape sense of place related to the old Urbans Sawmill. As mentioned in the landscape context section, while these alien trees would need to be felled, a similar landscape context can be replicated with the planting of Yellowwood trees that depict a similar form and texture. These trees are also a significant alien invasive species, and as they are prone to wind fall which places residential structures at risk, they should be felled.



Figure 15. Typical veld grasslands vegetation of the site with Black Wattle infestation in the eastern drainage lines.



Figure 16. Remaining pine trees relevant to the old Urbans Sawmill landscape context (N2 Highway in the foreground) that are a key component of the cultural heritage that would be felled.

The Visual Absorption Capability (VAC) for most of the proposed development site is rated as Low, due to limited tree vegetation and the absence of significant man-made modifications. However, the northwest section, which includes the old Urban mill structures and associated trees, has higher VAC levels. The local area VAC level is rated as Medium because of the existing developments around the Kraaibosch/N2 Highway and the old urban structures. In summary, the overall VAC is rated as Medium, indicating that residential development would be visible but generally integrated within the existing urban and peri-urban landscape context.

6.3 Landscape Topography

Landform is a key variable informing the aesthetic nature of the landscape within the VRM methodology. The viewshed is strongly associated with the regional topography where topographic screening from undulating terrain would restrict views of the proposed landscape change. The site-specific characteristics are also analysed by gradient analysis to determine if any steep slopes are located on the proposed development site.

6.3.1 Regional Landscape Topography

Making use of the NASA STRM digital elevation model, profile lines were generated for the area within 12km on either side of the project area predominantly in the North to South and East to West compass point reference. The map depicting the regional elevation profile lines can be viewed on the following page.

The general topography of the region is defined as undulating, due to the numerous river systems that drain the coastal plateau located between the northern Outeniqua Mountains the southern Indian Ocean coastline. The two river systems strongly influencing the undulating topography that typify the 'Garden Route' are the Kaaimans River and Swart River. Other than the undulating terrain, no dominating local landforms are apparent. A key component of the vistas adding value to the site are the views of the undulating landscapes with the Outeniqua Mountains in the background. These vistas are currently available from the N2 Highway adjacent to the property and afford views to the east, overlooking the property with iconic "Garden Route' views. The generally undulating terrain of the Garden Route topography is clearly visible in the North to South Profile, and clearly visible in the East to West profile, where the more pronounced undulations east of the property are more apparent.

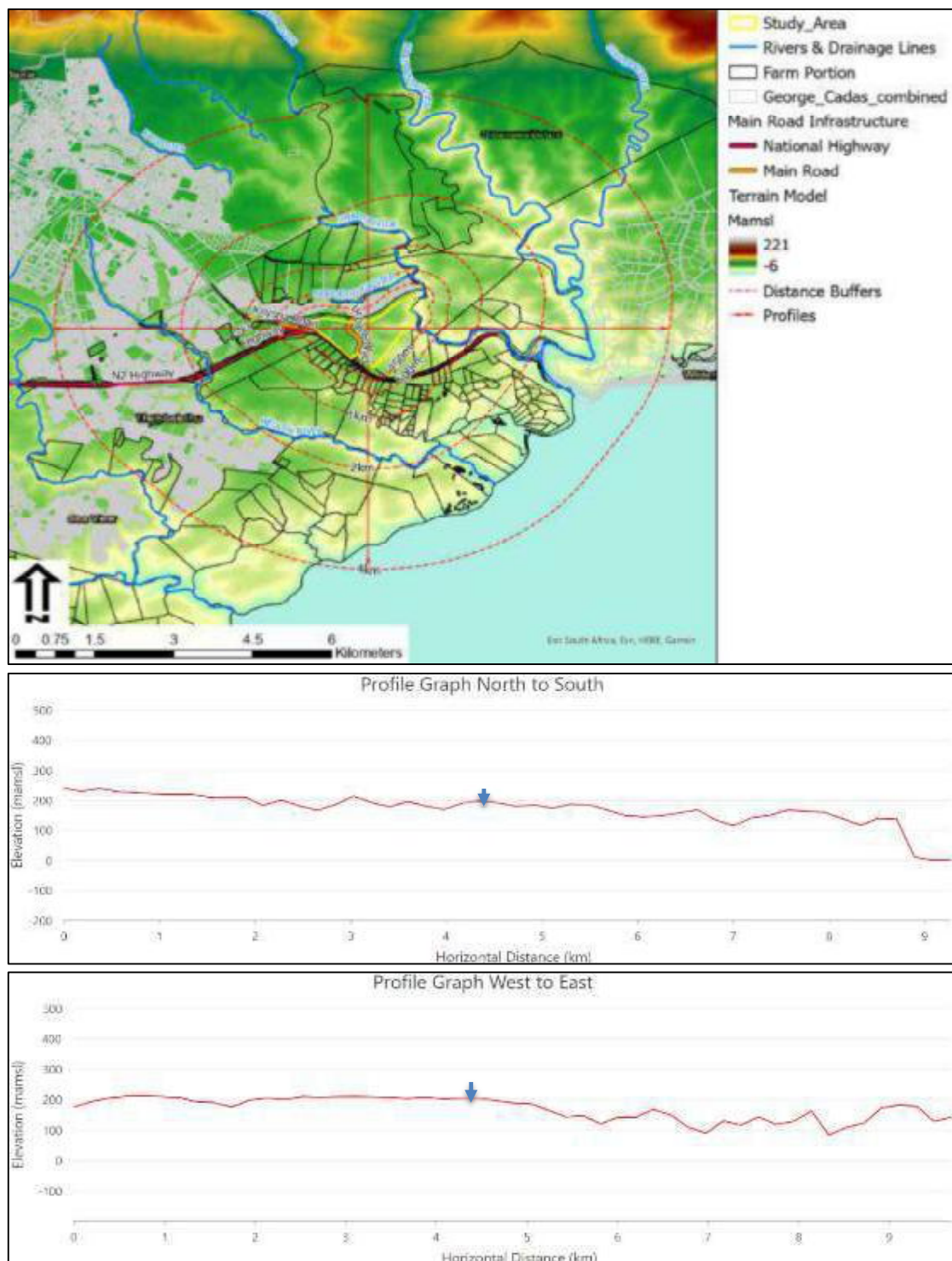


Figure 17: Regional Digital Elevation Mapping and Profiles Graphs with centrelines depicted.

6.3.2 Key local topographic features and site slopes analysis

To ensure that significant landforms related to steep slopes are not located on the site or surrounds, a slopes analysis was undertaken. As mapped below, the site does depict steep slopes to the east, as well as a number of pronounced drainage lines as well as a wetland area to the southwest. There is also a relatively prominent ridgeline that is likely to result in

skyline intrusion as seen from portions of the Urbans Boulevard, as well from the N2 Highway. Development in this location that is not single storey increases the potential for skyline intrusion. However, this area does fall within the urban edge where this type of development would be suitable. However, some mitigation could be created by a slight reduction in the height as well as enhancing the growth of the existing scattered trees in the foreground.



Figure 18: Skyline intrusion area as seen from Urban Boulevard.

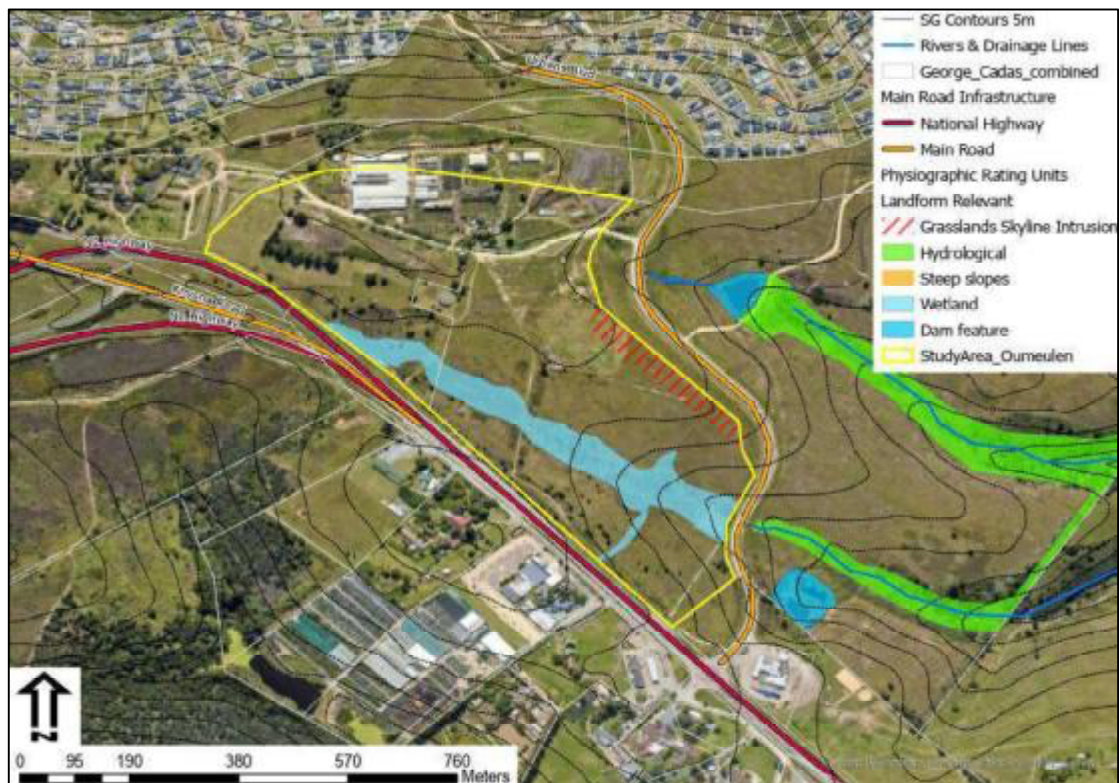


Figure 19: Key topographic features map.

The wetland area would have to be excluded for hydrological integrity proposes, with a minimum of a 32m buffer on all drainage lines. Also of topographic relevance is the moderately prominent ridgeline that runs from the high point areas of the west of the property, to the lower lying areas to the east of the property. While this ridgeline is not overtly prominent, skyline intrusion is likely to take place as seen from the lower lying Urbans

Boulevard. While this area does fall within the urban edge and would not be precluded from development, care should be taken to not create strong levels of skyline visual intrusion as seen from this route that does have higher levels of scenic quality. **Landscape mitigation with the planting of screening trees to effect partial screening of the proposed dwellings should be a requirement.**

6.4 Project Zone of Visual Influence

The visible extent, or viewshed, is “the outer boundary defining a view catchment area, usually along crests and ridgelines” (Oberholzer, 2005). In order to define the extent of the possible influence of the proposed landscape change, a viewshed analysis was undertaken from the proposed site at a specified height above ground level. This is to assess the **theoretical extent** where the proposed landscape change could be visible from. This theoretical viewshed excludes vegetation, structural development as well as distance from the location where atmospheric influence would reduce visual clarity over increasing distance. The viewshed analysis makes use of open-source NASA ASTER Digital Elevation Model data (NASA, 2009).

Based on the theoretical viewshed and the site visit appraisal of the nature of the landscape, an assessment of the **Zone of Visual Influence (ZVI)** is made. The ZVI is the area where the proposed landscape change is most likely to be noticed by the casual observer, taking the site visit into account where vegetation, existing development and distance is taken into consideration. This is a subjective appraisal but informed by the viewshed and the other factors mentioned.

A viewshed analysis was undertaken for the site making use of an Offset value representing the height of the proposed development as reflected in the table below. The model extent of the viewshed analysis was restricted to a defined distance from the site that represents the expected zone of visual influence (ZVI) of the proposed activities. This takes the scale, and size of the proposed projects into consideration in relation to the natural visual absorption capacity of the receiving environment. The maps are informative only as visibility tends to diminish exponentially with distance, which is well recognised in visual analysis literature (Hull & Bishop, 1988).

Table 13: Proposed Project Heights table

Proposed Activity	Height (m)	Model Extent	Motivation
Structures	8m	12km	Undulating terrain and urban/ peri-urban landscape context is likely to reduce the extent of the zone of visual influence to some degree where it is unlikely that the proposed landscape change would be visible beyond the 12km distance.

The viewshed is mapped and can be viewed in Figure 20 on the following page. This depicts the theoretical area where the proposed landscape change could be visible. The theoretical viewshed is defined as Wide-area as the proposed landscape change has the potential to extend beyond the 6km Foreground/ Mid Ground distance area up to the 12km distance zone

in the eastern areas. To better understand which portion of the proposed development areas will be more visible, a frequency thematic display was generated. The darker brown portions of the theoretical viewshed depict where more of the 100 points will be visible. The lighter colours depict where less of the points will be visible. The lighter colours of the viewshed are more to the west of the site, with only 19 points visible from these urban areas. The areas to the north would have limited views of the proposed development. The areas depicting more intensity views (more points visible) are located to the south in the Kraaibosch region, the west facing, upper portions of rural lands to the east of the Swart River, and then the small holding areas of the upper Wilderness Heights areas. The key characteristic of the theoretical viewshed is the fragmentation of visibility potential, with much of the lower lying, undulating terrain of the Swart and Kaaimans Rivers depicting no visual potential.

The extent of the Zone of Visual Influence is defined as Wide Area and most likely to be contained within the foreground/ mid-ground distance zone for the following reasons:

- The strongly undulating terrain of the Meulen River to the west, and the Swart and Kaaimans Rivers to the east.
- The high ground to the south limiting views beyond 1km.
- High ground and higher VAC levels to the north and west where the built nature of the urban landscape is likely to contain views of the landscape change.

The Zone of Visual Influence is thus rated Moderate but with Very High Visual Exposure for receptors. The following receptors were located within the expected ZVI with expected Visual Exposure to the proposed landscape change:

- N2 Highway east and westbound (Very High Exposure).
- Urban Boulevard (Very High Exposure).
- Knysna Road (Very High Exposure).
- Outeniqua Farmers Market (Very High Exposure).
- Kraaibosch proximate developments (Very High Exposure).
- Southern portions of the Welgelegen Estate (Very High Exposure).
- South facing portions of Groenkloof Retirement Village (Very High Exposure).
- Western facing properties of upper Wilderness Heights. (Medium Exposure)

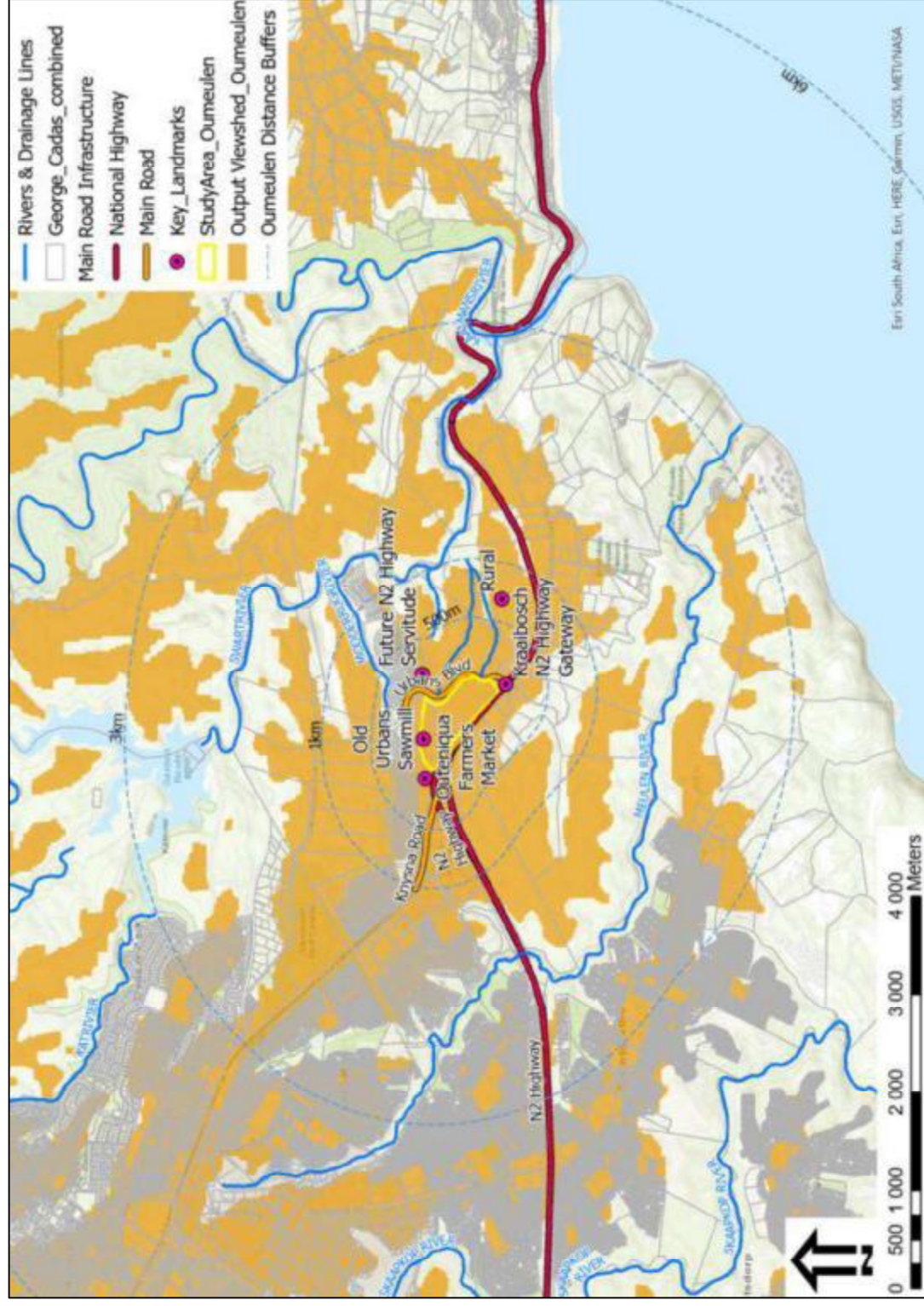


Figure 20: Viewshed analysis map of proposed project.

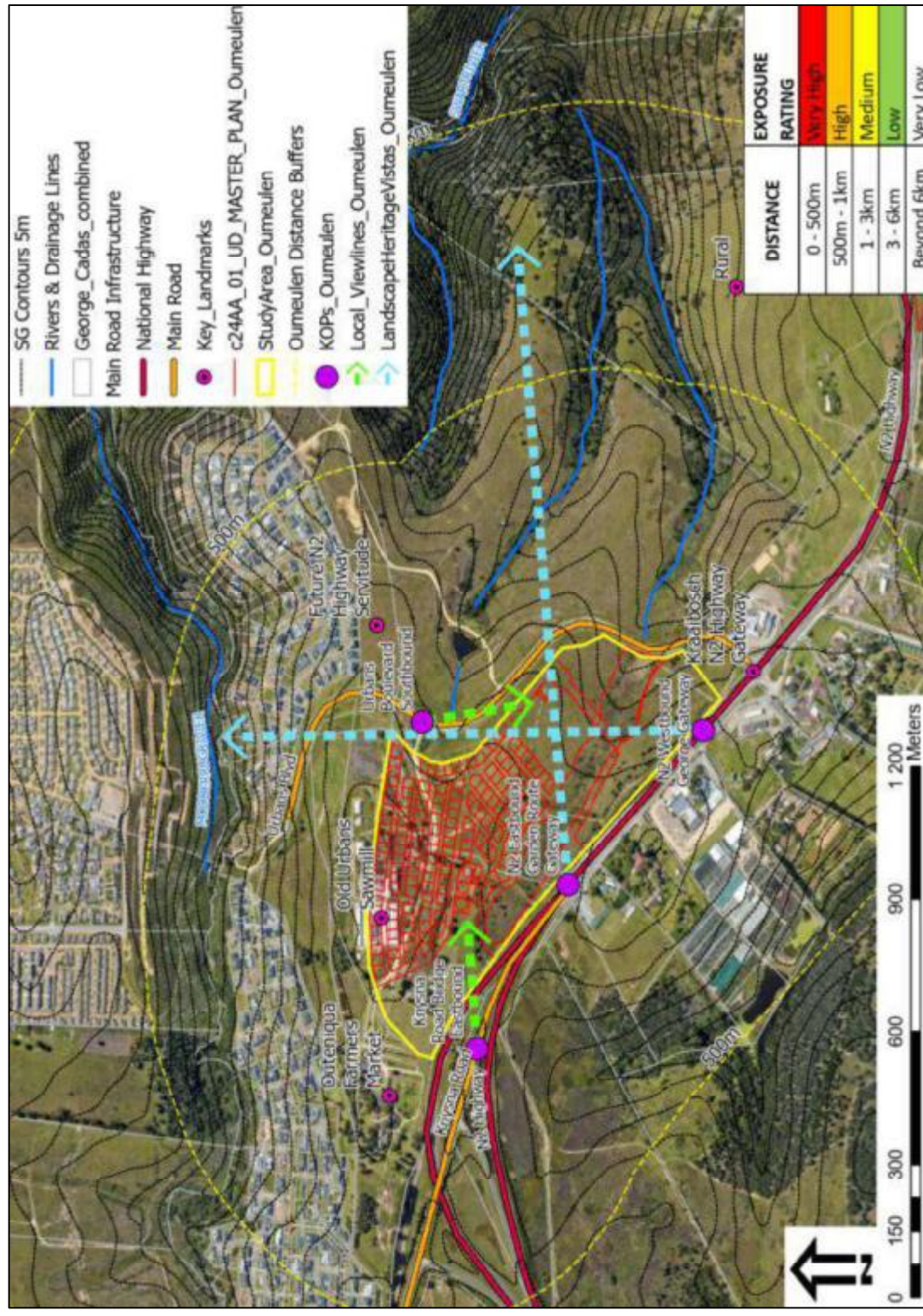


Figure 21: Receptor Key Observation Point and Visual Exposure Map.

6.5 Receptors and Key Observation Points

As defined in the methodology, KOPs are defined by the Bureau of Land Management as the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. The following table identifies the receptors identified within the ZVI, as well as motivates if they have significance and should be defined as KOP. The receptors located within the ZVI, and KOPs view lines are indicated on the map on the following page. As motivated and mapped in Table 14 below and mapped in Figure 21 on the previous page, the following receptors have been identified as Key Observation Points and should be used as locations to assess the suitability of the landscape change.

Table 14: KOP Motivation table

Name	Theme	Exposure	Motivation
N2 Highway east and westbound	National Road	Very High (sub 50m)	The N2 Highway is the most important road along the length of the Garden Route. The importance of the road is flagged in local and district municipality planning as an important tourist view corridor where adjacent land uses need to take the scenic quality into account. The N2 Highway creates two 'gateway' experiences into George for westbound traffic, and into the Garden Route for eastbound traffic. The views of the proposed property are central to both of these gateways, where views to the background Outeniqua Mountains need to be retained to retain the landscape heritage vistas.
Urbans Boulevard north and southbound	Main road	Very High (sub 50m)	The Urbans Boulevard provides access from the Kaaimans/ N2 intersection to the eastern gated estates of Welgelegen. The Boulevard sense of place has been retained by design, allowing for a winding road that takes the undulating terrain into account providing open views to the Outeniqua Mountains that add to the sense of place.

The following receptors were not chosen as KOPs:

- Welgelegen Estate.
- Groenkloof Retirement Village.
- Wilderness Heights.

The two estates are located to the north of the site, and both would look over the N2 Highway where views would be changed to accommodate a future major transport route. The sense of place of these areas is similar to the proposed estate development, creating a similar landscape context.

The Wilderness Heights areas are located 4km to the east of the site, with views from these areas already depicting a built landscape. While the proposed development will accentuate the urban sense of place, it will be a continuation of the existing urban vistas.

7 VISUAL RESOURCE MANAGEMENT

In terms of the VRM methodology, landscape character is derived from a combination of scenic quality, receptor sensitivity to landscape change, and distance of the proposed landscape modification from key receptor points. Making use of the key landscape elements defined in the landscape contextualisation sections above, landscape units are defined which are then rated to derive their intrinsic scenic value, as well as how sensitive people living in the area would be to changes taking place in these landscapes.

7.1 Physiographic Rating Units

The Physiographic Rating Units are the areas within the proposed development area that reflect specific physical and graphic elements that define a particular landscape character. These unique landscapes within the project development areas are rated to assess the scenic quality and receptor sensitivity to landscape change, which is then used to define a Visual Resource Management Class for each of the site's unique landscape/s. The exception is Class I, which is determined based on national and international policy / best practice and landscape significance and as such are not rated for scenic quality and receptor sensitivity to landscape change. Based on the SANBI vegetation mapping and the site visit to define key landscape features, the following broad-brush areas were tabled and mapped in Figure 22 below.

Table 15: Physiographic Landscape Rating Units

Landscapes	Motivation
Grasslands	The majority of the site is characterised by veld grassland from historic timber and agricultural land uses.
Skyline intrusion area	As seen from portions of the Urbans Boulevard, there is a medium sized ridgeline where skyline intrusion is likely to take place where higher levels of visual intrusion could take place for taller structures.
Wetlands and hydrological relevant.	A wetland is located on the flatter terrain to the west of the site, with prominent drainage lines on the eastern portions of the site that clearly define the area as riverine.
Steep slopes	Within the eastern drainage lines, there are areas steeper than 1 in 4m slopes where development should be excluded.
Transformed	To the north of the site is the old Urbans sawmill site that is in disrepair and needs to be taken down. This area does result in landscape degradation.
N2 Low intrusion buffer 100m	To ensure that the local and regional planning to the N2 Highway is retained, a 100m buffer on the road is proposed for low visual intrusion to allow for open views to the eastern Garden Route vistas.
N2 Highway/ Urbans Boulevard Very	To ensure that cluttering of the eastern viewpoints does not occur, a 50m No-go buffer is proposed along the N2 Highway as well as certain key areas along the Urbans Boulevard.

High Exposure Buffer 50m	
Knysna Road High Exposure Boundary Buffer 10m	To reduce visual intrusion as seen from the Knysna Road/ N2 intersection, a 10m screening buffer on the boundary is proposed for planting of screening trees.

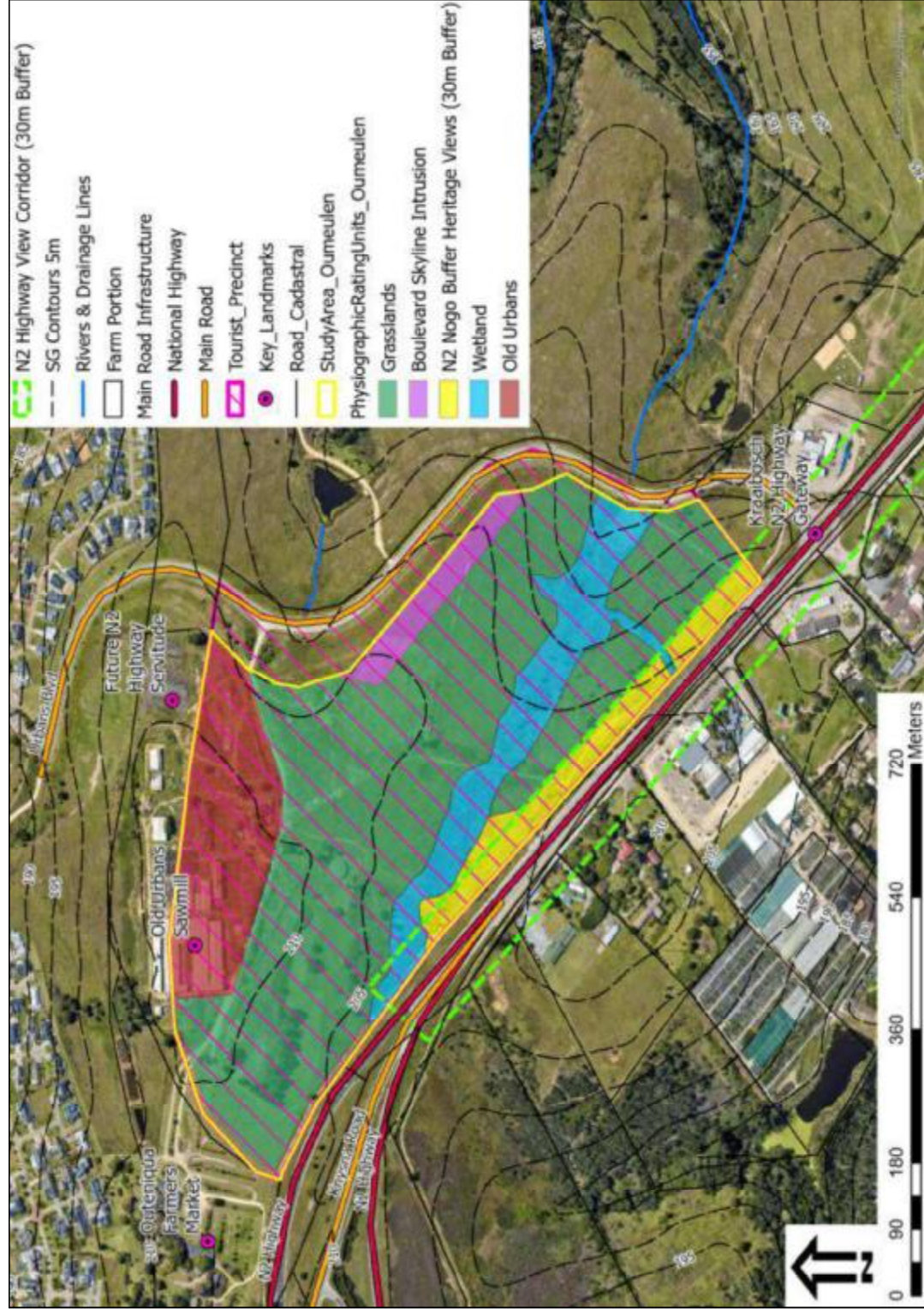


Figure 22: Physiographic Rating Units identified within the defined study area.

Table 16: Scenic Quality and Receptor Sensitivity Rating

Landscape Rating Units	Scenic Quality								Receptor Sensitivity							VRM		
	Landform	Vegetation	Water	Colour	Scarcity	Adjacent Landscape	Cultural Modifications	Sum	Rating	Type of Users	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Rating	Inventory Class	Management Class	Development Sensitivity
In general, significant Heritage / Ecological / Hydrology. With specific reference to the project: - N2 Landscape Heritage Visual Buffers - Wetland/ Riverine	(Class I is not rated)																	
- Skyline intrusion grasslands. - N2 100m Buffer	2	2	1	2	3	4	2	16	MH	H	H	M	H	H	H	II	II	Low Intrusion
Undulating grasslands	2	2	1	2	3	4	2	16	MH	H	H	M	H	M	MH	III	III	With mitigation
Transformed (Old Urbans)	1	0	0	1	1	2	-2	3	L	H	H	M	L	L	MH	IV	III	With mitigation

Red colour indicates change in rating from Visual Inventory to Visual Resource Management Classes motivated in the following section.

The **Scenic Quality** scores are totalled and assigned an A (High scenic quality), B (Moderate scenic quality) or C (Low scenic quality) category based on the following split: A= scenic quality rating of ≥ 19 ; B = rating of 12 – 18, C= rating of ≤ 11 (USDl., 2004).

Receptor Sensitivity levels are a measure of public concern for scenic quality. Receptor sensitivity to landscape change is determined by rating the key factors relating to the perception of landscape change in terms of Low to High (H = High; M = Medium; L = Low).

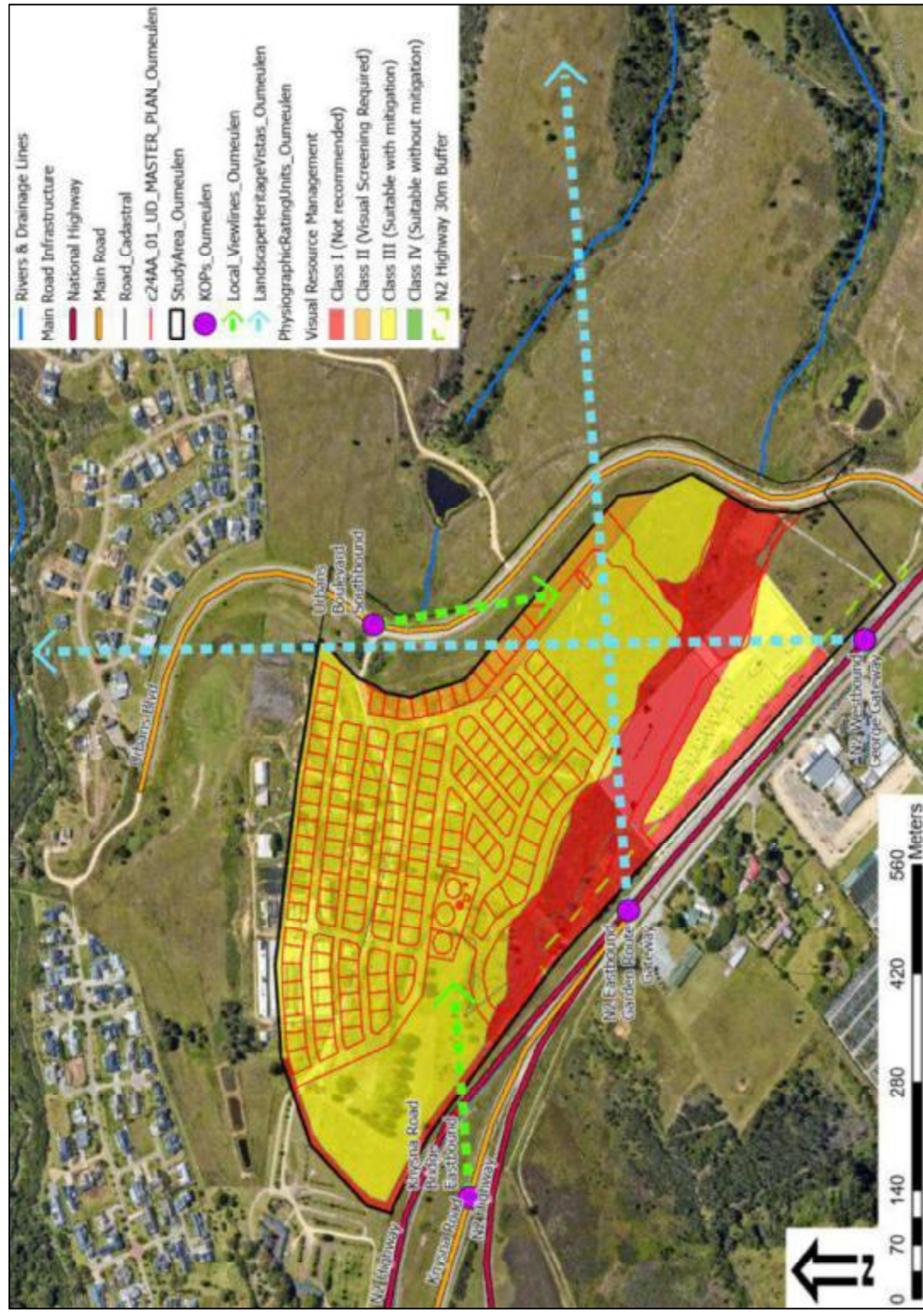


Figure 23: Visual Resource Management Classes map – Overall development.



Figure 24: Visual Resource Management Classes map – Teachers Apartments.

7.2 Scenic Quality Assessment

The scenic quality is determined making use of the VRM Scenic Quality Checklist that identifies seven scenic quality criteria which are rated with 1 (low) to 5 (high) scale. The scores are totalled and assigned an A (High), B (Moderate) or C (low) based on the following split:

A = scenic quality rating of ≥ 19 (High).

B = rating of 12 – 18 (Medium).

C = rating of ≤ 11 (Low).

Table 17: Scenic Quality Rating table

Landscapes	Rating	Motivation
Landform <i>Topography becomes more of a factor as it becomes steeper, or more severely sculptured.</i>	Medium	The site landforms are defined as strongly undulating and create landscape value from the visual associations with the eastern Garden Route vistas.
Vegetation Primary consideration given to the variety of patterns, forms, and textures created by plant life.	Medium High	Much of the vegetation is veld grasslands, with some larger (mainly alien) trees in the northwest portion of the property. The trees are associated with the old Urbans Sawmill heritage and forestry, and the veld grasslands have visual associations with eastern rural landscapes.
Water <i>That ingredient which adds movement or serenity to a scene. The degree to which water dominates the scene is the primary consideration.</i>	Medium Low	While not a dominating presence, there are two small farm dams on the property that do add to the local scenic quality, but with eastern pronounced drainage lines alluding to the presence of water and small streams that drain into the Swart River.
Colour <i>The overall colour(s) of the basic components of the landscape (e.g., soil, rock, vegetation, etc.) are considered as they appear during seasons or periods of high use.</i>	Medium	Colours are primarily from vegetation, with the grey greens of the veld grasslands the main colour theme, but with the darker greens of the northwestern climax trees dominating the colour theme of this area.
Scarcity <i>This factor provides an opportunity to give added importance to one, or all, of the scenic features that appear to be relatively unique or rare within one physiographic region.</i>	High	The two gateway areas associated with views, from and into the Garden Route, are significant and have landscape heritage value.
Adjacent Landscapes <i>Degree to which scenery and distance enhance, or starts to influence, the overall impression of the scenery within the rating unit.</i>	High	The eastern areas of the undulating terrain between the northern Outeniqua Mountains and southern Indian Ocean coastline, are iconic

		views of the Garden Route landscapes.
Cultural Modifications <i>Cultural modifications should be considered and may detract from the scenery or complement or improve the scenic quality of an area.</i>	Medium	Cultural modifications are limited to the northern portions of the property and related to the old Urbans mill and associated remaining pine trees/ and other alien vegetation surrounding this site.
Scenic Quality	Medium to High	
The scenic quality of the site is rated as medium to high. The landforms are characterized by strong undulations, contributing to the landscape's visual associations with the eastern Garden Route vistas. The vegetation primarily consists of veld grasslands, with some larger (mainly non-native) trees in the northwest portion of the property. These trees are associated with the heritage of the old Urbans Sawmill and forestry. The veld grasslands visually connect with eastern rural landscapes. Cultural modifications are limited to the northern portions of the property and are related to the old Urbans mill and the remaining pine trees and other non-native vegetation around this site. Although the old mill currently results in some local landscape degradation, it holds some heritage value in terms of cultural heritage. The property also offers significant views to the east into the Garden Route, with background views of the Outeniqua Mountains, enhancing the scenic quality of the site.		

7.3 Receptor Sensitivity Assessment

Table 18: Receptor Sensitivity Rating table.

Landscapes	Rating	Motivation
Type of Users <i>Visual sensitivity will vary with the type of users, e.g., recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.</i>	High	The zone of visual influence includes the N2 Highway, an important tourist route and planned scenic view corridor. The ZVI also includes northern residential receptors. Visual sensitivity from these receptors is likely to be experienced as High.
Amount of use <i>Areas seen or used by large numbers of people are potentially more sensitive.</i>	High	The N2 Highway is the main route from the eastern areas of the George Municipality, and Garden Route, carrying large volumes of traffic.
Public interest <i>The visual quality of an area may be of concern to local, or regional, groups. Indicators of this concern are usually expressed via public controversy created in response to proposed activities.</i>	Medium	The area has been included in the George Municipality urban edge in the 2023 SDF and residential/ tourist related development is unlikely to result in public controversy.
Adjacent land Users <i>The interrelationship with land uses in adjacent lands. For example, an area within the viewshed of a residential area may be very sensitive, whereas</i>	Medium to High	Residential receptors currently making use of this property landscapes are gated estates, where the landscape context is likely to be similar.

Landscapes	Rating	Motivation
<i>an area surrounded by commercially developed lands may not be as visually sensitive.</i>		
Special Areas Management <i>objectives for special areas such as Natural Areas, Wilderness Areas or Wilderness Study Areas, Wild and Scenic Rivers, Scenic Areas, Scenic Roads or Trails, and Critical Biodiversity Areas frequently require special consideration for the protection of their visual values.</i>	High	The views from the N2 to the eastern Garden Route are iconic and should be considered as landscape heritage vista.
Receptor Sensitivity	Medium to High	
The expected receptor sensitivity to landscape change is rated Medium to High. The zone of visual influence includes the N2 Highway, an important tourist route and planned scenic view corridor. As the property has been included in the George Municipality urban edge in the 2023 SDF, residential/ tourist related development is unlikely to result in public controversy. However, the views from the N2 to the eastern Garden Route are iconic and should be considered as landscape heritage vista. The Urbans Boulevard was also designed as a view corridor, allowing wide verges and sweeping curves reflecting the undulating of the terrain. The road enhances the scenic quality and intrusion into the view is likely to evoke strong negative responses from road users.		

7.4 Visual Resource Management (VRM) Classes

The BLM has defined four Classes that represent the relative value of the visual resources of an area and are defined in terms of the VRM Matrix as follows:

- i. **Classes I and II** are the most valued.
- ii. **Class III** represent a moderate value.
- iii. **Class IV** is of least value.

7.4.1 VRM Class I (No-Go)

Class I is assigned when legislation restricts development in certain areas, or where landscape and visual impact significantly degrade high value landscape resources. The visual objective is to preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention. A Class I visual objective was assigned to the following features within the proposed development area due to their protected status within the South African legislation:

- Generic Landscape Issues
 - Rivers / streams and associated flood lines buffers identified as significant in terms of the Water Use Licence Application (WULA) process.
 - Wetlands identified as significant in terms of the WULA process.
 - Ecological areas (or plant species) identified as having a high significance.
 - Heritage area identified as having a high significance.
- Specific Landscape Issues
 - N2 Highway landscape heritage visual buffers.
 - Knysna Road/ N2 Highway Intersection screening boundary buffer.

These areas comprise key components of the local sense of place, are associated with landscape heritage vistas or legal water use management stipulations restricting development and as such, should be retained as No-Go areas. The following mitigations pertain to these areas:

- 10m No-Go buffer from the Knysna Road/ N2 Interchange road reserve for berming and landscaping as per the existing Kraaibosch Estate development precedent.
- 30m from the edge of the N2 Highway to allow for the drop in slope east of the road embankment to better contain the double-storey dwellings such that views over the structures can take place.

7.4.2 VRM Class II (Required amendment to plan)

The Class II objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be low. The proposed development may be seen but should not attract the attention of the casual observer, and should repeat the basic elements of form, line, colour and texture found in the predominant natural features of the characteristic landscape.

- Teachers Apartments:
 - Detailed landscape planning for use of medium sized trees to effectively screening the bulk of the apartments without
 - Initially retain the existing pine trees, not within a development footprint, while interplanting of medium sized trees to replace the pines as these trees standing in isolation will become a fall hazard.
 - Specific planting of medium sized trees x 3 to the northwest of the row of apartments to ensure that this unit in predominantly screen within the short to medium term.

7.4.3 VRM Class III (Suitable with mitigation)

The Class III objective is to partially retain the existing character of the landscape, where the level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer, and changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The following landscape was defined as having Class III Visual Objectives where development would be most suitable:

- Undulating grasslands.

The majority of the remaining portions of the property are characterised by veld grassland on undulating terrain. Located within the urban edge and zoned for either tourist/ residential, these areas would be suitable for lower/ medium density residential/ tourist related development. The old urbans mill would need to dismantled and removed as per the Heritage Specialist findings relating to the risk from the structural integrity of the now degraded buildings. The recommendation is that the removal of the complete old Mill structures should be a condition of approval as well. Mitigation would be required to ensure that adequate tree plantings along all internal roads, on both sides of the road in single residential areas, and single planting along internal road in the apartment areas. This would also ensure that there is a suitable transition from the urban to the rural context of the eastern areas outside of the urban edge. The following mitigations have relevance to these areas:

- Maximum 8.5m height restriction to ensure that an inner urban landscape context is not created.

- Single Residential and Apartment main roads: Street trees on both sides of all main interior roads every 15m to reduce massing effects and more effective landscape transition to the eastern Garden Route landscapes.
- Apartments: Street trees planted every 15m on one side of all internal streets.
- Planting of trees every 15m along the identified 'green' rows in the residential areas.
- Phase A2 Apartments (and the un-named apartment areas adjacent to Knysna Road) need to reflect a similar tree landscaping "rows" to allow for visual continuity and reduction of massing effects from the higher density apartments.
- It is recommended that the complete removal of all the old Urbans Mill structures should be a condition of approval as the small sections remaining outside the property, within the proposed N2 Highway road reserve, would create landscape decay effect that will negatively influence the property prices of the proposed development.
- There are numerous pine trees that are slowly spreading across the wetland. These trees pose an alien invasive risk, and as they are standing in isolation, will be subject to windfall and place undue risk on nearby structures and persons. The pine trees should be felled. The planting of significant trees amongst the residential buildings located in the background areas will eventually create an urban forest effect that would reflect the heritage of the original pine forests of the old Urbans Mill locality.
- The views along the N2 Highway adjacent to the wetlands should be kept open to allow for the continuation of this heritage vista to the eastern Garden Route landscapes.

7.4.4 VRM Class IV (Suitable without mitigation)

The Class IV objective is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the landscape can be high, and the proposed development may dominate the view and be the major focus of the viewer's (s') attention without significantly degrading the local landscape character. Due to the degraded sense of place, the following areas were rated Class IV:

- Not applicable.

As the old urbans mill depicted landscape decay, the visual inventory for this site did result in an inventory Class IV. However, as this area is not zoned for industrial development, usually associated with Class IV landscapes, the inventory class was changed to a Class III visual management to accommodate the residential zoning for the site.

8 VISUAL IMPACT ASSESSMENT

Impacts are defined in terms of the standardised impact assessment criteria provided by the environmental practitioner. Using the defined impact assessment criteria, the potential environmental impacts identified for the project were evaluated according to severity, duration, extent and significance of the impact. The potential occurrence of cumulative impact (as defined in the methodology) was also assessed. In order to better understand the nature of the severity of the visual impacts, a Contrast Rating exercise was undertaken from the assumed view of the defined Key Observation Point where photomontages were generated. The outcomes of the contrast rating inform the visual impact magnitude and mitigations.

8.1 Photomontages and Model Proof

To better depict the proposed landscape change, a 3D block modelling exercise was undertaken. This enabled a better understanding of massing and 'walling' effects where no

detailed planning was provided such as in the proposed Apartments areas. Blocks reflecting double (8m) or single storey (4m) were mapped into the development areas to depict a building footprint. In the apartment areas where no details were provided, an approximate row of housing was mapped out reflecting higher density settlement patterns as proposed. In the erven areas, the building block was sized to fit within the erven. The building blocks could then be viewed in the 3D viewer as seen from the defined Key Observation Points. The following mitigation scenarios 3D massing model images, and detailed 3D architectural model images were used to generate the photomontages.



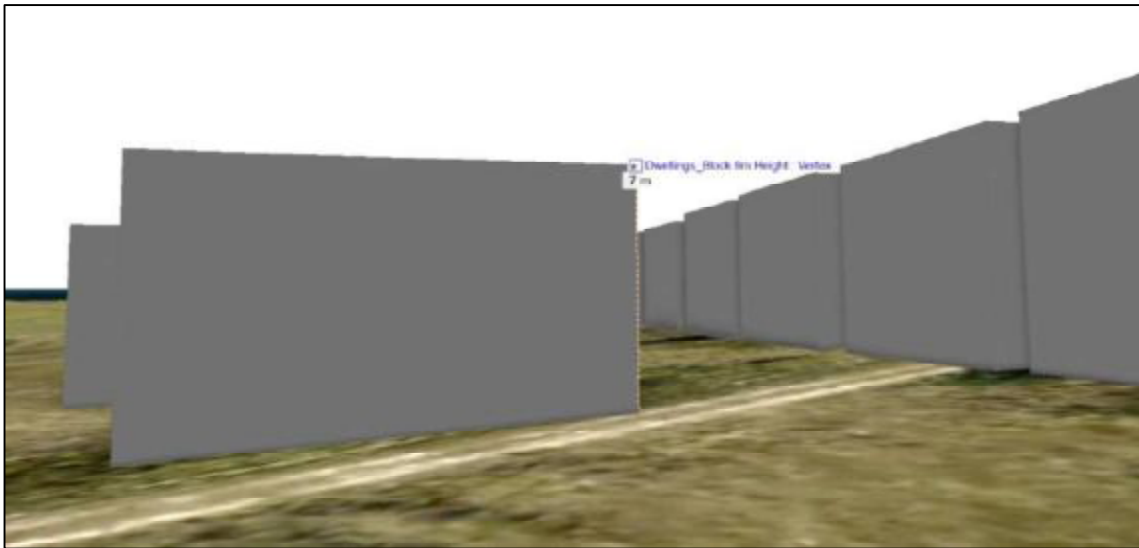
Figure 25: Example of the 3D massing model was used along the N2 Highway.



Figure 26: Example of the 3D massing model was used along the Urbans Boulevard.

To take the cut and fill into account, the blocks were extruded on maximum ground level height but reduced in elevation by a metre for the eight metre extrusion. The image below depicts the

8m block, with the high section of the erven 7m above ground level to take the cut and fill balance into account.



Notes:

- The 3D blocks are an approximation of a building 3D footprint and for visualisation purposes only. They were generated as no detailed 3D modelling was provided. They reflect a worse case scenario as required in the Western Cape Visual and Aesthetic Guidelines. To reduce this effect, the neutral colour of grey / light was used for the block shapes.
- To take cumulative effects into account, the adjacent proposed Meulenzicht Estate was also included in the 3D modelling to better understand the 'walling effects' along the Urbans Boulevard.

8.1.1 KOP N2 Highway Westbound 1
Existing view



3D model block view (8m height with no setback from the N2 Highway)



Figure 27: KOP N2 Highway Westbound mitigated scenarios.

8.1.2 KOP N2 Highway Eastbound 1
Existing view from N2 Highway Eastbound



3D model block view (8m height with no setback from the N2 Highway).

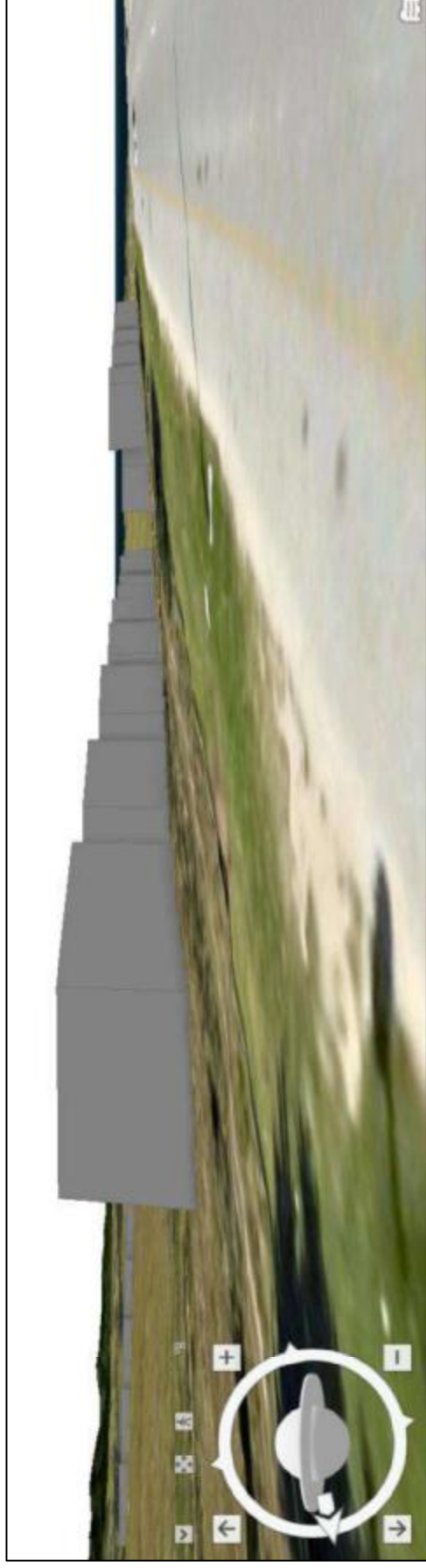


Figure 28: KOP Photograph: N2 Highway Eastbound view with 8m height development and no setback (Landscape screening planting stipulated).

8.1.3 Urbans Boulevard Southbound

Existing view

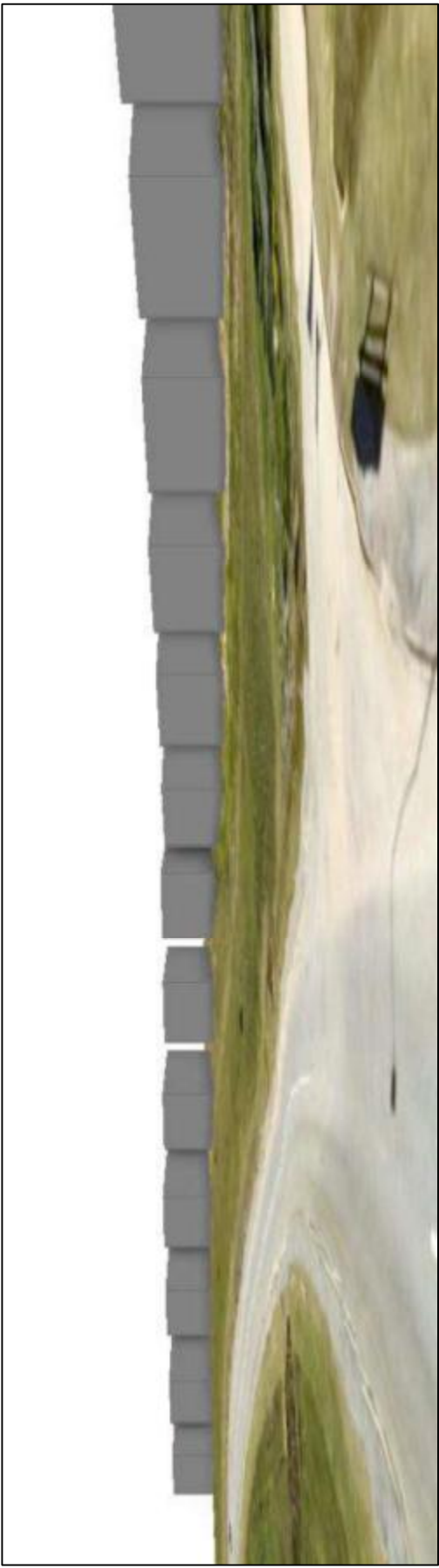


Figure 29: KOP Photograph: Urbans Boulevard Southbound.

8.2 Contrast Rating

As indicated in the methodology, a contrast rating is undertaken to determine if the VRM Class Objectives are met. The suitability of a landscape modification is assessed by comparing and contrasting the receiving landscape to the expected contrast that the proposed landscape change will generate. This is done by evaluating the level of change to the existing landscape by assessing the line, colour, texture and form, in relation to the visual objectives defined for the area.

The following criteria are utilised in defining the degree of contrast (DoC):

- **None:** The element contrast is not visible or perceived.
- **Weak:** The element contrast can be seen but does not attract attention.
- **Moderate:** The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- **Strong:** The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

Table 19: Contrast Rating Key Observation points table

Key Observation Point	Exposure		Mitigation	Landscape Elements					Visual Objectives Met?
	Distance	Exposure		Form	Line	Colour	Texture	Degree of Contrast	
N2 National Highway	20m Avg.	Very High	W/Out	S	S	S	S	S	No
			With	M	M	M	M	M	Yes
Urbans Boulevard	20m Avg.	Very High	W/Out	S	S	S	S	S	No
			With	M	S	M	M	M	Yes

* S = Strong, M = Medium, W = Weak, N = None

8.2.1 N2 National Highway Eastbound: **Western Apartments along Knysna Road**

The N2 Highway is the most important tourist route along the length of the Garden Route and is highlighted in the DFFE EMF. The importance of the road is flagged in local and district municipality planning as an important tourist view corridor where adjacent land uses need to take the scenic quality into account.

Travelling along the N2 Highway eastbound, the initial view of the development area will take place at the Knysna Road interchange. The views from this locality currently depict multiple trees that are a remnant from the old Urbans Mill, as well as more recently planted trees around the Outeniqua Farmers Market. As the trees are predominantly pines and invasive species that are prone to wind-fall risks, these trees would need to be felled. There is limited structural development in the background save for the single water tower structure in the mid-ground.

Without mitigation, the landscape change from the apartment developments would depict Strong levels of visual contrast from the block forms of the structure, the longer lines created by the rows of apartments as seen from the elevated section of the Knysna Bridge crossing the N2 Highway, and possible strong colour contrast from wall paint and reflective roof sheeting

textures. While this area does fall within the George Municipality Urban Edge and is zoned for higher density development, the development area was assigned a Class III Visual Objective where moderate levels of change should take place to ensure that some moderation of the landscape change takes place.

With mitigation, the Class III Visual Objectives could be met by the creation of a low berm (2m) with intensive indigenous plantings around the western apartment areas. This would also screen ground views from N2 Highway westbound as well as assist in retaining the sense of place of the Outeniqua Market located to the west of the site. This type of mitigation planting has been successfully implemented at the Kraaibosch Estate, and with effective implementation, could effectively screening off the 8m high apartments from the ground level N2 Highway receptors. A maximum height restriction of 8.5m, landscaped berm along the perimeter, as well as incorporation of street trees into the layout, would also be required.

8.2.2 N2 National Highway Eastbound and Westbound: Teachers Apartments

The existing views from this location allow for open views to the east towards the Garden Route rural landscapes. This is the de-facto initial eastbound view of the wilderness section of the Garden Route that does have value and should be considered landscape heritage and as a gateway into the Garden Route. Due the 30m setback from the N2 Highway, the drop in elevation to the east of the N2 Embankment would allow for less dominating views. The Class III Visual Objective would be met for the apartments with mitigation. With mitigation and retaining of the existing pine trees until other indigenous screening trees can be established, will effectively add value to the local landscape context. The large view buffer between the N2 Highway and the wetland should be retained open, and the pine trees along this section of the highway felled.

8.3 Project Impact Ratings and Motivation

The impact assessment focuses on the combined visual effects of the proposed landscape change. The following phase of development area assessed:

- Construction.
- Operation.
- Decommissioning (Not applicable as the development will become a permanent feature in the landscape).

Cumulative effects for the area assessed are:

- A long-term change in land use setting a precedent for other similar types of residential/ retail development around the property, resulting in a loss of scenic quality of the N2 National Highway and Urbans Boulevard.

8.3.1 Construction Phase Impact Assessment

Table 20: Construction Phase Impacts table

Project phase	Construction Phase
Impact	Loss of landscape character from construction and long-term (phased) development
Description of impact	• Loss of site landscape character due to the removal of vegetation and the construction of the project infrastructure. • Construction and laydown camps on the site.

	• The movement of large earth moving and building equipment. • Wind-blown dust due to the removal of large areas of vegetation. • Wind-blown litter from the laydown and construction sites. • Movement of larger vehicles along local roads and traffic congestion. • On-going building of structures.			
Mitigability	Low	The mitigation will partially reduce the significance of the visual and landscape impacts.		
Key Mitigations	• Submission of the final architectural guidelines to the George Aesthetic Committee for review prior to construction. • Submission of the final landscape plans to the George Aesthetic Committee for review prior to construction. • Best practice in dust management. • Setback of the laydown area. • General best practice in construction EMP. • Implementation and planting of berms and trees screening areas. • Careful management and rehabilitation of the cut and fills.			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Negative	
Duration	Short-term	The construction phase is expected to be concluded within 1 year (per phase).	Short-term	The construction phase is expected to be concluded within 1 year (per phase).
Extent	Local	The visual impact will be locally contained.	Local	The visual impact will be locally contained.
Intensity	High	Without mitigation of dust, the construction of the development will be strongly perceived from the residential receptors.	Medium to High	With mitigation, the construction of the development will be intermittently perceived from the residential receptors.
Probability	Sure	The site is adjacent to the N2 Highway and Urbans Boulevard with clear views.	Sure	The site is adjacent to the N2 Highway and Urbans Boulevard with clear views.
Reversibility	Low	Once construction has started, the impact will not be reversible.	Low	Once construction has started, the impact will not be reversible.
Visual Significance	Medium to High -Ve		Medium -Ve	
Motivation	During construction without mitigation, dust could become a nuisance factor, and the construction site/ laydown area can be visually intrusive. With mitigation, dust will be managed, and the layout will be set back from the road and less visually intrusive where construction will not take place directly in front of significant vistas. The construction phase will, however, be clearly visible and visually intensive to some degree due to the movement of large vehicles. The removal of the pine trees will result in a significant change to the local landscape but will open up views to the eastern Garden Route that are currently obscured.			
Cumulative Effects	Medium -Ve		Low -Ve	

<i>Motivation</i>	With mitigation, it is unlikely that the short-term landscape degradation will result in local landscape degradation. Positive alignment with George Municipality planning within the urban edge (with mitigation).
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8.3.2 Operational Phase Impact Assessment

Table 21: Operation Phase Impacts Table

Project phase	Operation Phase			
Impact	Loss of landscape character from operation of the development			
Description of impact	• Massing effect in the landscape from a large-scale residential landscape modification. • Increased vehicular movement along the road. • Lights at night intruding into the eastern rural residential areas.			
Mitigability	Medium	The mitigation will reduce the significance of the visual and landscape impacts		
Key Mitigations	• Landscaping consolidation and continuous planting/ maintenance of street trees. • Lights at night mitigation to reduce light spillage to eastern. Rural Garden Route landscape (taking into consideration that there is an existing light at night footprint from George Urban areas). • Re-establishment of indigenous vegetation growing on the screening berms. • Use of natural, earth colours with a mid-grey hue for structures/ roof areas. Preference for lower pitch, rough textured roofing tiles as in many instances, views from receptors would look onto the dwelling roof areas. • Continued maintenance of landscaping berms and trees.			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Positive	
Duration	Permanent	The development will become a permanent feature in the landscape.	Permanent	The development will become a permanent feature in the landscape.
Extent	Local	The visual impact will be locally contained.	Local	The visual impact will be locally contained.
Intensity	Medium to High	The operation of the development will be strongly perceived from the rural residential receptors and strongly change the local landscape character.	Medium to Low	With mitigation, the operation of the development will moderately change the local landscape character.
Probability	Sure	The site is adjacent to the rural residential receptors with clears views of the urban landscape change.	Sure	The site is adjacent to the rural residential receptors with clears views of the urban landscape change.
Reversibility	Low	Once construction has started, the impact will not be reversible.	Low	Once construction has started, the impact will not be reversible.
Visual Significance	Medium to High -Ve		Medium +Ve	

<i>Motivation</i>	Without mitigation and not addressing the visual intrusion to heritage views of the N2 Highway and Urbans Boulevard, these visual and landscape resources could significantly be degraded and set a negative precedent for development along scenic view corridor in the Garden Route. With mitigation and the implementation of the detailed landscaping plan, the area has the potential to become a potential positive asset to the local landscape.	
Cumulative Effects	Medium to High -Ve	Low -Ve
<i>Motivation</i>	Without mitigation described above, there is strong potential for setting a negative precedent for intensive development along the significant view corridors in opposition to the DFFE EMF, undermining the recommended transitional landscape (urban to rural) as road users leave George for Wilderness. With mitigation, it is unlikely that the long-term operation of the development will result in local landscape degradation setting a suitable development precedent along the urban edge. It is possible that the proposed development may result in planning pressure for the expansion of urban edge to the west on adjacent properties. However, this would need to be addressed in future planning and future EIAs.	

8.4 Summary of Visual Impact Findings

A summary of the visual impacts assessed in located on the following page. The headings below refer to the identified impact assessment criteria.

Nature of the Impact

During construction phase the nature of the impact will be Negative with and without mitigation. Without mitigation, the Operational Phase is likely to be Medium to High Negative, as some landscape degradation will take place. With mitigation, this phase has the potential to be Medium Positive, once the landscaping has become established.

Extent of the Impact

The Extent of the expected ZVI is Local Area with and without mitigation. This is due to the raised ground to the west, with urban built landscape and trees containing the extent of the zone of visual influence on the local, rural area in the east. There will be some expansion of the intensity of the George urban landscape ZVI into the rural Garden Route sense of place in the west.

Magnitude of the Impact

Without mitigation, the Magnitude of the impact is likely to be High Negative with the proposed development becoming a dominating visual feature in the local landscape detracting from the landscapes and heritage vista from the N2 Highway. With mitigation, the development has the potential to become a suitable example of transitional development, setting a positive precedent for development along the urban edge without necessarily assisting/ forcing an urban sprawl/ ribbon development sense of place along the N2 Highway.

Duration of the Impact

Construction Phase is likely to be Short-term (per phase), with Operational Phase being a permanent landscape change. As the development is large, the construction phase is likely to extend over a long period of time.

Probability of the Impact

The probability of the impact taking place is rated Sure, as the property is in close proximity to the eastern rural residential area with clear views of the proposed development from road receptors using the N2 Highway and Urbans Boulevard.

Confidence of the Impact

A site visit was undertaken and a review of planning for the area. 3D modelling of the proposed development was also undertaken, depicting scenarios with structure height and massing/walling effects created by these development scenarios. The proposed development is also in alignment with local planning. As such, confidence is rated High.

Reversibility of the Impact

The reversibility of the impact is rated Low as once construction phase begins, the structures will be very difficult to remove and will be permanent features.

Resource Irreplaceability of the Impact

The impact area as a landscape resource is rated Medium to High as there is landscape value generated by the undulating terrain of these rural landscapes. There is also intense, nodal development sense of place around the N2 Highway/ Urbans Boulevard interchange that does detract from the local landscape, where the intensity of the development will become more established over time.

Mitigability of the Impact

Mitigation potential is rated Medium to High. The buffering on the N2 Highway to allow continuation of open views to the eastern Garden Route/ Outeniqua Mountains can be effectively implemented. However, due to the size and scale of the residential development, residual visual and landscape impacts will remain and the urban expansion into the Garden Route will become more intensely experienced. Further landscape planting around the proposed dwellings will further enhance the tree-scape heritage.

Cumulative Impact Assessment

Due to the combined developments of the Oumeulen and Meulenzicht Estates, there is a risk in degrading the existing, designed aesthetics of the Urbans Boulevard. It is possible that the proposed development may also result in planning pressure for the expansion of urban edge to the west on adjacent properties, that without mitigation could reflect ribbon development along the N2 Highway and facilitate the experience of urban sprawl. However, this would need to be addressed in future planning and future EIAs. With mitigation, as specified, the cumulative effects would be contained to some degree, and the development would be in alignment with the George Municipality Urban Edge planning.

Visual Significance of the Impact

Without mitigation, there is risk for setting a negative precedent for development along the eastern section of Geroge along the N2 Highway, as well as the creation of 'walling' effects from continuous residential development along the Urbans Boulevard. With mitigation that includes intensive landscaping along the N2 Highway and the Urban Boulevard, the area has the potential to become a potential positive asset to the local landscape in the medium to long term, without setting a precedent for urban sprawl encroaching into eastern Garden Route landscapes and along the N2 Highway.

9 ENVIRONMENTAL MANAGEMENT PLAN

9.1 General Mitigations

9.1.1 Planning Phase

- The key mitigations defined in the *Specific Mitigations section below* would need to be incorporated into the design.
- Appoint a suitably qualified landscape architect to generate a detailed landscaping plan prior to construction phase that addresses the following:
 - Retaining and maintaining of existing higher value fynbos and wetland areas.
 - Internal landscaping such that trees can be incorporated into the design to soften the massing of the erven and apartments areas. Generate a planting and management plan in alignment with the GM tree planting strategy) such that tree growth with thrive and depict suitable growth within two years of planting. Trees that die during this period need to be replaced (refer to Annexure E for George Municipality tree planting specifications).
- **In principle, the concept architectural guidelines provided to inform the LVIA are suitable to provide sufficient confidence in the assessment. However, as this is a large area development that does have the potential to significantly alter the eastern entrance into the George. More detailed architectural guidelines should be generated after authorisation, and be subject to external review, prior to construction phase. These guidelines should be provided to George Aesthetics Committee for review.**
- **A key mitigation is that landscape planning is incorporated into the design. As this is a key factor influencing the sense of place of the Urbans Boulevard, these plans should be provided to George Aesthetics Committee for review.**

9.1.2 Construction Phase

- Dust management for moving vehicles and wind-blown dust.
- Set the laydown back from the road area and screen with green shade cloth (2m high).
- No construction over the weekend or during the night.
- Other than security personal, no overnight accommodation for workers.
- Fencing along the Tourism Precinct should be black Thru-View without electrical fencing on top and maximum height of 2m.
- The laydown should not be located in a prominent or overlay visual location in relation to the N2 Highway or the Urbans Boulevard. The preferred layout should be located near the old Urbans Mill once the derelict structures have been removed.

9.1.3 Operation Phase

- Landscaping consolidation as per the detailed landscaping plan.
- Lights at night mitigation to ensure that undue light spillage does not take place recognising that the proposed development is within the GM Urban Edge (Refer to Annexure D for generic lighting mitigation).
 - Street lighting should preferably be low in height and downward facing so as to not extend the urban lights at night sense of place into the eastern rural areas.
 - Downward or inward facing light such that direct lighting is not visible to the casual observer without compromising security.
- Advertising should be constrained and not be visually dominating from the N2 Highway and Urban Boulevard:

- Set back bill-boards 20m from the road reserves.
 - Make use of muted / natural colours with a mid grey hue.
 - 2m maximum height off the ground on the perimeter areas.
 - Should not be larger than 1m high x 2,4m wide (per advertisement banner).
- The colours and textures used in the development should be chosen such as to reduce visual contrast. The walls should be natural colour with a mid-grey hue, and the roof material preferably slate grey/ or similar. White colour on the walls should not be used.

9.2 Specific Mitigations

9.2.1 N2 National Highway Eastbound: Western Apartments (phase un-named on plan) along Knysna Road.

- Maximum 8.5m height restriction with natural/ earth colours for walls and roof areas.
- 10m buffer around the exterior sections of the Apartment area for 2m high berm and intensive indigenous landscaping as per the existing Kraaibosch Estate berm landscaping depicted below.
- Street trees on both sides of all main roads at 15m between stems to reduce massing effects and more effective landscape transition to the eastern Garden Route landscapes. Single row of street trees along each of the internal roads also at 15m intervals.
- In relation to views from the elevated bridge of Knysna Road, Phase A2 needs to reflect a similar tree “row” landscaping as Phase A1 to allow for visual continuity and reduction of massing effects from the higher density apartments. The green space rows need to extend into the apartment area with these areas depicted in the layout. Planting of trees 15m stems along the identified ‘green’ breaks in the apartment residential areas.

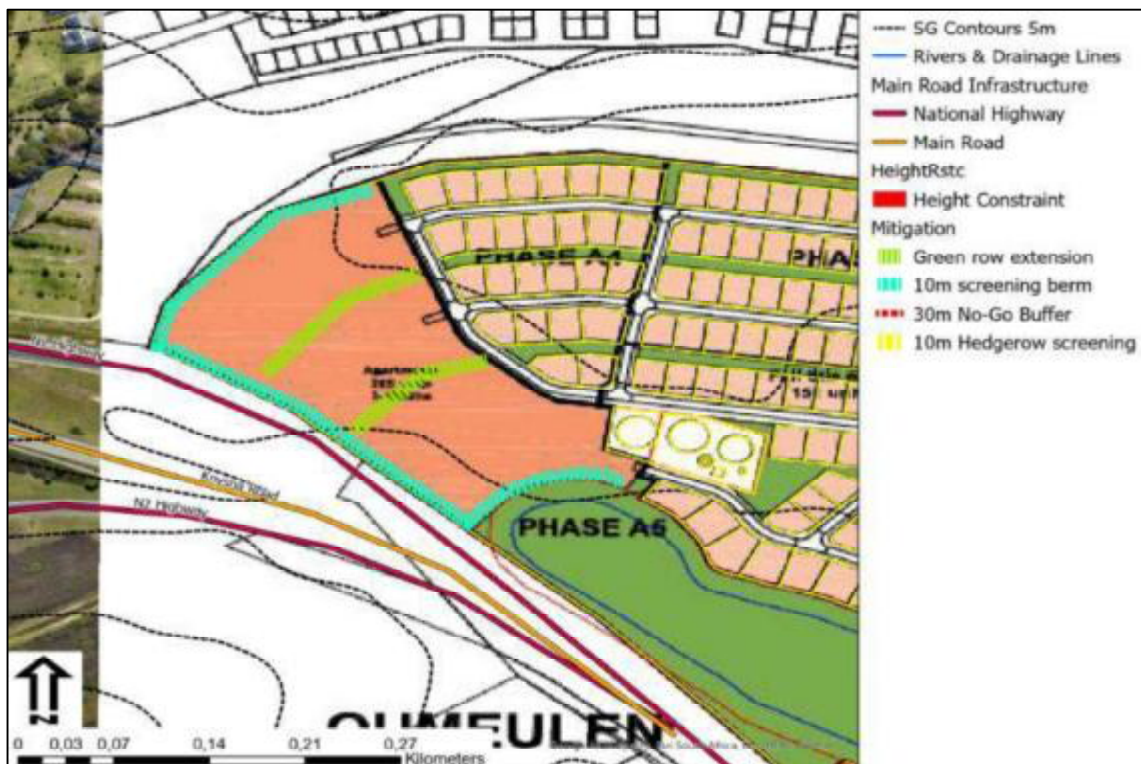


Figure 30: Western Apartments Section concept mitigation map.



Figure 31: Kraaibosch Estate suitable screening berm example that should be used as a landscaping design template.

9.2.2 N2 National Highway Eastbound and Westbound: Southern Apartments and Phase A2.

- The areas adjacent to the N2 Highway and the wetland need to be retained as open space and all pine trees need to be removed in this area to allow for the initial Garden Route view to the east for N2 Highway receptors travelling east.
- The single, northern townhouse structure should well screened with the planting of at least 3 x medium sized fast growing indigenous trees.
- The area where Teachers Apartments are proposed, should retain the pine trees that are not a fall risk to the proposed structures, as temporary visual screening. This area adjacent to the highway needs to reflect a similar landscape context of scattered trees, but with indigenous trees grown between the pines. Once the indigenous trees become established, the pine trees can slowly be removed as they will become a fall risk when they get very tall.
- Black Thru-view type fencing that allows for security without visual restriction.
- Natural earth-based colours with a grey hue for all structures.

9.2.3 Urbans Boulevard

- The existing indigenous trees within the Urbans Blvd. road reserve on the embankment areas have not taken due to very shallow topsoil on top of clay subsoils. The trees are stunted and unlikely to grow effectively without specific measures to introduce topsoil. Detailed landscape planning around a wide 2m high planted berm to reduce the visual intrusion of the proposed double storey structures along this route should be generated and provided to the George Aesthetics Committee for review.
- The areas around the current entrance to the Outeniqua Farmers Market that have been landscaped, should be retained as a component of the new estate entrance. The small wetland area to the south of the entrance should be incorporated into this indigenous tree landscaping as part of the open space 'pause' area that is proposed for the Meulenzicht areas to the east of the Boulevard as a continuity open-space.
- In order to not change the wide road reserve design, as well as not set a precedent for sale of road reserve that could add to the sense of place, the proposed sale of a portion of the Urban Boulevard for development expansion is not supported.



Figure 32. Phase 2A and Eastern Phases concept mitigation map.

10 PRELIMINARY OPPORTUNITIES AND CONSTRAINTS

10.1 Preferred Development Option: Without mitigation

Opportunities

- Economic and employment opportunities for the local area.

Constraints

- Degradation of significant views from the N2 Highway area to the east that currently depict open views to the undulating Garden Route landscape with the Outeniqua Mountains in the background.
- Walling effects along the Urbans Boulevard that would detract from the essence of the design which has value as an urban view corridor.

10.2 Preferred Development Option: With mitigation

Opportunities

- Residential development without significant loss of local visual resources and with relatively low visual intrusion to local receptors with mitigation (medium to long-term).
- Removal of alien trees on the property that will become a fall/ alien tree invasive risk and re-establishing quick growing indigenous tree species.
- Economic and employment opportunities for the local area.

Constraints

- Potential for the residential development to set a precedent for other residential areas to the west outside of the urban edge (Medium risk).
- Loss of some landscape character and sense of place from the existing peri-urban landscape context / eastern Garden Route areas as the visual presence of George expands to the west.

10.3 No-Go Option

Opportunities

- Retaining existing peri-urban landscape context that does enhance the George/ Garden Route interface as well as retain existing heritage vistas to the eastern Garden Route and Outeniqua Mountains.

Constraints

- Limited economic benefit to the local area, and the continuation of the fairly fragmented peri-urban sense of place at this section of the Kraaibosch traffic circle development node.

The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred. However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.

11 CONCLUSION

The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred.

However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.

Two key mitigation measures are proposed:

1. Detailed landscaping for the section along the N2 Highway to ensure that the intensity of the proposed landscape change can be effectively mitigated by strategic planning of trees.
2. Detailed landscaping for the section along the Urbans Boulevard such that the natural constraints of the soil can be overcome, and with the introduction of a low topsoil berm to create a natural landscaped area that offers partial screening to the proposed double-storey dwellings, as well as create an aesthetically pleasing landscape along the Boulevard.

With these measures in place, the development would deliver economic and housing benefits while reducing visual intrusion. Although the character of the Boulevard would change with housing on both sides (Oumeulen Estate to the west and Meulenzicht to the east), the intensive landscaping would help soften the magnitude of the visual intrusion created by the dwellings located on elevated terrain to the west of the road. From a landscape and visual perspective, the project, in its mitigated form, would set a positive precedent for future developments along the Garden Route urban edge, balancing growth with partial retention of local landscape character.

Limitations pertaining to the assessment, include the limited architectural guidelines as well as a strong emphasis on landscaping for mitigation, that will only be generated after project approval. To address these procedural risks, the architectural guidelines and detailed landscaping plans should be reviewed prior to construction and submitted to the George Aesthetics Committee to ensure they align with the broader, emerging 'garden city' identity of George.

In conclusion, from a landscape and visual perspective, the mitigations proposed for the preferred development layout would be suitable to ensure that significant landscape degradation of the existing landscape and visual resources would not be degraded. The Preferred Development Option, with additional landscaping, is the visual and landscape preference.

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13 ANNEXURE A: SITE VISIT PHOTOGRAPHS AND COMMENTS

The following photographs were taken during the field survey as mapped below. The text below the photograph describes the landscape and visual issues of the locality, if applicable.

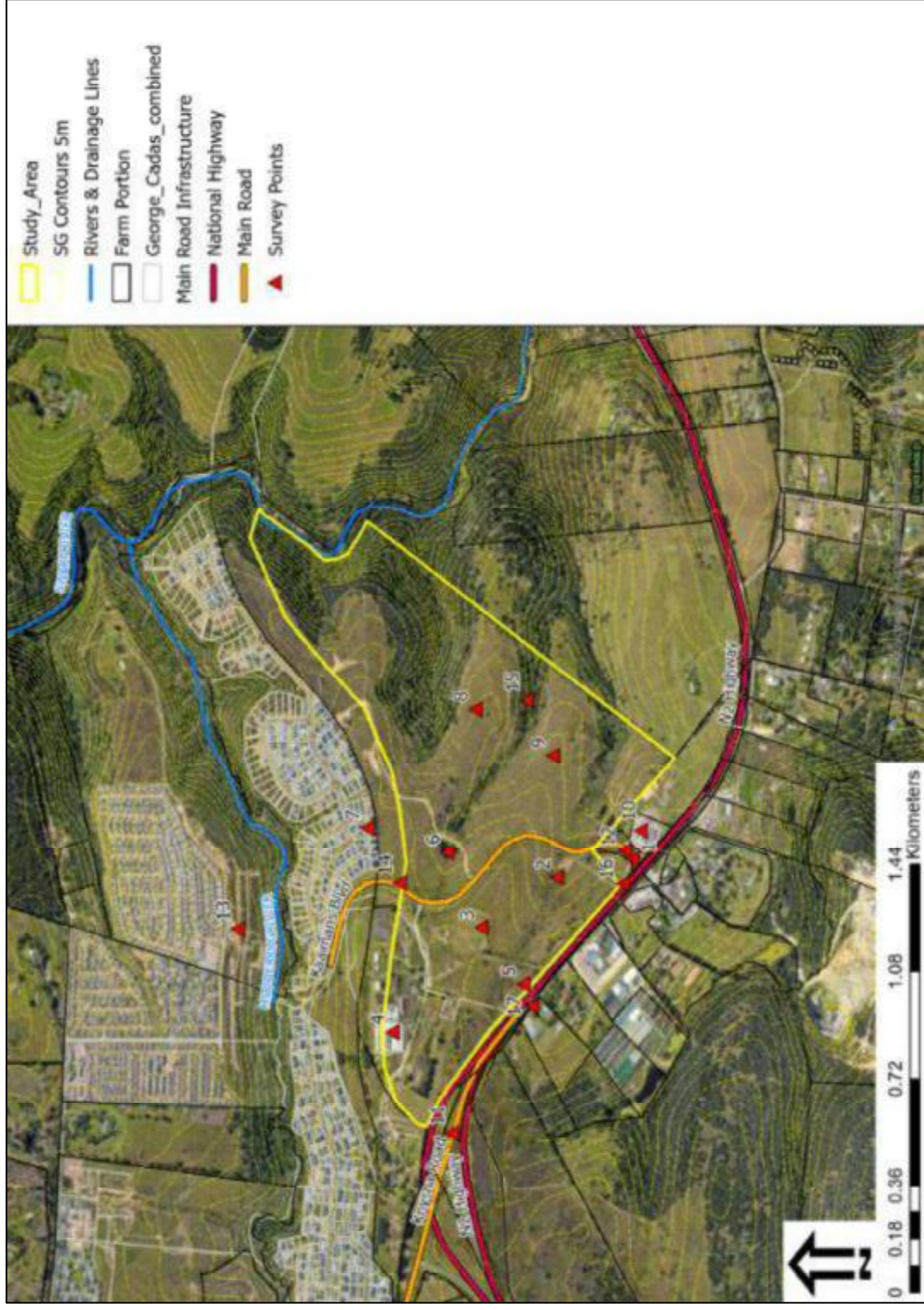


Figure 33: Survey point and project locality map.

Table 22. Site Visit Landscape Risks table

ID	Remarks	Time	Geometry	Risk	Motivation
1	Future development node adjacent to Sasol garage	05/23/2024 08:53:28.000 GMT+02:00	POINT Z (22,51972449 -33,99142613 227,742)	High	Future development node adjacent to Sasol garage. Within the urban edge but within area adjacent to the N2 that has significant gateway views and as such was planned as a Tourist Precinct. The proposed development has a risk of visual intrusion to the background mountain. Development should be cut into ground and lower in height to allow for undisturbed view from the traffic circle gateway.
2	Drainage wetland	05/23/2024 09:03:10.258 GMT+02:00	POINT Z (22,51916740 -33,98916951 0,000)	Low	Excluded from the development footprint.
3	Peri urban grasslands	05/23/2024 09:12:34.000 GMT+02:00	POINT Z (22,51766926 -33,98687624 242,123)	Medium	Single residential development. Prominent topographic area that could result in skyline intrusion as seen from N2 eastbound. 8m height restriction.
4	Outeniqua Farmers Market context	05/23/2024 09:15:25.392 GMT+02:00	POINT Z (22,51449566 -33,98418803 0,000)	Low	Local attraction adjacent to old sawmill. Old structure does increase Visual Absorption Capacity level.
5	Apartments	05/23/2024 09:22:40.999 GMT+02:00	POINT Z (22,51594823 -33,98814524 237,686)	High	Potential for obscuring significant views of Outeniqua Mountains to east as seen from adjacent N2 highway.
6	Small dam	05/23/2024 09:29:37.828 GMT+02:00	POINT Z (22,51992378 -33,98584577 0,000)	Medium	Small dam as Focal point for background views of Outeniqua Mountains.

7	Welgelegen Views Estate precedent	05/23/2024 09:31:27.911 GMT+02:00		POINT Z (22,52067983 -33,98343017 0,000)	Low	Precedent development adjacent to future N2 highway routing.
8	Undulating peri-urban grasslands	05/23/2024 09:34:39.731 GMT+02:00		POINT Z (22,52425220 -33,98669396 0,000)	Medium	Landscape fragmentation. Undulating grasslands with current rural landscape context. Area's east of urban edge would require access via the west (the proposed estate). This could set a precedent for pushing urban edge to areas west of the Swartvriër. This is outside of the urban edge and unlikely to take place.
9	Undulating grasslands adjacent to rural land uses outside of urban edge	05/23/2024 09:39:53.344 GMT+02:00		POINT Z (22,52286416 -33,98903663 0,000)	Medium	Proposed single residential. Agricultural land use with strong ties to Garden Route undulating terrain sense of place. Low profile and not visually intrusive.
10	Sasol garage node	05/23/2024 09:43:53.845 GMT+02:00		POINT Z (22,52059232 -33,99169864 0,000)	Low	Tourist zoning in relation to N2 highway stop.
11	N2 Bridge Eastbound	06/12/2024 14:52:12.999 GMT+02:00		POINT Z (22,51143477 -33,98597836 241,409)	Medium	Higher VAC levels from N2 Bridge infrastructure and lighting, but view linked to heritage of old sawmill and previous pine plantations. Suitable with mitigation with exterior berm and tree landscaping, setback 50m for structures and internal landscaping of trees along roadways. Structures adjacent to the highway should preferably be single-storey and partially screened with a landscaped berm/screening trees.
12	KOP Kaaimans Boulevard northbound	06/12/2024 15:00:53.999 GMT+02:00		POINT Z (22,51998119 -33,99121450 229,617)	Medium	Some existing development that does increase the precedent for development with the Sasol garage, N2 and Welgelegen Estate. Mitigate for road view corridor with setbacks from the road and reduced massing to allow for transition to eastern rural land use and associated landscape.

13	Groenkloof urban context	06/12/2024 15:08:17.122 GMT+02:00		POINT Z (22,51761943 -33,97951430 0,000)	Medium	Higher density of the Groenkloof Residential Village with the limitation that the smaller erven don't have sufficient space for garden trees. As such, a starker urban landscape is created if urban tree planting is not incorporated into the landscape design.
14	Kaaimans Blvd Southbound	06/12/2024 15:11:47.000 GMT+02:00		POINT Z (22,51900237 -33,98440886 237,687)	Medium	Peri-urban sense of place with Sasol garage and Kraaibosch development node visible in the background. Suitable with mitigation of buffer on road, internal landscaping, colour, architecture and lights spillage.
15	Alien tree invaded drainage line	06/12/2024 15:15:51.631 GMT+02:00		POINT Z (22,52453081 -33,98825130 0,000)	Medium	Alien invasive vegetation in rivers detracts from landscape and inhibits views east form the proposed residential areas.
16	KOP N2 circle gateway	06/12/2024 15:20:00.000 GMT+02:00		POINT Z (22,51898788 -33,99116166 232,490)	High	Iconic, landscape heritage views of Garden Route landscape a key component of the entrance to George sense of place, as well as the eastern entrance to the Garden Route 'wilderness' landscapes. Mitigate with setback and development such that views over structures take place where views to background Outeniqua Mountains not impaired.
17	KOP N2 eastbound	06/12/2024 15:28:31.000 GMT+02:00		POINT Z (22,51528228 -33,98840150 239,872)	High	Once the pine trees are removed, iconic views to the east open up as seen from this elevated portion of the N2. Mitigate with No-Go buffer along this portion of the N2 to ensure that the open views are retained.

ID	1
PHOTO	Future development node adjacent to Sasol garage with very high visual exposure to the N2 Highway where visual intrusion could take place.
RISK	High
DIRECTION	NE



ID	2
PHOTO	Drainage lines that have been excluded from the development footprint
RISK	Low
DIRECTION	W



ID	3
PHOTO	Peri urban grasslands within N2 Zone of Visual Influence (ZVI)
RISK	Medium
DIRECTION	W



ID	4
PHOTO	Old sawmill farmers market context
RISK	Medium
DIRECTION	N



ID	5
PHOTO	Apartment development proposed on skyline that will increase the potential for visual intrusion.
RISK	High
DIRECTION	E



ID	6
PHOTO	Views of the small farm dam should be retained.
RISK	Medium
DIRECTION	E



ID	7
PHOTO	Welgelegen Views Estate precedent
RISK	Low (Context)
DIRECTION	NE
COMMENT	Previous development adjacent to future N2 highway routing.



ID	8
PHOTO	Undulating grasslands adjacent to rural land uses outside of urban edge
RISK	Medium
DIRECTION	SE



ID	9
PHOTO	Undulating peri-urban grasslands
RISK	Medium
DIRECTION	E
COMMENT	Proposed single residential. Agricultural land use with strong ties to Garden Route undulating terrain sense of place. Low profile and not visually intrusive.



ID	10
PHOTO	Sasol garage node
RISK	Low
DIRECTION	E
COMMENT	Tourist zoning in relation to N2 highway stop.



ID	11
PHOTO	N2 Highway Eastbound with key views of the Outeniqua Farmers Market and pine trees related to old sawmill heritage.
RISK	Medium
DIRECTION	NE



ID	12
PHOTO	KOP Kaaimans Blvd northbound
RISK	High
DIRECTION	East



ID	13
PHOTO	Groenkloof Retirement Village urban development context
RISK	High Negative (Context)
DIRECTION	NE
	

ID	14
PHOTO	Kaaimans Blvd Southbound with higher levels of scenic quality.
RISK	High
DIRECTION	NE
	

ID	15
PHOTO	Alien invaded drainage line
RISK	Medium
DIRECTION	NE



ID	16
PHOTO	KOP N2 circle gateway
RISK	High
DIRECTION	NE



ID	17
PHOTO	KOP N2 eastbound potential for visual intrusion.
RISK	High
DIRECTION	SE
	

14 ANNEXURE B: SPECIALIST INFORMATION

14.1 Professional Registration Certificate



14.2 Curriculum Vitae (CV)

1. **Position:** Owner / Director
2. **Name of Firm:** Visual Resource Management Africa cc (www.vrma.co.za)
3. **Name of Staff:** Stephen Stead
4. **Date of Birth:** 9 June 1967
5. **Nationality:** South African
6. **Contact Details:** Cell: +27 (0) 83 560 9911
Email: steve@vrma.co.za
7. **Educational qualifications:**
 - University of Natal (Pietermaritzburg):
 - Bachelor of Arts: Psychology and Geography
 - Bachelor of Arts (Hons): Human Geography and Geographic Information Management Systems
 - MSc Geography, University of KwaZulu-Natal (2023)
8. **Professional Accreditation**
 - Association of Professional Heritage Practitioners (APHP) Western Cape
 - Accredited VIA practitioner member of the Association (2011)
9. **Association involvement:**
 - International Association of Impact Assessment (IAIA) South African Affiliate
 - Past President (2012 - 2013)
 - President (2012)
 - President-Elect (2011)
 - Conference Co-ordinator (2010)
 - National Executive Committee member (2009)
 - Southern Cape Chairperson (2008)
10. **Conferences Attended:**
 - International Geographical Congress, Lisbon (2017)
 - IAIAAsa 2012
 - IAIAAsa 2011
 - IAIA International 2011 (Mexico)
 - IAIAAsa 2010
 - IAIAAsa 2009
 - IAIAAsa 2007
11. **Continued Professional Development:**
 - Integrating Sustainability with Environment Assessment in South Africa (IAIAAsa Conference, 1 day)
 - Achieving the full potential of SIA (Mexico, IAIA Conference, 2 days 2011)

- Researching and Assessing Heritage Resources Course (University of Cape Town, 5 days, 2009)

12. Countries of Work Experience:

- South Africa, Mozambique, Malawi, Lesotho, Kenya and Namibia

13. Relevant Experience:

Stephen gained six years of experience in the field of Geographic Information Systems mapping and spatial analysis working as a consultant for the KwaZulu-Natal Department of Health and then with an Environmental Impact Assessment company based in the Western Cape. In 2004 he set up the company Visual Resource Management Africa that specializes in visual resource management and visual impact assessments in Africa. The company makes use of the well-documented Visual Resource Management methodology developed by the Bureau of Land Management (USA) for assessing the suitability of landscape modifications. Stephen has assessed of over 150 major landscape modifications throughout southern and eastern Africa. The business has been operating for eighteen years and has successfully established and retained a large client base throughout Southern Africa which include amongst other, Rio Tinto (Pty) Ltd, Bannerman (Pty) Ltd, Anglo Coal (Pty) Ltd, Eskom (Pty) Ltd, NamSolar and Vale (Pty) Ltd, Ariva (Pty) Ltd, Harmony Gold (Pty) Ltd, Millennium Challenge Account (USA), Pretoria Portland Cement (Pty) Ltd

14. Languages:

- English – First Language
- Afrikaans – fair in speaking, reading and writing.

15. Projects:

Table 23: VRM Africa Projects Assessments Table

DESCRIPTION	COUNT	DESCRIPTION	COUNT
Dam	1	UISP	8
Mari-culture	1	Structure	8
Port	1	OHPL	12
Railway	1	Industrial	12
Power Station	3	Wind Energy	22
Hydroelectric	4	Battery Storage	14
Resort	4	Mine	20
Golf/Residential	1	Residential	45
Road Infrastructure	5	Solar Energy	62
Substation	5	TOTAL	237

15 ANNEXURE C: METHODOLOGY DETAIL

15.1 Baseline Analysis Stage

In terms of VRM methodology, landscape character is derived from a combination of **scenic quality**, **receptor sensitivity** to landscape change and **distance** from the proposed landscape change. The objective of the analysis is to compile a mapped inventory of the visual resources found in the receiving landscape, and to derive a mapped Visual Resource sensitivity layer from which to evaluate the suitability of the landscape change.

15.1.1 Scenic Quality

The scenic quality is determined making use of the VRM Scenic Quality Checklist that identifies seven scenic quality criteria which are rated with 1 (low) to 5 (high) scale. The scores are totalled and assigned an A (High), B (Moderate) or C (low) based on the following split:

A = scenic quality rating of ≥ 19 ;

B = rating of 12 – 18,

C = rating of ≤ 11

The seven scenic quality criteria are defined below:

- **Land Form:** Topography becomes more of a factor as it becomes steeper, or more severely sculptured.
- **Vegetation:** Primary consideration given to the variety of patterns, forms, and textures created by plant life.
- **Water:** That ingredient which adds movement or serenity to a scene. The degree to which water dominates the scene is the primary consideration.
- **Colour:** The overall colour(s) of the basic components of the landscape (e.g., soil, rock, vegetation, etc.) are considered as they appear during seasons or periods of high use.
- **Scarcity:** This factor provides an opportunity to give added importance to one, or all, of the scenic features that appear to be relatively unique or rare within one physiographic region.
- **Adjacent Land Use:** Degree to which scenery and distance enhance, or start to influence, the overall impression of the scenery within the rating unit.
- **Cultural Modifications:** Cultural modifications should be considered and may detract from the scenery or complement or improve the scenic quality of an area.

15.1.2 Receptor Sensitivity

Receptor sensitivity to landscape change is determined by rating the following factors in terms of Low to High:

- **Type of Users:** Visual sensitivity will vary with the type of users, e.g. recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.
- **Amount of Use:** Areas seen or used by large numbers of people are potentially more sensitive.
- **Public Interest:** The visual quality of an area may be of concern to local, or regional, groups. Indicators of this concern are usually expressed via public controversy created in response to proposed activities.
- **Adjacent Land Uses:** The interrelationship with land uses in adjacent lands. For example, an area within the viewshed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be as visually sensitive.

- **Special Areas:** Management objectives for special areas such as Natural Areas, Wilderness Areas or Wilderness Study Areas, Wild and Scenic Rivers, Scenic Areas, Scenic Roads or Trails, and Critical Biodiversity Areas frequently require special consideration for the protection of their visual values.
- **Other Factors:** Consider any other information such as research or studies that include indicators of visual sensitivity.

15.1.3 Exposure

The area where a landscape modification starts to influence the landscape character is termed the Zone of Visual Influence (ZVI) and is defined by the U.K. Institute of Environmental Management and Assessment's (IEMA) *'Guidelines for Landscape and Visual Impact Assessment'* as 'the area within which a proposed development may have an influence or effect on visual amenity (of the surrounding areas).'

The inverse relationship of distance and visual impact is well recognised in visual analysis literature (Hull, R.B. and Bishop, I.E., 1988). According to Hull and Bishop, exposure, or visual impact, tends to diminish exponentially with distance. The areas where most landscape modifications would be visible are located within 2 km from the site of the landscape modification. Thus, the potential visual impact of an object diminishes at an exponential rate as the distance between the observer and the object increases due to atmospheric conditions prevalent at a location, which causes the air to appear greyer, thereby diminishing detail. For example, viewed from 1000 m from a landscape modification, the impact would be 25% of the impact as viewed from 500 m from a landscape modification. At 2000m it would be 10% of the impact at 500 m.

Distance from a landscape modification influences the size and clarity of the landscape modification viewing. The Bureau of Land Management defines three distance categories:

- Foreground / Middle ground**, up to approximately 6km, which is where there is potential for the sense of place to change;
- Background areas**, from 6km to 24km, where there is some potential for change in the sense of place, but where change would only occur in the case of very large landscape modifications; and
- Seldom seen areas**, which fall within the Foreground / Middle ground area but, as a result of no receptors, are not viewed or are seldom viewed.

15.1.4 Key Observation Points

During the Baseline Inventory Stage, Key Observation Points (KOPs) are identified. KOPs are defined by the Bureau of Land Management as the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. These locations are important in terms of the VRM methodology, which requires that the Degree of Contrast (DoC) that the proposed landscape modifications will make to the existing landscape be measured from these most critical locations, or receptors, surrounding the property. To define the KOPs, potential receptor locations were identified in the viewshed analysis, and screened, based on the following criteria:

- Angle of observation.
- Number of viewers.
- Length of time the project is in view.
- Relative project size.

- Season of use.
- Critical viewpoints, e.g., views from communities, road crossings; and
- Distance from property.

15.2 Assessment and Impact Stage

The analysis stage involves determining whether the potential visual impacts from proposed surface-disturbing activities or developments will meet the management objectives established for the area, or whether design adjustments will be required. This requires a contrast rating to assess the expected DoC the proposed landscape modifications would generate within the receiving landscape in order to define the Magnitude of the impact.

15.2.1 Contrast Rating

The contrast rating is undertaken to determine if the VRM Class Objectives are met. The suitability of landscape modification is assessed by comparing and contrasting existing receiving landscape to the expected contrast that the proposed landscape change will generate. This is done by evaluating the level of change to the existing landscape by assessing the line, colour, texture and form, in relation to the visual objectives defined for the area. The following criteria are utilised in defining the DoC:

- **None:** The element contrast is not visible or perceived.
- **Weak:** The element contrast can be seen but does not attract attention.
- **Moderate:** The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- **Strong:** The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

As an example, in a Class I area, the visual objective is to preserve the existing character of the landscape, and the resultant contrast to the existing landscape should not be notable to the casual observer and cannot attract attention. In a Class IV area example, the objective is to provide for proposed landscape activities that allow for major modifications of the existing character of the landscape. Based on whether the VRM objectives are met, mitigations, if required, are defined to avoid, reduce or mitigate the proposed landscape modifications so that the visual impact does not detract from the surrounding landscape sense of place.

Based on the findings of the contrast rating, the Magnitude of the Landscape and Visual Impact Assessment is determined.

15.2.2 Photomontages

As a component in this contrast rating process, visual representation, such as photo montages are vital in large-scale modifications, as this serves to inform Interested & Affected Parties and decision-making authorities of the nature and extent of the impact associated with the proposed project/development. There is an ethical obligation in this process, as visualisation can be misleading if not undertaken ethically. In terms of adhering to standards for ethical representation of landscape modifications, VRMA subscribes to the Proposed Interim Code of Ethics for Landscape Visualisation developed by the Collaborative for Advanced Landscape Planning (CALP) (Sheppard, 2000). This code states that professional presenters of realistic landscape visualisations are responsible for promoting full understanding of proposed landscape changes, providing an honest and neutral visual representation of the expected

landscape, by seeking to avoid bias in responses and demonstrating the legitimacy of the visualisation process. Presenters of landscape visualisations should adhere to the principles of:

- Access to Information
- Accuracy
- Legitimacy
- Representativeness
- Visual Clarity and Interest

The Code of Ethical Conduct states that the presenter should:

- Demonstrate an appropriate level of qualification and experience.
- Use visualisation tools and media that are appropriate to the purpose.
- Choose the appropriate level of realism.
- Identify, collect and document supporting visual data available for, or used in, the visualisation process.
- Conduct an on-site visual analysis to determine important issues and views.
- Seek community input on viewpoints and landscape issues to address in the visualisations.
- Provide the viewer with a reasonable choice of viewpoints, view directions, view angles, viewing conditions and timeframes appropriate to the area being visualised.
- Estimate and disclose the expected degree of uncertainty, indicating areas and possible visual consequences of the uncertainties.
- Use more than one appropriate presentation mode and means of access for the affected public.
- Present important non-visual information at the same time as the visual presentation, using a neutral delivery.
- Avoid the use, or the appearance of, 'sales' techniques or special effects.
- Avoid seeking a particular response from the audience.
- Provide information describing how the visualisation process was conducted and how key decisions were taken (Sheppard, 2000).

16 ANNEXURE D: GENERIC LIGHTS AT NIGHT MITIGATION

Mitigation:

- Effective light management needs to be incorporated into the design of the lighting to ensure that the visual influence is limited to the project, without jeopardising project operational safety and security (See lighting mitigations by The New England Light Pollution Advisory Group (NELPAG) and Sky Publishing Corp in 14.2).
- Utilisation of specific frequency LED lighting with a green hue on perimeter security fencing.
- Directional lighting on the more exposed areas of operation, where point light source is an issue.
- No use of overhead lighting and, if possible, locate the light source closer to the operation.

Mesopic Lighting

Mesopic vision is a combination of photopic vision and scotopic vision in low, but not quite dark, lighting situations. The traditional method of measuring light assumes photopic vision and is often a poor predictor of how a person sees at night. The light spectrum optimized for mesopic vision contains a relatively high amount of bluish light and is therefore effective for peripheral visual tasks at mesopic light levels. (CIE, 2012)

The Mesopic Street Lighting Demonstration and Evaluation Report by the Lighting Research Centre (LRC) in New York found that the ‘replacement of white light sources (induction and ceramic metal halide) were tuned to optimize human vision under low light levels while remaining in the white light spectrum. Therefore, outdoor electric light sources that are tuned to how humans see under mesopic lighting conditions can be used to reduce the luminance of the road surface while providing the same, or better, visibility. Light sources with shorter wavelengths, which produce a “cooler” (bluer and greener) light, are needed to produce better mesopic vision. Based on this understanding, the LRC developed a means of predicting visual performance under low light conditions. This system is called the unified photometry system. Responses to surveys conducted on new installations revealed that area residents perceived higher levels of visibility, safety, security, brightness, and colour rendering with the new lighting systems than with the standard *High-Purity Standards* (HPS) systems. The new lighting systems used 30% to 50% less energy than the HPS systems. These positive results were achieved through tuning the light source to optimize mesopic vision. Using less wattage and photopic luminance also reduces the reflectance of the light off the road surface. Light reflectance is a major contributor to light pollution (sky glow).’ (Lighting Research Centre. New York. 2008)

‘Good Neighbour – Outdoor Lighting’

Presented by the New England Light Pollution Advisory Group (NELPAG) (<http://cfa/www.harvard.edu/cfa/ps/nelpag.html>) and Sky & Telescope (<http://SkyandTelescope.com/>). NELPAG and Sky & Telescope support the International Dark-Sky Association (IDA) (<http://www.darksky.org/>). (NELPAG)

What is good lighting? Good outdoor lights improve visibility, safety, and a sense of security, while minimizing energy use, operating costs, and ugly, dazzling glare.

Why should we be concerned? Many outdoor lights are poorly designed or improperly aimed. Such lights are costly, wasteful, and distractingly glary. They harm the night-time environment and neighbours' property values. Light directed uselessly above the horizon creates murky skyglow — the "light pollution" that washes out our view of the stars.

Glare Here's the basic rule of thumb: If you can see the bright bulb from a distance, it's a bad light. With a good light, you see lit ground instead of the dazzling bulb. "Glare" is light that beams directly from a bulb into your eye. It hampers the vision of pedestrians, cyclists, and drivers.

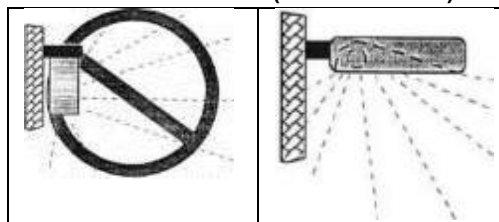
Light Trespass Poor outdoor lighting shines onto neighbours' properties and into bedroom windows, reducing privacy, hindering sleep, and giving the area an unattractive, trashy look.

Energy Waste Many outdoor lights waste energy by spilling much of their light where it is not needed, such as up into the sky. This waste results in high operating costs. Each year we waste more than a billion dollars in the United States needlessly lighting the night sky.

Excess Lighting Some homes and businesses are flooded with much stronger light than is necessary for safety or security.

Good and Bad Light Fixtures

Typical "Pack"	"Wall Pack"	Typical "Shoe Box"	"Shoe Box"
		(forward throw)	



BAD

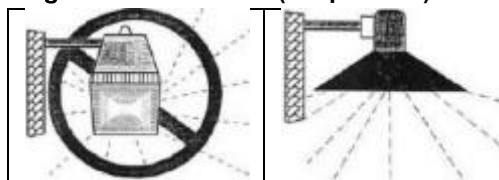
Waste light goes up and sideways

GOOD

Directs all light down

Typical
"Yard
Light"

Opaque Reflector
(lamp inside)



BAD

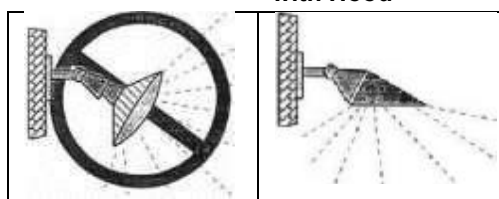
Waste light goes up and sideways

GOOD

Directs all light down

Area Flood Light

Area Flood Light
with Hood



BAD

Waste light goes up and sideways

GOOD

Directs all light down

How do I switch to good lighting?

Provide only enough light for the task at hand; don't over-light, and don't spill light off your property. Specifying enough light for a job is sometimes hard to do on paper. Remember that a full Moon can make an area quite bright. Some lighting systems illuminate areas 100 times more brightly than the full Moon! More importantly, by choosing properly shielded lights, you can meet your needs without bothering neighbours or polluting the sky.

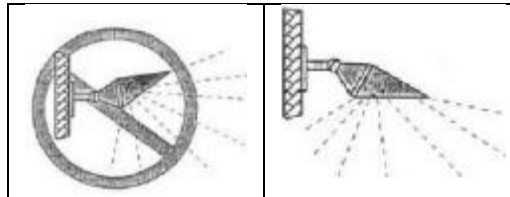
- Aim lights down. Choose “full-cut-off shielded” fixtures that keep light from going uselessly up or sideways. Full-cut-off fixtures produce minimum glare. They create a pleasant-looking environment. They increase safety because you see illuminated people, cars, and terrain, not dazzling bulbs.
- Install fixtures carefully to maximize their effectiveness on the targeted area and minimize their impact elsewhere. Proper aiming of fixtures is crucial. Most are aimed too high. Try to install them at night, when you can see where all the rays actually go. Properly aimed and shielded lights may cost more initially, but they save you far more in the long run. They can illuminate your target with a low-wattage bulb just as well as a wasteful light does with a high-wattage bulb.
- If colour discrimination is not important, choose energy- efficient fixtures utilising yellowish high-pressure sodium (HPS) bulbs. If “white” light is needed, fixtures using compact fluorescent or metal-halide (MH) bulbs are more energy-efficient than those using incandescent, halogen, or mercury-vapour bulbs.
- Where feasible, put lights on timers to turn them off each night after they are no longer needed. Put home security lights on a motion-detector switch, which turns them on only when someone enters the area; this provides a great deterrent effect!

What You Can Do To Modify Existing Fixtures

Change this . . .

to this

(aim downward)

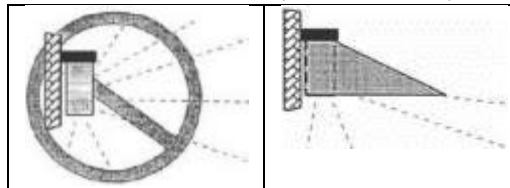


Floodlight:

Change this . . .

to this

(aim downward)

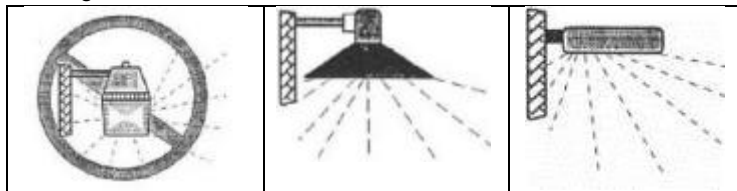


Wall Pack

Change this . . .

to this

or this



Yard Light

Opaque Reflector

Show Box

Replace bad lights with good lights.

You'll save energy and money. You'll be a good neighbour. And you'll help preserve our view of the stars.

17 ANNEXURE E: GEORGE MUNICIPALITY TREE PLANTING SPECIFICATIONS

GUIDELINES FOR THE PLANTING OF TREES (part of Annexure B)

GUIDELINES FOR THE PLANTING OF TREES

(part of Annexure A)

Position of the Tree:

1. Trees may only be planted at a distance that would ensure a 1.5m passageway throughout the life span of the tree.
2. Trees should not be placed less than 8m apart.
3. No trees may be planted closer than 10m from a street intersection.
4. No trees may be planted closer than 2m from any of the following structures: Fire hydrants; any electrical or Telkom boxes, drainage catch pits, stay wires
5. No trees may be planted within 1m from any wall.
6. No trees may be planted within 5m of a streetlight or power pole.
7. Trees should not be planted within 3m from a driveway.
8. Trees should not be planted within 5m from any road sign.
9. Trees should not be planted that may interfere with any overhead or underground services.

Hole Preparation and Planting

1. Dig a square hole of 1 x 1 m and approximately 1m deep and insert a root barrier where necessary
2. Mix the soil that was dug out with ¼ volume of good compost.
3. Add the following:
 - ½ kg of Super phosphate fertilizer or ½ kg of bone meal
 - ½ kg of 2:3:2 or 3:1:5 fertilizer
4. Mix this soil mixture thoroughly
5. Put this soil mixture back in the tree hole, leaving enough space for the root ball of the new tree
6. Remove the tree from its plastic bag or container. Care must be taken not to damage the roots.
7. Plant the tree carefully. The soil level around the tree should remain the same as in the nursery container.
8. Firm the soil, make a neat dam around the tree to hold at least 60 liter of water and water immediately.
9. Use two wooden stakes and tie the tree to the stakes with old rubber hose or similar soft material so that the stakes do not damage the tree.
10. Add a layer of mulch which will assist in preventing water loss due to evaporation. The mulch should be replaced regularly.

After Care

Due to the windy and dry summer season in the Western Cape, irrigation is a crucial factor for successful tree establishment.

The following watering schedule is recommended for all trees;

- 1- year 30 litre per week



GUIDELINES FOR THE PLANTING OF TREES
(part of Annexure B)

- 2nd year 30 litre every second week
- 3rd year 30 litre every third week

Application might vary according to local climate/soil conditions

Fertilizing - 3 year program

- 1st Year: 3:1:5 (28) or 2:3:2 120 - 300 grams per growing season
- 2nd Year: 2:3:2 120 - 300 grams per growing season
- 3rd Year: 2:3:2 120 - 300 grams per growing season





APPENDIX 3: Preliminary Heritage Assessment by S. De Kock, 2012

**PRELIMINARY HERITAGE SURVEY WITH RELATION TO PROPOSED
DEVELOPMENT: ERVEN 25541 & 25538, GEORGE DISTRICT
(OLD URBANS SAWMILL)**



ON BEHALF OF: Magnolia Ridge Properties 77 (PTY) LTD

NOVEMBER 2012

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6. Existing land use, permitted development

REFERENCES and ACKNOWLEDGEMENTS:

1. Cape Town Archives
2. George Museum Archives
3. Kathleen Schulz, Southern Cape Historian

4. Lillie, A, 2005. *Impact Assessment Report addressed to Heritage Western Cape regarding a proposed development requiring the rezoning of seven erven, the demolition of industrial buildings older than 60 years and the development of a residential complex on the site: Erven 2038, 2039, 2043, 2044, 5531, 22660 & 22661, York Street, George*. Unpublished report, Cape Town
5. Lynne Thompson, Southern Cape Historian
6. *Van Riebeeck Festival Committee (1952). Ontstaan en groei van George 'n Geskiedkundige Oorsig 1811 – 1952*", Riebeeck Festival Committee, George

ABBREVIATIONS:

1. CDSM – Chief Directorate Surveys & Mapping
2. DEA – Department of Environmental Affairs (National)
3. DEADP – Department of Environmental Affairs & Development Planning
4. HIA – Heritage Impact Assessment
5. HWC – Heritage Western Cape
6. NHRA - National Heritage Resources Act, 1999 (Act 25 of 1999)
7. NID – Notice of Intent to Develop
8. PHRA – Provincial Heritage Resources Agency
9. PHS – Provincial Heritage Site

COVER: Extract from Aerial survey 837 of 1980, Image 08882 (Source: CDSM)

1. INTRODUCTION

PERCEPTION Heritage Planning was appointed by *Magnolia Ridge Properties 77 (Pty) Ltd* to compile and lodge a Heritage Impact Assessment (HIA) to Heritage Western Cape (HWC) in terms of Section 38(1) of the National Heritage Resources Act, 1999 (Act 25 of 1999) in relation to proposed development of the study area. Sanction for submission of this HIA was provided by *Magnolia Ridge Properties 77 (Pty) Ltd*, (as developer/ on behalf of registered property owners)

This report serves as a Preliminary Heritage Survey and does not serve as a formal submission in terms of Section 38(1) of the National Heritage Resources Act, 1999 (Act 25 of 1999) but has as aim to assist/ contribute to the project as follows:

- To identify heritage issues, development constraints and opportunities at an early stage;
- To avoid potential negative impacts of the proposed development on heritage – related aspects;
- To provide guidance for planning and design of the proposed development.

In addition to interrogating the above aspects, the Preliminary Heritage Survey will also:

- Provide a background description of the current status of heritage resources within the study area;
- Define and describe the historical urban morphology of the study area;
- Identify the potential impact of the proposed terminus alternatives on heritage resources located within the study area;
- Identify further detail studies that would be required when the statutory process in terms of Section 38 of the National Heritage Resources Act, 1999 (Act 25 of 1999) is invoked.

2. BACKGROUND

Following submission of a Notice of Intent to Develop (NID) regarding the decommissioning of the sawmill by *Magnolia Ridge Properties 77 (Pty) Ltd* during April 2012 HWC issued the following Interim Comments (HWC Comment dated 4th July 2012 attached as Annexure 1):

“A Heritage Impact Assessment (HIA) is required consisting of an assessment and grading of the existing structures on site and an assessment of the impact of the proposal on these structures and the visual impact from the N2.”

This comment relates to future redevelopment of the sawmill site and not to the decommissioning per se. In order to guide future potential redevelopment of the site this report has been commissioned.

3. METHODOLOGY

As part of the compilation of this report the author has studied, visited, photographed and assessed the subject site and its environs, which more specifically involved the following:

- Field work carried out on 5th September 2012, 26th September 2012 and 6th October 2012;
- Assimilating findings and recommendations emanating from historical research in Cape Town Archives and George Museum Archives as specialist inputs;
- Identification of heritage-related issues and concerns;
- Analysis of development site and its environs;
- Identification of contextual spatial informants;
- Establishing cultural significance, based on criteria set out in NHRA;
- Identification of heritage-related design informants based on the above;
- Primary research sources located in the Cape Town Deeds Office were not accessible.

It is recommended that focussed public participation process aimed at soliciting heritage-related comments from community members (comments from local conservation body, interviews with current neighbours), be undertaken prior to commencing with further detailed planning for the site.

4. DESCRIPTION OF STUDY AREA

The site is located approximately 6km east of the George town centre, within the broader Kraaibosch area. It is furthermore directly southeast of the existing Kraaibosch Country Estate, northeast of Garden Route Mall and east of Outeniqua Farmers' Market as illustrated in Figure 2. The historic George – Knysna (Saasveld) Road, a Provincial Heritage Site, is approximately 1.6km due north of the study area.

The site forms part of an undulating landscape sloping towards the Modderug River, which defines the northern property boundary and is bounded by the N2 (South). Predominant land use within the direct proximity of the site is residential, which lands between the N2 and historic George – Knysna Road having been earmarked for future urban development (also refer Section 7). Present vehicular access is from the National Road N2, off the Sasol Petrol Station.

The subject site holds the former “Urbans” industrial sawmill which was liquidated during December 2001 and has since been in a general state of disuse. The condition and structural integrity of the majority of remaining buildings (some of which are older than 60 years) are rapidly deteriorating. Photographs of individual buildings are attached as Annexure 2 while general photographs of the study area and its environs are attached as part of Annexure 3.



Figure 1: Study area imposed on recent aerial image of surrounding areas (Source: Google Earth)

5. DEVELOPMENT PROPOSAL AND ALTERNATIVES

Details pertaining to the nature and extent of future redevelopment of the site have not yet been defined as the project is currently entering its conceptual planning/ design phase and only the decommissioning of the old sawmill site is being undertaken at present (removal of contaminated materials).

6. STATUTORY PLANNING CONTEXT

6.1 *George Draft Spatial Development Framework, 2008*

The subject site is situated within the Medium Term Urban Edge defined in this Plan, which furthermore earmarks Erven 25541 and 25538 as “Industrial” and “Infill and Expansion Area” respectively. It is understood that the proposed redevelopment will take into account guidelines contained in supplementary document not yet approved/ adopted, such as the Open System & River Corridors as well as Landscape Characterization & Visual Resource Management Analysis reports.

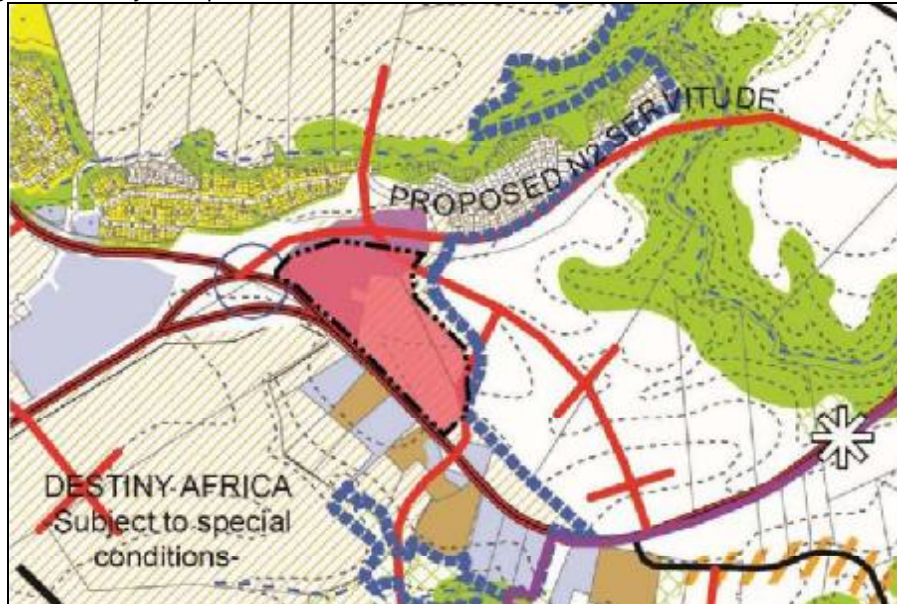


Figure 2: Extract from George Draft SDF, 2008 (Source: George Municipality)

6.2 *Kraaibosch/ Glenwood Local Structure Plan (KG LSP), 2008*

While this policy guideline document covers only the northern portion of the study area (Figure 3), it does not contain forward planning guidelines for the former Urbans Sawmill site. The Plan does however confirm the site as being within the Medium Urban Edge.

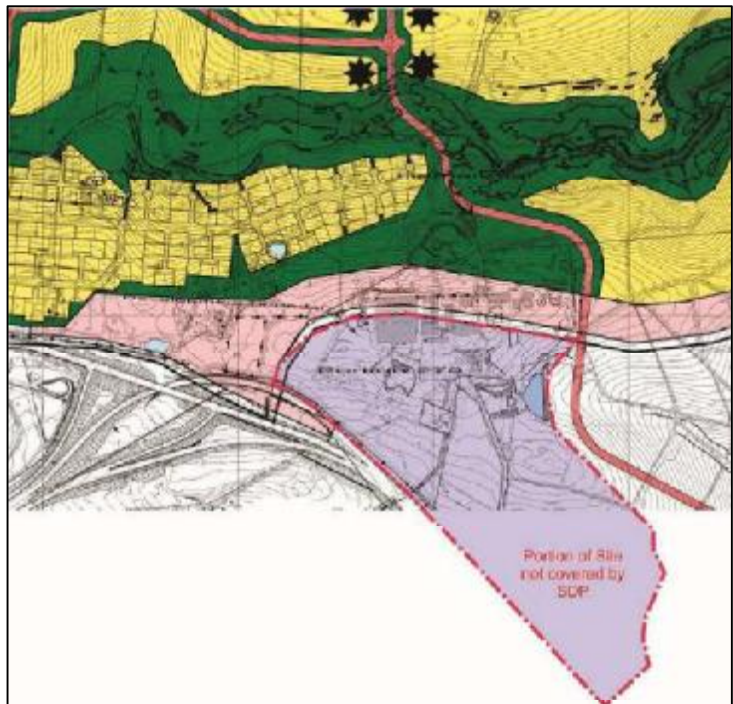


Figure 3: Study area boundary shown in context of the KG LSP, 2008 (Source: George Municipality)

7. HISTORICAL BACKGROUND

Historical background research focussed on relevant primary sources obtained in the George Museum Archives as well as research by local historians Kathleen Schulz and Lynne Thompson.

7.1 Early pertinent history

A woodcutters' outpost was established in Outeniqualand in 1777, on the approximate site on which George was established in 1811¹. The purpose for establishing a Government post was two-fold, one to monitor the illegal trafficking of wood resources from the district, and secondly to supply a regulated quantity of wood to the Cape for building purposes. By the year 1782, 15 government employees, were stationed at the post². The exact position of the post house settlement has not yet been established, but the manager of the woodcutters post, Sebastian Fend was granted land named Brakkefontein now known as the area Glenwood in 1816 once his government position became obsolete.³ The sites of these early farmsteads have not been identified.

Early traveller accounts state that the wagon road leading from George town to the Kaaimans river crossing then known as Kaaimansgat, ran along the ridge of the Klein Zwart and Kaaimans Rivers (approximate location of historic George – Knysna (Saasveld) road). It would appear that many informal woodcutter allotments were situated along this route. Many of these homes seem to have been destroyed during c. 1801 by invaders from the Eastern Cape as testified by early traveller W Paravicini di Capelli when he travelled the route in 1803. *"Departing from the Outeniqua Post, we saw on our way through the forest many farms plundered, burnt or completely destroyed..... By noon we halted at the burnt-out farmhouse of a certain Hertz Grunstadt In the afternoon we crossed the deep drift of the Trakadakouw (Kaaimansgat)."*

7.2 Zwartrivier 194/ Kraaibosch 195

Though proclamation of George as town and magisterial district (named in honour of the reigning monarch, George III) took place on 23rd April 1811, one of the other first (prominent) loan farm entries for the farm Zwart Rivier (renamed "Kraaibosch" from c. 1903 onwards) was described as being, *"this side [west] of the Kaaimans River"* and was registered at the Castle of Good Hope, Cape Town on 5th November, 1790 in favour of Jan Frederick Berends⁴.

Annual loan payments were not recorded on the contract, indicating an outstanding amount at the time the Quitrent was granted to Widow Berends⁵ in 1818. Census records dating back to 1809 refer to Frederick Behrens' occupation on the farm as that of a woodcutter⁶. A household inventory dated 30th January 1790, taken at the time of his death suggests that he died earlier the same year (see Annexure 5). His widow appears to have remained on the farm Zwart Rivier until she took ownership by means of the quitrent grant in 1818. The southern boundary of the farm Zwart Rivier is described as being that of the ocean, and therefore Kraaibosch 195/64 would have been included within the farm boundary. The Berends homestead depicted on the original diagram is situated centrally on the 1,434 morgen farm (i.e. well outside the subject property boundary).

The farm Kraaibosch 195 was formally surveyed and registered in 1913 (S.G. Diagram 130/1913) whilst the original surveyed farm name Zwart Rivier 194 was cancelled (refer S.G. Diagram 454/1818) and henceforth applied to a much smaller portion of land.

¹ Cape Town National Archives (CTNA) C 155 Resolutions of Political Raad: 8.7.1777, pp. 279 – 283

² Kaapse Archiefstukken - Pg 449; Kathleen Jeffreys. Pub. Cape Times Beperkt 1931 –

³ Cape Town Deeds Office (CTDO) George Quitrents 1/1816 measuring 15 morgen 406 sq rds.

⁴ Cape Town Archives (CTA); RLR 36.2 p.517.

⁵ Note that spelling of the surname Berends (or "Behrends") varied depending on which primary archival source was interrogated

⁶ CTNA J323 (Opgaaf Series)



Figure 4: Original boundaries of farm Zwart Rivier transposed onto compilation of 1880-1890 SG Map. The farm name "Kraaibosch" appears on maps from c. 1903 onwards (Source: George Museum Archives)

7.3 Prominent early occupants of the farm Zwartrivier/ Kraaibosch

Michael O'Connell:

O'Connell, who took transfer of the farm from Paul Gerber in 1843, was chairman of the commissioners who formed the George Town Council and his portion of Zwart River included Gunter's Bay which, in honour of Queen Victoria's Jubilee in 1847, he renamed Victoria Bay on his farm called Kraaibosch, the larger portion of Zwart River farm. The farm, Zwart River, was large and the name of Kraaibosch and Klein Kraaibosch was given to parts in order to identify particular areas.

Edwin Thomas Leach Edmeades:

During 1911 the farm Kraaibosch 195, and directly thereafter, Zwart Rivier 194, was purchased and transferred to Edwin Thomas Leach Edmeades. Edmeades, a prominent person from Oudtshoorn was a businessman, feather baron, expert on irrigation and entrepreneur. He owned farms in Oudtshoorn, George and Colesberg and it was at his instigation and determination that the Kamanassie Dam was built. He held many public positions in Oudtshoorn and commanded the district militia during the Boer War. His "feather palace" home was "Pinehurst" at Oudtshoorn. Edmeades subdivided and sold substantial portions of the original Kraaibosch farm, details of which are not relevant to this report. Edmeades died in July 1925 and the heirs to his vast estate were his wife and family in Oudtshoorn. They had no interest in Kraaibosch, with the exception of a few plots at Victoria Bay, and the executors of the estate held an auction in 1927 selling all but two lots.

7.4 Deeds search

The following table represents the results of Deeds searches insofar it relates to the farm Kraaibosch 195 and the subsequent proposed development site (Erven 25538 & 25541, George) and its historic association with Forestry/ use as a Sawmill.

Date	Mother Erf	Prop Extent (morgen)	Owner	Transferred to	New Erf	Notes
1919.09.18	195/1 Lot A	602m 565rd ²	ETL Edmeades	Ponsonby Hodge Plantations Ltd	195/1/1	Plantation
1919.09.18	195/1	302m 565rd ²	ETL Edmeades	Ponsonby Hodge Plantations Ltd	195/1/1	
1941.06.27	195/1 all	302m 565rd ²	Ponsonby Hodge	John Reinhold Urban (b 1886.12.28)		
1948.04.05	195/1 all	302m 565rd ²	J R Urban	Urban's Industries (Pty) Ltd		Urban
1941.06.27	195/2/1 all	100m	Ponsonby	John Reinhold Urban	195/1/1	
1948.04.05	195/2	100m	J R Urban	Urban Industries (Pty) Ltd		Urban
1952.04.24	Ptn 71		Urban Industries	Herman Wiese as SA Region of the Society of the Catholic Apostolate	195/7/1	
1947.05.20	195/6 Rem		H J Vintcent	Oswald Andrew Urban	195/6	
1971.07.21	195/Rem		Oswald Andrew Urban	Urban Industries	195/6/2	Urban
1924.05.08	195/7	107m	ETL Edmeades	Govt of Union of SA	195/7	Plantation
1941.12.30	195/7	107m	Govt of Union of SA	Urban Industries	195/49 -51	Urban
1942/1948	195/12		E P Robertson	J R Urban / Urban Industries	195/12/1	

7.4.1 Ponsonby Hodges

While this study did not include detailed research with relation to Ponsonby-Hodges, we know that a portion of the farm Kraaibosch 195/1 (602m 565 roods² in extent) was purchased by Ponsonby-Hodges Plantations from Edwin Thomas Leach Edmeades in 1919. Following the passing of Ponsonby Hodges in c. 1940, the Kraaibosch plantation and grounds were offered for sale at Kraaibosch, John Urban was in position to buy the property. It is understood that the Urbans took occupation of the subject site from this time.

7.4.2 August Urban

August Urban was a born native of Guben, province of Brandenburg, 120km southeast of Berlin, Germany and landed in Mossel Bay in 1879. He settled in the village Blanco, just outside George, where he got employment at a boot and shoe factory. He then worked for the late Mr. Drummond. In 1886, August Urban was appointed manager of Messrs. Searle's factory at Great Brak River. In 1888 however, he set up his own business in George.

August married Rosa Frei, a girl of Swiss descent, whose father as a local baker. They had eleven children and when August passed away at 51 years old on 2nd September 1906, Rosa was left to struggle alone to bring up her large family. She made clothes, and his eldest son, John helped tanning leather and making "Velskoens" which they sold as far away as Langkloof.

7.4.3 John Urban & Urban Industries

The Urban family moved from Great Brak River to Blanco, then to George, where John, following in his father August's footsteps, established himself as a tanner and a shoemaker. He married to a local girl named Myrtle de Reuck (1897- 1963*). John's first shop occupied one of the three rooms in a small building where the post office is now located⁷. Here he installed tanning containers (and was eventually requested to move his enterprise away from the centre of town because of the unavoidable smells).⁸ He later bought Erf 5531 and the surrounding Erven in 1918⁹ where he expanded his business by starting a shoe factory, which developed rapidly. By 1931 the boot factory and tannery, employed 120 employees and was able to turn out 1500 pairs of footwear per day and cure an average of 1000 skins per month¹⁰.

It was therefore understandable that the business encountered difficulties obtaining shoeboxes and consequently the decision was made to manufacture their own by setting up a small sawmill for box crates to send boots by train. During the 2nd World War, John made huge quantities of boots for the army. The company expanded its interests and grew timber sections with sawmills at Kraaibosch, Farleigh and George to provide building timber for doors, windows, planks and boxwood. The demand for fruit crates grew with expansion of the Langkloof apple and pear export industry.

⁷ George Herald; December 1993

⁸ George Museum Society; Bulletin 17; Page 2; June 1986.

⁹ Heritage Impact Report addressed to Heritage Western Cape; Ashley Lillie; 6 June 2005)

⁴ Lynne Thompson; 14 September 2012.

*Date denotes birth – death

¹⁰ George & Knysna Herald, 16th December 1931





Images 1, 2: Typical early sawmill yard and employees processing bulk timber in George area, early 20th century
(Source: George Museum Archives)

Plantations were greatly expanded and as a result a large modern sawmill was built. John had another stroke of good fortune when the Department of Forestry wanted to sell thousands of fallen trees, and he could enter his contract knowing that his mill could handle the timber. He was the first private miller to enter such a contract with the Department of Forestry. Sons Oswald took over as managing director. Claude and Allen Urban with brothers-in-law, Stone, Shankland and Moore were all active in the different divisions of the business.

The company gradually expanded its interests with sawmills at Kraaibosch, Farleigh and George to provide building timber for doors, windows and planks and boxwood. The company built the first block of apartments in George – the Urban Building¹¹. According to an advert in a local publication (c. 1945), Urbans Industries (Pty) Ltd were suppliers of a wide range of timber products, including, “all kinds of rough sawn building material in South African Pine, floorings, ceilings, cornices, architraves, joinery, imported Pine, doors, frames, jams and casement windows. Also all other types of boxes and shooks for fruit packing purposes¹²”.

John Urban died 2nd November 1958 of a heart attack after fishing at Herold's Bay¹³. He served in public office as member of the local George town council as well as the George Divisional Council and held office as mayor for more than one term. In his private capacity he was involved in a number of commercial enterprises (e.g. President George Angling Club; President of the George Golf Club, ex chairman on the George Seed Potato Growers' Union; Chairman of Board of Directors of Amalgamated Motors) and was involved with numerous charity organisations. He received the Silver Jubilee Medal, the George V and Queen Mary (Manufacturing) Medal (footwear and timber products).

On the 1st November 2001, MD John Urban Jnr, announced closure of Urban Industries. The building industry was in recession with spike in interest rates resulting in an industry over-supplied with timber. They had attempted to direct efforts towards the pine furniture export market in the USA but profits did not cover operating costs. A deal was proposed to sell the shares in the business to an international group of investors but a subsidiary of the Urbans group did not support the deal. A hostile take-over bid was suspected and sought the protection of the courts for provisional liquidation, granted unopposed on 19th October 2001¹⁴.

¹¹ “Ontstaan en groei van George ‘n Geskiedkundige Oorsig 1811 – 1952”, Riebeeck Festival Committee, George.

¹² George Museum Archives

¹³ George Herald, 11th July 1958

¹⁴ George Herald, 1st November 2001

7.5 **Sawmill and Plantation fires**

Image 3 below shows a typical example of an early Boiler Room similar to that remaining on the subject site. The facility functions by receiving sawdust from the factory floor via a system of ducts feeding into a Cyclone (top of structure), collecting in the Bin and falling into a V-shaped Hopper (also refer Section 8.2.2) following which it is fed into the Boiler Room (building with chimney behind cart). Sawdust and timber off cuts (visible on cart and foreground) are fed into the boiler via a conveyor belt in order to generate steam for operation of the timber kilns (not visible in this image).

Normally sawdust was mixed with timber off cuts as a precautionary measure as using only sawdust could cause the sawdust to smoulder and result in a fire hazard. Note in the background the elevated water tanks used to feed the Boiler.

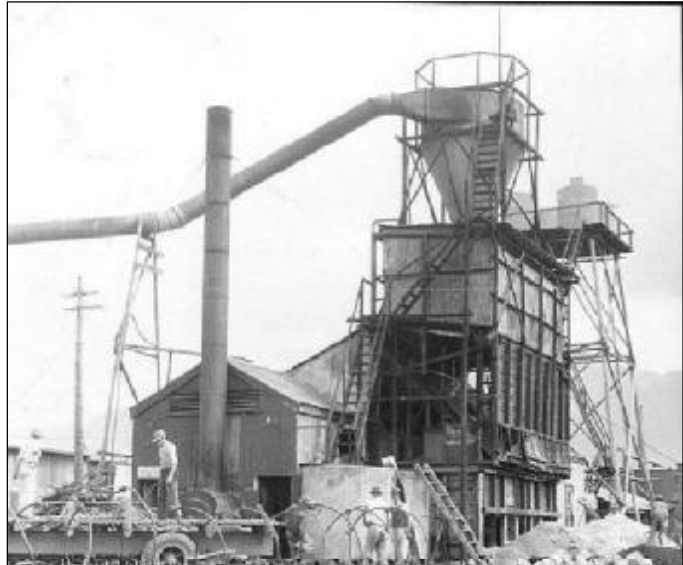


Image 3: Typical early sawdust cyclone and hopper feeding into Boiler Room intended to generate steam for timber kilns

From archival sources record a number of fires that affected the early sawmill located on the site and elsewhere in the George area:

- In December 1937 the local press reports a fire at the Ponsonby Hodges sawmill¹⁵;
- During September 1942, Urban Industries' sawmill located in York Street, George was gutted by fire. While the tanning and footwear factories were saved, machinery, saws and other equipment used in the sawmill were lost which at the time could not be replaced;
- In July 1944 another fire caused damage at Keyser's Mill, Kraaibosch causing £4000 damage to the sawmill plant belonging to MSH Keyser at Kraaibosch. The fire reportedly started on Knysna road near the old tollhouse, swept through bush and plantations of mature pines around mill site;
- In December 1966 sparks to from the steam train caused plantation fires at Kraaibosch, which also affected Urbans' property. During this fire 1,000 pines as well as a protea and heather farm in the vicinity were destroyed¹⁶.

7.6 **Conclusions**

Primary research sources available locally and in the Cape Town Archives excluded photographic records of the particular sawmill during its early development or later years. As part of oral history research, surviving members of the Urbans family were also not available for comment.

However, from a broader local historical perspective, the proposed development site is associated with the following:

- Early forestry theme, which played a significant role in early establishment and development of the town and its environs;
- Being a major employer providing a substantial number of employment opportunities to members of the local community, the site inherently retains intangible social value;

¹⁵ George Herald, 1st December 1937

¹⁶ George Herald, 9th December 1966

- Some of the remaining structures provides tangible evidence of the operation of early sawmill operations in the Southern Cape;
- The site and remaining structures is representative of the role that forestry and sawmills played in the evolution of the local cultural landscape, which over an extended period transformed indigenous vegetation timber plantations.

8. HERITAGE RESOURCES AND ISSUES

With relation to the integrated mapping of heritage resources and/ or occurrences noted on and within the proximity of the study area please note that:

- The outcomes of Historical background research and analysis of Visual Spatial issues are presented through the Heritage Resource Mapping (Annexure 5) as well as further supportive figures included in the text below where appropriate.

8.1 *Landscape setting*

8.1.1 *Urban landscape context*

The proposed study area is located on the periphery of the George urban area and ± 6 km southeast of George town centre; $\pm 3,7$ km northeast of Thembaletu; $\pm 0,8$ km east of the Garden Route Mall and $\pm 3,8$ km northwest of Victoria Bay. It is bound by Kraaibosch Manor and Welgelegen residential areas, both of which are currently under construction. Present land use as well as mapping of existing (and permitted) urban development within the direct proximity of the site, is annotated through Annexure 6.

8.1.2 *Cultural landscape context*

The term “*cultural landscape*” refers to the imprint created on a natural landscape through human habitation and cultivation over an extended period of time. While the Cape has been inhabited for many hundreds of thousands of years (pre-colonial history) prior to Western settlement (colonial history), the nomadic lifestyles of early inhabitants are not always as evident within the landscape as the significant imprints made by humans during the last two – three hundred years and more. Unlike ancient landscapes in parts of the world where intensive cultivation over periods much longer than locally have allowed natural and cultural components of the landscape to become interwoven, landscape components along the Southern Cape have not yet developed in such a manner. The fact that natural and cultural landscape components in the region is therefore more distinguished means that the cultural landscape is likely to be very vulnerable to the cumulative impact of inappropriate large-scale development.

Ultimately however, definition of a cultural landscape can be informed by the following elements, weighed through professional opinion, public values and statutory (legal) framework:

- Natural Landscape
- Public Memory
- Social History
- Historical Architecture
- Palaeontology
- Archaeology

Analysis of early aerial photography for the study area (Flight 6 of 1942, Flight 621 of 1968 and Flight 837 of 1980) reveals a number of traditional (i.e. Pre-Modern) cultural landscape patterns of the proposed development site and its direct environs as annotated below:

Aerial survey 6 of 1942 (Figure 5):

- Image provides insight into land use patterns (agriculture, forestry) prevalent within the area and how it had informed the cultural landscape character during this period;
- Early alignment of current N2 National road visible;
- Perceived extent of the sawmill outlined by plantations still to be harvested;
- Forestry block/ grid lines evident within the landscape;

- Two buildings, set within what is assumed to be the sawmill yard legible on this image, which was taken during the early beginnings of Urbans Industries on the site;
- Beginnings of Kraaibosch smallholding complex directly south of current N2 evident – note linear boundary planting in this area.

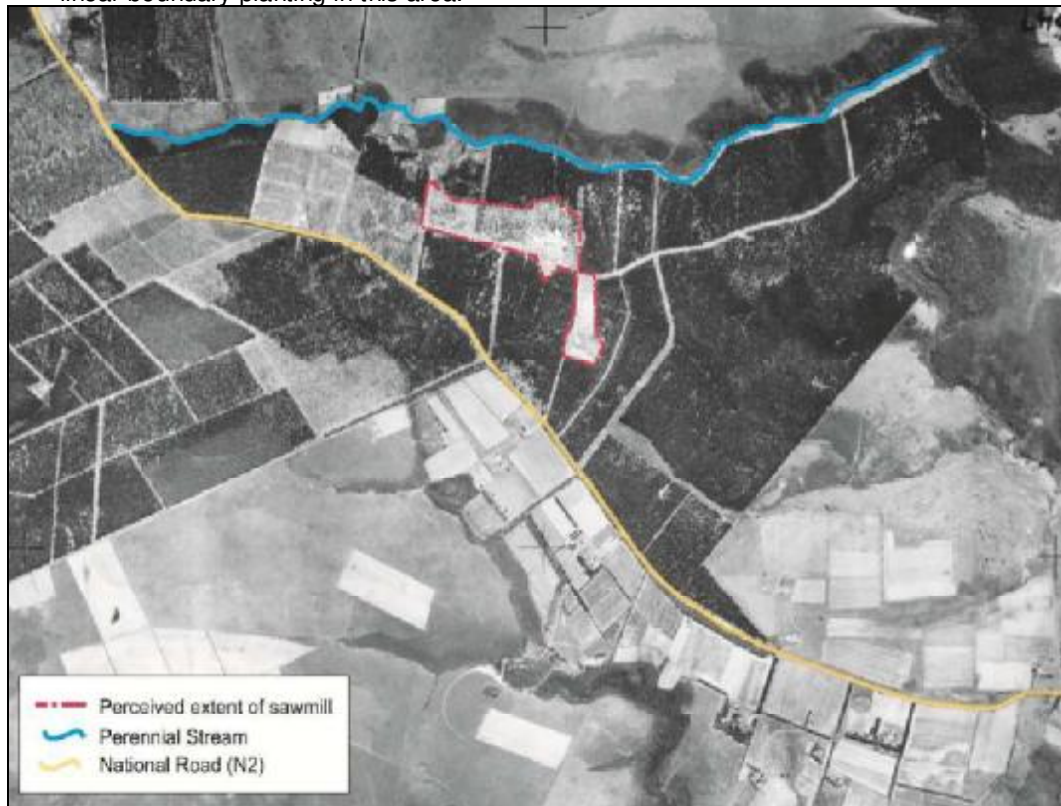


Figure 5: Earliest aerial photography of the proposed development site and its environs (Source: Flight 6/1942, Image 11243)

Aerial survey 621 of 1968 (Figure 6):

- Land use patterns with the proximity of the site seems to lean towards forestry rather than agriculture as Pine plantations matured;
- Forestry block/ grid lines evident within the landscape;
- The N2 National road – already constructed here – follows its current alignment, save for the new bypass constructed during later years;
- The sawmill site has clearly expanded and contains substantially more building when compared to the 1942 imagery;
- Small structures noted on the southern side, with frontage onto the N2 National Road;
- Narrow track traversing the property, crossing the Modderug River in northern direction.

Aerial survey 837 of 1980 (Figure 7):

- Land use pattern within the environs of the site largely dominated by forestry (plantation blocks clearly legible);
- Cluster of Pine trees visually screens the sawmill plant from the N2 National road;
- Forestry block/ grid lines evident within the landscape;
- Extent of sawmill and building complex appears largely similar to that remaining on the site in present day.

While during recent years, forestry has almost completely been replaced by urban development, the site-specific land use patterns identified above contributed to the structure and character of the present landscape within the study area over an extended period of time

and therefore assist us in providing some heritage-related development indicators to guide future development of the area (refer Section 9).



Figure 6: 1968 aerial photograph of the Urbans sawmill and its environs (Source: Flight 621 /1968, Image 00242)

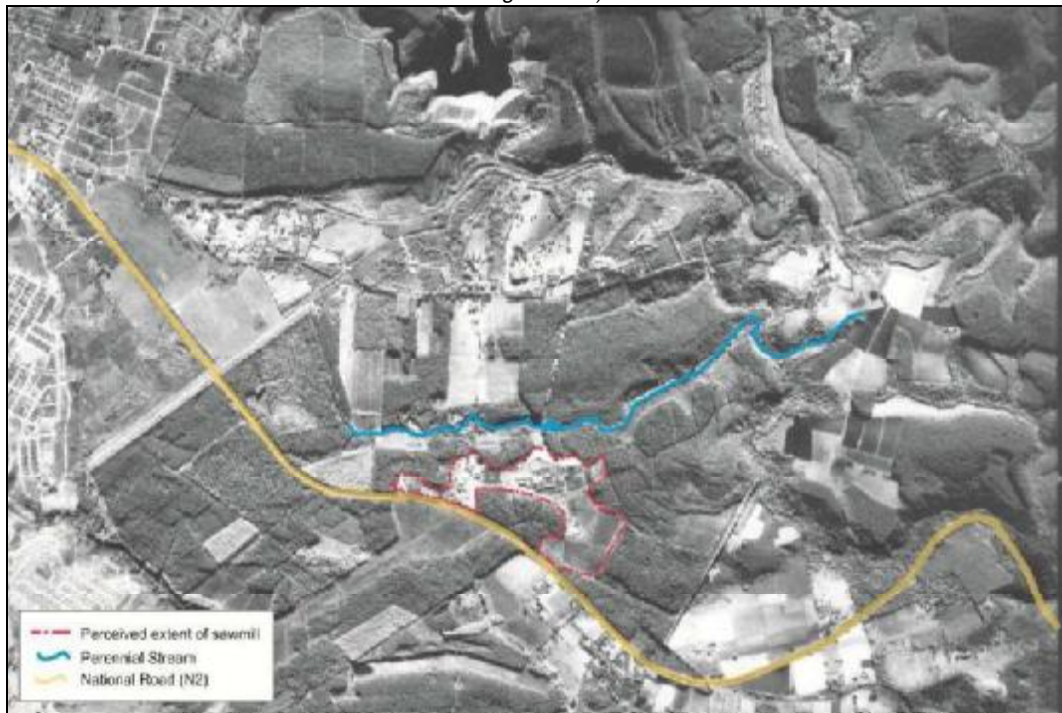


Figure 7: 1980 aerial photograph of the proposed development site and its environs (Source: Flight 837/1980, Image 08882)

8.2 Built environment

Field work carried out on 5th September 2012, 26th September 2012 and 6th October 2012 included a survey of the built environment, the aim being to identify and grade buildings considered to be of cultural significance (whether older than 60 years or not).



Figure 8: Building reference numbers used as part of built environment survey (Source: Google Earth).

8.2.1 Summary

The table below represent the location (coordinates), short description of individual buildings and photo reference number (Annexure 2):

Bldg Ref #	Coordinates	Photo Ref #, Annex 2	Description
1	S33° 59' 01.5" E 22° 31' 00.2"	1	Corrugated iron building
2	S33° 59' 02.6" E 22° 30' 59.4"	2	Circular concrete reservoir
3	S33° 59' 01.1" E 22° 30' 59.2"	3	Labourer's cottage
4	S33° 59' 00.4" E 22° 30' 59.1"	4	Labourer's cottage
5	S33° 58' 59.7" E 22° 30' 59.2"	5	Labourer's cottage
6	S33° 59' 01.3" E 22° 30' 58.4"	7	Corrugated iron panels structure
7	S33° 59' 01.3" E 22° 30' 57.3"	8	Modern concrete block building
8	S33° 59' 01.4" E 22° 30' 56.2"	9	Remains of brick lockers
9	S33° 59' 02.1" E 22° 30' 55.7"	10	Dry stacking area: timber structure
10	S33° 59' 01.6" E 22° 30' 54.6"	11, 12, 13	Timber drying kilns
11	S33° 59' 02.6" E 22° 30' 54.6"	14	Steel structure with air vent along roof apex
12	S33° 59' 02.1" E 22° 30' 54.0"	15, 16	Remains of brick construction building
13	S33° 59' 01.6" E 22° 30' 52.2"	17	Steel structure clad with clear plastic panels
14	S33° 59' 02.9" E 22° 30' 51.3"	18	Steel structure with asbestos roof panels
15	S33° 59' 03.0" E 22° 30' 52.4"	19	U-shape building supported by timber pillars.
16	S33° 59' 03.8" E 22° 30' 52.2"	20, 21	Building attached to U-shape structure clad with timber panels.
17	S33° 59' 03.5" E 22° 30' 53.7"	22, 23	Dual timber and corrugated iron structure
18	S33° 59' 04.2" E 22° 30' 54.5"	24, 25, 26	Modern concrete structure (Boiler room)
19	S33° 59' 03.7" E 22° 30' 57.2"	27, 28, 29	Historic timber and steel framed building

20	S33° 59' 04.0" E 22° 30' 58.6"	30, 31	Remains of concrete foundation
21	S33° 59' 06.1" E 22° 30' 57.6"	32, 33	Timber administration block

8.2.2 Description of structures

Individual buildings surveyed within sawmill complex may be described as follows (refer to Figure 8 for locality of each building) and include grading where considered appropriate:

- **Building 1:** Structure supported by timber columns while the walls and roof are entirely clad with corrugated iron panels. The building faces south and its current use is the storage of raw materials.
- **Building 2:** Structure includes a circular concrete water reservoir, overgrown with reeds; located on the eastern property boundary. Furthermore two modern cement block-construction outbuildings and a "Waterberry" tree were noted within the radius of the reservoir.
- **Building 3:** Remains of structure (former labourer's cottage), constructed of modern brick, plastered and painted; including timber flooring; located on the northern property boundary. The floor plan includes a main room (bedroom and living) and a kitchen with remaining chimney-stack. The cottage is positioned on a north-facing slope, with north-facing views of across the Modderrug River valley and Outeniqua Mountains.
- **Building 4:** Same description as Building 3.
- **Building 5:** Remains of labourer's cottage made of modern brick, plastered and painted, with polished cement floor. The typology of this particular cottage differs in design and floor plan (it has a T-shape plan due to an additional room). Additionally, various fruit trees (e.g. fig, banana) were noted in the vicinity of the cottage. The cottage is positioned on a north-facing slope, with north-facing views of across the Modderrug River valley and Outeniqua Mountains.
- **Building 6:** South facing industrial type building (cement block construction for offices and corrugated iron panels fixed onto a timber structure for the store).
- **Building 7:** Modern building clad with corrugated iron with brick annex to side.
- **Building 8:** Remains of what appears to have been locker room and ablution facilities due to the presence of porcelain tiles and lockers (brick- construction) were recorded.
- **Building 9:** Dry stacking area with timber structure grounded onto a concrete base and in process of being covered with shade cloth netting.
- **Building 10:** This building formerly accommodated four timber drying kiln and borders the dry stacking area. The east-facing edifice is positioned opposite the dry stacking area and retains a large steel door to each kiln. The building is set on an elevated concrete base where timber is easily removed from the kiln (A) and placed in trolleys which are moved to place B (dry stacking area) as illustrated through Figure 9. A second lean-to structure to the northern facade of Building 10 appears to have been office space and/or workshop.
- **Building 11:** Generously- sized industrial-type structure supported by steel columns on a concrete floor with open sides. Roof of structure covered by corrugated iron and fitted with an air-vent at its apex.
- **Building 12:** Remains of brick building to the rear of the four kilns (Building 10). Former openings between two buildings appear to have been closed up. The west-facing elevation is characterized by large east-facing openings. Architectural features noted include punctured niches (intended to carry roof timber trusses) located along the north and south walls as well as concrete up-stands projecting from the floor slab.

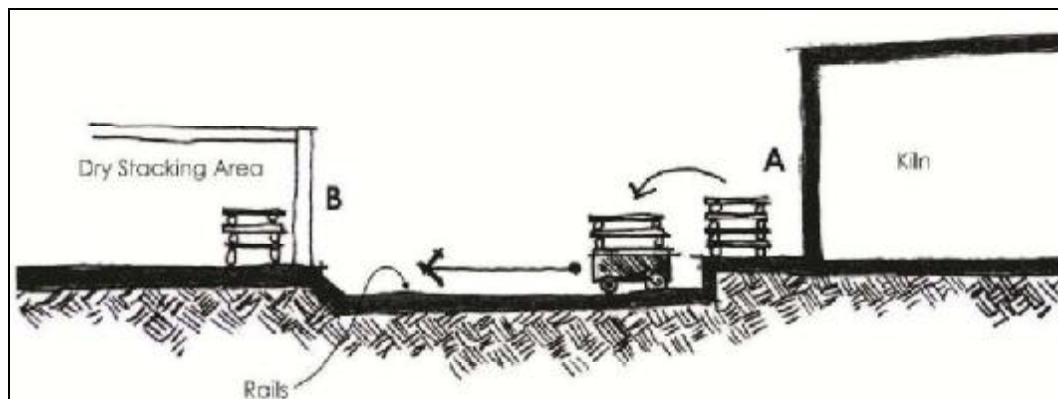


Figure 9: Diagrammatic explanation of elevated concrete base in relation to dry stacking area.

- **Building 13:** Modern steel structure noted on the property located on the western portion of the site and together with Buildings 14, 15 and 16 effectively forms one building footprint. This building has recently been clad with corrugated PVC wall panels and the roof covered similar clear plastic roof sheeting.
- **Building 14:** Steel and timber structure covered with asbestos roof panelling. The structure is centrally positioned within a “large” building precinct. We don’t think that the structure is older than 60 years and it doesn’t carry any aesthetic cultural significance.
- **Building 15:** Large U-shaped building (supported by timber truss and wide-diameter poles while roof is clad with corrugated iron sheeting). Building has small but interesting overhang—structure to east-facing elevation.
- **Building 16:** Structure attached to U-shaped Building 15. The age of the south-facing wall could not be determined but it holds some aesthetic and historical cultural significance. The lower part of the wall is constructed of concrete block whereas the upper part is of timber panels fixed to timber battens, strengthened by steel cross-bracing. We furthermore recorded the remains of the entrance facade (east-facing) consisting of timber panels fixed on battens.
- **Building 17:** Dual timber and corrugated iron structure remain in the southern section of the sawmill precinct. Their age remains irresolute but it considered of aesthetic cultural significance. A third structure (blades sharpening room/ “slypkamer”) constructed of modern concrete block remains on the eastern portion of the dual timber structure described above.
- **Building 18 (Images 4, 5):** Former Boiler room fitted with a pitch roof supported by a steel structure resting on concrete beams and columns. A dust extractor (“cyclone”) supported by a V- shape timber structure was noted on the eastern side of the building (see Figure 10) and sections of the V-shaped “Hopper” remains intact. Having been central to the sawmill operation, this structure is considered to be of historic cultural significance. The building’s structural integrity is however a concern.
- **Building 19 (Images 6, 7):** This historic timber and steel framed building stands on solid timber beams supported by pilotis (support beams) and is the oldest building remaining within the sawmill precinct. Of particular interest is the substantial size of the largely timber building, the extent of original timber flooring and wall cladding, some of which remains and the dimension and design of its original steel outer skeleton is comprised of steel profiles strengthened by steel purlins, much of which are rusted. The south-east portion of the building’s pilotis has been enclosed by modern cement block. The structure is in a very dilapidated state and may very well constitute a safety hazard. The structure is considered of local cultural significance but its potential to be restored is uncertain.



Image 4: East-facing view of former Boiler room



Image 5: North-facing elevation, boiler, cyclone no longer in place. V-shaped hopper partly removed

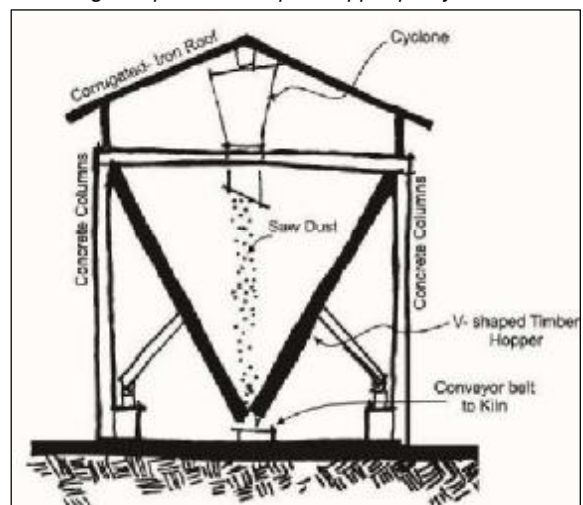


Figure 10: Cross-section of the Boiler room showing the cyclone, extracting sawdust from the factory floor, feeding it into the Boiler room via a Hopper in order to generate steam to be used in the timber kilns.

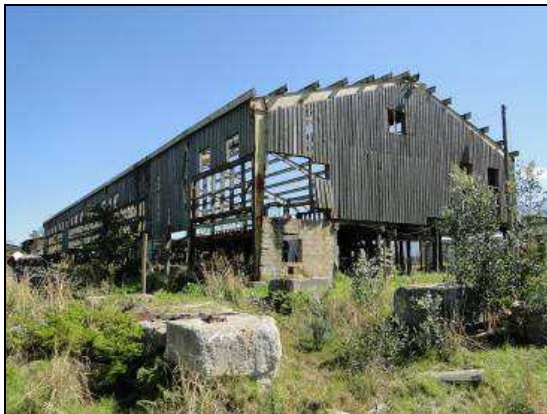


Image 6: East-facing elevation of historic timber structure



Image 7: Remaining interior of timber structure

- **Building 20:** Remains of old concrete foundations and steel columns (the exact age of the foundations could not be confirmed).
- **Building 21:** Former administrative complex consisting of mostly modern timber- but also smaller brick outbuildings, all of which are screened by a cluster of vegetation. While structures are not considered of particular significance, the trees provide screening noticeable from the N2 (see Section 8.3, View A).

- **Other:** The modern concrete water tower, while located outside the sawmill complex, is situated on Erf 25538 and contributes to the overall setting of the site.

8.2.3 Conclusions

While most of the structures remaining on the site are not older than 60 years, it is not necessarily individual buildings that lend the site its unique sense of place but rather the placing and orientation of the large, industrial-orientated and purpose-built structures in its totality. Though from a historical perspective, Buildings 18 and 19 are considered to be of the highest cultural significance by reason of its former functionality and resultant association with forestry as important local historic theme, we need to highlight the importance of considering the wider spatial qualities and identity of the building precinct as a whole.

Buildings 18 and 19 should be restored and/or replaced/ earmarked for an appropriate form of adaptive use as part of the future redevelopment of the site. Building 10 retains a number of interesting design elements which should be incorporated into future redevelopment of the site. With relation to other buildings on the site, attention with relation to future design should rather be focussed on developing an architectural design manual aimed at acknowledging existing scale, bulk, materials as well as the simplicity, flexibility and functionality of existing structures in the future architectural theme to be developed.

Furthermore, in order to capture the unique sense of place of the site and to maximise the potential benefit to be derived from a broader historic context, it is strongly recommended that an overall urban design framework be compiled before further detailed planning for the site (and each individual building) be done.

8.3 **Visual – Spatial Issues**

The proposed development site is located at a slightly elevated location in relation to the N2 National Road and as such, intermittent views of the site are possible from certain sections along the N2. While historically, the sawmill complex was entirely surrounded by pine plantations which effectively screened the site from view, the only remaining screening in place is two rows of linear-planted pine trees (L-shape) directly south and west of the building precinct as illustrated in the heritage resource mapping (Annexure 5). These trees enhance the overall visual prominence of the site while framing the views of the building precinct. Therefore, in light of the overall forestry theme inherent to the complex, it is recommended that planting of pine trees along this corridor be encouraged.

A set of linear features perpendicular to the N2 (between sawmill complex and said road) as well as a number of other linear features on the southernmost section of the site (set of linear features parallel to the N2) include what appears to be linear heaps and drainage lines (see Annexure 5). The gravel roads between the sawmill complex and N2 (upside-down “Y”) are representative of former “forestry grid/ block lines”, which no longer exists. When taken in conjunction with the location of the sawmill complex in relation to the N2 and surrounding urban development – at a slightly elevated location within the landscape – these linear features provide a sense of visual structure, order and complexity to the overall site, which should be incorporated and acknowledged urban design framework for the site.

Although the existing building precinct is visible from certain public vantage points, this is mostly viewed within the context of existing urban development within its proximity. In terms of its massing, scale and overall height, the existing building complex fits well within the landscape without adversely impacting on the natural skyline as illustrated through brief evaluation of the views below:

- **View A** – Northeast-facing long distance view showing section of sawmill complex only marginally protruding above bridge structure while rest of the complex is screened by the L-shaped row of Pine trees. Note also visual screening provided through cluster of trees within proximity of timber administration block directly south of the sawmill complex.



Figure 11: Diagram illustrating public vantage points described in text (Source: GoogleEarth)

- **View B** – Northeast-facing view taken from N2 off-ramp (eastbound) showing sawmill complex in context with existing Outeniqua Farmer's Market, directly adjacent. This image highlights importance of existing screening offered through L-shaped tree line as well as the manner in which the existing sawmill complex fits into the surrounding landscape.
- **View C** – North-facing view from N2. Image again emphasises importance of encouraging linear screening and the need to restrict maximum building height so as not to unduly encroach on the natural skyline as viewed from the N2 from this point (east- and westbound).
- **View D** – Long distance northwest-facing view of the sawmill complex as seen from directly adjoining the N2 (westbound). In foreground note gravel road representing former forestry grid/ block lines, which also in addition creates an axial approach/ view corridor between the N2 and sawmill complex from this point.

The sawmill site falls within the proximity of a major intersection, which also serves as the eastern approach to George. When evaluating examples of existing development within the direct proximity of the site, we note that the siting and orientation of structures within close proximity to the N2, (e.g. with monotonous and long barrier-like structures or the rear of buildings facing the N2 as illustrated with have the potential to significantly detract from the visual amenity of the area.

In addition, this has the potential to detract from the overall quality and sense of place for prospective visitors as it rather deters than attracts. It is therefore important that future planning of the study area incorporates important view corridors from the N2 as annotated with the heritage resource mapping (Annexure 5). Again therefore, the benefits of an overall urban design framework aimed at informing future planning with relation to redevelopment of the site, cannot be discounted.

The potential impact of future redevelopment of the site on south-facing views from the new residential developments directly north of the study area will be viewed within context of existing (and permitted) urban development within its proximity and is therefore not considered to be significant. Also note that Heritage Western Cape in their Interim comments does not express any concern(s) in this regard.

9. HERITAGE INFORMANTS AND INDICATORS

According to the requirements of Section 38(3) of the NHRA it is crucial that the land use planning and EIA processes be informed by and incorporate heritage informants and indicators as done through the mapping and grading of relevant heritage resources in Section 8 of this report. It is the purpose of this Section to summarise heritage informants and indicators and the manner in which heritage resources should be incorporated into the overall design of the proposed development and should therefore be read in conjunction with Annexure 5 (Heritage resource mapping).

9.1 *Historical context*

- From a broader local historical perspective, the proposed development site has a strong association with forestry, which played a significant role in early establishment and development of the town and its environs and which is therefore considered to be of high local historic, social and aesthetical cultural significance. Future redevelopment of the site must therefore acknowledge and incorporate this local forestry theme.

9.2 *Cultural landscape issues*

- Harvesting of the last forestry plantations and subsequent urban development within the proximity of the study area have, for the most part, transformed the landscape character of the area from forestry (and some agriculture) to predominantly urban development. For this reason it is considered necessary that remaining traditional (Pre-Modern) cultural landscape features evident within the landscape (e.g. tree lines, linear features and forestry grid block lines identified) be incorporated into the overall planning and design for redevelopment of the site.

9.3 *Visual-spatial issues*

- The site is complex and in order to capture its unique sense of place and maximise the potential benefit to be derived from its broader historic context, it is strongly recommended that an overall urban design framework be compiled before further detailed planning for the site (and each individual building) be done to avoid haphazard and inappropriate infill, which in the long term may significantly degrade the setting and viability of the site as a whole.

9.4 *Built environment issues*

- It is not necessarily individual buildings that define the unique identity of the sawmill precinct but rather the clustering and combination of substantially-sized, industrial-orientated and purpose-built structures and how these developed over an extended period of time during the operational phase of the sawmill;
- Therefore, due to the need to also capture the broader spatial qualities of the sawmill precinct, (rather than only individual buildings) attention with relation to future design should be focussed on developing an overall architectural design manual aimed at acknowledging existing scale, bulk, materials as well as the simplicity, flexibility and functionality of existing structures. This architectural design manual should tie in with the urban design framework recommended in Section 9.3 above;
- Buildings 18, 19 are considered to be of local historic cultural significance by reason of its association with forestry and its resultant design, functionality and rarity. These buildings should therefore be restored and/or replaced and incorporated into future redevelopment of the site in a meaningful manner, possibly through adaptive use;

- Consideration should be given to retain Building 10 and to incorporate its purposeful design elements and fixtures into the architectural design theme for redevelopment of the sawmill precinct;
- If possible, the modern concrete water tower located south of the sawmill precinct should be retained as it contributes to the overall setting of the study area. Manners in which to visually and meaningfully incorporate the structure into the overall urban design framework may be considered.

10. RECOMMENDATIONS

Having regard to the above assessment, it is recommended:

- 10.1 That once permission for decommissioning of the former Urbans sawmill plant is granted, the developer be required to undertake a full Heritage Impact Assessment in terms of Section 38(1) of the National Heritage Resources Act, 1999 (Act 25 of 1999) as required with Heritage Western Cape's correspondence dated 4th July 2012.

PERCEPTION Heritage Planning
13th November 2012



SE DE KOCK
B-Tech(TRP) EIA Mgmt (IRL) MAPHP



GNR NARAINNE
BAS UCT APHP Candidate

Case No: 120607SD08E
File No: HM/GEORGE/ ERF 25541 & 25538
Enquiries: Shaun Dyers
e-mail: Shaun.Dyers@pgwc.gov.za
Tel: (021) 483 9689
Date: 4 July 2012



Interim Comment

Heritage Western Cape hereby notifies:

HillLand Associates
P.O. Box 590
George
6530

of its Comments and Recommendations in terms of
Section 38(2) of the National Heritage Resources Act, 1999 (Act 25 of 1999)

For: Proposed Decommissioning and Redevelopment of the Magnolia Ridge Sawmill.

At: Erf 25541 & 25530, George.

INTERIM COMMENT:

A Heritage Impact Assessment (HIA) is required consisting of an assessment and grading of the existing structures on site and an assessment of the impact of the proposal on these structures and the visual impact from the N2.

Please feel free to contact this office for any other information.

Andrew Hall

**Chief Executive Officer/Director
Heritage Western Cape**

www.capegateway.gov.za/culture_sport

Street Address: Protea Assurance Building, Green Market Square, Cape Town, 8000 • **Postal Address:** Private Bag X9067, Cape Town, 8001 • **Tel:** +27 (0)86 142 142 • **Fax:** +27 (0)21 483 9842 • **E-mail:** hwc@pgwc.gov.za

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Photo 1: Building 1 South- facing elevation.



Photo 2: Building 2, East elevation of circular concrete reservoir.



Photo 3: South- facing elevation of building 3 (labourer's cottage).



Photo 4: South- facing elevation of building 4 (labourer's cottage).



Photo 5: South- facing elevation of building 5 (labourer's cottage).



Photo 6: Fruit trees in the vicinity of labourers' cottages.



Photo 7: South elevation of building 6.



Photo 8: North elevation of building 7.



Photo 9: South facing view of the remains of building 8.



Photo 10: Dry stacking area (building 9).



Photo 11: North-east facing view of building 10.



Photo 12: Lean to structure roof.



Photo 13: Concrete block building fitted with steel window frames.



Photo 14: North-east facing view of building 11.



Photo 15& 16: Interior shot and west elevation of building 12.



Photo 17: Interior shot of building 13.



Photo 18: Interior shot of building 14.



Photo 19: Interior shot of building 15.



Photo 20: Interior shot of building 16. **Photo 21:** Building 16 showing timber framed east facade.



Photo 22: Western elevation of building 17.



Photo 23: East elevation of the "Blade Sharpening Room".



Photo 24: Perspective of Building 18.



Photo 25: Perspective showing hopper. **Photo 26:** Interior view of building 18.



Photo 27, 28: Perspective of historic timber and steel framed structure (building 19).



Photo 29: Historic building 19



Photo 30 & 31: Remains of foundation of building 20.





Photo 32: South-facing view of former administration block (timber) and smaller brick outbuildings screened by cluster of vegetation. Note Building 18 (Boiler room) to right



Photo 33: Timber structures forming part of Building 21



Key Diagram



Photo 1 & 2: Taken from N2 showing study area.

Photo 3: Sasol Petrol Station in the background.



Photo 4: Panoramic view showing Sasol Petrol Station on the left and row of trees on the right hand side of the image.



Photo 5: Image taken from Sasol Petrol Station, showing access road to the sawmill to the right.



Photo 6: North- east image showing the building precinct in the background, neighboured by row of trees to the left.



Photo 7: North- east image clearly showing row of trees adjacent to the building precinct.



Photo 8: Panoramic image showing Outeniqua Farmers' market to the right with frontage onto the N2.



Photo 9: Panoramic image taken from the N2. Row of trees are blocking the view of building precinct.



Photo 10: Panoramic image taken from Glenwood Residential area.



Photo 11: Panoramic image showing Kraaibosch Country Estate in the foreground while the sawmill building precinct sits in the background.

HOUSEHOLD INVENTORY TAKEN AT THE TIME OF JAN FREDERK BEHRENS DEATH IN 1790.

MOOC8/50.88 (Original Dutch version)

Berns, Jan Frederik

30th January 1790

Jan Frederik Berns

30 Januarij 1790

Van deesen boedel afgezien vide resol: d:d: 31 Maart 1790

Invantaris wegens de boedel van Jan Frederik Berns

drie manslaven (unnamed)

veertig beesten

elf paarden

een half sleten wagen

een lesnaar

een tee tavel

twee bedden

een kadel

een kleer kist

een wagen kist

een pinspek tavel oorlogie

twee geel koperre kandelaars

een doezijn tinne lepels

een blikke trommel

een half slete legger

twee half aams

twee potte

agt negentig r:s vier schelng uytstaande smits werksloon

schult elf hondert vyf en tagentig r:s

Oudeniquant den 30 Januarij 1790

Door ons ondergetekende geinfanteriseert: Johan Christiaan Lamprecht, Gerret Uwel

Rd:s

1 jonge gen: Europa van Madagascar (Madagaskar, Europa van) 200:--

1 jonge gen: Tomas van Mosambieq (Mosambiek, Tomas van) 200:--

1 jonge gen: September van Mallabaar (Malabar, September van) 200:--

16 trekossen 112:--

24 aanteel beesten 72:--

10 paarde 80:--

1 ossewagen 100:--

1 lessenaar 10:--

1 katel 5:--

2 beddens 20:--

1 cadel 0:6

1 kist 3:--

1 horologie 10:--

1 horologie 8:2

Rd:s1019:4



Project PROPOSED REDEVELOPMENT ON ERVEN 25541 & 25537, GEORGE DISTRICT (OLD URBAN SAW-MILL)	Plan PHASE ONE HERITAGE IMPACT ASSESSMENT	Name HERITAGE RESOURCE MAPPING	Legend CADASTRAL BOUNDARIES STUDY AREA TREE LINES (2) RIVER CORRIDOR SAWMILL PRECINCT MATURE TREES CULTURAL LANDSCAPE FEATURES FORESTRY GRID LINE	Notes 1. Aerial photography: Google Earth Pro, 2010 2. Reestablish tree line	SCALE Not to scale	HERITAGE IMPACT ASSESSMENT URBAN PLANNING Mobile: 082 966 4719; Fax: 086 510 8867 Email: Planning@urbanplanning.co.za 10000 Old Urban Saw-Mill Western Cape, South Africa	Plan No GEO-URBAN19-2012	Date October 2012	Annexure 7
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PROJECT:

PROJEK:
Proposed development for
Magnolia Ridge Properties 77 (Pty) Ltd

DESCRIPTION:

BESKRYWING:
Even 25537, 25538 & 25541, George

TITLE:

Structure plan demarcation

LEGEND:

- APPLICATION AREA
- TOWNSHIP DEVELOPMENT
- AWAITING ROD
- AWAITING LUPD
- SP-AMENDMENT
- RURAL OCCUPATION
- RESORT DEVELOPMENT
- AGRICULTURE AND FORESTRY
- NATIONAL ROUTE
- EXISTING RESORTS

A3 Scale:

1:25,000



DESIGNED: DV

ONTWERP:

DRAWN: MV

GETEKEN:

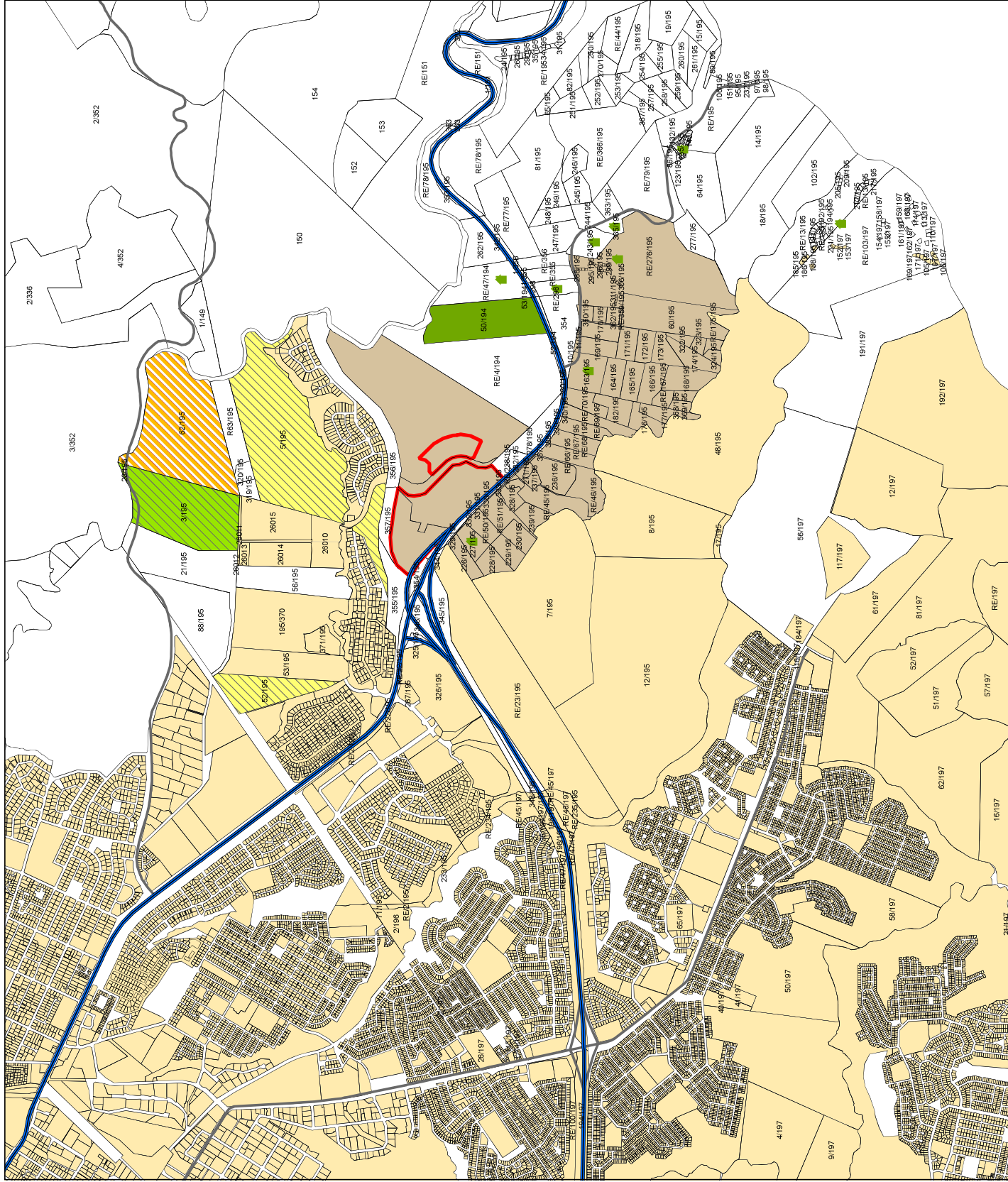
517/GEOR08_GE Magnolia_Annex4

DATE: 23 January 2012

DATUM:

PLAN NO: ANNEXURE 3

PLAN NR:





CTS HERITAGE

APPENDIX 4: Evidence of PPP

THE PROPOSED MEULENZICHT ESTATE, GEORGE LOCAL MUNICIPALITY IN THE WESTERN CAPE PROVINCE, SOUTH AFRICA

Landscape & Visual Impact Assessment

Draft v_3 (Finalisation pending EIA Comments)

DATE: 04 August 2025

Document prepared for HillLand Environmental (Pty) Ltd
On behalf of Atterbury Management Company (Pty) Ltd



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LIST OF ACRONYMS

<i>APHP</i>	Association of Professional Heritage Practitioners
<i>BLM</i>	Bureau of Land Management (United States)
<i>BPEO</i>	Best Practicable Environmental Option
<i>CALP</i>	Collaborative for Advanced Landscape Planning
<i>DEM</i>	Digital Elevation Model
<i>DoC</i>	Degree of Contrast
<i>EIA</i>	Environmental Impact Assessment
<i>EMPr</i>	Environmental Management Plan
<i>GIS</i>	Geographic Information System
<i>GPS</i>	Global Positioning System
<i>IDP</i>	Integrated Development Plan
<i>IEMA</i>	Institute of Environmental Management and Assessment (United Kingdom)
<i>KOP</i>	Key Observation Point
<i>LVIA</i>	Landscape and Visual Impact Assessment
<i>MAMSL</i>	Metres above mean sea level
<i>NELPAG</i>	New England Light Pollution Advisory Group
<i>PNR</i>	Private Nature Reserve
<i>SDF</i>	Spatial Development Framework
<i>SEA</i>	Strategic Environmental Assessment
<i>VAC</i>	Visual Absorption Capacity
<i>VIA</i>	Visual Impact Assessment
<i>VRM</i>	Visual Resource Management
<i>VRMA</i>	Visual Resource Management Africa
<i>ZVI</i>	Zone of Visual Influence

GLOSSARY OF TECHNICAL TERMS

Technical Terms Definition (Oberholzer, 2005)

Degree of Contrast	of	The measure in terms of the form, line, colour and texture of the existing landscape in relation to the proposed landscape modification in relation to the defined visual resource management objectives.
--------------------	----	---

Visual intrusion	Issues are concerns related to the proposed development, generally phrased as questions, taking the form of “what will the impact of some activity be on some element of the visual, aesthetic or scenic environment”.
Receptors	Individuals, groups or communities who would be subject to the visual influence of a particular project.
Sense of place	The unique quality or character of a place, whether natural, rural or urban.
Scenic corridor	A linear geographic area that contains scenic resources, usually, but not necessarily, defined by a route.
Viewshed	The outer boundary defining a view catchment area, usually along crests and ridgelines. Similar to a watershed. This reflects the area, or the extent thereof, where the landscape modification would probably be seen.
Visual Absorption Capacity	The potential of the landscape to conceal the proposed project.

Technical Term	Definition (USDI., 2004)
-----------------------	---------------------------------

Key Observation Point	Receptors refer to the people located in the most critical locations, or key observation points, surrounding the landscape modification, who make consistent use of the views associated with the site where the landscape modifications are proposed. KOPs can either be a single point of view that an observer/evaluator uses to rate an area or panorama, or a linear view along a roadway, trail, or river corridor.
Visual Resource Management	A map-based landscape and visual impact assessment method development by the Bureau of Land Management (USA).
Zone of Visual Influence	The ZVI is defined as ‘the area within which a proposed development may have an influence or effect on visual amenity.’

1 DFFE SPECIALIST REPORTING REQUIREMENTS

1.1 Specialist declaration of independence

Table 1. Specialist declaration of independence

All intellectual property rights and copyright associated with VRM Africa's services are reserved, and project deliverables, including electronic copies of reports, maps, data, shape files and photographs, may not be modified or incorporated into subsequent reports in any form, or by any means, without the written consent of the author. Reference must be made to this report, should the results, recommendations or conclusions in this report be used in subsequent documentation. Any comments on the draft copy of the Visual Impact Assessment (VIA) must be put in writing. Any recommendations, statements or conclusions drawn from, or based upon, this report, must make reference to it. This document was completed by Silver Solutions 887 cc trading as VRM Africa, a Visual Impact Study and Mapping organisation located in George, South Africa. VRM Africa cc was appointed as an independent professional visual impact practitioner to facilitate this VIA. I, Stephen Stead, hereby declare that VRM Africa, an independent consulting firm, has no interest or personal gains in this project whatsoever, except receiving fair payment for rendering an independent professional service.  Stephen Stead APHP accredited VIA Specialist
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1.2 Specialist report requirements in terms of Appendix 6 of the EIA Regulations (2014), as amended in 2017

Table 2: Specialist report requirements table (Pending EIA Process)

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
Details of the specialist who prepared the report	Stephen Stead, owner / director of Visual Resource Management Africa. steve@vrma.co.za Cell: 0835609911
The expertise of that person to compile a specialist report including a curriculum vitae	Registration with Association of Professional Heritage Practitioners
A declaration that the person is independent in a form as may be specified by the competent authority	Table 1

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
An indication of the scope of, and the purpose for which, the report was prepared	Terms of Reference
A description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change	Baseline Assessment
The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment	NA
A description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	Methodology
Details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternative;	Baseline Visual Inventory
An identification of any areas to be avoided, including buffers	Visual Resource Management Classes
A map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Landscape Constraints Map
A description of any assumptions made and any uncertainties or gaps in knowledge;	Assumptions and Limitations
The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment	25 May 2024
A description of the findings and potential implications of such findings on the impact of the proposed activity or activities	Visual Impact Assessment
Any mitigation measures for inclusion in the EMPr	Environmental Management Plan
Any conditions for inclusion in the environmental authorisation	Review of architectural guidelines & detailed landscape plan prior to development.
Any monitoring requirements for inclusion in the EMPr or environmental authorisation	Not applicable
A reasoned opinion as to whether the proposed activity or portions thereof should be authorised	Opportunities and Constraints
Regarding the acceptability of the proposed activity or activities; and	Authorisation with mitigation (Pending EIA process PPP)
If the opinion is that the proposed activity or portions thereof should be authorised, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan	Pending EIA comments

A specialist report prepared in terms of the Environmental Impact Regulations of 2014 (as amended in 2017) must contain:	Relevant section in report
A description of any consultation process that was undertaken during the course of carrying out the study	Preliminary discussion with local planners and architects.
A summary and copies if any comments that were received during any consultation process	Pending EIA
Any other information requested by the competent authority.	Pending EIA

1.3 DFFE Screening Tool Site Sensitivity Verification

In terms of Part A of the Assessment Protocols published in GN 320 on 20 March 2020, site sensitivity verification is required relevant to the DFFE Screening Tool. No landscape issues were flagged in the DFFE Screening Tool. As the area is located in a tourist area where landscapes are being used as a visual resource, visual input into the proposed development was a requirement. A detailed Site Sensitivity Verification was undertaken with survey points documenting the existing landscape context. The site photographs and sensitivity rating table can be viewed in Annexure A.

A site visit was undertaken on 25 May 2024. The site survey found five landscape impact points that are likely to be flagged as High as described in the survey table. These pertain to significant cultural landscape views from the Urbans Boulevard to the Outeniqua Mountains and the eastern 'wilderness' areas of the Garden Route, as well as the cultural landscape framing of the old Urbans Sawmill and associated plantation land uses.

2 EXECUTIVE SUMMARY

Visual Resource Management Africa CC (VRMA) was appointed by HillLand Environmental to undertake a **Visual Impact Assessment** for proposed Meulenzicht Estates on behalf of Atterbury Management Company (Pty) Ltd. The Proponent proposes to construct a residential estate and group house complex on a site located in the Kraaibosch area within the George Municipality Urban Edge, Western Cape Province.

CONCLUSION

The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred.

However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.

Two key mitigation measures are proposed:

1. A 10-meter setback from the Urbans Boulevard road reserve to reduce the visual dominance of the proposed buildings proposed adjacent to the road. This setback allows the natural drop in slope to better contain the height of double-storey units, following the Welgelegen Estate precedent, where buildings are set back $\pm 30\text{m}$ and allow for partial views over the buildings.
2. The removal/ relocation of four erven located between the Boulevard and the small farm dam. This would create a clear visual break in the linear development, retain a sense of the rural context, and preserve depth of view towards the eastern Garden Route. It would also enhance views along the two natural drainage lines, helping to reduce the perceived massing of the development.

With these measures in place, the development would still deliver economic and housing benefits while reducing visual intrusion. Although the character of the Boulevard would change with housing on both sides (Oumeulen Estate to the west and Meulenzicht to the east), the setback and visual break would help transition the area from rural edge to a more urbanised corridor. From a landscape and visual perspective, the project, in its mitigated form, could set a positive precedent for future developments along the Garden Route urban edge—balancing growth with partial retention of local landscape character.

Limitations pertaining to the assessment, include the limited architectural guidelines as well as a strong emphasis on landscaping that will only be generated after project approval. Furthermore, the basic impact assessment process does not allow for public comments to be reviewed prior to EIA. To address these procedural related risks, the following is proposed:

- Public submissions from the EIA process pertaining to the Urbans Boulevard should be reviewed and considered prior to the finalisation of the LVIA.
- The final architectural guidelines and detailed landscaping plans should be submitted to the George Aesthetics Committee for review, to ensure they align with the broader, emerging 'garden city' identity of George.

In conclusion, from a landscape and visual perspective, the mitigated proposal would establish a positive precedent for future development along the Garden Route urban edge, balancing growth with partial preservation of landscape character. For this reason, the **mitigated layout is the visual and landscape preference, and the recommendation is that the above key specified mitigations, should be taken into consideration by the relevant authority when granting authorisation.**

LANDSCAPE PLANNING POLICY FIT: Medium to High Positive

Policy fit refers to the degree to which the proposed landscape modifications align with International, National, Provincial and Local planning and policy. In terms of regional and local planning fit for planned landscape and visual related themes, the appraisal of visual/landscape policy fit of the landscape change is rated Medium to High Positive.

Of importance to international best practice for Landscape and Visual Impact Assessment as outlined by the Landscape Institute (IEMA, 2002), there is landscape relevance to the site that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the transition from the built landscapes of the town of George, into the undulating, rural landscape that characterise the wilderness area of the Garden Route. This is supported in the Garden Route Environmental Management Framework, where the views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained.

In particular, the views along the Urbans Boulevard are likely to result in significant landscape change, detracting from this wide cadastral, curving road that does have valuable vistas to the eastern Garden Route with background views to the Outeniqua Mountains.

METHODOLOGY

Visual Resource Management

The methodology for determining landscape significance is based on the United States Bureau of Land Management's Visual Resource Management (VRM) method (USDI., 2004). This GIS-based method allows for increased objectivity and consistency by using standard assessment criteria to classify the landscape type into four VRM Classes, with Class I being the most valued and Class IV, the least. The Classes are derived from *Scenic Quality*, *Visual Sensitivity Levels*, and *Distance Zones*. Specifically, the methodology involved: site survey; review of legal framework; determination of Zone of Visual Influence (ZVI); identification of Visual Issues and Visual Resources; assessment of Potential Visual Impacts; and formulation of Mitigation Measures.

VISUAL ABSORPTION CAPACITY Medium to Low

Land use is a crucial factor in determining landscape character, especially regarding the Visual Absorption Capacity (VAC) of the landscapes. Oberholzer defines VAC as the potential of the landscape to conceal the proposed project (Oberholzer, 2005). i.e.

- High VAC – e.g., effective screening by vegetation and structures.
- Moderate VAC - e.g., partial screening by vegetation and structures.
- Low VAC - e.g., little screening by vegetation or structures.

The Visual Absorption Capability (VAC) for most of the proposed development site is rated as Low, due to limited tree vegetation and the absence of significant man-made modifications. The local area VAC level is rated as Medium because of the existing developments around the Kraaibosch/N2 Highway and the old Urban Mill structures. In summary, the overall VAC is rated as Medium to Low, indicating that proposed residential development would be clearly visible but generally viewed within the existing urban and peri-urban landscape context.

ZONE OF VISUAL INFLUENCE: Wide Area (Moderate)

The visible extent, or viewshed, is “the outer boundary defining a view catchment area, usually along crests and ridgelines” (Oberholzer, 2005). In order to define the extent of the possible influence of the proposed project, a viewshed analysis was undertaken from the proposed site at a specified height above ground level. The extent of the Zone of Visual Influence is defined as Wide Area and most likely to be contained within the foreground/mid-ground distance zone (6km) for the following reasons:

- The strongly undulating terrain of the Meulen River to the west, and the Swart and Kaaimans Rivers to the east.
- The high ground to the south limiting views beyond 1km.
- High ground and higher VAC levels to the north and west where the built nature of the urban landscape is likely to contain views of the landscape change.

The Zone of Visual Influence is thus rated Moderate but with Very High Visual Exposure for receptors.

RECEPTORS AND KOPS: Multiple Receptors and 2 KOPs

Key Observation Points (KOPs) are the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. The following receptors were located within the expected ZVI:

- N2 Highway east and westbound (Very High Exposure).
- Urban Boulevard (Very High Exposure).
- Southern portions of the Welgelegen Estate (Very High Exposure).
- Western facing properties of upper Wilderness Heights (Medium to Low Exposure).

Due to the importance of the landscape heritage views from the N2 Highway, three KOPs were defined and used as reference points to determine the suitability of the landscape change:

- N2 Highway (Westbound).
- Urban Boulevard.

Welgelegen was not included as a KOP as the proposed future N2 Highway is located between this estate and the proposed development.

SCENIC QUALITY: Medium to High

The scenic quality of the site is rated as medium to high. The landforms are characterized by strong undulations, contributing to the landscape's visual associations with the eastern Garden Route vistas. The vegetation primarily consists of veld grasslands, with some larger (mainly non-native) trees along the drainage lines. The veld grasslands visually connect with eastern rural landscapes. Cultural modifications are minimal and limited to historic agricultural land uses that do add to the experience of landscape heritage. The property also offers significant views to the east into the Garden Route, with background views of the Outeniqua Mountains, enhancing the scenic quality of the site.

RECEPTOR SENSITIVITY: Medium to High

The expected receptor sensitivity to landscape change is rated Medium to High. The zone of visual influence includes the N2 Highway, an important tourist route and planned scenic view corridor as well as the Urbans Boulevard. As the property has been included in the George Municipality urban edge in the 2023 SDF, residential/ tourist related development is unlikely to result in public controversy. However, the views from the Urbans Boulevard to the eastern Garden Route are significant and add to the aesthetics of the route. As the road enhances the scenic quality, intrusion into the view is likely to evoke negative responses from George communities who have used this route to access the Outeniqua Farmers Market.

CUMULATIVE EFFECTS

Due to the combined developments of the Oumeulen and Meulenzicht Estates, there is a risk in degrading the existing, designed aesthetics of the Urbans Boulevard. It is possible that the proposed development may also result in planning pressure for the expansion of urban edge to the west on adjacent properties, that without mitigation could reflect ribbon development along the N2 Highway and facilitate the experience of urban sprawl. However, this would need to be addressed in future planning and future EIAs. With mitigation, as specified, the cumulative effects would be contained to some degree, and the development would be in alignment with the George Municipality Urban Edge planning.

VISUAL IMPACT SIGNIFICANCE

Without mitigation, the visual impact significance is rated Medium to High. The development is expected to set a negative visual precedent, particularly along the Urbans Boulevard, which was originally designed with a wide verge, sensitivity to the natural landform, and open views toward the eastern Garden Route landscape. The site spans a broad area that is visually connected to the rural, undulating landscapes to the east and is familiar to the George community, many of whom use the route to access the Outeniqua Farmers Market. While not a fatal flaw due to the location of the site within the urban edge, the unmitigated development would result in adverse visual impact and is therefore strongly not recommended.

With mitigation measures, the visual impact significance is expected to reduce to Medium. The development would still provide economic and housing benefits while moderating visual intrusion. Although the character of the Boulevard would change due to built form on

both sides (Oumeulen Estate to the west and Meulenzicht to the east), the proposed interventions would support a more gradual transition from rural edge to urban corridor. From a landscape and visual perspective, the mitigated proposal would establish a positive precedent for future development along the Garden Route urban edge, balancing growth with partial preservation of landscape character. For this reason, the mitigated layout is the visual and landscape preference, and the recommendation is that they should be a consideration of the relevant authority when granting authorisation.

KEY MTIGATIONS

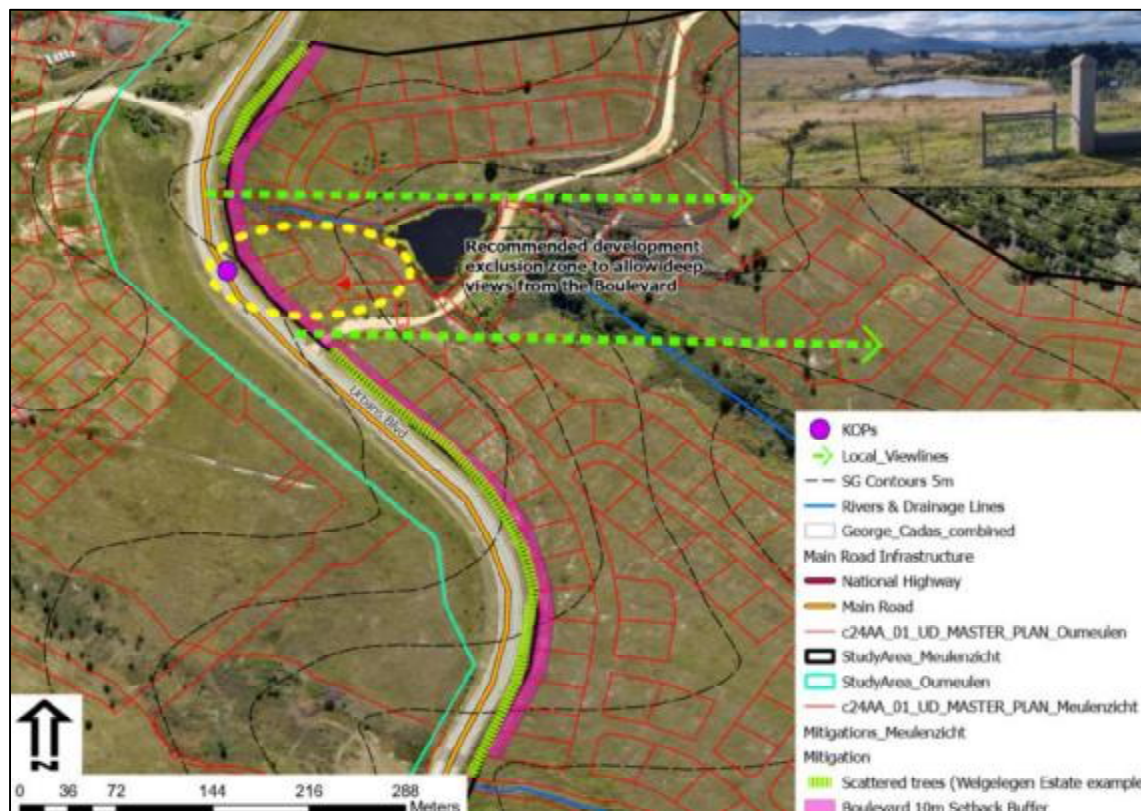
N2 National Highway Eastbound Peri-Urban Views: Phase 2B Apartments

- Six apartment dwellings are located in a relatively prominent location and are currently viewed from a peri-urban landscape context as seen from the N2 Highway receptors eastbound. The row of double storey structures would be clearly visible from the N2 Highway in the foreground, where there is no other similar residential dwelling context, other than the proposed background views of the proposed development single residential houses. To retain the existing peri-urban sense of place that does add value, a row of fast growing indigenous trees should be planted to the south of these structures following the existing farm wind break alignment with a 15m spacing between stems.



Southern Apartments/ Phase B2 Peri-Urban context.

Urbans Boulevard



Urbans Boulevard Mitigations Map.

- The recommendation is that the proposed erven along the Urbans Boulevard (Refer to map above) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen Estate where the natural drop in the terrain from the road allows for more effective views over the dwellings, thus reducing the 'walling' effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments on either side of the road. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.
- The recommendations is that the proposed erven along the Urbans Boulevard (Refer to map above) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen where the natural drop in the terrain further from the road allows for more effective views over the dwellings, thus reducing the massing effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.

- To allow for a vista gap to break the 'walling effect' created by the proposed line of dwellings along the Urbans Boulevard from the Oumeulen (west of road), and the Meulenzicht (east of road), is recommended that four erven should be removed to create a significant visual 'pause' area. This would allow an vista opening along the portion of the road to the small dam and background views of the eastern Garden Route. This would ensure that key views that benchmark the landscape heritage of the Boulevard are not all lost behind estate houses, to the detriment of the those using the road to access the tourist precinct/ residential areas or simply enjoying the road as a walking space. The photograph inserted into the above map, taken from the boulevard should be retained as open. The area should be retained as natural vegetation allowing the fynbos vegetation (specifically Erica species) to regrow as an extension of the natural vegetation landscaping along the drainage line.
- To ensure that security fencing does not impact the views, Clear-View type security fencing should be used along the road. For the section along the farm dam 'view-gap', the Clear-View fencing should be set back 10m from the road reserve to afford views over the security fencing.
- Planting of medium sized indigenous trees along the boulevard following the effective precedent set by the Welgelegen Estate. The trees should be scatted to create more organic plantings. The section of road overlooking the farm dam should not have trees to enhance the view down the valley. Trees planted along the road would need to have 1m x 1m holes dug and the tree planted with a suitable compost mix (subject to detailed landscaping planning and review by George Aesthetic Committee). The following photograph of Welgelegen landscaping should inform the final landscaping plan. The landscape plan should also take into consideration that this is optimal location for the growing of Ericaceae family if veld areas are not cut.
- Along the verges of the Urbans Boulevard where suitable, natural veld-grass 'patches' can also be created to allow Erica species growth and reduce the burden of the municipality having to cut the verges. This would reduce the maintenance burden placed on the municipality, but with management of the gardens by the estate.
- The existing Welgelegen Estate entrance should also be used as a positive precedent. The walling is set back from the road with intensive, indigenous vegetation landscaping to partially screen the entrance from the road. This precedent should be used as a reference for the Meulenzicht Estate entrance.



Welgelegen Estate landscaping suitable precedent that should be followed for the areas along the boulevard.

General Development

- The proposed Club House should be restricted to single-storey height to reduce visual intrusion and walls well screened by indigenous vegetation without the vegetation blocking views over the clubhouse structure. The vehicle parking area for the clubhouse should not dominate the local landscape context and should be screened from view with a variety of medium sized indigenous vegetation.
- To ensure that the proposed Water Treatment Plan does not become visually intrusive, this structure needs to visually screened by the planting of fast growing indigenous trees.
- All interior roads and 'tree-gap' areas should be planted as an avenue of indigenous trees at 15m spacings on both sides of the road. As the topsoil is limited in the area overlaying clay soils, the detailed landscape plan should specifically take the inherent constraints of the soils into consideration.
- In principle, **with the exception of the flat topped roof proposals**, the concept architectural guidelines provided to inform the LVIA are suitable to provide sufficient confidence in the assessment. However, as this is a large area development that does have the potential to significantly alter the eastern entrance into the George, more detailed architectural guidelines should be generated, and be subject to external review, prior to construction phase. **These guidelines should be provided to George Aesthetics Committee for review.**
- A key mitigation is that landscape planning is incorporated into the design. **As this is a key factor influencing the proposed amendment to the sense of place of the Urbans Boulevard, these plans should be provided to George Aesthetics Committee for review.**

3 INTRODUCTION

Visual Resource Management Africa CC (VRMA) was appointed by HillLand Environmental to undertake a **Visual Impact Assessment** for proposed Meulenzicht Estates on behalf of Atterbury Management Company (Pty) Ltd. The Proponent proposes to construct a residential estate and townhouse complex on a site located in the Kraaibosch area within the George Municipality Urban Edge, Western Cape Province. The proposed property is located directly adjacent to the N2 Highway and is accessed via the Urbans Boulevard.

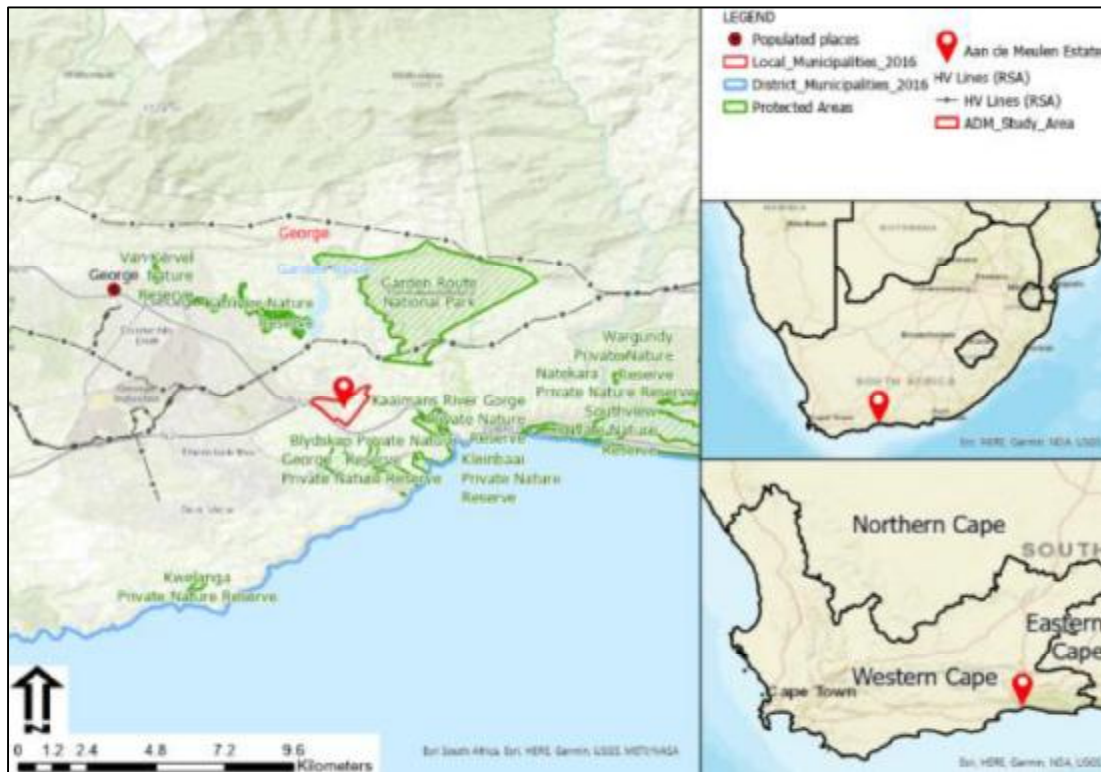


Figure 1: National and regional locality map.

3.1 Terms of Reference

The scope of this study is to cover the entire proposed project area. The broad terms of reference for the study are as follows:

- Collate and analyse all available secondary data relevant to the affected proposed project area. This includes a site visit of the full site extent, as well as of areas where potential impacts may occur beyond the site boundaries.
- Specific attention is to be given to the following:
 - Quantifying and assessing existing scenic resources/visual characteristics on, and around, the proposed site.
 - Evaluation and classification of the landscape in terms of sensitivity to a changing land use.
 - Determining viewsheds, view corridors and important viewpoints in order to assess the visual impacts of the proposed project.
 - Determining visual issues, including those identified in the public participation process.

- Reviewing the legal framework that may have implications for visual/scenic resources.
- Assessing the significance of potential visual impacts resulting from the proposed project for the construction, operation and decommissioning phases of the proposed project.
- Assessing the potential cumulative impacts associated with the visual impact.
- Generate photomontages of the proposed landscape modification.
- Identifying possible mitigation measures to reduce negative visual impacts for inclusion into the proposed project design, including input into the Environmental Management Programme report (EMPr).

3.2 Study Team

Contributors to this study are summarised in the table below.

Table 3: Authors and contributors to this report.

Aspect	Person	Organisation / Company	Qualifications
Landscape and Visual Assessment (author of this report)	Stephen Stead MSc Geography, 2023 (UKZN)	VRMA	• 20 years of experience in visual assessments of 264 landscape changes in five sub-Saharan African countries. • Registered with the Association of Professional Heritage Practitioners since 2014.
Landscape Consulting	Liesel Stokes (SACLAP)	Private	• 40 years experience as a landscape architect with recognised experience in heritage landscapes.

3.3 Visual Assessment Approach

The full methodology used in the assessment can be found in Annexure B, with this section outlining the key elements of the assessment process. The process that VRM Africa follows when undertaking a VIA is based on the United States Bureau of Land Management's (BLM) Visual Resource Management method (USDI., 2004). This mapping and GIS-based method of assessing landscape modifications allows for increased objectivity and consistency by using standard assessment criteria.

- *“Different levels of scenic values require different levels of management. For example, management of an area with high scenic value might be focused on preserving the existing character of the landscape, and management of an area with little scenic value might allow for major modifications to the landscape. Determining how an area should be managed first requires an assessment of the area’s scenic values”.*
- *“Assessing scenic values and determining visual impacts can be a subjective process. Objectivity and consistency can be greatly increased by using the basic design elements of form, line, colour, and texture, which have often been used to describe and evaluate landscapes, to also describe proposed projects. Projects that repeat these design elements are usually in harmony with their surroundings; those that don’t create contrast. By adjusting project designs so the elements are repeated, visual impacts can be minimized” (USDI., 2004).*

Baseline Phase Summary

The VRM process involves the systematic classification of the broad-brush landscape types within the receiving environment into one of four VRM Classes. Each VRM Class is associated with management objectives that serve to guide the degree of modification of the proposed site. The Classes are derived by means of a simple matrix with the three variables being the scenic quality, the expected receptor sensitivity to landscape change, and the distance of the proposed landscape modification from key receptor points. The Classes are not prescriptive and are utilised as a guideline to determine visual carrying capacity, where they represent the relative value of the visual resources of an area. Classes I and II are the most valued, Class III represents a moderate value; and Class IV is of least value. The VRM Classes are not prescriptive and are used as a guideline to determine the carrying capacity of a visually preferred landscape as a basis for assessing the suitability of the landscape change associated with the proposed project.

Table 4: VRM Class Matrix table

		VISUAL SENSITIVITY LEVELS								
		High			Medium			Low		
SCENIC QUALITY	A (High)	II	II	II	II	II	II	II	II	II
	B (Medium)	II	III	III/IV *	III	IV	IV	IV	IV	IV
	C (Low)	III	IV	IV	IV	IV	IV	IV	IV	IV
DISTANCE ZONES		Fore/middle ground	Background	Seldom seen	Fore/middle ground	Background	Seldom seen	Fore/middle ground	Background	Seldom seen

* If adjacent areas are **Class III** or lower, assign **Class III**, if higher, assign **Class IV**

The visual objectives of each of the classes are listed below:

- The Class I objective is to preserve the existing character of the landscape and the level of change to the characteristic landscape should be very low and must not attract attention. Class I is assigned when a decision is made to maintain a natural landscape.
- The Class II objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be low. The proposed development may be seen but should not attract the attention of the casual observer, and should repeat the basic elements of form, line, colour and texture found in the predominant natural features of the characteristic landscape.
- The Class III objective is to partially retain the existing character of the landscape, where the level of change to the characteristic landscape should be moderate. The proposed development may attract attention, but should not dominate the view of the casual observer, and changes should repeat the basic elements found in the predominant natural features of the characteristic landscape; and
- The Class IV objective is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the

landscape can be high, and the proposed development may dominate the view and be the major focus of the viewer's (s') attention without significantly degrading the local landscape character.

Impact Phase Summary

To determine impacts, a degree of contrast exercise is undertaken. This is an assessment of the expected change to the receiving environment in terms of the form, line, colour and texture, as seen from the surrounding Key Observation Points. This determines if the proposed project meets the visual objectives defined for each of the Classes. If the expected visual contrast is strong, mitigation recommendations are to be made to assist in meeting the visual objectives. To assist in the understanding of the proposed landscape modifications, visual representation, such as photomontages or photos depicting the impacted areas, can be generated. There is an ethical obligation in the visualisation process, as visualisation can be misleading if not undertaken ethically.

3.4 VIA Process Outline

The following approach was used in understanding the landscape processes and informing the magnitude of the impacts of the proposed landscape modification. The table below lists a number of standardised procedures recommended as a component of best international practice.

Table 5: Methodology Summary table

Action	Description
Site Survey	The identification of existing scenic resources and sensitive receptors in and around the study area to understand the context of the proposed development within its surroundings to ensure that the intactness of the landscape and the prevailing sense of place are taken into consideration.
Project Description	Provide a description of the expected project, and the components that will make up the landscape modification.
Reviewing the Legal Framework	The legal, policy and planning framework may have implications for visual aspects of the proposed development. The heritage legislation tends to be pertinent in relation to natural and cultural landscapes, while Strategic Environmental Assessments (SEAs) for renewable energy provide a guideline at the regional scale.
Determining the Zone of Visual Influence	This includes mapping of viewsheds and view corridors in relation to the proposed project elements, in order to assess the zone of visual influence of the proposed project. Based on the topography of the landscape as represented by a Digital Elevation Model, an approximate area is defined which provides an expected area where the landscape modification has the potential to influence landscapes (or landscape processes) or receptor viewpoints.
Identifying Visual Issues and Visual Resources	Visual issues are identified during the public participation process, which is being carried out by others. The visual, social or heritage specialists may also identify visual issues. The significance and proposed mitigation of the visual issues are addressed as part of the visual assessment.

Action	Description
Assessing Potential Visual Impacts	An assessment is made of the significance of potential visual impacts resulting from the proposed project for the construction, operational and decommissioning phases of the project. The rating of visual significance is based on the methodology provided by the Environmental Assessment Practitioner (EAP).
Formulating Mitigation Measures	Possible mitigation measures are identified to avoid or minimise negative visual impacts of the proposed project. The intention is that these would be included in the project design, the Environmental Management Programme report (EMPr) and the authorisation conditions.

3.5 Impact Assessment Methodology

The following impact criteria were used to assess visual impacts. The criteria were defined by the Western Cape *DEA&DP Guideline for involving Visual and Aesthetic Specialists in EIA Processes* (Oberholzer, 2005).

Table 6. DEA&DP Visual and Aesthetic Guideline Impact Assessment Criteria table

Criteria	Definition
<u>Extent</u>	The spatial or geographic area of influence of the visual impact, i.e.: • <i>site-related</i>: extending only as far as the activity. • <i>local</i>: limited to the immediate surroundings. • <i>regional</i>: affecting a larger metropolitan or regional area. • <i>national</i>: affecting large parts of the country. • <i>international</i>: affecting areas across international boundaries.
<u>Duration</u>	The predicted life-span of the visual impact: • <i>short term</i>, (e.g., duration of the construction phase). • <i>medium term</i>, (e.g., duration for screening vegetation to mature). • <i>long term</i>, (e.g., lifespan of the project). • <i>permanent</i>, where time will not mitigate the visual impact.
<u>Intensity</u>	The magnitude of the impact on views, scenic or cultural resources. • <i>low</i>, where visual and scenic resources are not affected. • <i>medium</i>, where visual and scenic resources are affected to a limited extent. • <i>high</i>, where scenic and cultural resources are significantly affected.
<u>Probability</u>	The degree of possibility of the visual impact occurring: • <i>improbable</i>, where the possibility of the impact occurring is very low. • <i>probable</i>, where there is a distinct possibility that the impact will occur. • <i>highly probable</i>, where it is most likely that the impact will occur.

	• <i>definite</i>, where the impact will occur regardless of any prevention measures.
<u>Significance</u>	The significance of impacts can be determined through a synthesis of the aspects produced in terms of their nature, duration, intensity, extent and probability, and be described as: • <i>low</i>, where it will not have an influence on the decision. • <i>medium</i>, where it should have an influence on the decision unless it is mitigated. • <i>high</i>, where it would influence the decision regardless of any possible mitigation.

3.6 Assumptions and Uncertainties

- Digital Elevation Models (DEM) and viewsheds were generated using ASTER elevation data (NASA, 2009). Although every effort to maintain accuracy was undertaken, as a result of the DEM being generated from satellite imagery and not being a true representation of the earth's surface, the viewshed mapping is approximate and may not represent an exact visibility incidence. Thus, specific features identified from the DEM and derive contours (such as peaks and conical hills) would need to be verified once a detailed survey of the project area has taken place.
- The use of open-source satellite imagery was utilised for base maps in the report.
- Some of the mapping in this document was created using Bing Maps, Open-Source Map, ArcGIS Online and Google Earth Satellite imagery.
- The project deliverables, including electronic copies of reports, maps, data, shape files and photographs are based on the author's professional knowledge, as well as available information.
- VRM Africa reserves the right to modify aspects of the project deliverables if and when new/additional information may become available from research or further work in the applicable field of practice or pertaining to this study.
- As access to farms and private property is often limited due to security reasons, limiting access to private property in order that photographs from specific locations are taken. 3D modelling is used to reflect the expected landscape change area where applicable.
- Mapping makes use of the SANBI BGIS webmap (SANBI, 2018)
- The slopes analysis is approximate and is subject to detailed survey and detailed slopes analysis.
- Where site specific 3D visualisations were not provided, 3D block models were used to depict the structural development change at key focus point areas. The blocks are scaled, but as they do not depict a realistic interpretation of the landscape change, they depict a worst case scenario and should be views as an approximation.
- **Detailed landscape planning is a key mitigation that is proposed for the Urbans Boulevard. This would only be undertaken post EIA, and as such, this is a limitation. The external review by the George Aesthetics Committee would reduce the risk of this limitation.**

4 PROJECT DESCRIPTION

The following project information was provided by the client that will be incorporated into the assessment and proposed infrastructure relating to the project. The following table outlines the scope of the project, with reference to the extent, heights, and expected landscape change depiction as provided by the proponent/ architects involved in the project design and development.

Table 7: Project Information table

PROPONENT SPECIFICATIONS	
Applicant Details	Description
Applicant Name:	Atterbury Developments ((Pty) Ltd
Project Name:	Meulenzicht Estate

	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type
1	George	25537	0	33°59'10.18S	22°31'26.67E	Erven

Table 8: Project Information table

DEVELOPMENT DETAILS			
MEULENZICHT LANDGOED			
		Units	GLA
Phase B1	13,2258 ha		
Main entrance / Gatehouse			
Full title erven		83	-
Phase B2	3,9348 ha		
Full title erven		49	-
Phase B3	4,2971 ha		
Full title erven		25	-
Phase B4	15,2092 ha		
Full title erven		70	-
Phase B5	0,7482 ha		
Treatment plant			-
Phase B6	28,5678 ha		
Future Expansion			-
		227 units	0 m ²

The following images of the proposed development were provided by the architect (Nuvorm).

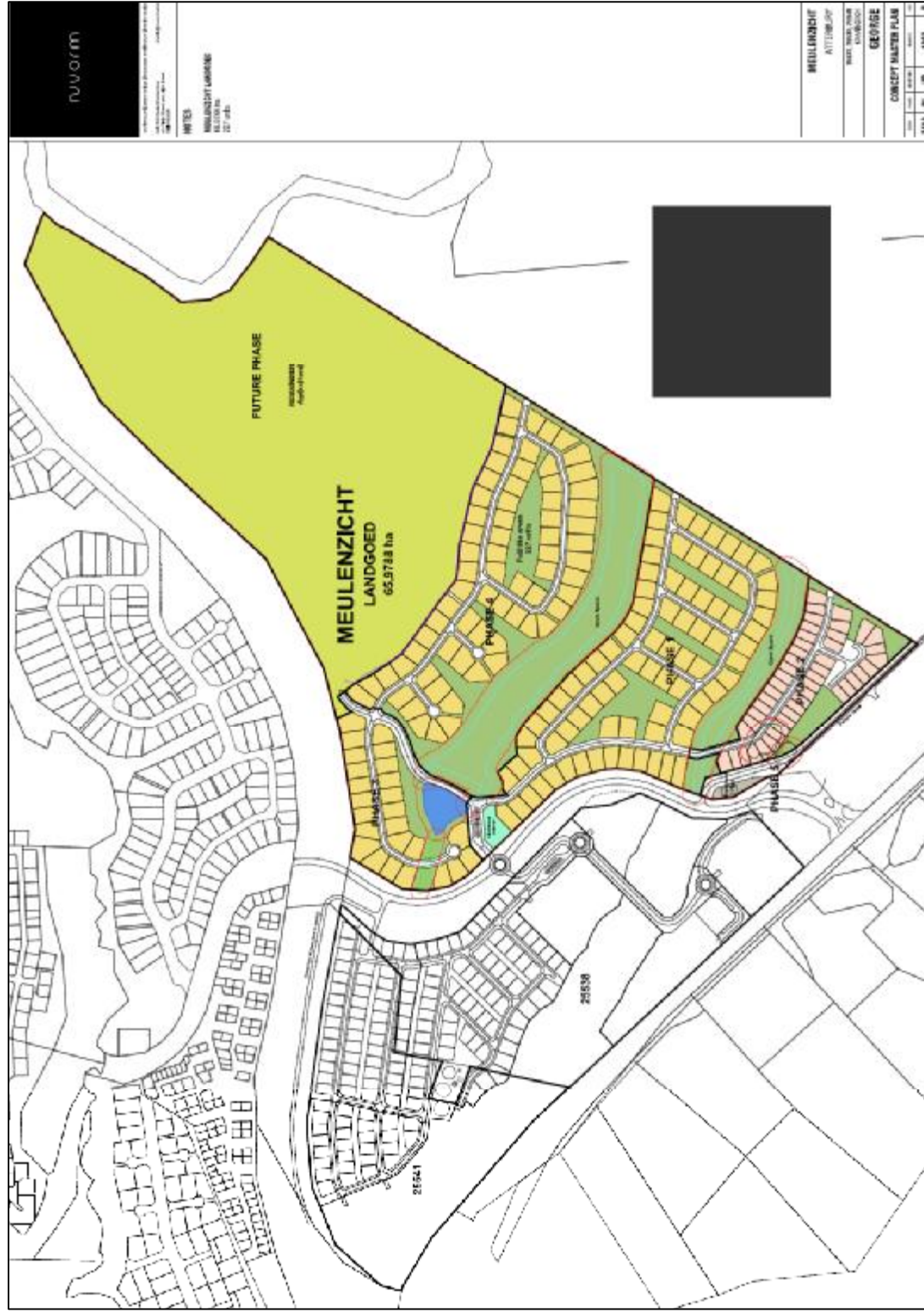
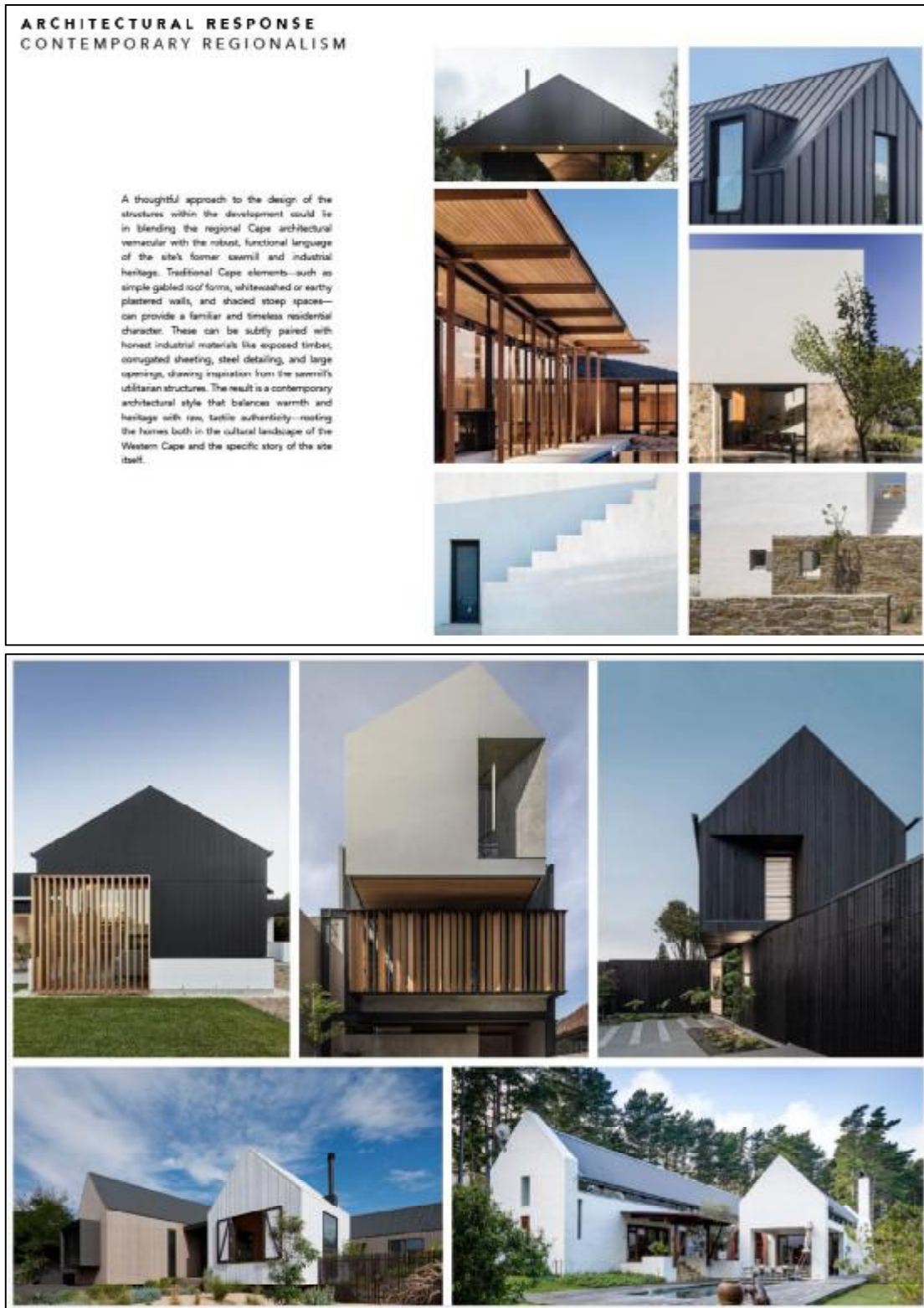


Figure 2: Proposed layout plan.



4.1 Concept Architectural Framing







5 LEGAL FRAMEWORK

In order to comply with the Visual Resource Management requirements, it is necessary to relate the proposed landscape modification in terms of international best practice in understanding landscapes and landscape processes. The proposed project also needs to be evaluated in terms of 'policy fit'. This requires a review of International, National and Regional best practice, policy and planning for the area to ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the planned sense of place and character of the area.

5.1 International Good Practice

For international good practice in assessment of landscapes, the following documentation is relevant, specifically:

- Guidelines for Landscape and Visual Impact Assessment (GLVIA), Second Edition.

5.1.1 Guidelines for Landscape and Visual Impact Assessment, Second Edition

The Landscape Institute and the Institute of Environmental Management and Assessment (United Kingdom) have compiled a book outlining best practice in landscape and visual impact assessment. This has become a key guideline for LVIA in the United Kingdom. "The principal aim of the guideline is to encourage high standards for the scope and context of landscape and visual impact assessments, based on the collegiate opinion and practice of the members of the Landscape Institute and the Institute of Environmental Management and Assessment. The guidelines also seek to establish certain principles and will help to achieve consistency, credibility and effectiveness in landscape and visual impact assessment, when carried out as part of an EIA" (The Landscape Institute, 2003);

In the introduction, the guideline states that 'Landscape encompasses the whole of our external environment, whether within village, towns, cities or in the countryside. The nature and pattern of buildings, streets, open spaces and trees – and their interrelationships within the built environment – are an equally important part of our landscape heritage" (The Landscape Institute, 2003: Pg. 9). The guideline identifies the following reasons why landscape is important in both urban and rural contexts, in that it is:

- An essential part of our natural resource base.
- A reservoir of archaeological and historical evidence.
- An environment for plants and animals (including humans).
- A resource that evokes sensual, cultural and spiritual responses and contributes to our urban and rural quality of life; and
- Valuable recreation resources. (The Landscape Institute, 2003).

In terms of international best practice for Landscape and Visual Impact Assessment, there is relevance to the site landscape that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the views to the east of the Garden Route that effectively depict the gateway to the more Wilderness related areas of the Garden Route. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained.

5.2 National and Regional Legislation and Policies

In order to comply with the Visual Resource Management requirements, it is necessary to clarify which National and Regional planning policies govern the proposed development area to ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the sense of place and character of the area.

- DFFE Garden Route Environmental Management Framework (EMF)
- DEA&DP Visual and Aesthetic Guidelines.
- Regional and Local Municipality Planning and Guidelines.

Table 9: List of key planning informants to the project

Theme	Requirements
Province	Western Cape
District Municipality	Garden Route
Local Municipality	George

5.2.1 Garden Route Environmental Management Framework (EMF)

The Garden Route EMF (Department of Forestry, Fisheries and the Environment, 2010) report was produced in conjunction with the Western Cape DEA&DP. The following extract from the report outlines the need for the report:

“This particular EMF has been developed as a direct response to a specific set of drivers and pressures. The National Lakes Area, commonly known and referred to as the Garden Route, is characterised as such due to its outstanding scenic quality and beauty. Similarly, the unique coastal lake systems, indigenous forests and rugged coastline comprise an extensive network of protected areas, South African National Parks and Provincial Natural Reserves, often interspersed by Urban Development” (Department of Forestry, Fisheries and the Environment, 2010, p. 6).

In Chapter 3.2. that identified Topographical Sensitive Areas the following landscapes are listed:

- The greater topography. Topography constituting the Garden Route, especially the landscape surrounding scenic routes, then into high tourism areas illustrating higher viewer incidence.
- The Outeniqua Mountains as backdrop to the Garden Route.
- The coastline of the Garden Route.
- The National Lakes Basin.
- Steep slopes, especially over steep slopes throughout the study area. Steep slopes on sandy dunes are extremely sensitive to structural risk as well as steep slopes overlaid by cover sands.
- Unique topographical features such as exposed rocky headlands along the coastline as well as ancient, petrified dunes (Department of Forestry, Fisheries and the Environment, 2010, p. 10).

In terms of areas with significant visual qualities that require protection, the following are listed:

- Areas of protection status, such as national parks or nature reserves.
- Areas with proclaimed heritage sites or scenic routes.
- Areas with intact woodiness qualities or pristine ecosystems.

- Areas with the recognise special character or sense of place.
- Areas with important vistas or scenic corridors. Areas with visually prominent Ridge lines or skylines (Department of Forestry, Fisheries and the Environment, 2010, p. 85).

As per the EMF, views from the N2 Highway, which is an important scenic corridor, have important vistas in relation to the Outeniqua Mountains as backdrop to the Garden Route. These vistas should be retained as open views to ensure that the N2 Highway sense of place, and the first view into the Garden Route landscapes, are retained as a destination experience.

5.2.2 DEA&DP Visual and Aesthetic Guidelines

Reference to the Western Cape Department of Environmental Affairs and Development Planning (DEA&DP) Guideline for involving visual and aesthetic specialists in Environmental Impact Assessment (EIA) processes is provided in terms of southern African best practice in Visual Impact Assessment. The report compiled by Oberholzer states that the Best Practicable Environmental Option (BPEO) should address the following:

- Ensure that the scale, density and nature of activities or developments are harmonious and in keeping with the sense of place and character of the area. The BPEO must also ensure that development must be located to prevent structures from being a visual intrusion (i.e., to retain open views and vistas).
- Long term protection of important scenic resources and heritage sites.
- Minimisation of visual intrusion in scenic areas.
- Retention of wilderness or special areas intact as far as possible.
- Responsiveness to the area's uniqueness, or sense of place.” (Oberholzer, 2005)

As highlighted in the international best practices for landscape assessment, the views to the eastern Garden Route landscapes are a significant feature of the site. As seen from the N2 Highway, these views would be considered an important scenic and heritage resource, that would require the retention of the wilderness or special area to ensure that the area's unique sense of place is retained to some extent. Views as seen from the N2 Highway that currently allow for uninhibited views to the eastern Outeniqua Mountains should be remain open and un-cluttered.

5.2.3 Conservation Planning

As can be seen in Figure 4 on the following page, the Blydskap and George Private Nature Reserves are located approx. 1km to the south of the study areas. However, these areas do not fall within the project zone of visual influence. The Garden Route National Park is located 2km to the northeast of the site, but also mainly outside of the project viewshed and views of the proposed development would be viewed against an existing urban development landscape context. **Risk to conservation management is thus rated Low.**

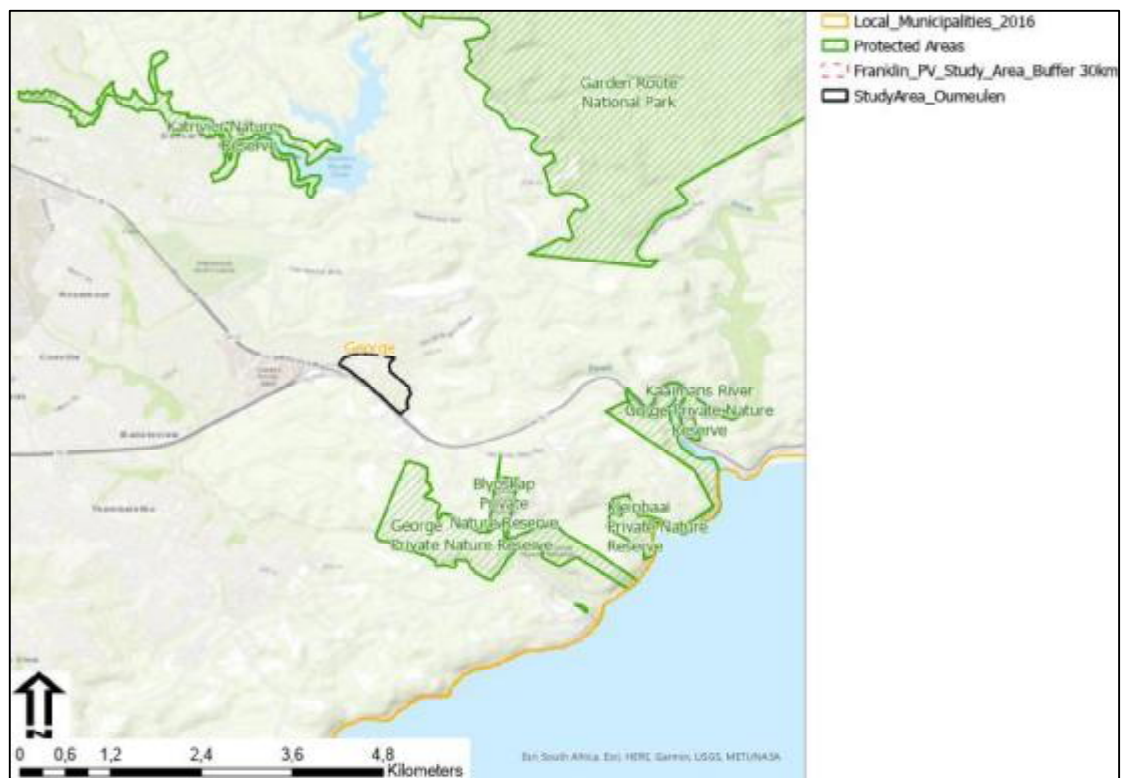
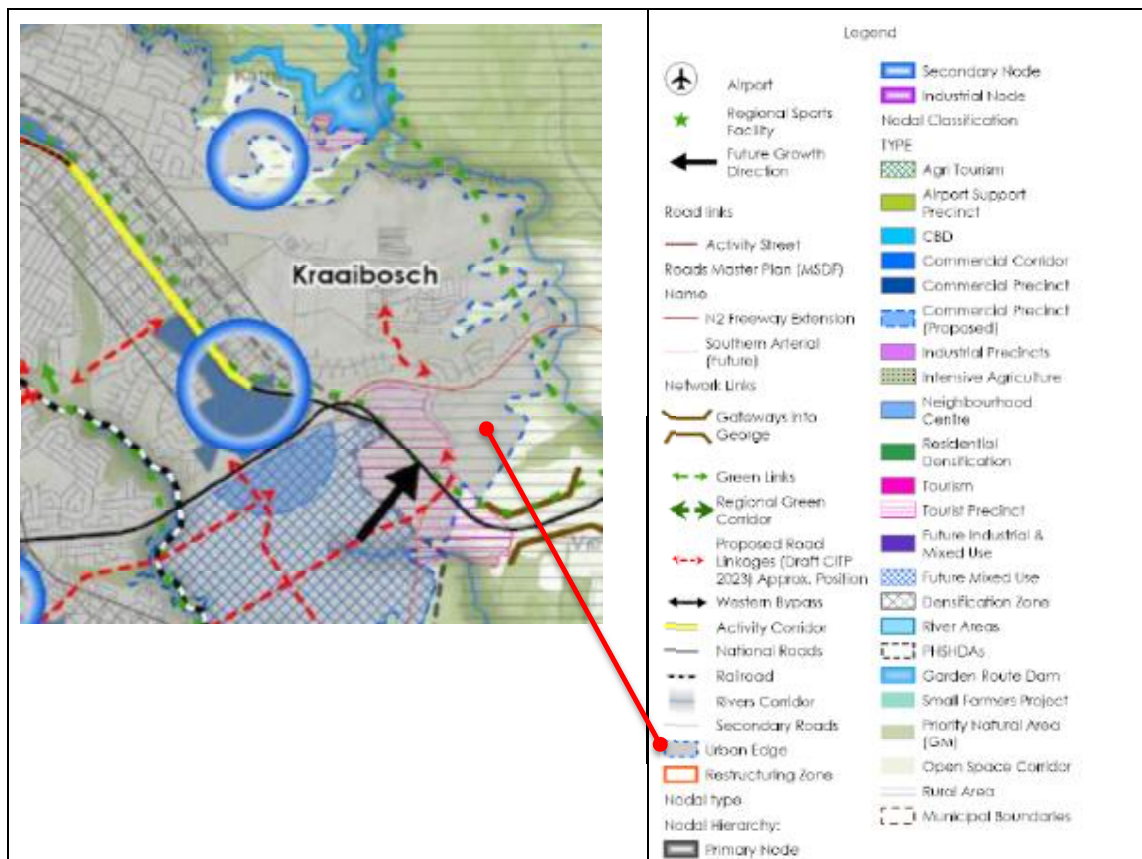


Figure 4: Proclaimed Conservation Areas map.

5.2.4 Local and Regional Planning

The following tables list key regional and local planning that has relevance to the project pertaining to landscape-based tourism, and residential/retail projects. In terms of the planning mapping, the proposed development does fall within the George Municipality Urban Edge where residential development is supported. The maps of the following page depict the George SDF planning in relation to the proposed development site.



5.2.5 Heritage Planning

As previously indicated in the international best practice section as outlined by the Landscape Institute, there is landscape relevance to the site in that evokes a sensual and cultural response to the urban and rural quality of life related to the old Urbans Sawmill and associated plantations within the broader Garden Route landscape context. Also of value are the arboreal landscapes created by the remnants of the pine trees, and other climax trees that reflect the forestry land use heritage around the old Urban sawmill. This theme is highlighted by De Kock in the 2012 Heritage Report undertaken for Magnolia Ridge Properties 77 (Pty) Ltd. De Kock states that “historically, the sawmill complex was entirely surrounded by pine plantations which effectively screened the site from view, the only remaining screening in place is two rows of linear-planted pine trees (L-shape) directly south and west of the building precinct. These trees enhance the overall visual prominence of the site while framing the views of the building precinct. Therefore, in light of the overall forestry theme inherent to the complex, it is recommended that planting of pine trees along this corridor be encouraged” (De Kock, 2012, p. 19).

The property is also visually associated with significant vistas from the Urbans Boulevard which is a wide road reserve that effectively reflects the undulations of the terrain, creating an interesting meandering route with opens views to the east towards the Garden Route and Outeniqua Mountains. The views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained. Given the

heritage relevance of the property, the following development criteria would need to be clearly depicted in the SDP:

- Plan for a medium-density settlement pattern within an 8m height restriction to allow for an urban-forest landscape to be the resulting landscape sense of place and ensure that the heritage vistas along the Urbans Boulevard retain some element of open views such that the eastern views do not become 'walled off' by continuous development along the road. Key vista point should be un-cluttered with views over structures. The following map depicts the significant landscape heritage views to the east from the N2 Highway.

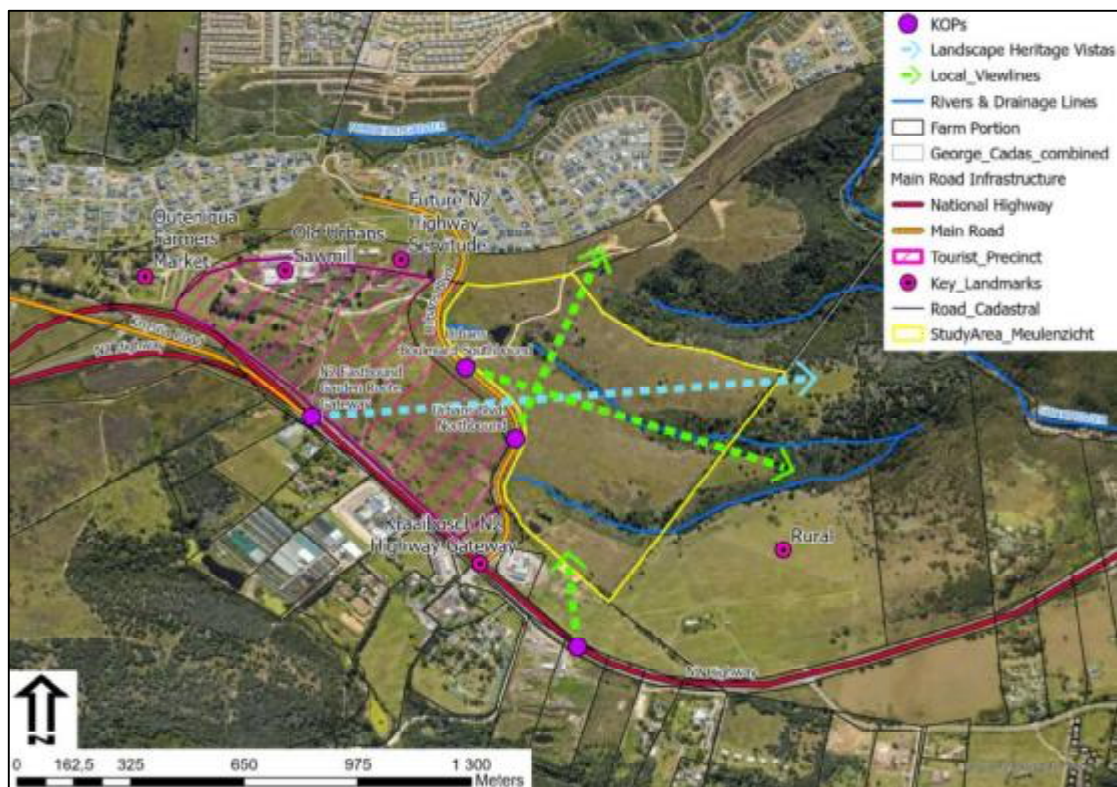


Figure 5: Key landscape planning context map.

5.2.6 District Municipality Landscape Planning

The following table depicts extracts from the Garden Route District Municipality Spatial Development Framework.

Table 10: District Planning reference table relevant to the project

Garden Route District Municipality SDF (Previously Eden DM) (Garden Route District Municipality, 2017)		
Theme	Requirements	Page
Tourism	Garden Route District Municipality defined mandate: Promotion of local tourism for the area of the district municipality	21
	The Southern Cape region is identified as being a provincial leisure and tourism coastal belt and priority urban functional region.	25

	The District is also known for its indigenous forests and plantations, attractive water bodies and coastline. In combination with the District's natural beauty, biodiversity and mild climate, it attracts visitors throughout the year. Eden District is the only District in the Western Cape that represents all of the Western Cape's cultural and scenic landscape types.	106
Urban Edge Planning	Urban edges should be determined within the context of the urban and rural environment. Urban edges aid in establishing where development should not occur to protect and conserve significant environmental and agricultural resources. The management of urban edges should be carried out by local authorities and ensure the reduction of urban sprawl.	
Economy and Environment	In line with WC DEA&DP guidelines for rural land use development, new investment in rural areas should not have significant impact on biodiversity; • Be inconsistent with cultural and scenic landscapes within which it is situated; • Infringe on the authenticity of the rural landscape and heritage assets.	110

5.2.7 Local Municipality Landscape Planning

The following table depicts extracts from the George Local Municipality Spatial Development Framework.

Table 11: Local Planning reference table relevant to the project

George Municipality SDF (George Municipality, 2023)		
Theme	Requirements	Page
SDF Planning	The space economy is concentrated in a triangle of opportunity comprising of the existing CBD Business node, the Kraaibosch / Blue Mountain Commercial Node, and the Pacaltsdorp Industrial Node (See Map 12).	43
	• There has been a significant uptake of opportunities in estate/security type development, catering for urban based, affluent residents in developments such as Welgelegen, Kraaibosch, Kingswood, Blue Mountain, etc	44
	• There is a significant increase (2016-2021) in population (households) in specific urban areas such as Thembaletu, Kraaibosch, Pacaltsdorp, and Ballotsview functional areas, although residential growth (densification/uptake) is noticeable in all functional areas. • The Kaaimans Road extension to Glenwood Road and Glenwood Road re-instatement form part of the existing road network planning. The Draft CIP notes the importance of the link between Kraaibosch development area and the Kraaibosch south (Welgelegen) area, Urbans Boulevard extension.	47

	B8: PG a: Encouraging integrated development (spatial integration -shared uses/access) with mixed typologies and densities in private/public development Identified mixed use sites include Garden Route Dam mixed use area, Kraaibosch South extension area (nodal portion).	118
	Medium – Long Term Urban Growth Area (5 – 20 years): - Given the rapid uptake of bonded housing opportunities (private development) and the support of healthy property markets (supporting upward mobility opportunities) continuous urban growth is anticipated (based on motivation as per the George Urban Growth Proposal Framework and due process), in the longer term, in the following directions: - Growth area between the Kraaibosch Node-south area and Welgelegen.	173
Environmental Threats	The non-urban areas of George are under continual threat of development and degradation, albeit in a small, incremental manner. Clear distinction is to be made between various categories of land outside of the urban edges. Whether these properties are legally referred to as farm portions (i.e., the legal registration category) or erven and whether these properties are zoned for agriculture, open space or other appropriate purpose reconcilable with the rural landscape. The positions of the property within the context of the urban areas, natural areas, conservation areas and arable areas should guide the permitted land use, within the allocated zoning.	32
Economic Development	- Eastern Commercial Node Sub-regional mixed-use node, focused presently on the commercial potential of the N2, but also containing a mix of residential and work opportunities, comprising the Garden Route Mall, the Eden Meander, surrounding zoned business and commercial zoned land adjacent to the N2. In time this node will include the future development of the ‘Kraaibosch South Extension” site. (South and west of the N2) - Economic precincts do not necessarily constitute urban areas. Residential development and neighbourhood orientated land use are not supported in precincts and nodes situated in peripheral economic precincts. Precincts proposed are noted in Map 24.	70
Gateways	Likewise, passing George and heading east past Kraaibosch and moving on towards the Victoria Bay area gives one the feeling of leaving the built-up area as the	59

	vistas are generally of farm fields in the foreground with trees including pine plantations and rolling hills in the mid ground and then the Outeniqua Mountains in the background. This is the gateway to the Wilderness approach and in fact where the experience of the Garden Route starts. It is the area where the Kaaimans Corridor starts, which is unique not only for the spectacular Kaaimans George, but also because it is where the distance between the ocean and mountain is the shortest in the Southern Cape. If travelling along the Garden Route from Cape Town this is the first encounter with the dense indigenous forest characteristic of the Garden Route and, along with the commercial forestry plantations, an important part of the cultural history of the area. • Scenic routes provide public access to the enjoyment of these landscapes. The routes and the land use alongside these routes should be managed in such a way as to not compromise the views offered but to mark and celebrate the landscapes and the origins or nature of their significance.	
Green Gateways	Green gateways are strategic access points that must provide public access to the green system/network, including coastal access points, access to tourist precincts and protected areas.	86
Scenic Routes	• Scenic routes refer to routes that provide vistas over scenic landscapes and the experience of a sense of place. All main roads (highways and main arterials are considered scenic routes to a degree, but the main scenic routes are noted in Par 4.3.1.1). • Land use management for scenic routes should be aimed at retaining the sense of place and important vistas from these routes. The focus is thus largely on managing development adjacent to these routes.	87
N2 Eastern Approach	If travelling along the Garden Route from Cape Town this is the first encounter with the dense indigenous forest characteristic of the Garden Route and, along with the commercial forestry plantations, an important part of the cultural history of the area. The eastern approach to the George City Area along the N2, the airport road (R102) and the R404 traverses a rural landscape with views of the mountain range. This landscape is a strong part of the identity of George and connects to a rural tourism sector that is central to George's identity and has much potential.	59
Tourism Precinct	• Areas identified to contain a combination of tourist related facilities and accommodation. • Not a retail node but may include tourism relates small shops (convenience), restaurants, sport-and recreation-and services- conditions to be included in land use application.	85

	• Mitigation of environmental issues and impacts of climate change to be addressed during development process. • Visual impact to be mitigated in areas of scenic value and along landscapes. • Public access to be protected in all instances. • Applicable heritage and cultural resources to be protected and incorporated.	
Visual Impact	• In addition to support of the ecological functioning of the natural systems, the visual impact of development on George's natural assets/heritage in both urban and rural areas, must be managed. • The treatment of Gateways (Par. 4.3.1.1) to George, where transitioning from rural to urban areas occurs, imply a "green gateway" transition when moving from urban areas into the rural area. • All rural development must be congruent to the rural (natural or agricultural) character of the surrounding area. I.e., the visual impact of development at gateways to be managed to show transition from urban to rural and to re-enforce the "Garden City" character of a marketable, 'liveable' George, situated at the heart of the Garden Route. • Gateways to urban development nodes and tourism precincts must be managed at a street level, urban design level and via managing the graded intensity of use.	61

5.3 Landscape Planning Policy Fit

Policy fit refers to the degree to which the proposed landscape modifications align with International, National, Provincial and Local planning and policy. In terms of regional and local planning fit for planned landscape and visual related themes, the preliminary appraisal of visual/ landscape policy fit of the landscape change is rated Medium to High Positive.

Of importance to international best practice for Landscape and Visual Impact Assessment as outlined by the Landscape Institute (IEMA, 2002), there is landscape relevance to the site that evokes a sensual, cultural and spiritual response to the urban and rural quality of life. This specifically pertains to the transition from the built landscapes of the George town, into the undulating, rural landscape that characterise the wilderness area of the Garden Route. This is supported in the Garden Route Environmental Management Framework, the views of the Outeniqua Mountains to the north and the undulating terrain of the areas located between these mountains and the southern Indian Ocean coastline do evoke a strong sense of place that should be retained.

In particular, the views along the Urbans Boulevard are likely to result in landscape 'walling', detracting from this wide cadastral, curving road that does have valuable vistas to the eastern Garden Route with background views to the Outeniqua Mountains.

6 BASELINE VISUAL INVENTORY

6.1 Local Landscape Context

Landscape character is defined by the U.K. Institute of Environmental Management and Assessment (IEMA) as the 'distinct and recognisable pattern of elements that occurs consistently in a particular type of landscape, and how this is perceived by people. It reflects particular combinations of geology, landform, soils, vegetation, land use and human settlement'. It creates the specific sense of place or essential character and 'spirit of the place' (IEMA, 2002). This section of the VIA identified the main landscape features that define the landscape character.

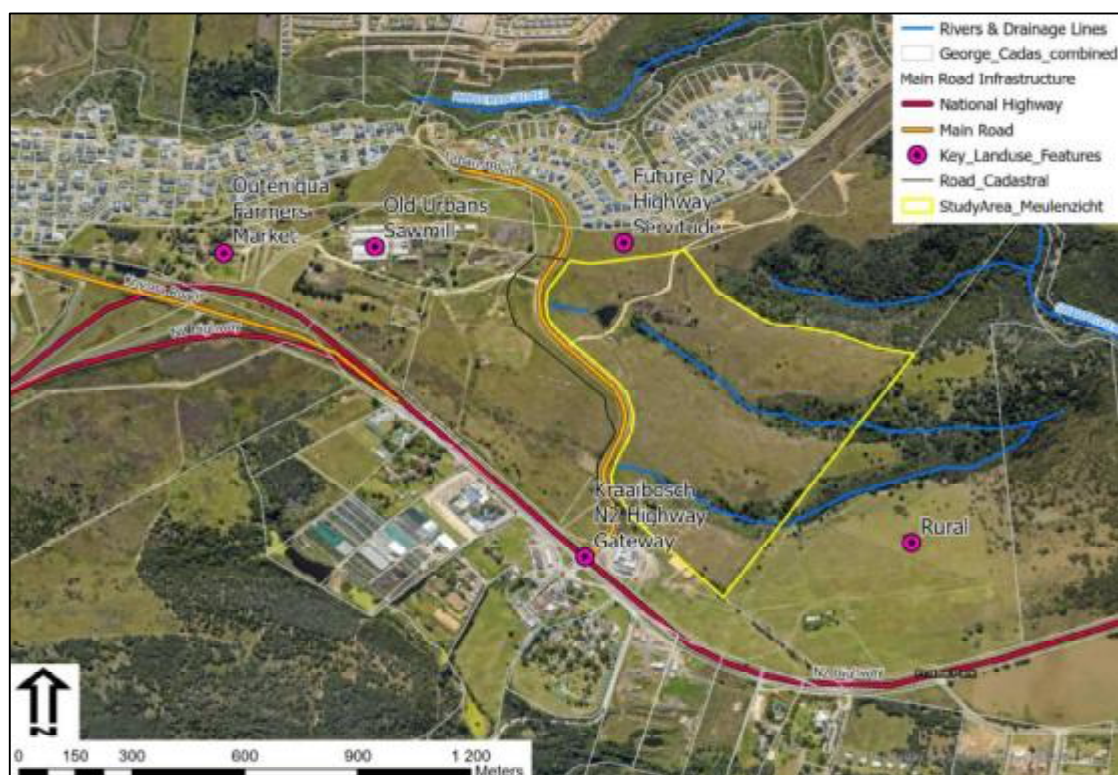


Figure 6. Local landscape themes map.

As mapped in Figure 6 above, the key landscape themes within the Foreground / Middle Ground (6km) distance are tabled below:

Table 12:Key Landscape Themes

Theme	Description
Kraaibosch/ N2 Highway Gateway	The Kraaibosch / N2 Highway comprises two garages complexes that cater for N2 Highway traffic and tourism, as well as a number of other activities. The N2 Highway is currently being upgraded and the previous traffic circle intersection with Urbans Boulevard upgraded. This area creates two important gateways with access to the town of George for westbound travellers, and the gateway to the

	main Garden Route landscape for eastbound travellers. Both these gateways are highlighted in the George Local Municipality SDF as important landscape features that need to be taken into consideration in future planning.
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Old Urbans Sawmill	The northern portion of the site comprises the old Urban sawmill, now decommissioned. The old buildings are degraded and would need to be taken down. While the old structure is well screened from most of the key observation points, the landscape heritage of the previous forestry areas that were located around the mill is still within living memory of the older residents of the town, with the remaining pine trees adding to this landscape context. While the pine trees will need to be removed (pending Heritage Assessment findings), a similar sense of place can be created with the planting of indigenous Yellowwood trees that have a similar form and texture.
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Future N2 Highway Servitude	Located to the north of the property is the proposed future N2 Highway routing and servitude. The area must be retained as vacant or temporary land uses as there are indications that this section of the N2 Highway will be built to exclude the Kaaimans Pass and lower lying sections along the Wilderness coast. Taking this into consideration, higher density developments have been authorized adjacent to the road reserve.
	
Outeniqua Farmers Market	The Outeniqua Farmers Market is located to the northwest of the property and has become an important local destination for George residents and tourists. The market is located within the N2 Highway servitude and as such is a temporary structure. Access to the market is via the property and a new temporary access is proposed to the north of the property along the N2 Highway servitude. This concept works well and aligns positively with the tourist precinct planning proposed for the portions of the property along the N2 Highway. However, should the N2 be built, this attraction would be lost.



Southeastern Peri-urban Rural/	The areas to the east of the site are located outside of the urban edge and are essentially rural in landscape. The areas to the south of the N2 Highway have become sub-divided and are now peri-urban in context, with many of these properties catering for N2 Highway base tourism. While these areas do cater for tourism, they lack clear tourism planning alignment and appear to have a tendency to landscape fragmentation. With the new proposed tourist precincts, this ‘cluttering’ of the landscape should be avoided. The more rural landscapes that form the foreground to the background views of the Garden Route vistas should be retained.
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Lack of tree-scape planning limitation	A key component of retaining / making a George Garden City landscape, is the re-incorporation of street trees into the urban landscape. Much of George suburban areas depict urban forest of indigenous trees that are now heritage trees significantly adding to the value of these spaces, providing passive carbon sequestration as well as assisting to reduce urban heat island effects. However, these are lower density areas and there is a clear planning imperative for higher density urban landscapes. As a result, there has been a recent trend for higher density development such as Groenkloof, which do meet this higher density objective but
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	with no effective planting of trees due to limited street tree planning and reduce garden space for planting of shade trees by the homeowners. Increasingly, these types of developments create hard urban landscapes and appear as urban sprawl.
	
Urbans Boulevard aesthetic design	The Urbans Boulevard was specifically designed with a wide road reserve and a strong curvature to reflect the natural undulations of the landscape. The combination of both of the above design criteria create high levels of scenic quality that afford open views to the eastern Garden Route landscapes. This design feature of the Boulevard should not be compromised by excessive development along the road.
	

Eastern Urban Edge Transition	Swart River to the east (and tributaries with steep slopes) should be recognised as a medium to long term urban edge where a transitional development sense of place should take place. There should also be a sense of depth in the views from the Urbans Boulevard with the views to the eastern Garden Route undulating areas not completely walled off.
	
 <i>Source: Google Earth Pro</i>	

6.2 Visual Absorption Capacity

Land use and vegetation are a crucial factor in determining landscape character, especially regarding the Visual Absorption Capacity (VAC) of the landscapes. Oberholzer defines VAC as the potential of the landscape to conceal the proposed project (Oberholzer, 2005). i.e.

- High VAC – e.g., effective screening by vegetation and structures.
- Moderate VAC - e.g., partial screening by vegetation and structures.
- Low VAC - e.g., little screening by vegetation or structures.

Vegetation type is a large factor in determining the scenic quality of the site in terms of colour and texture, as well as influencing the local ability of the landscape to absorb the landscape change if larger trees species or prolific vegetation is located on the site or within the local

region. The map below outlines the vegetation type based on BGIS mapping (South African National Biodiversity Institute, 2018).

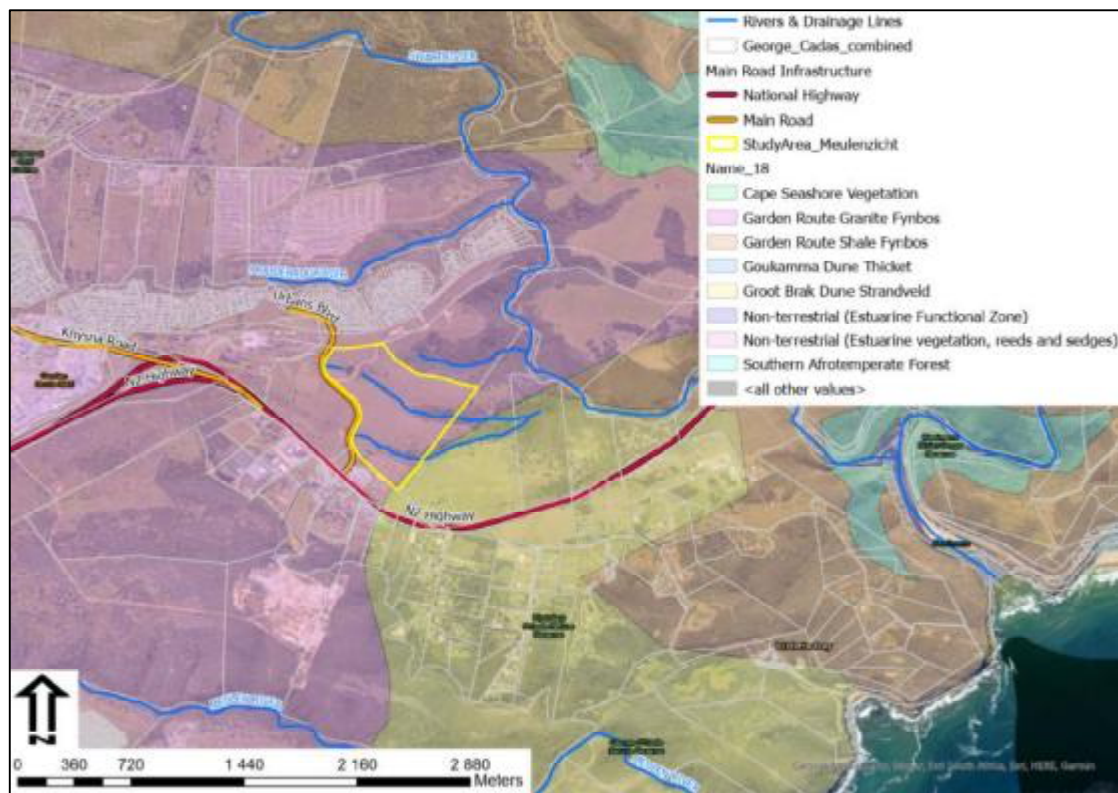


Figure 7. BGIS Biome and Vegetation Type Map (South African National Biodiversity Institute, 2018).

According to the South African National Biodiversity Institute (SANBI) 2012 Vegetation Map of South Africa, Lesotho and Swaziland (South African National Biodiversity Institute, 2012) the project area is located in the Fynbos Biome with the main vegetation types being Garden Route Granite Fynbos. As depicted in the photograph below, the previous forestry and agricultural land uses have effectively transformed most of the vegetation on the site, with a few exceptions in the shallow drainage lines to the west.



Figure 8. Typical veld grasslands vegetation of the site with Black Wattle infestation in the eastern drainage lines.

The majority of the site vegetation is veld grasses, with a few small patches of fynbos vegetation. Most of the more prominent drainage lines draining into the eastern Swart River, depict Black Wattle alien plant infestations that detracts from the Garden Route landscape context.

The Visual Absorption Capability (VAC) for most of the proposed development site is rated as Low, due to limited tree vegetation and the absence of significant man-made modifications. The local area VAC level is rated as Medium because of the existing developments around the Kraaibosch/N2 Highway and the old Urban Mill structures. In summary, the overall VAC is rated as Medium to Low, indicating that proposed residential development would be clearly visible but generally viewed within the existing urban and peri-urban landscape context.

6.3 Landscape Topography

Landform is a key variable informing the aesthetic nature of the landscape within the VRM methodology. The viewshed is strongly associated with the regional topography where topographic screening from undulating terrain would restrict views of the proposed landscape change. The site-specific characteristics are also analysed by gradient analysis to determine if any steep slopes are located on the proposed development site.

6.3.1 Regional Landscape Topography

Making use of the NASA STRM digital elevation model, profile lines were generated for the area within 12km on either side of the project area predominantly in the North to South and East to West compass point reference. The map depicting the regional elevation profile lines can be viewed on the following page.

The general topography of the region is defined as undulating, due to the numerous river systems that drain the coastal plateau located between the northern Outeniqua Mountains the southern Indian Ocean coastline. The two river systems strongly influencing the undulating topography that typify the 'Garden Route' are the Kaaimans River and Swart River. Other than the undulating terrain, no dominating local landforms are apparent. A key component of the vistas adding value to the site are the views of the undulating landscapes with the Outeniqua Mountains in the background. These vistas are currently available from the N2 Highway adjacent to the property and afford views to the east, overlooking the property with iconic "Garden Route' views. The generally undulating terrain of the Garden Route topography is clearly visible in the North to South Profile, and clearly visible in the East to West profile, where the more pronounced undulations east of the property are more apparent.

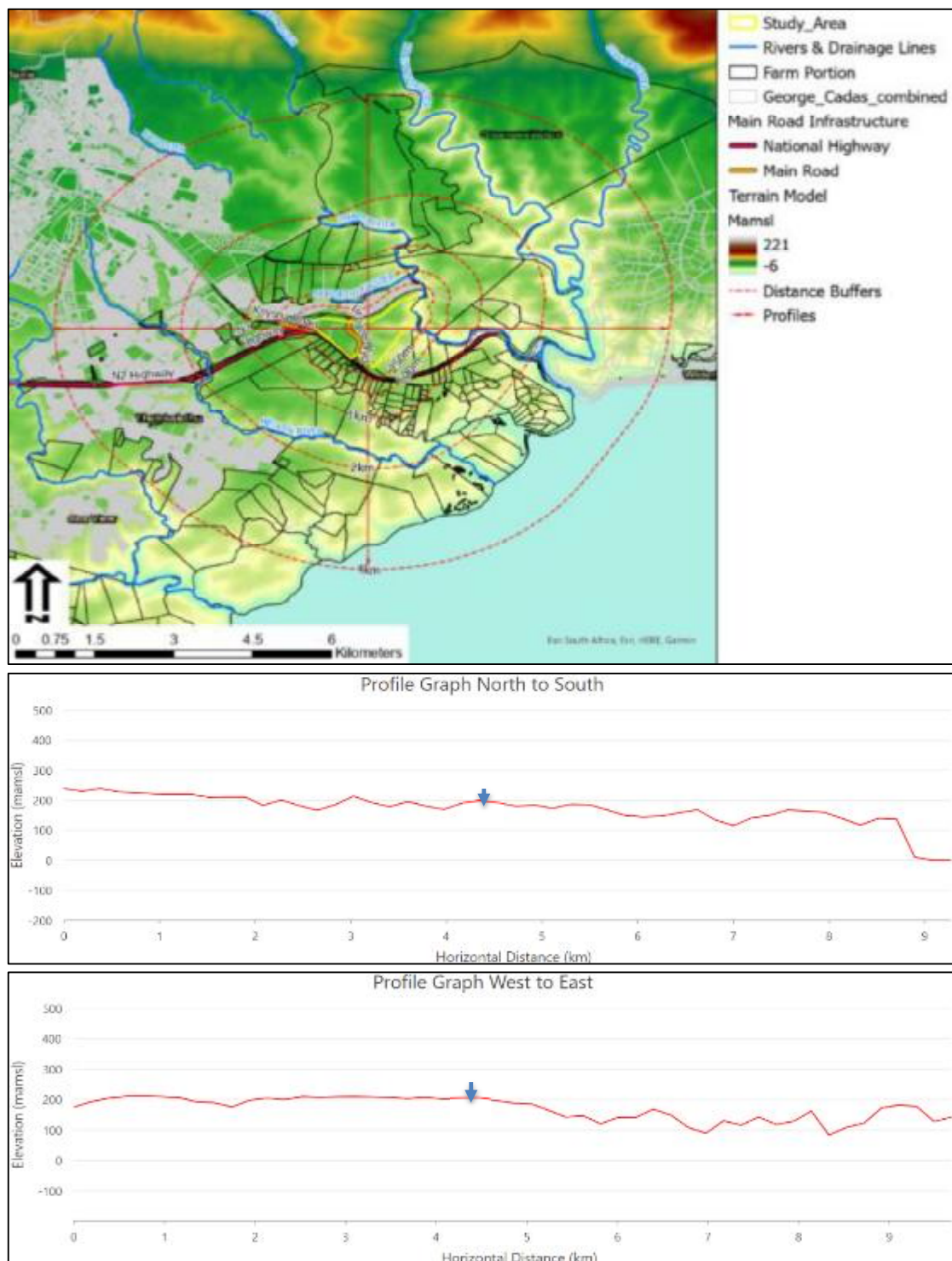


Figure 9: Regional Digital Elevation Mapping and Profiles Graphs with centrelines depicted.

6.3.2 Key local topographic features and site slopes analysis

To ensure that significant landforms related to steep slopes are not located on the site or surrounds, a slopes analysis was undertaken. As mapped below, the site does depict some steeper slopes in the valley areas, but nothing that exceeds 1 in 4m. Two pronounced drainage lines drain the property to the east, as well as form small wetlands. A number of

farm dams are located on the site that also add local landscape value to the site. The southern dam is proposed to be filled as it is not within a natural drainage line, but the other dam to the north-central sections of the property, will be retained as a feature. As this dam forms a central viewpoint along the Urbans Boulevard, views of the dam in the foreground, with open vistas to the Outeniqua Mountains in the background, should be retained as open views as much as possible to retain the scenic corridor effect of this widened road. The wetland area would have to be excluded for hydrological integrity proposes, with a minimum of a 32m buffer on all drainage lines.

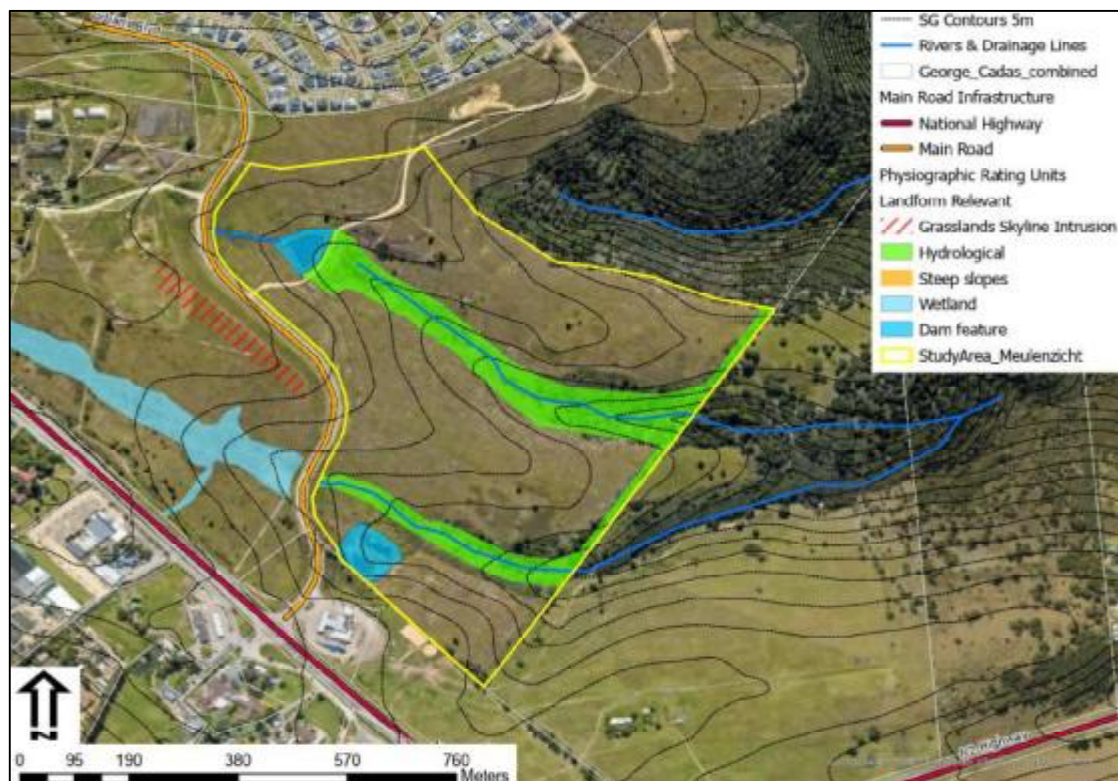


Figure 10: Key topographic features map.

6.4 Project Zone of Visual Influence

The visible extent, or viewshed, is “the outer boundary defining a view catchment area, usually along crests and ridgelines” (Oberholzer, 2005). In order to define the extent of the possible influence of the proposed landscape change, a viewshed analysis was undertaken from the proposed site at a specified height above ground level. This is to assess the **theoretical extent** where the proposed landscape change could be visible from. This theoretical viewshed excludes vegetation, structural development as well as distance from the location where atmospheric influence would reduce visual clarity over increasing distance. The viewshed analysis makes use of open-source NASA ASTER Digital Elevation Model data (NASA, 2009).

Based on the theoretical viewshed and the site visit appraisal of the nature of the landscape, an assessment of the **Zone of Visual Influence (ZVI)** is made. The ZVI is the area where the proposed landscape change is most likely to be noticed by the casual observer, taking the site visit into account where vegetation, existing development and distance is taken into

consideration. This is a subjective appraisal but informed by the viewshed and the other factors mentioned.

A viewshed analysis was undertaken for the site making use of an Offset value representing the height of the proposed development as reflected in the table below. The model extent of the viewshed analysis was restricted to a defined distance from the site that represents the expected zone of visual influence (ZVI) of the proposed activities. This takes the scale, and size of the proposed projects into consideration in relation to the natural visual absorption capacity of the receiving environment. The maps are informative only as visibility tends to diminish exponentially with distance, which is well recognised in visual analysis literature (Hull & Bishop, 1988).

Table 13: Proposed Project Heights table

Proposed Activity	Height (m)	Model Extent	Motivation
Structures	8m	12km	Undulating terrain and urban/ peri-urban landscape context is likely to reduce the extent of the zone of visual influence to some degree where it is unlikely that the proposed landscape change would be visible beyond the 12km distance.

The viewshed is mapped and can be viewed in Figure 11 on the following page. This depicts the theoretical area where the proposed landscape change could be visible. The theoretical viewshed is defined as Wide-area as the proposed landscape change has the potential to extend beyond the 6km Foreground/ Mid Ground distance area up to the 12km distance zone in the eastern areas. To better understand which portion of the proposed development areas will be more visible, a frequency thematic display was generated. The darker brown portions of the theoretical viewshed depict where more of the 100 points will be visible. The lighter colours depict where less of the points will be visible. The lighter colours of the viewshed are more to the west of the site, with only 19 points visible from these urban areas. The areas to the north would have limited views of the proposed development. The areas depicting more intensity views (more points visible) are located to the south in the Kraaibosch region, the west facing, upper portions of rural lands to the east of the Swart River, and then the small holding areas of the upper Wilderness Heights areas. The key characteristic of the theoretical viewshed is the fragmentation of visibility potential, with much of the lower lying, undulating terrain of the Swart and Kaaimans Rivers depicting no visual potential.

The extent of the Zone of Visual Influence is defined as Wide Area and most likely to be contained within the foreground/ mid-ground distance zone for the following reasons:

- The strongly undulating terrain of the Meulen River to the west, and the Swart and Kaaimans Rivers to the east.
- The high ground to the south limiting views beyond 1km.
- High ground and higher VAC levels to the north and west where the built nature of the urban landscape is likely to contain views of the landscape change.

The Zone of Visual Influence is thus rated Moderate but with Very High Visual Exposure for receptors. The following receptors were located within the expected ZVI with expected Visual Exposure to the proposed landscape change:

- N2 Highway east and westbound (Very High Exposure).
- Urban Boulevard (Very High Exposure).
- Knysna Road (Very High Exposure).
- Outeniqua Farmers Market (Very High Exposure).
- Kraaibosch proximate developments (Very High Exposure).
- Southern portions of the Welgelegen Estate (Very High Exposure).
- South facing portions of Groenkloof Retirement Village (Very High Exposure).
- Western facing properties of upper Wilderness Heights. (Medium Exposure)

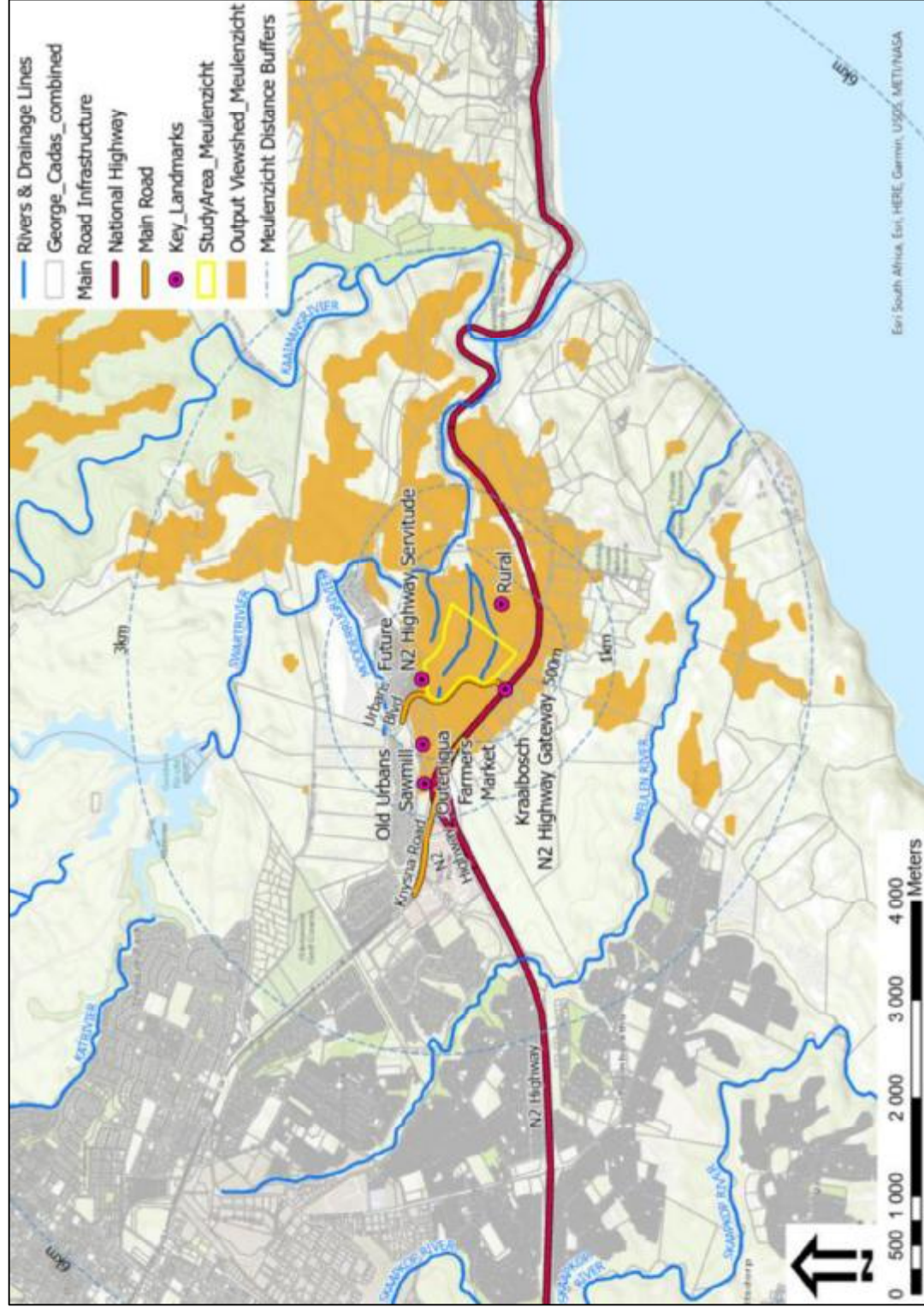


Figure 11: Viewshed analysis map of proposed project.

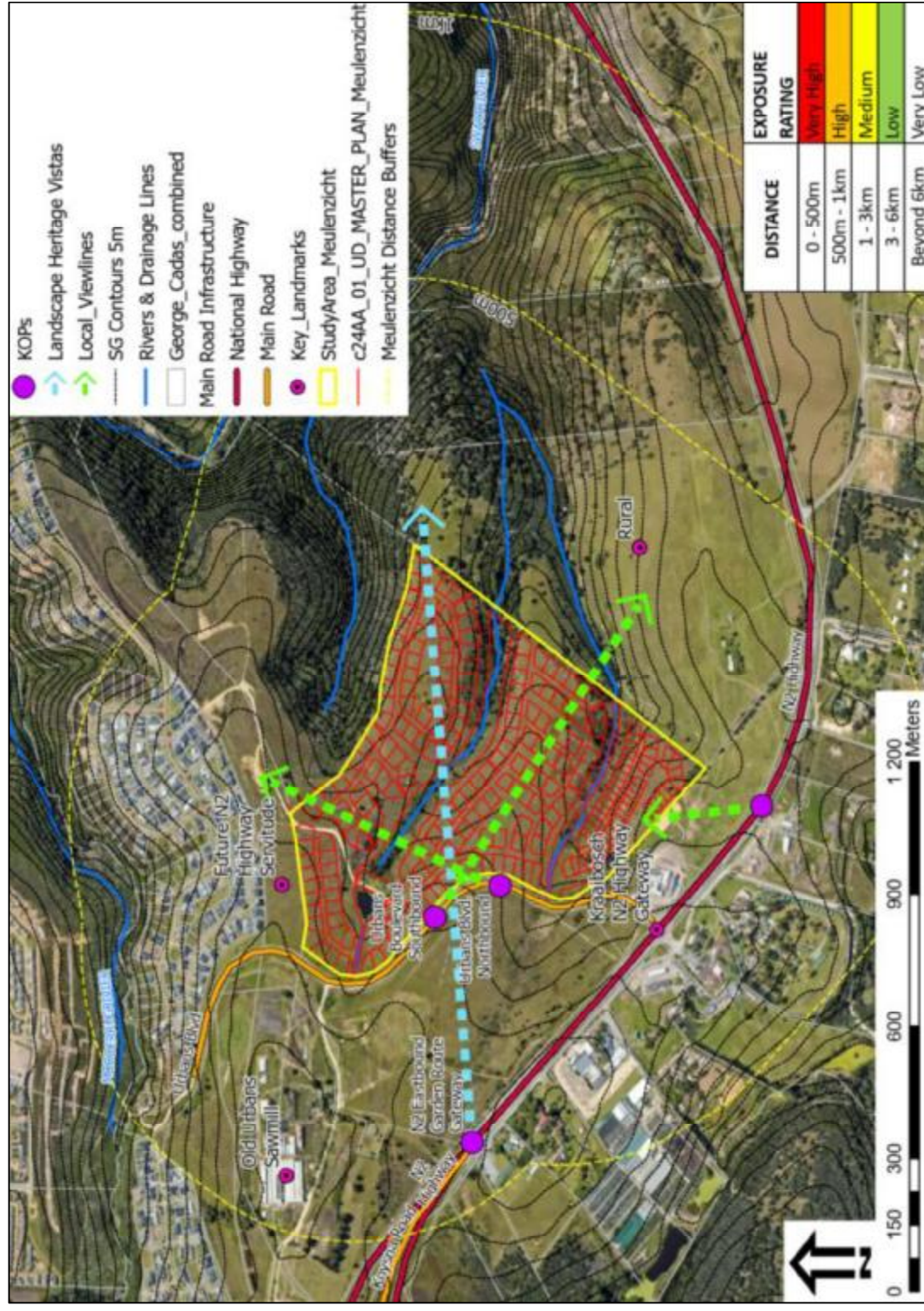


Figure 12: Receptor Key Observation Point and Visual Exposure Map.

6.5 Receptors and Key Observation Points

As defined in the methodology, KOPs are defined by the Bureau of Land Management as the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. The following table identifies the receptors identified within the ZVI, as well as motivates if they have significance and should be defined as KOP. The receptors located within the ZVI, and KOPs view lines are indicated on the map on the following page. As motivated and mapped in Table 14 below and mapped in Figure 12 on the previous page, the following receptors have been identified as Key Observation Points and should be used as locations to assess the suitability of the landscape change.

Table 14: KOP Motivation table

Name	Theme	Exposure	Motivation
N2 Highway east and westbound	National Road	Very High (150m)	The N2 Highway is the most important road along the length of the Garden Route. The importance of the road is flagged in local and district municipality planning as an important tourist view corridor where adjacent land uses need to take the scenic quality into account. The N2 Highway creates two 'gateway' experiences into George for westbound traffic, and into the Garden Route for eastbound traffic. The views of the proposed property are central to both of these gateways, where views to the background Outeniqua Mountains need to be retained to retain the landscape heritage vistas.
Urbans Boulevard north and southbound	Main road	Very High (sub 50m)	The Urbans Boulevard provides access from the Kaaimans/ N2 intersection to the eastern gated estates of Welgelegen. The Boulevard sense of place has been retained by design, allowing for a winding road that takes the undulating terrain into account providing open views to the Outeniqua Mountains that add to the sense of place.

The following receptors were not chosen as KOPs:

- Welgelegen Estate.
- Groenkloof Retirement Village.
- Wilderness Heights.

The two estates are located to the north of the site, and both would look over the N2 Highway where views would be changed to accommodate a future major transport route. The sense of place of these areas is similar to the proposed estate development, creating a similar landscape context.

The Wilderness Heights areas are located 4km to the east of the site, with views from these areas already depicting a built landscape. While the proposed development will accentuate the urban sense of place, it will be a continuation of the existing urban vistas.

7 VISUAL RESOURCE MANAGEMENT

In terms of the VRM methodology, landscape character is derived from a combination of scenic quality, receptor sensitivity to landscape change, and distance of the proposed landscape modification from key receptor points. Making use of the key landscape elements defined in the landscape contextualisation sections above, landscape units are defined which are then rated to derive their intrinsic scenic value, as well as how sensitive people living in the area would be to changes taking place in these landscapes.

7.1 Physiographic Rating Units

The Physiographic Rating Units are the areas within the proposed development area that reflect specific physical and graphic elements that define a particular landscape character. These unique landscapes within the project development areas are rated to assess the scenic quality and receptor sensitivity to landscape change, which is then used to define a Visual Resource Management Class for each of the site's unique landscape/s. The exception is Class I, which is determined based on national and international policy / best practice and landscape significance and as such are not rated for scenic quality and receptor sensitivity to landscape change. Based on the SANBI vegetation mapping and the site visit to define key landscape features, the following broad-brush areas were tabled and mapped in Figure 13 below.

Table 15: Physiographic Landscape Rating Units

Landscapes	Motivation
Undulating Grasslands	The majority of the site is characterised by veld grassland from historic timber and agricultural land uses.
Urbans Boulevard Vista Sensitivity	As seen from portions of the Urbans Boulevard, there is a medium sized ridgeline where skyline intrusion is likely to take place where higher levels of visual intrusion would take place for taller structures.
Wetlands and hydrological relevant.	A wetland is located on the flatter terrain to the west of the site, with prominent drainage lines on the eastern portions of the site that clearly define the area as riverine.
Urban Edge Buffer (10m Approx)	To protect the rural sense of place to some degree in the areas to the southeast of the proposed development, a 10m buffer is proposed for no development and for security fencing maintenance.

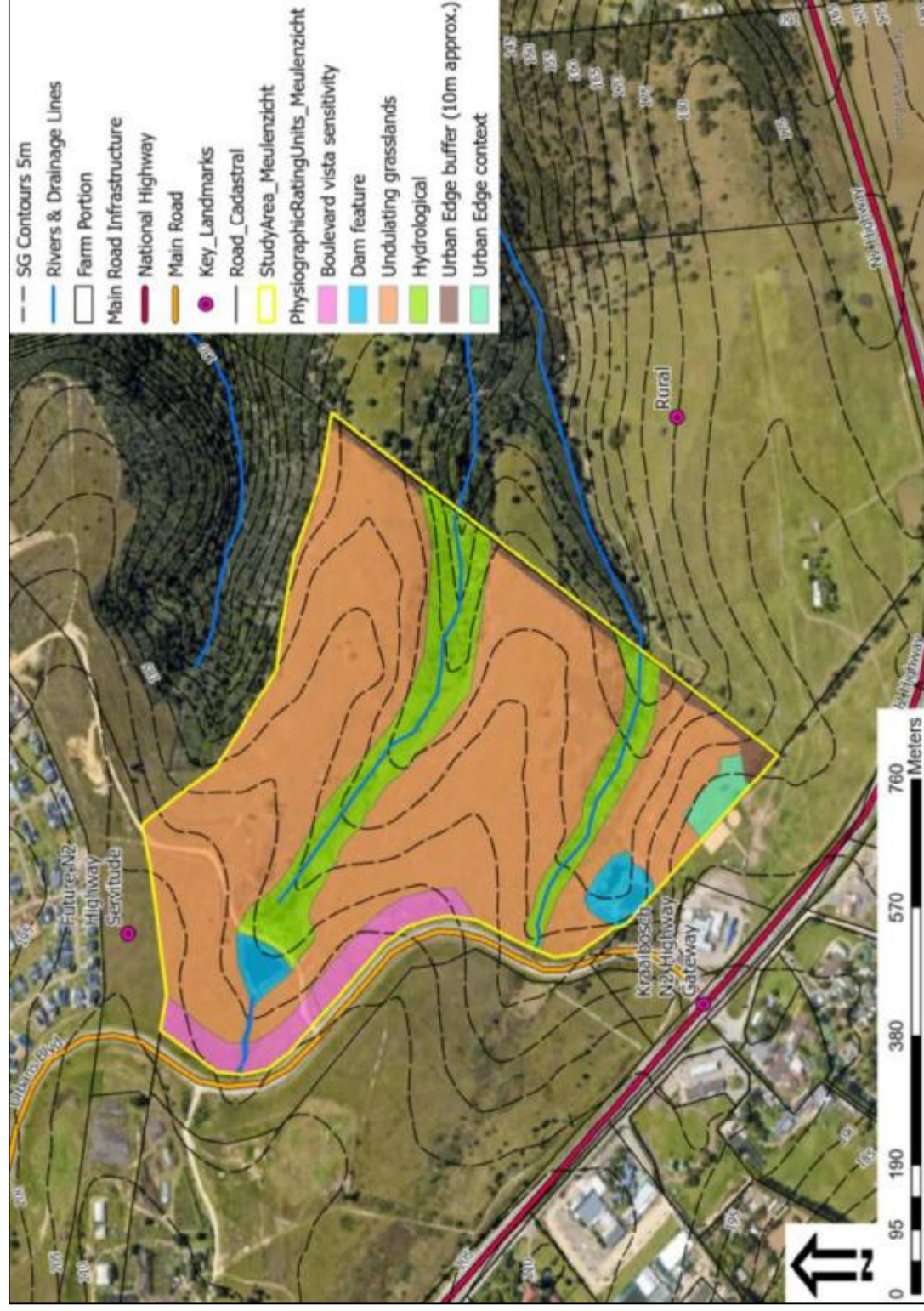


Figure 13: Physiographic Rating Units identified within the defined study area.

Table 16: Scenic Quality and Receptor Sensitivity Rating

Landscape Rating Units	Scenic Quality										Receptor Sensitivity						VRM	
	Landform	Vegetation	Water	Colour	Scarcity	Adjacent Landscape	Cultural Modifications	Sum	Rating	Type of Users	Amount of Use	Public Interest	Adjacent Land Uses	Special Areas	Rating	Inventory Class	Management Class	Development Sensitivity
Attribute In general, significant Heritage / Ecological / Hydrology. With specific reference to the project: - Wetland/ Riverine (as the aquatic specialist findings) - Urbans Boulevard Vista Sensitive - Urban Edge Peri-urban Context - Undulating grasslands		2	2	1	2	3	4	2	16	MH	H	H	H	H	H	II	II	Low Intrusion (Height Constrained)
		2	2	1	2	3	4	2	16	MH	H	H	H	H	MH	III	III	With mitigation
(Class I is not rated)																I		No-Go

Red colour indicates change in rating from Visual Inventory to Visual Resource Management Classes motivated in the following section.

The **Scenic Quality** scores are totalled and assigned an A (High scenic quality), B (Moderate scenic quality) or C (Low scenic quality) category based on the following split: A= scenic quality rating of ≥ 19 ; B = rating of 12 – 18, C= rating of ≤ 11 (USDl., 2004).

Receptor Sensitivity levels are a measure of public concern for scenic quality. Receptor sensitivity to landscape change is determined by rating the key factors relating to the perception of landscape change in terms of Low to High (H = High; M = Medium; L = Low).

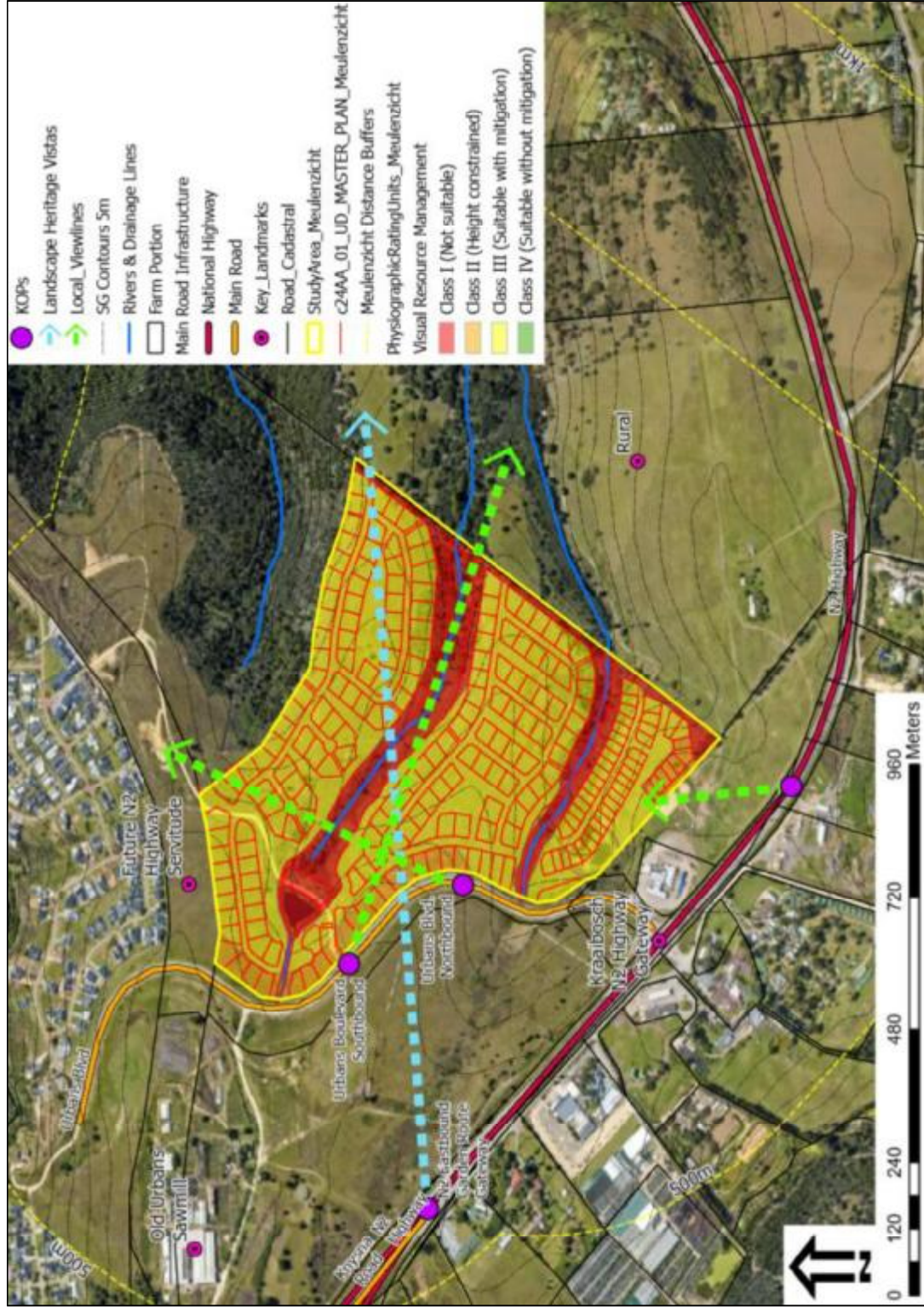


Figure 14: Visual Resource Management Classes and development constraints map.

7.2 Scenic Quality Assessment

The scenic quality is determined making use of the VRM Scenic Quality Checklist that identifies seven scenic quality criteria which are rated with 1 (low) to 5 (high) scale. The scores are totalled and assigned an A (High), B (Moderate) or C (low) based on the following split:

A = scenic quality rating of ≥ 19 (High).

B = rating of 12 – 18 (Medium).

C = rating of ≤ 11 (Low).

Table 17: Scenic Quality Rating table

Landscapes	Rating	Motivation
Landform <i>Topography becomes more of a factor as it becomes steeper, or more severely sculptured.</i>	Medium	The site landforms are defined as strongly undulating and create landscape value from the visual associations with the eastern Garden Route vistas.
Vegetation Primary consideration given to the variety of patterns, forms, and textures created by plant life.	Medium High	Much of the vegetation is veld grasslands, with some larger (mainly alien) trees in along the drainage lines.
Water <i>That ingredient which adds movement or serenity to a scene. The degree to which water dominates the scene is the primary consideration.</i>	Medium Low	While not a dominating presence, there are two small farm dams on the property that do add to the local scenic quality, but with eastern pronounced drainage lines alluding to the presence of water and small streams that drain into the Swart River.
Colour <i>The overall colour(s) of the basic components of the landscape (e.g., soil, rock, vegetation, etc.) are considered as they appear during seasons or periods of high use.</i>	Medium	Colours are primarily from vegetation, with the grey greens of the veld grasslands the main colour theme, but with the darker greens of the northwestern climax trees dominating the colour theme of this area.
Scarcity <i>This factor provides an opportunity to give added importance to one, or all, of the scenic features that appear to be relatively unique or rare within one physiographic region.</i>	High	The two gateway areas associated with views, from and into the Garden Route, are significant and have landscape heritage value.
Adjacent Landscapes <i>Degree to which scenery and distance enhance, or starts to influence, the overall impression of the scenery within the rating unit.</i>	High	The eastern areas of the undulating terrain between the northern Outeniqua Mountains and southern Indian Ocean coastline, are iconic views of the Garden Route landscapes.
Cultural Modifications <i>Cultural modifications should be considered and may detract from the scenery or</i>	Medium	Cultural modifications are limited to the northern portions of the property and related to the old Urbans mill and

<i>complement or improve the scenic quality of an area.</i>		associated remaining pine trees/ and other alien vegetation surrounding this site.
Scenic Quality	Medium to High	
The scenic quality of the site is rated as medium to high. The landforms are characterized by strong undulations, contributing to the landscape's visual associations with the eastern Garden Route vistas. The vegetation primarily consists of veld grasslands, with some larger (mainly non-native) trees along the drainage lines. The veld grasslands visually connect with eastern rural landscapes. Cultural modifications are minimal and limited to historic agricultural land uses that do add to the experience of landscape heritage. The property also offers significant views to the east into the Garden Route, with background views of the Outeniqua Mountains, enhancing the scenic quality of the site.		

7.3 Receptor Sensitivity Assessment

Table 18: Receptor Sensitivity Rating table.

Landscapes	Rating	Motivation
Type of Users <i>Visual sensitivity will vary with the type of users, e.g., recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.</i>	High	The zone of visual influence includes the N2 Highway an important tourist route and planned scenic view corridor. The ZVI also includes the Urbans Boulevard that allows access to Groenkloof Estate. As the views are currently rural and scenic, visual sensitivity from these receptors is likely to be experienced as High.
Amount of use <i>Areas seen or used by large numbers of people are potentially more sensitive.</i>	High	The N2 Highway is the main route from the eastern areas of the George Municipality, and Garden Route, carrying large volumes of traffic. The Urbans Boulevard also carries tourist traffic.
Public interest <i>The visual quality of an area may be of concern to local, or regional, groups. Indicators of this concern are usually expressed via public controversy created in response to proposed activities.</i>	Medium	The area has been included in the George Municipality urban edge in the 2023 SDF and residential/ tourist related development is unlikely to result in public controversy.
Adjacent land Users <i>The interrelationship with land uses in adjacent lands. For example, an area within the viewshed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be as visually sensitive.</i>	Medium to High	Residential receptors currently making use of this property landscapes are gated estates, where the landscape context is likely to be similar.
Special Areas Management <i>objectives for special areas such as Natural Areas, Wilderness Areas or</i>	High	The views from the N2 to the eastern Garden Route are iconic and should be

Landscapes	Rating	Motivation
<i>Wilderness Study Areas, Wild and Scenic Rivers, Scenic Areas, Scenic Roads or Trails, and Critical Biodiversity Areas frequently require special consideration for the protection of their visual values.</i>		considered as landscape heritage vista.
Receptor Sensitivity	Medium to High	
The expected receptor sensitivity to landscape change is rated Medium to High. The zone of visual influence includes the N2 Highway, an important tourist route and planned scenic view corridor as well as the Urbans Boulevard. As the property has been included in the George Municipality urban edge in the 2023 SDF, residential/ tourist related development is unlikely to result in public controversy. However, the views from the Urbans Boulevard to the eastern Garden Route are iconic and should be considered as landscape heritage vista. The Urbans Boulevard was also designed as a view corridor, allowing wide verges and sweeping curves reflecting the undulating of the terrain. The road enhances the scenic quality and intrusion into the view is likely to evoke strong negative responses from road users.		

7.4 Visual Resource Management (VRM) Classes

The BLM has defined four Classes that represent the relative value of the visual resources of an area and are defined in terms of the VRM Matrix as follows:

- i. **Classes I and II** are the most valued.
- ii. **Class III** represent a moderate value.
- iii. **Class IV** is of least value.

7.4.1 VRM Class I (No-Go)

Class I is assigned when legislation restricts development in certain areas, or where landscape and visual impact significantly degrade high value landscape resources. The visual objective is to preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention. A Class I visual objective was assigned to the following features within the proposed development area due to their protected status within the South African legislation:

- Generic Landscape Issues
 - Rivers / streams and associated flood lines buffers identified as significant in terms of the Water Use Licence Application (WULA) process.
 - Wetlands identified as significant in terms of the WULA process.
 - Ecological areas (or plant species) identified as having a high significance.
 - Heritage area identified as having a high significance.
- Specific Landscape Issues
 - **Not applicable. The property is within the urban edge and as such, a development footprint is expected to meet planned objectives.**

To protect the rural sense of place to some degree in the areas to the southeast of the proposed development, a 10m buffer is proposed for no development and for security fencing maintenance. As the aquatic sensitive areas have been excluded from the development footprint, and the development area falls within the George LM Urban Edge where future development is planned and would be expected, no other Class I areas were defined.

7.4.2 VRM Class II (Height restricted)

The Class II objective is to retain the existing character of the landscape and the level of change to the characteristic landscape should be low. The proposed development may be seen but should not attract the attention of the casual observer, and should repeat the basic elements of form, line, colour and texture found in the predominant natural features of the characteristic landscape. The following landscape was defined as having Class II Visual Objectives where development would be most suitable:

- Urbans Boulevard vista sensitive.

The Urbans Boulevard was designed as a view corridor with wide verges to accommodate views over residential units. To ensure that the existing view corridor sense of place of the Urbans Boulevard are retained, a 6m average height above ground level is recommended for these units proposed along the Boulevard. To ensure that some views over the proposed structures take place, a 10m buffer from the road cadastral is also recommended as a non development area. The combination of these two mitigations with landscaping, would effectively allow for maintenance of the wide road, Boulevard sense of place with open views to the east.

7.4.3 VRM Class III (Suitable with mitigation)

The Class III objective is to partially retain the existing character of the landscape, where the level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer, and changes should repeat the basic elements found in the predominant natural features of the characteristic landscape. The following landscape was defined as having Class III Visual Objectives where development would be most suitable:

- Undulating grasslands.

The majority of the remaining portions of the property are characterised by veld grassland on undulating terrain. Located within the urban edge and zoned for residential, these areas would be suitable for lower/ medium density residential related development. The following mitigations have relevance to these areas:

- Maximum 8.5m height restriction to an effective transition to the eastern medium to long term urban edge.
- Street trees planted every 15m on one side of all streets.
- Planting of trees every 15m along the identified 'green' rows in the residential areas.

7.4.4 VRM Class IV (Suitable without mitigation)

The Class IV objective is to provide for management activities that require major modifications of the existing character of the landscape. The level of change to the landscape can be high, and the proposed development may dominate the view and be the major focus of the viewer's (s') attention without significantly degrading the local landscape character. Due to the degraded sense of place, the following areas were rated Class IV:

- Not applicable.

As the area depicts higher scenic quality and where receptors would be more sensitive to very intensive residential/ industrial developments, and there is no planning for industrial/ mixed used type development, no Class IV areas were defined.

8 VISUAL IMPACT ASSESSMENT

Impacts are defined in terms of the standardised impact assessment criteria provided by the environmental practitioner. Using the defined impact assessment criteria, the potential environmental impacts identified for the project were evaluated according to severity, duration, extent and significance of the impact. The potential occurrence of cumulative impact (as defined in the methodology) was also assessed. In order to better understand the nature of the severity of the visual impacts, a Contrast Rating exercise was undertaken from the assumed view of the defined Key Observation Point where photomontages were generated. The outcomes of the contrast rating inform the visual impact magnitude and mitigations.

8.1 Photomontages and Model Proof

To better depict the proposed landscape change, a 3D block modelling exercise was undertaken. This enabled a better understanding of massing and 'walling' effects where no detailed planning was provided such as in the proposed Apartments areas. Blocks reflecting double (8m) or single storey (4m) were mapped into the development areas to depict a building footprint. In the apartment areas where no details were provided, an approximate row of housing was mapped out reflecting higher density settlement patterns as proposed. In the erven areas, the building block was sized to fit within the erven. The building blocks could then be viewed in the 3D viewer as seen from the defined Key Observation Points. The following mitigation scenarios 3D massing model images were used to generate the photomontages of the key visual impact points.



Figure 15: Example of the 3D massing model was used along the Urbans Boulevard View East.

To take the cut and fill into account, the blocks were extruded on maximum ground level height but reduced in elevation by a metre for the eight metre extrusion. The image below depicts the 8m block, with the high section of the erven 7m above ground level to take the cut and fill balance into account.

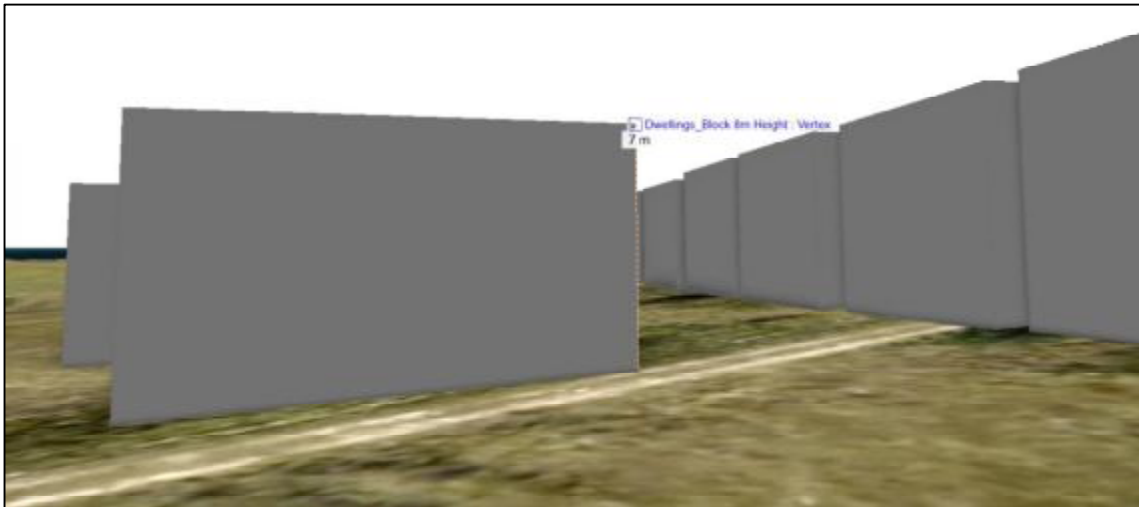


Figure 16: 3D Mass Model cut and fill example.

Notes:

- *The 3D blocks are an approximation of a building 3D footprint and for visualisation purposes only. They were generated as no detailed 3D modelling was provided. They reflect a worse case scenario as required in the Western Cape Visual and Aesthetic Guidelines. To reduce this effect, the neutral colour of grey was used for the block shapes.*
- *To take cumulative effects into account, the adjacent proposed Meulenzicht Estate was also included in the 3D modelling to better understand the 'walling effects' along the Urbans Boulevard.*

8.1.1 Urbans Boulevard Central View.

Existing View



Proposed landscape change: 8m Height



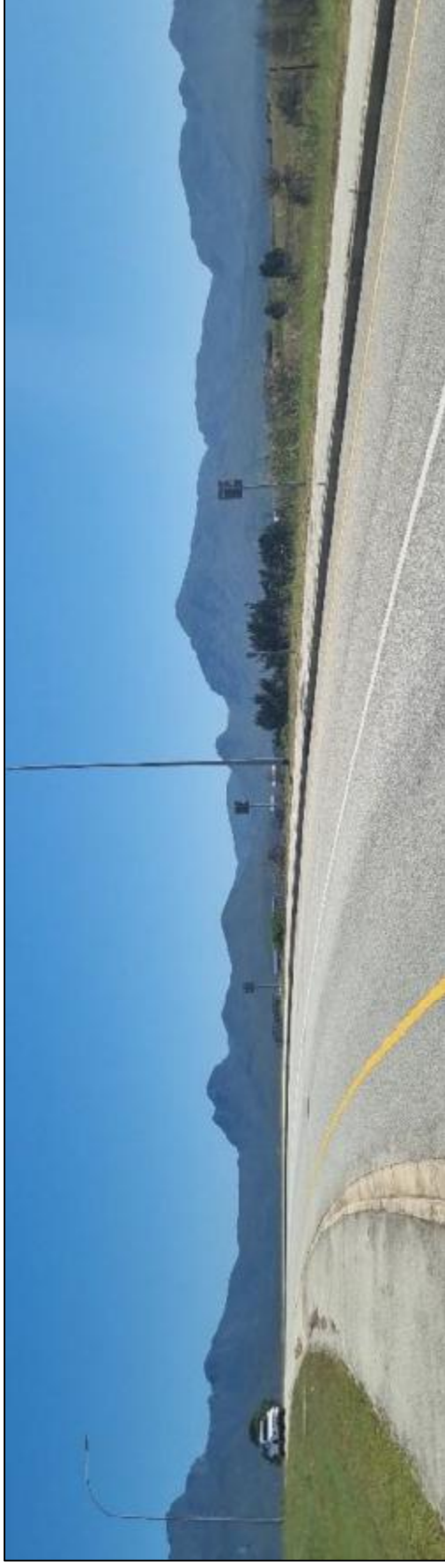
Proposed landscape change: Removal of four units the visual preference.



Figure 17: KOP Photograph: Urbans Boulevard Central View 3D Block Model.

8.1.2 Urbans Boulevard Northbound 1.

Existing View



Proposed landscape change: 8.5m Height (Generated by Nuvorm Architects)



8.2 Contrast Rating

As indicated in the methodology, a contrast rating is undertaken to determine if the VRM Class Objectives are met. The suitability of a landscape modification is assessed by comparing and contrasting the receiving landscape to the expected contrast that the proposed landscape change will generate. This is done by evaluating the level of change to the existing landscape by assessing the line, colour, texture and form, in relation to the visual objectives defined for the area.

The following criteria are utilised in defining the degree of contrast (DoC):

- **None:** The element contrast is not visible or perceived.
- **Weak:** The element contrast can be seen but does not attract attention.
- **Moderate:** The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- **Strong:** The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

Table 19: Contrast Rating Key Observation points table

Key Observation Point	Exposure		Mitigation	Landscape Elements					Visual Objectives Met?
	Distance	Exposure		Form	Line	Colour	Texture	Degree of Contrast	
N2 National Highway	150m Avg.	Very High	W/Out	S	S	S	S	S	No
			With	M	M	M	M	M	Yes
Urbans Boulevard	20m Avg.	Very High	W/Out	S	S	S	S	S	No
			With	M	S	M	M	M	Yes

* S = Strong, M = Medium, W = Weak, N = None

8.2.1 Urbans Boulevard

The Urban Boulevard provides access from the Kaaimans/ N2 intersection to the eastern gated estates of Welgelegen. The Boulevard sense of place has been created by design, allowing for a winding road that takes the undulating terrain into account, providing open views to the Outeniqua Mountains that significantly add to the sense of place. A large road reserve was proclaimed allows for suitable setbacks such that views over residential structures takes place. This effect is reflected in the adjacent Welgelegen Estate to the north of the site, the wide road reserve allows for more open views of the eastern residential dwellings that are located below the height of the road users as depicted in the map on the following page.

The recommendation is that, as this was the intention of the design, the openness of the existing experience of the landscape context should remain to some extent. The location of 8m dwellings in close proximity to the road would detract from the intended experience of the road if residential 'walling' effect took place. As the site has previously been excluded from the George Municipality Urban Edge, the land uses are rural, with open views to the east. Some plantings of indigenous trees have taken place, but the tree growth remains stunted and

many of the trees have died. The trees that remain will become feature trees over time, an effect that would enhance the sense of place and should be encouraged.



Figure 18. Welgelegen Estate to the northeast of the Urbans Boulevard with suitable development precedent from views over the structures that are well set back from the road.

Without mitigation, there is a risk from residential ‘walling’ effects from residential erven from both the Oumeulen and Meulenzicht Estates where the line of 8.5m high dwellings located along the road would significantly alter the openness of the Urbans Boulevard current sense of place. Contrast generated from these two rows of development would result in strong levels of visual contrast and the Class III Visual Objective would not be met. The closing in of the residential units around the small dam would obscure the view of this feature, detracting from the existing boulevard sense of place. Without mitigation, the Class II Visual Objective defined for the road would not be met.

However, within the urban edge development context, there is an expectation for some development. The photomontages generated for a section of the Urbans Boulevard by the project architects depicts that with a setback, and landscaping along the road, the proposed development would be similar to the Welgelegen Estate example (but with some higher visual intrusion due to less of a drop in slope and a larger setback buffer. However, this effect along the length of the route would effectively wall off the depth of view to the eastern Garden Route over the Swart River. To ensure that the route sense of place is retained to some degree where depth views beyond the front line of proposed dwellings can take place, the

recommendation is that four erven to the west of the small dam (north of the main gate), are removed.

8.2.2 N2 National Highway Westbound: Peri-urban Areas

The existing views from N2 Highways receptors travelling westbound into George are currently peri-urban, transitioning from rural to urban. As such, which the VAC levels are higher, there is no precedent for double storey structures. To protect the areas to the east that are outside of the urban edge, the proposed structures should appear to be single residential, following the exist landscape context. With this mitigation, the units that are set back 150m from the road would meet the Class II Visual Objective.

8.3 Project Impact Ratings and Motivation

The impact assessment focuses on the combined visual effects of the proposed landscape change. The following phase of development area assessed:

- Construction.
- Operation.
- Decommissioning (Not applicable as the development will become a permanent feature in the landscape).

Cumulative effects for the area assessed are:

- A long-term change in land use setting a precedent for other similar types of residential/ retail development around the property, resulting in a loss of scenic quality of the N2 National Highway and Urbans Boulevard.

8.3.1 Construction Phase Impact Assessment

Table 20: Construction Phase Impacts table

Project phase	Construction Phase	
Impact	Loss of landscape character from construction and long-term (phased) development	
Description of impact	• Loss of site landscape character due to the removal of vegetation and the construction of the project infrastructure. • Construction and laydown camps on the site. • The movement of large earth moving and building equipment. • Wind-blown dust due to the removal of large areas of vegetation. • Wind-blown litter from the laydown and construction sites. • Movement of larger vehicles along local roads and traffic congestion. • On-going building of structures.	
Mitigability	Low	The mitigation will partially reduce the significance of the visual and landscape impacts.
Key Mitigations	• Dust management. • Setback of the laydown area. • General best practice in construction EMP. • Implementation and planting of berms and trees screening areas. • Careful management and rehabilitation of the cut and fills. • Exclusion of No-Go areas and height restriction buffers.	
Assessment	Without mitigation	With mitigation

Nature	Negative		Negative	
Duration	Short-term	The construction phase is expected to be concluded within 1 year (per phase).	Short-term	The construction phase is expected to be concluded within 1 year (per phase).
Extent	Local	The visual impact will be locally contained.	Local	The visual impact will be locally contained.
Intensity	High	Without mitigation of dust, the construction of the development will be strongly perceived from the residential receptors.	Medium to High	With mitigation, the construction of the development will be intermittently perceived from the residential receptors.
Probability	Sure	The site is adjacent to the N2 Highway and Urbans Boulevard with clear views.	Sure	The site is adjacent to the N2 Highway and Urbans Boulevard with clear views.
Reversibility	Low	Once construction has started, the impact will not be reversible.	Low	Once construction has started, the impact will not be reversible.
Visual Significance	High -Ve		Medium to High -Ve	
Motivation	During construction without mitigation, dust could become a nuisance factor, and the construction site/ laydown area can be visually intrusive. With mitigation, dust will be managed, and the layout will be set back from the road and less visually intrusive where construction will not take place directly in front of significant vistas. The construction phase will, however, be clearly visible and visually intensive to some degree due to the movement of large vehicles. The removal of the pine trees will result in a significant change to the local landscape but will open up views to the eastern Garden Route that are currently obscured.			
Cumulative Effects	Medium -Ve		Low -Ve	
Motivation	With mitigation, it is unlikely that the short-term landscape degradation will result in local landscape degradation. Positive alignment with George Municipality planning within the urban edge (with mitigation).			

8.3.2 Operational Phase Impact Assessment

Table 21: Operation Phase Impacts Table

Project phase	Operation Phase	
Impact	Loss of landscape character from operation of the development	
Description of impact	- Massing effect in the landscape from a large-scale residential landscape modification. - Increased vehicular movement along the road. - Lights at night intruding into the eastern rural residential areas.	
Mitigability	Medium	The mitigation will reduce the significance of the visual and landscape impacts
Key Mitigations	Landscaping consolidation and continuous planting/ maintenance of street trees.	

	- Lights at night mitigation to reduce light spillage to eastern. Rural Garden Route landscape (taking into consideration that there is an existing lights at night footprint from George Urban areas). - Re-establishment of indigenous vegetation plantings along the Urbans Boulevard. - Use of natural, earth colours with a mid-grey hue for structures/ roof areas. Preference for lower pitch, rough textured roofing tiles as in many instances, views from receptors would look onto the dwelling roof areas. - Continued maintenance of landscaping berms and trees.			
Assessment	Without mitigation		With mitigation	
Nature	Negative		Positive	
Duration	Permanent	The development will become a permanent feature in the landscape.	Permanent	The development will become a permanent feature in the landscape.
Extent	Local	The visual impact will be locally contained.	Local	The visual impact will be locally contained.
Intensity	Medium to High	The operation of the development will be strongly perceived from the rural residential receptors and strongly change the local landscape character.	Medium to Low	With mitigation, the operation of the development will moderately change the local landscape character.
Probability	Sure	The site is adjacent to the rural residential receptors with clears views of the urban landscape change.	Sure	The site is adjacent to the rural residential receptors with clears views of the urban landscape change.
Reversibility	Low	Once construction has started, the impact will not be reversible.	Low	Once construction has started, the impact will not be reversible.
Visual Significance	High -Ve (No-Go)		Medium +Ve	
Motivation	Without mitigation and not addressing the visual intrusion to significant views from the Urbans Boulevard, these visual and landscape resources could significantly be degraded and set a negative precedent for ‘walling’ development along scenic view corridor in the George. With mitigation to create a suitable ‘pause’ space, with height restraint as well as further landscaping around the dwellings, the area has the potential to become a potential positive asset to the local landscape.			
Cumulative Effects	High -Ve		Low -Ve	
Motivation	Without mitigation described above, there is strong potential for setting a negative precedent for intensive development along the significant view corridors. With mitigation, it is unlikely that the long-term operation of the development will result in local landscape degradation setting a suitable development precedent along the urban edge. It is possible that the proposed development may result in planning pressure for the expansion of urban edge to the west on adjacent properties. However, this would need to be addressed in future planning and future EIAs.			

8.4 Summary of Visual Impact Findings

A summary of the visual impacts assessed is located on the following page. The headings below refer to the identified impact assessment criteria.

Nature of the Impact

During construction phase the nature of the impact will be Negative with and without mitigation. Without mitigation, the Operational Phase is likely to be Medium to High Negative, as some landscape degradation will take place. With mitigation, this phase has the potential to be Medium Positive, once the landscaping has become established.

Extent of the Impact

The Extent of the expected ZVI is Local Area with and without mitigation. This is due to the raised ground to the west, with urban built landscape and trees containing the extent of the zone of visual influence on the local, rural area in the east. There will be some expansion of the intensity of the George urban landscape ZVI into the rural Garden Route sense of place in the west.

Magnitude of the Impact

Without mitigation, the Magnitude of the impact is likely to be High Negative with the proposed development becoming a dominating visual feature in the local landscape detracting from the landscapes and heritage vista from the N2 Highway/ Urbans Boulevard. With mitigation, the development has the potential to become a suitable example of transitional development, setting a positive precedent for development along the urban edge without necessarily assisting/ forcing an urban sprawl/ ribbon development sense of place along these view corridors.

Duration of the Impact

Construction Phase is likely to be Short-term (per phase), with Operational Phase being a permanent landscape change. As the development is large, the construction phase is likely to extend over a long period of time.

Probability of the Impact

The probability of the impact taking place is rated Sure, as the property is in close proximity to the eastern rural residential area, with clear views of the proposed development from road receptors using the N2 Highway and Urbans Boulevard.

Confidence of the Impact

A site visit was undertaken and a review of planning for the area. 3D modelling of the proposed development was also undertaken, depicting scenarios with structure height and massing/ walling effects created by these development scenarios. The proposed development is also in alignment with local planning. As such, confidence is rated High.

Reversibility of the Impact

The reversibility of the impact is rated Low as once construction phase begins, the structures will be very difficult to remove and will be permanent features.

Resource Irreplaceability of the Impact

The impact area as a landscape resource is rated Medium to High as there is landscape value generated by the undulating terrain of these rural landscapes. There is also intense, nodal development sense of place around the N2 Highway/ Urbans Boulevard interchange that does detract from the local landscape, where the intensity of the development will become more established over time.

Mitigability of the Impact

Mitigation potential is rated Medium to High. The setback from the Urbans Boulevard would effectively reduce the heights of the row of double-storey structures proposed adjacent to the road. The removal/ relocation of the four units between the dam and the Boulevard, would effectively allow for depth of view to the east, breaking up the perceived massing effect from the development, as well as create a more effective development 'pause' along this section of the road.

Cumulative Impact Assessment

Due to the combined developments of the Oumeulen and Meulenzicht Estates, there is a risk in degrading the existing, designed aesthetics of the Urbans Boulevard. It is possible that the proposed development may also result in planning pressure for the expansion of urban edge to the west on adjacent properties, that without mitigation could reflect ribbon development along the N2 Highway and facilitate the experience of urban sprawl. However, this would need to be addressed in future planning and future EIAs. With mitigation, as specified, the cumulative effects would be contained to some degree, and the development would be in alignment with the George Municipality Urban Edge planning.

Visual Significance of the Impact

Without mitigation, the visual impact significance is rated Medium to High. The development is expected to set a negative visual precedent, particularly along the Urbans Boulevard, which was originally designed with a wide verge, sensitivity to the natural landform, and open views toward the eastern Garden Route landscape. The site spans a broad area that is visually connected to the rural, undulating landscapes to the east and is familiar to the George community, many of whom use the route to access the Outeniqua Farmers Market. While not a fatal flaw due to the location of the site within the urban edge, the unmitigated development would result in adverse visual impact and is therefore strongly not recommended.

With mitigation measures, the visual impact significance is expected to reduce to Medium. The development would still provide economic and housing benefits while moderating visual intrusion. Although the character of the Boulevard would change due to built form on both sides (Oumeulen Estate to the west and Meulenzicht to the east), the proposed interventions would support a more gradual transition from rural edge to urban corridor. From a landscape and visual perspective, the mitigated proposal would establish a positive precedent for future development along the Garden Route urban edge, balancing growth with partial preservation of landscape character. For this reason, the mitigated layout is the visual and landscape preference, and the recommendation is that they should be a consideration of the relevant authority when granting authorisation.

9 ENVIRONMENTAL MANAGEMENT PLAN

9.1 General Mitigations

9.1.1 Planning Phase

- The key mitigations defined in the *Specific Mitigations section below* would need to be incorporated into the design.
- Appoint a suitably qualified landscape architect to generate a detailed landscaping plan prior to construction phase that addresses the following:
 - Retaining and maintaining of existing higher value fynbos and wetland areas.
 - Removal of the alien vegetation along the drainage lines and rehabilitation of the drainage lines to indigenous vegetation (as per the rehabilitation specialists recommendations).
 - Internal landscaping such that trees can be incorporated into the design to soften the massing of the erven and apartments areas. Generate a planting and management plan in alignment with the GM tree planting strategy) such that tree growth with thrive and depict suitable growth within two years of planting. Trees that die during this period need to be replaced (refer to Annexure E for George Municipality tree planting specifications).
- In principle, the concept architectural guidelines provided to inform the LVIA are suitable to provide sufficient confidence in the assessment. However, as this is a large area development that does have the potential to significantly alter the eastern entrance into the George. More detailed architectural guidelines should be generated after authorisation, and be subject to external review, prior to construction phase. These guidelines should be provided to George Aesthetics Committee for review.
- A key mitigation is that landscape planning is incorporated into the design. As this is a key factor influencing the sense of place of the Urbans Boulevard, these plans should be provided to George Aesthetics Committee for review.

9.1.2 Construction Phase

- Dust management for moving vehicles and wind-blown dust.
- Set the laydown back from the road area and screen with green shade cloth (2m high).
- No construction over the weekend or during the night.
- Other than security personal, no overnight accommodation for workers.
- Walling sections should be restricted to gate areas, be a maximum 1.4m height and can include electrical wiring security. Wall colours need to be natural with a mid-grey hue and be constructed from brick and be aesthetically pleasing and simple in design. These areas should also be landscaped such that the walling does not become visually intrusive.
- The laydown should not be located in a prominent or within close proximity (100m) in relation to the Urbans Boulevard.

9.1.3 Operation Phase

- Landscaping consolidation as per the detailed landscaping plan.
- Lights at night mitigation to ensure that undue light spillage does not take place recognising that the proposed development is within the GM Urban Edge (Refer to Annexure D for generic lighting mitigation).

- Internal street lighting should preferably be low in height and downward facing so as to not extend the urban lights at night sense of place into the eastern rural areas.
 - Downward or inward facing light such that direct lighting is not visible to the casual observer without compromising security.
- Advertising should be constrained and not be visually dominating from the N2 Highway and Urbans Boulevard:
 - Subject to George Municipality advertising guidelines and stipulations.

9.2 Specific Mitigations

9.2.1 N2 National Highway Eastbound Peri-Urban Views: Phase 2B Apartments



Figure 19: Southern Apartments/ Phase B2 Peri-Urban context.

- Six apartment dwellings are located in a relatively prominent location and are currently viewed from a peri-urban landscape context as seen from the N2 Highway receptors eastbound. The row of double storey structures would be clearly visible from the N2 Highway in the foreground, where there is no other similar residential dwelling context, other than the proposed background views of the proposed development single residential houses. To retain the existing peri-urban sense of place that does add value, a row of fast growing indigenous trees should be planted to the south of these structures following the existing farm wind break alignment with a 15m spacing between stems.

9.2.2 Urbans Boulevard

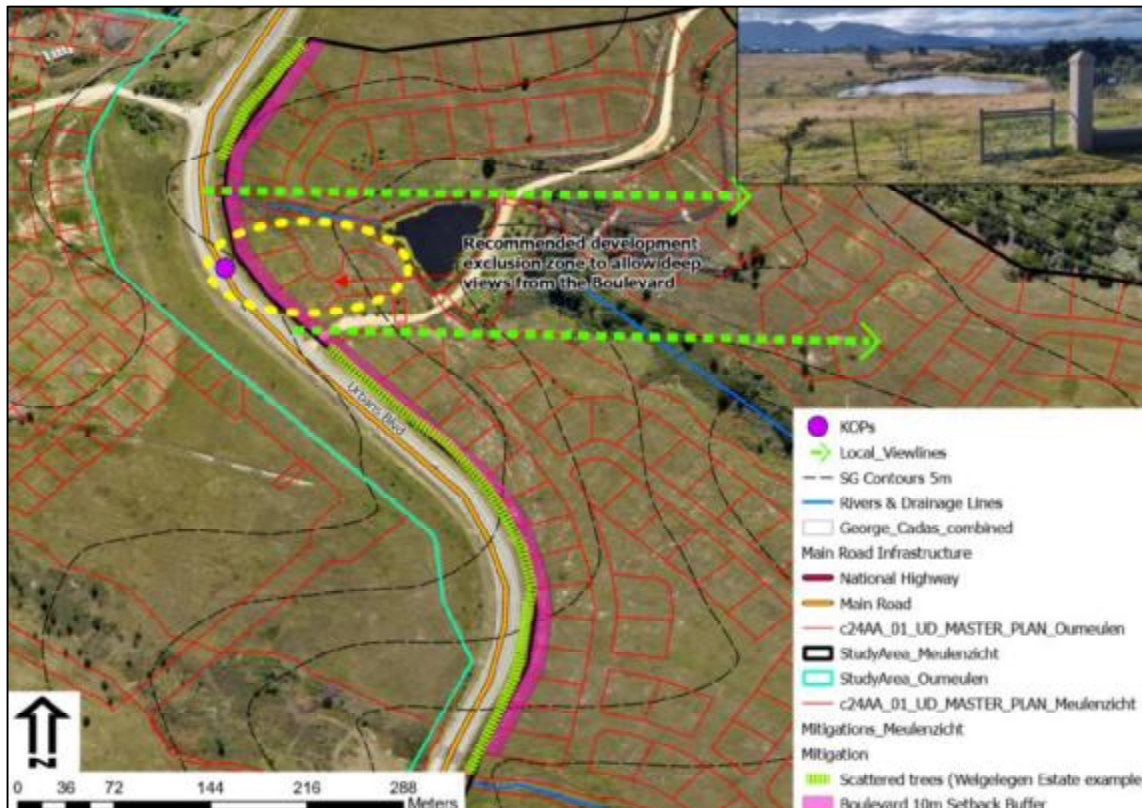


Figure 20: Urbans Boulevard Mitigations Map.

- The recommendation is that the proposed erven along the Urbans Boulevard (Refer to map above) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen Estate where the natural drop in the terrain from the road allows for more effective views over the dwellings, thus reducing the 'walling' effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments on either side of the road. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.
- The recommendations is that the proposed erven along the Urbans Boulevard (Refer to map above) should not create a dominating 'walling' effect along the road. The structures should be set back 10m from the road reserve to allow for a similar visual effect as Welgelegen where the natural drop in the terrain further from the road allows for more effective views over the dwellings, thus reducing the massing effect experience along the Boulevard from the cumulative views of the Oumeulen and Meulenzicht developments. The erven should also have pitched roofs so as to create some variation along road as opposed to flat roofs creating a strong horizontal line (refer to suitable precedent photograph of Welgelegen on the following page). The main roof pitch should also preferably run perpendicular to the road to effect better through-views.

- To allow for a vista gap to break the 'walling effect' created by the proposed line of dwellings along the Urbans Boulevard from the Oumeulen (west of road), and the Meulenzicht (east of road), is recommended that four erven should be removed to create a significant visual 'pause' area. This would allow an vista opening along the portion of the road to the small dam and background views of the eastern Garden Route. This would ensure that key views that benchmark the landscape heritage of the Boulevard are not all lost behind estate houses, to the detriment of the those using the road to access the tourist precinct/ residential areas or simply enjoying the road as a walking space. The photograph inserted into the above map, taken from the boulevard should be retained as open. The area should be retained as natural vegetation allowing the fynbos vegetation (specifically Erica species) to regrow as an extension of the natural vegetation landscaping along the drainage line.
- To ensure that security fencing does not impact the views, Clear-View type security fencing should be used along the road. For the section along the farm dam 'view-gap', the Clear-View fencing should be set back 10m from the road reserve to afford views over the security fencing.
- Planting of medium sized indigenous trees along the boulevard following the effective precedent set by the Welgelegen Estate. The trees should be scatted to create more organic plantings. The section of road overlooking the farm dam should not have trees to enhance the view down the valley. Trees planted along the road would need to have 1m x 1m holes dug and the tree planted with a suitable compost mix (subject to detailed landscaping planning and review by George Aesthetic Committee). The following photograph of Welgelegen landscaping should inform the final landscaping plan. The landscape plan should also take into consideration that this is optimal location for the growing of Ericaceae family if veld areas are not cut.
- Along the verges of the Urbans Boulevard where suitable, natural veld-grass 'patches' can also be created to allow Erica species growth and reduce the burden of the municipality having to cut the verges. This would reduce the maintenance burden placed on the municipality, but with management of the gardens by the estate.
- The existing Welgelegen Estate entrance should also be used as a positive precedent. The walling is set back from the road with intensive, indigenous vegetation landscaping to partially screen the entrance from the road. This precedent should be used as a reference for the Meulenzicht Estate entrance.



Figure 21: Welgelegen Estate landscaping suitable precedent that should be followed for the areas along the boulevard.



Figure 22: Example of patches of Erica species growth along the road that add landscape value.



Figure 23: Welgelegen Estate landscaping suitable precedent for estate entrance.

9.2.3 General Development

- The proposed Club House should be restricted to single-storey height to reduce visual intrusion and walls well screened by indigenous vegetation without the vegetation blocking views over the clubhouse structure. The vehicle parking area for the clubhouse should not dominate the local landscape context and should be screened from view with a variety of medium sized indigenous vegetation.
- To ensure that the proposed Water Treatment Plan does not become visually intrusive, this structure needs to visually screened by the planting of fast growing indigenous trees.
- All interior roads and 'tree-gap' areas should be planted as an avenue of indigenous trees at 15m spacings on both sides of the road. As the topsoil is limited in the area overlaying clay soils, the detailed landscape plan should specifically take the inherent constraints of the soils into consideration.
- In principle, **with the exception of the flat topped roof proposals**, the concept architectural guidelines provided to inform the LVIA are suitable to provide sufficient confidence in the assessment. However, as this is a large area development that does have the potential to significantly alter the eastern entrance into the George, more detailed architectural guidelines should be generated, and be subject to external review, prior to construction phase. **These guidelines should be provided to George Aesthetics Committee for review.**

- A key mitigation is that landscape planning is incorporated into the design. **As this is a key factor influencing the proposed amendment to the sense of place of the Urbans Boulevard, these plans should be provided to George Aesthetics Committee for review.**

10 OPPORTUNITIES AND CONSTRAINTS

10.1 Preferred Development Option: Without mitigation

Opportunities

- Economic and employment opportunities for the local area.
- Removal of alien trees on the property.

Constraints

- Walling effects along the Urbans Boulevard that would detract from the essence of the initial road design which has aesthetic value as an urban view corridor.

10.2 Preferred Development Option: With mitigation

Opportunities

- Residential development without significant loss of local visual resources and with moderated visual intrusion to local receptors with mitigation (medium to long-term).
- Removal of alien trees on the property.
- Economic and employment opportunities for the local area.

Constraints

- Potential for the residential development to set a precedent for other residential areas to the southwest, outside of the urban edge (Medium risk).
- Loss of some landscape character and sense of place from the existing peri-urban landscape context / eastern Garden Route areas as the visual presence of George expands to the west.

10.3 No-Go Option

Opportunities

- Retaining existing peri-urban landscape context.
- Retaining open views to the east along the Urbans Boulevard.

Constraints

- Limited economic benefit to the local area, and the continuation of the fairly fragmented peri-urban sense of place at this section of the Kraaibosch traffic circle development node.

Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred. However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the

George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore not recommended.

11 CONCLUSION

The landscape and visual impact assessment concludes that the proposed development can be supported with appropriate mitigation measures. Located within the Urban Edge, the proposal is consistent with municipal planning goals. Therefore, the No-Go alternative is not preferred.

However, without mitigation, the development would likely set a negative visual precedent, especially along the Urbans Boulevard, which was originally designed with a wide verge, natural landform sensitivity, and open views to the eastern Garden Route landscape. The site covers a large area that visually connects with the rural, undulating landscapes to the east, and is well-known to many in the George community who use the road to access the Outeniqua Farmers Market. The unmitigated development would result in a strong and adverse visual impact and is therefore strongly not recommended.

Two key mitigation measures are proposed:

- A 10-meter setback from the Urbans Boulevard road reserve to reduce the visual dominance of the proposed buildings proposed adjacent to the road. This setback allows the natural drop in slope to better contain the height of double-storey units, following the Welgelegen Estate precedent, where buildings are set back $\pm 30\text{m}$ and allow for partial views over the buildings.
- The removal/ relocation of four erven located between the Boulevard and the small farm dam. This would create a clear visual break in the linear development, retain a sense of the rural context, and preserve depth of view towards the eastern Garden Route. It would also enhance views along the two natural drainage lines, helping to reduce the perceived massing of the development.

With these measures in place, the development would still deliver economic and housing benefits while reducing visual intrusion. Although the character of the Boulevard would change with housing on both sides (Oumeulen Estate to the west and Meulenzicht to the east), the setback and visual break would help transition the area from rural edge to a more urbanised corridor. From a landscape and visual perspective, the project, in its mitigated form, could set a positive precedent for future developments along the Garden Route urban edge—balancing growth with partial retention of local landscape character.

Limitations pertaining to the assessment, include the limited architectural guidelines as well as a strong emphasis on landscaping that will only be generated after project approval. Furthermore, the basic impact assessment process does not allow for public comments to be reviewed prior to EIA. To address these procedural related risks, the following is proposed:

- Public submissions from the EIA process pertaining to the Urbans Boulevard should be reviewed and considered prior to the finalisation of the LVIA.
- The final architectural guidelines and detailed landscaping plans should be submitted to the George Aesthetics Committee for review, to ensure they align with the broader, emerging 'garden city' identity of George.

In conclusion, from a landscape and visual perspective, the mitigated proposal would establish a positive precedent for future development along the Garden Route urban edge, balancing growth with partial preservation of landscape character. For this reason, the **mitigated layout is the visual and landscape preference, and the recommendation is that the above key specified mitigations, should be taken into consideration by the relevant authority when granting authorisation.**

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13 ANNEXURE A: SITE VISIT PHOTOGRAPHS AND COMMENTS

The following photographs were taken during the field survey as mapped below. The text below the photograph describes the landscape and visual issues of the locality, if applicable.

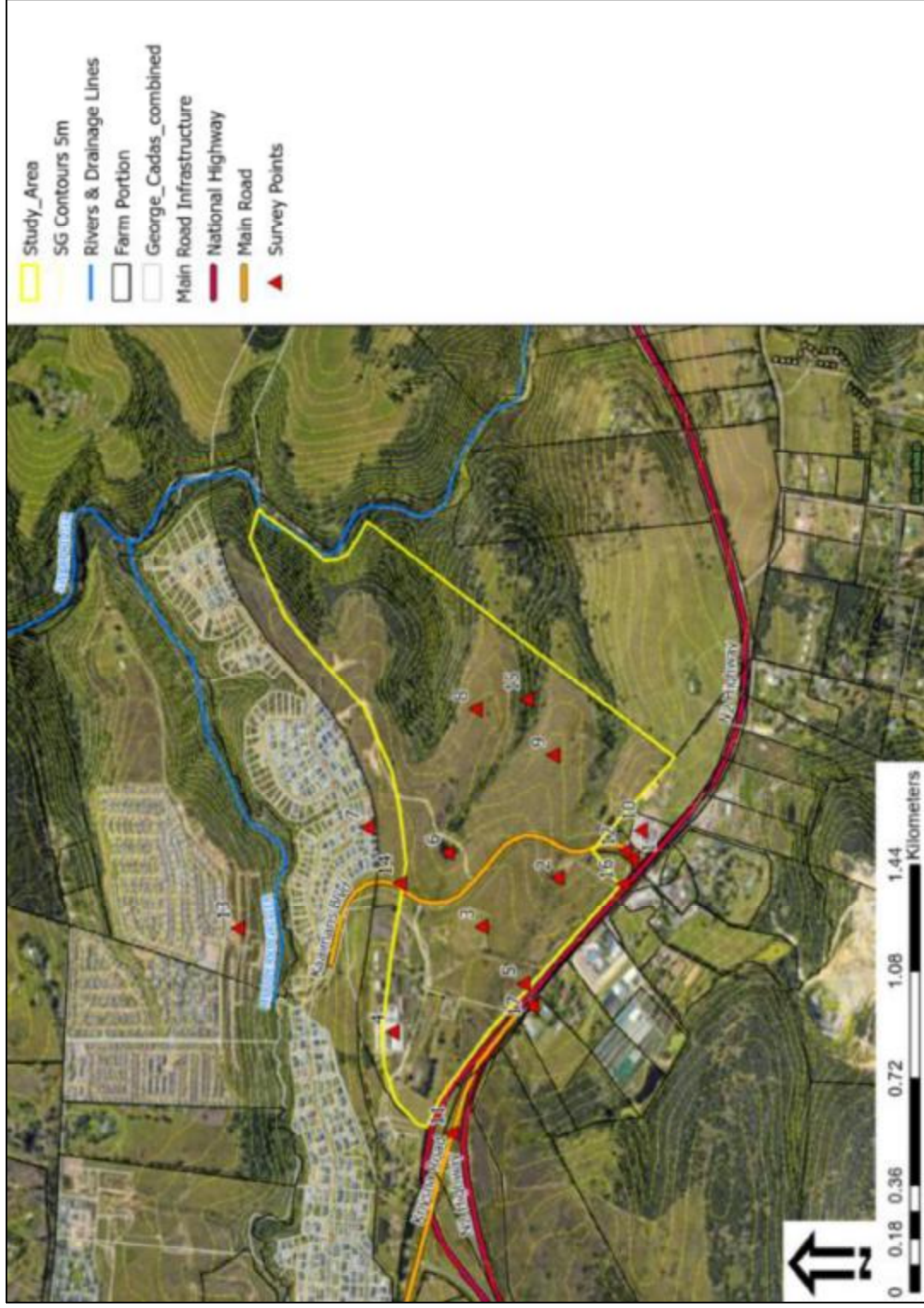


Figure 24: Survey point and project locality map.

Table 22. Site Visit Landscape Risks table

ID	Remarks	Time	Geometry	Risk	Motivation
1	Future development node adjacent to Sasol garage	05/23/2024 08:53:28.000 GMT+02:00	POINT Z (22,51972449 -33,99142613 227,742)	High	Future development node adjacent to Sasol garage. Within the urban edge but within area adjacent to the N2 that has significant gateway views and as such was planned as a Tourist Precinct. The proposed development has a risk of visual intrusion to the background mountain. Development should be cut into ground and lower in height to allow for undisturbed view from the traffic circle gateway.
2	Drainage wetland	05/23/2024 09:03:10.258 GMT+02:00	POINT Z (22,51916740 -33,98916951 0,000)	Low	Excluded from the development footprint.
3	Peri urban grasslands	05/23/2024 09:12:34.000 GMT+02:00	POINT Z (22,51766926 -33,98687624 242,123)	Medium	Single residential development. Prominent topographic area that could result in skyline intrusion as seen from N2 eastbound. 8m height restriction.
4	Outeniqua Farmers Market context	05/23/2024 09:15:25.392 GMT+02:00	POINT Z (22,51449566 -33,98418803 0,000)	Low	Local attraction adjacent to old sawmill. Old structure does increase Visual Absorption Capacity level.
5	Apartments	05/23/2024 09:22:40.999 GMT+02:00	POINT Z (22,51594823 -33,98814524 237,686)	High	Potential for obscuring significant views of Outeniqua Mountains to east as seen from adjacent N2 highway.
6	Small dam	05/23/2024 09:29:37.828 GMT+02:00	POINT Z (22,51992378 -33,98584577 0,000)	Medium	Small dam as Focal point for background views of Outeniqua Mountains.

7	Welgelegen Views Estate precedent	05/23/2024 09:31:27.911 GMT +02:00		POINT Z (22,52067983 -33,98343017 0,000)	Low	Precedent development adjacent to future N2 highway routing.
8	Undulating peri-urban grasslands	05/23/2024 09:34:39.731 GMT +02:00		POINT Z (22,52425220 -33,98669396 0,000)	Medium	Landscape fragmentation. Undulating grasslands with current rural landscape context. Areas east of urban edge would require access via the west (the proposed estate). This could set a precedent for pushing urban edge to areas west of the Swartvriër. This is outside of the urban edge and unlikely to take place.
9	Undulating grasslands adjacent to rural land uses outside of urban edge	05/23/2024 09:39:53.344 GMT +02:00		POINT Z (22,52286416 -33,98903663 0,000)	Medium	Proposed single residential. Agricultural land use with strong ties to Garden Route undulating terrain sense of place. Low profile and not visually intrusive.
10	Sasol garage node	05/23/2024 09:43:53.845 GMT +02:00		POINT Z (22,52059232 -33,99169864 0,000)	Low	Tourist zoning in relation to N2 highway stop.
11	N2 Bridge Eastbound	06/12/2024 14:52:12.999 GMT +02:00		POINT Z (22,51143477 -33,98597836 241,409)	Medium	Higher VAC levels from N2 Bridge infrastructure and lighting, but view linked to heritage of old sawmill and previous pine plantations. Suitable with mitigation with exterior berm and tree landscaping, setback 50m for structures and internal landscaping of trees along roadways. Structures adjacent to the highway should preferably be single-storey and partially screened with a landscaped berm/screening trees.
12	KOP Kaaimans Boulevard northbound	06/12/2024 15:00:53.999 GMT +02:00		POINT Z (22,51998119 -33,99121450 229,617)	Medium	Some existing development that does increase the precedent for development with the Sasol garage, N2 and Welgelegen Estate. Mitigate for road view corridor with setbacks from the road and reduced massing to allow for transition to eastern rural land use and associated landscape.

13	Groenkloof urban context	06/12/2024 15:08:17.122 GMT+02:00		POINT Z (22,51761943 -33,97951430 0,000)	Medium	Higher density of the Groenkloof Residential Village with the limitation that the smaller erven don't have sufficient space for garden trees. As such, a more stark urban landscape is created if urban tree planting is not incorporated into the landscape design.
14	Kaaimans Blvd Southbound	06/12/2024 15:11:47.000 GMT+02:00		POINT Z (22,51900237 -33,98440886 237,687)	Medium	Peri-urban sense of place with Sasol garage and Kraaibosch development node visible in the background. Suitable with mitigation of buffer on road, internal landscaping, colour, architecture and lights spillage.
15	Alien tree invaded drainage line	06/12/2024 15:15:51.631 GMT+02:00		POINT Z (22,52453081 -33,98825130 0,000)	Medium	Alien invasive vegetation in rivers detracts from landscape and inhibits views east form the proposed residential areas.
16	KOP N2 circle gateway	06/12/2024 15:20:00.000 GMT+02:00		POINT Z (22,51898788 -33,99116166 232,490)	High	Iconic, landscape heritage views of Garden Route landscape a key component of the entrance to George sense of place, as well as the eastern entrance to the Garden Route 'wilderness' landscapes. Mitigate with setback and development such that views over structures take place where views to background Outeniqua Mountains not impaired.
17	KOP N2 eastbound	06/12/2024 15:28:31.000 GMT+02:00		POINT Z (22,51528228 -33,98840150 239,872)	High	Once the pine trees are removed, iconic views to the east open up as seen from this elevated portion of the N2. Mitigate with No-Go buffer along this portion of the N2 to ensure that the open views are retained .

ID	1
PHOTO	Future development node adjacent to Sasol garage with very high visual exposure to the N2 Highway where visual intrusion could take place.
RISK	High
DIRECTION	NE



ID	2
PHOTO	Drainage lines that have been excluded from the development footprint
RISK	Low
DIRECTION	W



ID	3
PHOTO	Peri urban grasslands within N2 Zone of Visual Influence (ZVI)
RISK	Medium
DIRECTION	W



ID	4
PHOTO	Old sawmill farmers market context
RISK	Medium
DIRECTION	N



ID	5
PHOTO	Apartment development proposed on skyline that will increase the potential for visual intrusion.
RISK	High
DIRECTION	E



ID	6
PHOTO	Views of the small farm dam should be retained.
RISK	Medium
DIRECTION	E



ID	7
PHOTO	Welgelegen Views Estate precedent
RISK	Low (Context)
DIRECTION	NE
COMMENT	Previous development adjacent to future N2 highway routing.



ID	8
PHOTO	Undulating grasslands adjacent to rural land uses outside of urban edge
RISK	Medium
DIRECTION	SE



ID	9
PHOTO	Undulating peri-urban grasslands
RISK	Medium
DIRECTION	E
COMMENT	Proposed single residential. Agricultural land use with strong ties to Garden Route undulating terrain sense of place. Low profile and not visually intrusive.



ID	10
PHOTO	Sasol garage node
RISK	Low
DIRECTION	E
COMMENT	Tourist zoning in relation to N2 highway stop.



ID	11
PHOTO	N2 Highway Eastbound with key views of the Outeniqua Farmers Market and pine trees related to old sawmill heritage.
RISK	Medium
DIRECTION	NE



ID	12
PHOTO	KOP Kaaimans Blvd northbound
RISK	High
DIRECTION	East



ID	13
PHOTO	Groenkloof Retirement Village urban development context
RISK	High Negative (Context)
DIRECTION	NE
	

ID	14
PHOTO	Kaaimans Blvd Southbound with higher levels of scenic quality.
RISK	High
DIRECTION	NE
	

ID	15
PHOTO	Alien invaded drainage line
RISK	Medium
DIRECTION	NE
	

ID	16
PHOTO	KOP N2 circle gateway
RISK	High
DIRECTION	NE
	

ID	17
PHOTO	KOP N2 eastbound potential for visual intrusion.
RISK	High
DIRECTION	SE
	

14 ANNEXURE B: SPECIALIST INFORMATION

14.1 Professional Registration Certificate



14.2 Curriculum Vitae (CV)

1. **Position:** Owner / Director
2. **Name of Firm:** Visual Resource Management Africa cc (www.vrma.co.za)
3. **Name of Staff:** Stephen Stead
4. **Date of Birth:** 9 June 1967
5. **Nationality:** South African
6. **Contact Details:** Cell: +27 (0) 83 560 9911
Email: steve@vrma.co.za
7. **Educational qualifications:**
 - University of Natal (Pietermaritzburg):
 - Bachelor of Arts: Psychology and Geography
 - Bachelor of Arts (Hons): Human Geography and Geographic Information Management Systems
 - MSc Geography, University of KwaZulu-Natal (2023)
8. **Professional Accreditation**
 - Association of Professional Heritage Practitioners (APHP) Western Cape
 - Accredited VIA practitioner member of the Association (2011)
9. **Association involvement:**
 - International Association of Impact Assessment (IAIA) South African Affiliate
 - Past President (2012 - 2013)
 - President (2012)
 - President-Elect (2011)
 - Conference Co-ordinator (2010)
 - National Executive Committee member (2009)
 - Southern Cape Chairperson (2008)
10. **Conferences Attended:**
 - International Geographical Congress, Lisbon (2017)
 - IAIAAsa 2012
 - IAIAAsa 2011
 - IAIA International 2011 (Mexico)
 - IAIAAsa 2010
 - IAIAAsa 2009
 - IAIAAsa 2007
11. **Continued Professional Development:**
 - Integrating Sustainability with Environment Assessment in South Africa (IAIAAsa Conference, 1 day)
 - Achieving the full potential of SIA (Mexico, IAIA Conference, 2 days 2011)

- Researching and Assessing Heritage Resources Course (University of Cape Town, 5 days, 2009)

12. Countries of Work Experience:

- South Africa, Mozambique, Malawi, Lesotho, Kenya and Namibia

13. Relevant Experience:

Stephen gained six years of experience in the field of Geographic Information Systems mapping and spatial analysis working as a consultant for the KwaZulu-Natal Department of Health and then with an Environmental Impact Assessment company based in the Western Cape. In 2004 he set up the company Visual Resource Management Africa that specializes in visual resource management and visual impact assessments in Africa. The company makes use of the well-documented Visual Resource Management methodology developed by the Bureau of Land Management (USA) for assessing the suitability of landscape modifications. Stephen has assessed of over 150 major landscape modifications throughout southern and eastern Africa. The business has been operating for eighteen years and has successfully established and retained a large client base throughout Southern Africa which include amongst other, Rio Tinto (Pty) Ltd, Bannerman (Pty) Ltd, Anglo Coal (Pty) Ltd, Eskom (Pty) Ltd, NamSolar and Vale (Pty) Ltd, Ariva (Pty) Ltd, Harmony Gold (Pty) Ltd, Millennium Challenge Account (USA), Pretoria Portland Cement (Pty) Ltd

14. Languages:

- English – First Language
- Afrikaans – fair in speaking, reading and writing.

15. Projects:

Table 23: VRM Africa Projects Assessments Table

DESCRIPTION	COUNT	DESCRIPTION	COUNT
Dam	1	UISP	8
Mari-culture	1	Structure	8
Port	1	OHPL	12
Railway	1	Industrial	12
Power Station	3	Wind Energy	22
Hydroelectric	4	Battery Storage	14
Resort	4	Mine	20
Golf/Residential	1	Residential	45
Road Infrastructure	5	Solar Energy	62
Substation	5	TOTAL	237

15 ANNEXURE C: METHODOLOGY DETAIL

15.1 Baseline Analysis Stage

In terms of VRM methodology, landscape character is derived from a combination of **scenic quality**, **receptor sensitivity** to landscape change and **distance** from the proposed landscape change. The objective of the analysis is to compile a mapped inventory of the visual resources found in the receiving landscape, and to derive a mapped Visual Resource sensitivity layer from which to evaluate the suitability of the landscape change.

15.1.1 Scenic Quality

The scenic quality is determined making use of the VRM Scenic Quality Checklist that identifies seven scenic quality criteria which are rated with 1 (low) to 5 (high) scale. The scores are totalled and assigned an A (High), B (Moderate) or C (low) based on the following split:

A = scenic quality rating of ≥ 19 ;

B = rating of 12 – 18,

C = rating of ≤ 11

The seven scenic quality criteria are defined below:

- **Land Form:** Topography becomes more of a factor as it becomes steeper, or more severely sculptured.
- **Vegetation:** Primary consideration given to the variety of patterns, forms, and textures created by plant life.
- **Water:** That ingredient which adds movement or serenity to a scene. The degree to which water dominates the scene is the primary consideration.
- **Colour:** The overall colour(s) of the basic components of the landscape (e.g., soil, rock, vegetation, etc.) are considered as they appear during seasons or periods of high use.
- **Scarcity:** This factor provides an opportunity to give added importance to one, or all, of the scenic features that appear to be relatively unique or rare within one physiographic region.
- **Adjacent Land Use:** Degree to which scenery and distance enhance, or start to influence, the overall impression of the scenery within the rating unit.
- **Cultural Modifications:** Cultural modifications should be considered and may detract from the scenery or complement or improve the scenic quality of an area.

15.1.2 Receptor Sensitivity

Receptor sensitivity to landscape change is determined by rating the following factors in terms of Low to High:

- **Type of Users:** Visual sensitivity will vary with the type of users, e.g. recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area on a regular basis may not be as sensitive to change.
- **Amount of Use:** Areas seen or used by large numbers of people are potentially more sensitive.
- **Public Interest:** The visual quality of an area may be of concern to local, or regional, groups. Indicators of this concern are usually expressed via public controversy created in response to proposed activities.
- **Adjacent Land Uses:** The interrelationship with land uses in adjacent lands. For example, an area within the viewshed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be as visually sensitive.

- **Special Areas:** Management objectives for special areas such as Natural Areas, Wilderness Areas or Wilderness Study Areas, Wild and Scenic Rivers, Scenic Areas, Scenic Roads or Trails, and Critical Biodiversity Areas frequently require special consideration for the protection of their visual values.
- **Other Factors:** Consider any other information such as research or studies that include indicators of visual sensitivity.

15.1.3 Exposure

The area where a landscape modification starts to influence the landscape character is termed the Zone of Visual Influence (ZVI) and is defined by the U.K. Institute of Environmental Management and Assessment's (IEMA) *'Guidelines for Landscape and Visual Impact Assessment'* as 'the area within which a proposed development may have an influence or effect on visual amenity (of the surrounding areas).'

The inverse relationship of distance and visual impact is well recognised in visual analysis literature (*Hull, R.B. and Bishop, I.E., 1988*). According to Hull and Bishop, exposure, or visual impact, tends to diminish exponentially with distance. The areas where most landscape modifications would be visible are located within 2 km from the site of the landscape modification. Thus, the potential visual impact of an object diminishes at an exponential rate as the distance between the observer and the object increases due to atmospheric conditions prevalent at a location, which causes the air to appear greyer, thereby diminishing detail. For example, viewed from 1000 m from a landscape modification, the impact would be 25% of the impact as viewed from 500 m from a landscape modification. At 2000m it would be 10% of the impact at 500 m.

Distance from a landscape modification influences the size and clarity of the landscape modification viewing. The Bureau of Land Management defines three distance categories:

- Foreground / Middle ground**, up to approximately 6km, which is where there is potential for the sense of place to change;
- Background areas**, from 6km to 24km, where there is some potential for change in the sense of place, but where change would only occur in the case of very large landscape modifications; and
- Seldom seen areas**, which fall within the Foreground / Middle ground area but, as a result of no receptors, are not viewed or are seldom viewed.

15.1.4 Key Observation Points

During the Baseline Inventory Stage, Key Observation Points (KOPs) are identified. KOPs are defined by the Bureau of Land Management as the people (receptors) located in strategic locations surrounding the property that make consistent use of the views associated with the site where the landscape modifications are proposed. These locations are important in terms of the VRM methodology, which requires that the Degree of Contrast (DoC) that the proposed landscape modifications will make to the existing landscape be measured from these most critical locations, or receptors, surrounding the property. To define the KOPs, potential receptor locations were identified in the viewshed analysis, and screened, based on the following criteria:

- Angle of observation.
- Number of viewers.
- Length of time the project is in view.
- Relative project size.

- Season of use.
- Critical viewpoints, e.g., views from communities, road crossings; and
- Distance from property.

15.2 Assessment and Impact Stage

The analysis stage involves determining whether the potential visual impacts from proposed surface-disturbing activities or developments will meet the management objectives established for the area, or whether design adjustments will be required. This requires a contrast rating to assess the expected DoC the proposed landscape modifications would generate within the receiving landscape in order to define the Magnitude of the impact.

15.2.1 Contrast Rating

The contrast rating is undertaken to determine if the VRM Class Objectives are met. The suitability of landscape modification is assessed by comparing and contrasting existing receiving landscape to the expected contrast that the proposed landscape change will generate. This is done by evaluating the level of change to the existing landscape by assessing the line, colour, texture and form, in relation to the visual objectives defined for the area. The following criteria are utilised in defining the DoC:

- **None:** The element contrast is not visible or perceived.
- **Weak:** The element contrast can be seen but does not attract attention.
- **Moderate:** The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- **Strong:** The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

As an example, in a Class I area, the visual objective is to preserve the existing character of the landscape, and the resultant contrast to the existing landscape should not be notable to the casual observer and cannot attract attention. In a Class IV area example, the objective is to provide for proposed landscape activities that allow for major modifications of the existing character of the landscape. Based on whether the VRM objectives are met, mitigations, if required, are defined to avoid, reduce or mitigate the proposed landscape modifications so that the visual impact does not detract from the surrounding landscape sense of place.

Based on the findings of the contrast rating, the Magnitude of the Landscape and Visual Impact Assessment is determined.

15.2.2 Photomontages

As a component in this contrast rating process, visual representation, such as photo montages are vital in large-scale modifications, as this serves to inform Interested & Affected Parties and decision-making authorities of the nature and extent of the impact associated with the proposed project/development. There is an ethical obligation in this process, as visualisation can be misleading if not undertaken ethically. In terms of adhering to standards for ethical representation of landscape modifications, VRMA subscribes to the Proposed Interim Code of Ethics for Landscape Visualisation developed by the Collaborative for Advanced Landscape Planning (CALP) (Sheppard, 2000). This code states that professional presenters of realistic landscape visualisations are responsible for promoting full understanding of proposed landscape changes, providing an honest and neutral visual representation of the expected

landscape, by seeking to avoid bias in responses and demonstrating the legitimacy of the visualisation process. Presenters of landscape visualisations should adhere to the principles of:

- Access to Information
- Accuracy
- Legitimacy
- Representativeness
- Visual Clarity and Interest

The Code of Ethical Conduct states that the presenter should:

- Demonstrate an appropriate level of qualification and experience.
- Use visualisation tools and media that are appropriate to the purpose.
- Choose the appropriate level of realism.
- Identify, collect and document supporting visual data available for, or used in, the visualisation process.
- Conduct an on-site visual analysis to determine important issues and views.
- Seek community input on viewpoints and landscape issues to address in the visualisations.
- Provide the viewer with a reasonable choice of viewpoints, view directions, view angles, viewing conditions and timeframes appropriate to the area being visualised.
- Estimate and disclose the expected degree of uncertainty, indicating areas and possible visual consequences of the uncertainties.
- Use more than one appropriate presentation mode and means of access for the affected public.
- Present important non-visual information at the same time as the visual presentation, using a neutral delivery.
- Avoid the use, or the appearance of, 'sales' techniques or special effects.
- Avoid seeking a particular response from the audience.
- Provide information describing how the visualisation process was conducted and how key decisions were taken (Sheppard, 2000).

16 ANNEXURE D: GENERIC LIGHTS AT NIGHT MITIGATION

Mitigation:

- Effective light management needs to be incorporated into the design of the lighting to ensure that the visual influence is limited to the project, without jeopardising project operational safety and security (See lighting mitigations by The New England Light Pollution Advisory Group (NELPAG) and Sky Publishing Corp in 14.2).
- Utilisation of specific frequency LED lighting with a green hue on perimeter security fencing.
- Directional lighting on the more exposed areas of operation, where point light source is an issue.
- No use of overhead lighting and, if possible, locate the light source closer to the operation.

Mesopic Lighting

Mesopic vision is a combination of photopic vision and scotopic vision in low, but not quite dark, lighting situations. The traditional method of measuring light assumes photopic vision and is often a poor predictor of how a person sees at night. The light spectrum optimized for mesopic vision contains a relatively high amount of bluish light and is therefore effective for peripheral visual tasks at mesopic light levels. (CIE, 2012)

The Mesopic Street Lighting Demonstration and Evaluation Report by the Lighting Research Centre (LRC) in New York found that the ‘replacement of white light sources (induction and ceramic metal halide) were tuned to optimize human vision under low light levels while remaining in the white light spectrum. Therefore, outdoor electric light sources that are tuned to how humans see under mesopic lighting conditions can be used to reduce the luminance of the road surface while providing the same, or better, visibility. Light sources with shorter wavelengths, which produce a “cooler” (bluer and greener) light, are needed to produce better mesopic vision. Based on this understanding, the LRC developed a means of predicting visual performance under low light conditions. This system is called the unified photometry system. Responses to surveys conducted on new installations revealed that area residents perceived higher levels of visibility, safety, security, brightness, and colour rendering with the new lighting systems than with the standard *High-Purity Standards* (HPS) systems. The new lighting systems used 30% to 50% less energy than the HPS systems. These positive results were achieved through tuning the light source to optimize mesopic vision. Using less wattage and photopic luminance also reduces the reflectance of the light off the road surface. Light reflectance is a major contributor to light pollution (sky glow).’ (Lighting Research Centre. New York. 2008)

‘Good Neighbour – Outdoor Lighting’

Presented by the New England Light Pollution Advisory Group (NELPAG) (<http://cfa/www.harvard.edu/cfa/ps/nelpag.html>) and Sky & Telescope (<http://SkyandTelescope.com/>). NELPAG and Sky & Telescope support the International Dark-Sky Association (IDA) (<http://www.darksky.org/>). (NELPAG)

What is good lighting? Good outdoor lights improve visibility, safety, and a sense of security, while minimizing energy use, operating costs, and ugly, dazzling glare.

Why should we be concerned? Many outdoor lights are poorly designed or improperly aimed. Such lights are costly, wasteful, and distractingly glary. They harm the night-time environment and neighbours' property values. Light directed uselessly above the horizon creates murky skyglow — the "light pollution" that washes out our view of the stars.

Glare Here's the basic rule of thumb: If you can see the bright bulb from a distance, it's a bad light. With a good light, you see lit ground instead of the dazzling bulb. "Glare" is light that beams directly from a bulb into your eye. It hampers the vision of pedestrians, cyclists, and drivers.

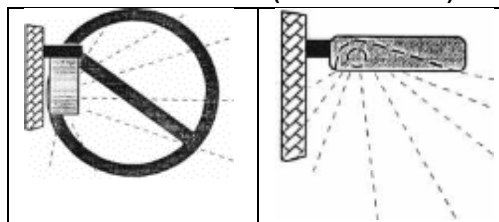
Light Trespass Poor outdoor lighting shines onto neighbours' properties and into bedroom windows, reducing privacy, hindering sleep, and giving the area an unattractive, trashy look.

Energy Waste Many outdoor lights waste energy by spilling much of their light where it is not needed, such as up into the sky. This waste results in high operating costs. Each year we waste more than a billion dollars in the United States needlessly lighting the night sky.

Excess Lighting Some homes and businesses are flooded with much stronger light than is necessary for safety or security.

Good and Bad Light Fixtures

Typical "Pack"	"Wall Pack"	Typical "Shoe Box"	"Shoe Box"
		(forward throw)	



BAD

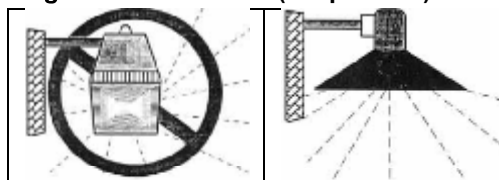
Waste light goes up and sideways

GOOD

Directs all light down

Typical
"Yard
Light"

Opaque Reflector
(lamp inside)



BAD

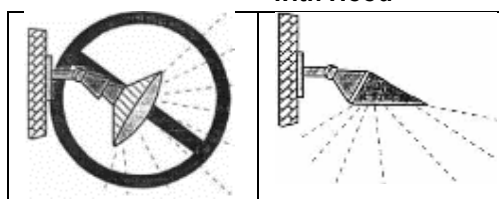
Waste light goes up and sideways

GOOD

Directs all light down

Area Flood Light

Area Flood Light
with Hood



BAD

Waste light goes up and sideways

GOOD

Directs all light down

How do I switch to good lighting?

Provide only enough light for the task at hand; don't over-light, and don't spill light off your property. Specifying enough light for a job is sometimes hard to do on paper. Remember that a full Moon can make an area quite bright. Some lighting systems illuminate areas 100 times more brightly than the full Moon! More importantly, by choosing properly shielded lights, you can meet your needs without bothering neighbours or polluting the sky.

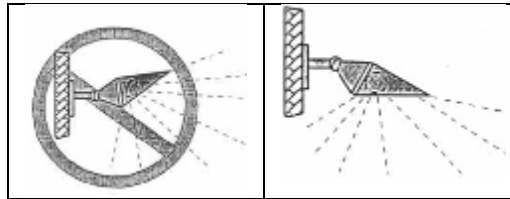
- Aim lights down. Choose “full-cut-off shielded” fixtures that keep light from going uselessly up or sideways. Full-cut-off fixtures produce minimum glare. They create a pleasant-looking environment. They increase safety because you see illuminated people, cars, and terrain, not dazzling bulbs.
- Install fixtures carefully to maximize their effectiveness on the targeted area and minimize their impact elsewhere. Proper aiming of fixtures is crucial. Most are aimed too high. Try to install them at night, when you can see where all the rays actually go. Properly aimed and shielded lights may cost more initially, but they save you far more in the long run. They can illuminate your target with a low-wattage bulb just as well as a wasteful light does with a high-wattage bulb.
- If colour discrimination is not important, choose energy- efficient fixtures utilising yellowish high-pressure sodium (HPS) bulbs. If “white” light is needed, fixtures using compact fluorescent or metal-halide (MH) bulbs are more energy-efficient than those using incandescent, halogen, or mercury-vapour bulbs.
- Where feasible, put lights on timers to turn them off each night after they are no longer needed. Put home security lights on a motion-detector switch, which turns them on only when someone enters the area; this provides a great deterrent effect!

What You Can Do To Modify Existing Fixtures

Change this . . .

to this

(aim downward)

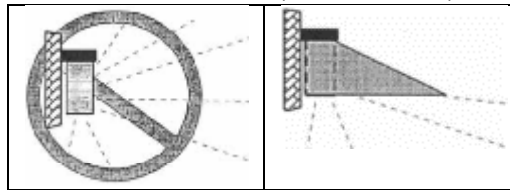


Floodlight:

Change this . . .

to this

(aim downward)

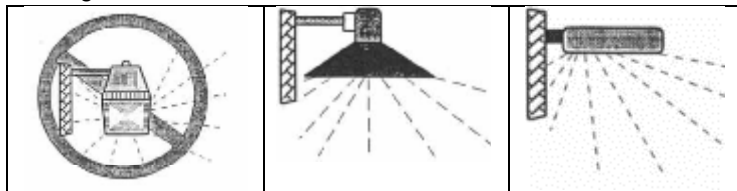


Wall Pack

Change this . . .

to this

or this



Yard Light

Opaque Reflector

Show Box

Replace bad lights with good lights.

You'll save energy and money. You'll be a good neighbour. And you'll help preserve our view of the stars.

17 ANNEXURE E: GEORGE MUNICIPALITY TREE PLANTING SPECIFICATIONS

GUIDELINES FOR THE PLANTING OF TREES (part of Annexure B)

GUIDELINES FOR THE PLANTING OF TREES

(part of Annexure A)

Position of the Tree:

1. Trees may only be planted at a distance that would ensure a 1.5m passageway throughout the life span of the tree.
2. Trees should not be placed less than 8m apart.
3. No trees may be planted closer than 10m from a street intersection.
4. No trees may be planted closer than 2m from any of the following structures: Fire hydrants, any electrical or Telkom boxes, drainage catch pits, stay wires
5. No trees may be planted within 1m from any wall.
6. No trees may be planted within 5m of a streetlight or power pole.
7. Trees should not be planted within 3m from a driveway.
8. Trees should not be planted within 5m from any road sign.
9. Trees should not be planted that may interfere with any overhead or underground services.

Hole Preparation and Planting

1. Dig a square hole of 1 x 1 m and approximately 1m deep and insert a root barrier where necessary
2. Mix the soil that was dug out with ¼ volume of good compost.
3. Add the following:
 - ½ kg of Super phosphate fertilizer or ½ kg of bone meal
 - ½ kg of 2:3:2 or 3:1:5 fertilizer
4. Mix this soil mixture thoroughly
5. Put this soil mixture back in the tree hole; leaving enough space for the root ball of the new tree
6. Remove the tree from its plastic bag or container. Care must be taken not to damage the roots.
7. Plant the tree carefully. The soil level around the tree should remain the same as in the nursery container.
8. Firm the soil, make a neat dam around the tree to hold at least 60 liter of water and water immediately.
9. Use two wooden stakes and tie the tree to the stakes with old rubber hose or similar soft material so that the stakes do not damage the tree.
10. Add a layer of mulch which will assist in preventing water loss due to evaporation. The mulch should be replaced regularly.

After Care

Due to the windy and dry summer season in the Western Cape, irrigation is a crucial factor for successful tree establishment.

The following watering schedule is recommended for all trees;

- 1st year 30 litre per week



GUIDELINES FOR THE PLANTING OF TREES
(part of Annexure B)

- 2nd year 30 litre every second week

- 3rd year 30 litre every third week

Application might vary according to local climate/soil conditions

Fertilizing - 3 year program

- 1st Year: 3:1:5 (28) or 2:3:2 120 - 300 grams per growing season
- 2nd Year: 2:3:2 120 - 300 grams per growing season
- 3rd Year: 2:3:2 120 - 300 grams per growing season





GEORGE MEULENZICHT LANDGOED RESIDENTIAL MARKET STUDY

August 2024

CLIENT
ATTERBURY MANAGEMENT COMPANY (PTY) LTD

PREPARED BY
DR DIRK A PRINSLOO AND
DIRK NICO PRINSLOO

www.urbanstudies.co.za

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1. BACKGROUND

George forms part of the Garden Route District in the Western Cape. George fulfils a strong regional role in the area and continues to be the dominant urban centre in this part of the Western Province. The Southern Cape also remains one of the most important semigration destinations not only for South Africans but also for expats returning from overseas.

The main purpose of the market study will be to evaluate the market dynamics of the area and to quantify the residential demand for the proposed estates.

The following map shows the geospatial context of the site, note the following key location aspects:

- The site forms part of the growing affluent eastern section of George.
- The road network is well established with the N2 Highway adjacent to the site.
- The topography of the area creates an attractive environment for affluent housing development.

George Meulenzicht – Geo-Spatial Context



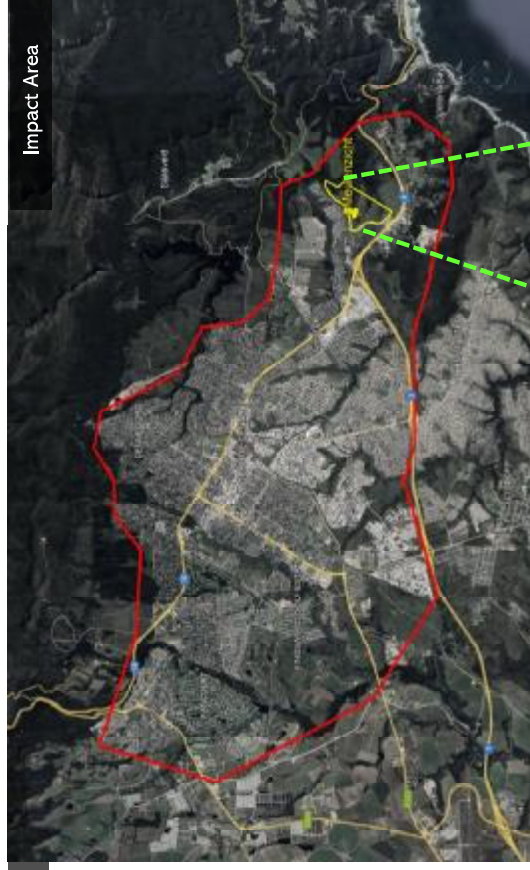
Western Cape



Western Cape Districts



Garden Route District



Impact Area



Micro Location

2. RESEARCH OBJECTIVES

The main objectives of the research were the following:

- ❖ To analyse the dynamic nature and growth prospects/ constraints of the market;
- ❖ To quantify the size of the current market and projected future growth;
- ❖ To analyse the residential supply and demand dynamics;
- ❖ To conduct a detailed comparative and competitor analysis;
- ❖ To highlight the ideal target market, the mix of units, price/ rental levels to be considered for the various residential pockets at both estates;
- ❖ To focus on new developments stimulating growth;
- ❖ To calculate the residential development potential and demand;
- ❖ To link a timeframe to the development.

This information will provide a good understanding of the current and future residential market.

3. RESEARCH METHODOLOGY

This is a desktop research study and the following existing sources of information were used:

- Stats SA.
- Urban Studies' databank 2005-2024.
- Various websites.
- Google Earth Pro.
- SACSC Shopping Centre Directory.
- MapInfo Pro 19.0.
- Lightstone 2024.
- TPN 2024.
- QGIS.
- George Municipal Documentation.
- Site visit 21 August 2024
- Discussions with Christoffel Louw and Karin van der Walt, Estate and Property Consultants.

4. POPULATION NUMBERS

4.1. Provincial, District and Local Municipality (Census 2011 vs 2022)

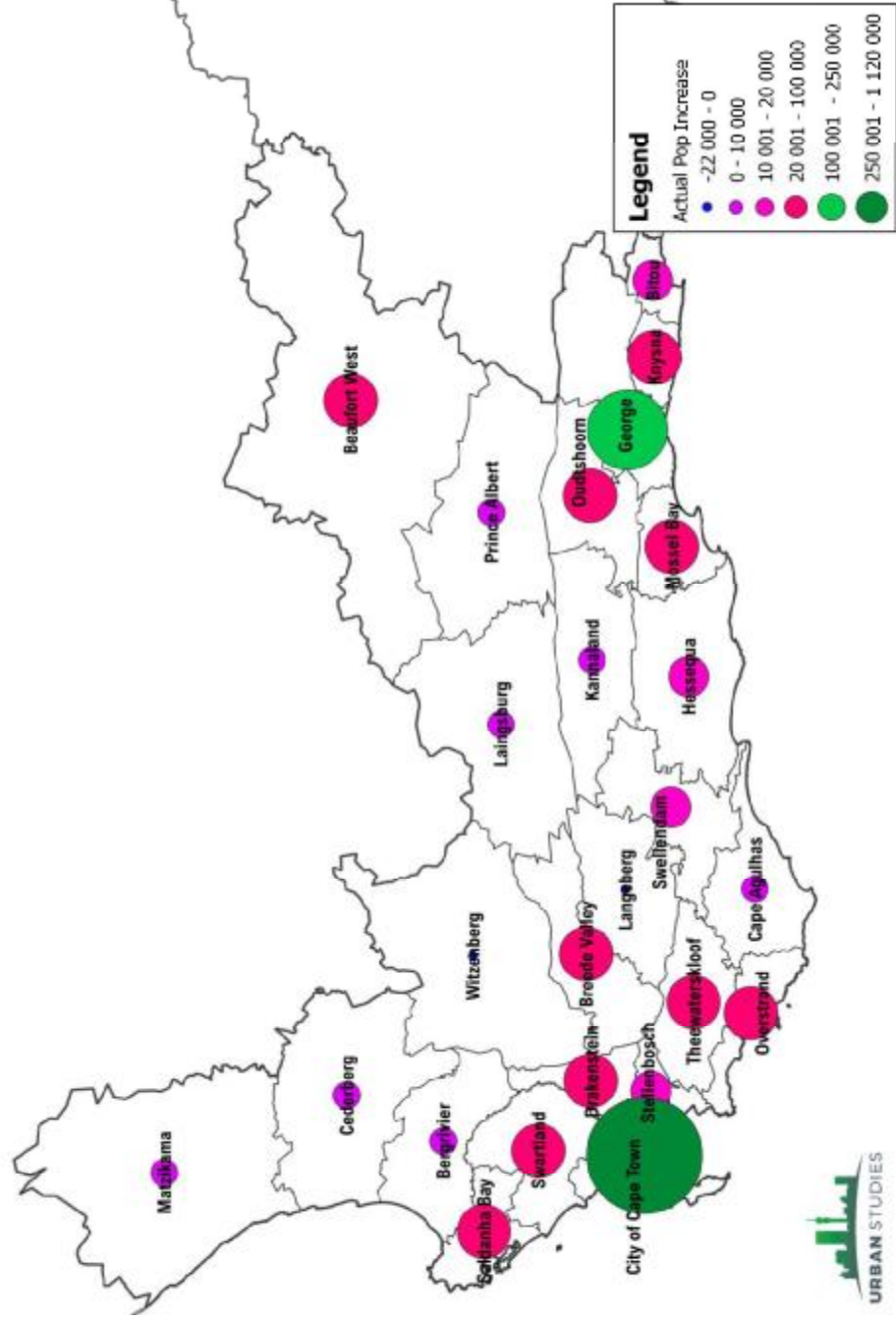
Table 4.1: Population Numbers and Projections – Province, District and Local Municipality

	Year	Population	Households	Growth per annum
Western Cape Province	2011	5 822 734	1 633 925	
	2022	7 433 020	2 264 032	2.5%
	2024	7 885 691	2 401 912	
	2029 (Projected at a 3% growth rate per annum)	9 141 677	2 784 474	
Garden Route District	2011	574 265	164 103	
	2022	838 457	255 977	3.9%
	2024	889 519	271 566	
	2029 (Projected at a 3% growth rate per annum)	1 031 196	314 819	
George Local Municipality	2011	193 672	53 549	
	2022	294 929	85 931	4.3%
	2024	318 995	92 943	
	2029 (Projected at a 3% growth rate per annum)	388 106	113 079	

Note the following:

- The George area has shown good growth since 2011 with a 4% growth rate.,
- Mossel Bay has also shown good growth, with almost 4 000 houses in different phases of development. Mossel Bay has more land available for expansion.

Western Cape – Actual Population Growth



Map Produced by Urban Studies, 2024
Source: StatsSA 2022

4.2. George Town Area

Table 4.2 indicates the total number of people and households in the impact area. A population growth rate of **3%** per annum over the past decade was used.

Table 4.2: Total Population and Households – Impact Area

Year	Population	Households
2024	161 938	44 154
2030 (Projected growth rate of 3%)	187 731	51 187

Source: Stats SA

The following map shows the surrounding area of the proposed development site in relation to the impact area.



5. MARKET PROFILE

5.1. Profile of George Affluent Market

Variable	Groups	George Affluent market
Age	18-24	0%
	25-34	16%
	35-49	45%
	50-64	32%
	65+	6%
Language	Afrikaans	77%
	English	23%
Life Cycle	Young	19%
	Full nest	65%
	Empty Nest	16%
Other	Size of hh	3,8
	No. of earners	2
	No. of cars	2,3
Median income		R76 000

5.2. Residents in the area

The following table indicates the profile of the households in the surrounding area. The average monthly household income of residents in the area is **>R60 000** and is representative of an affluent market. There has also been a strong increase in average household income over the last 5 years because of semigration into the area.

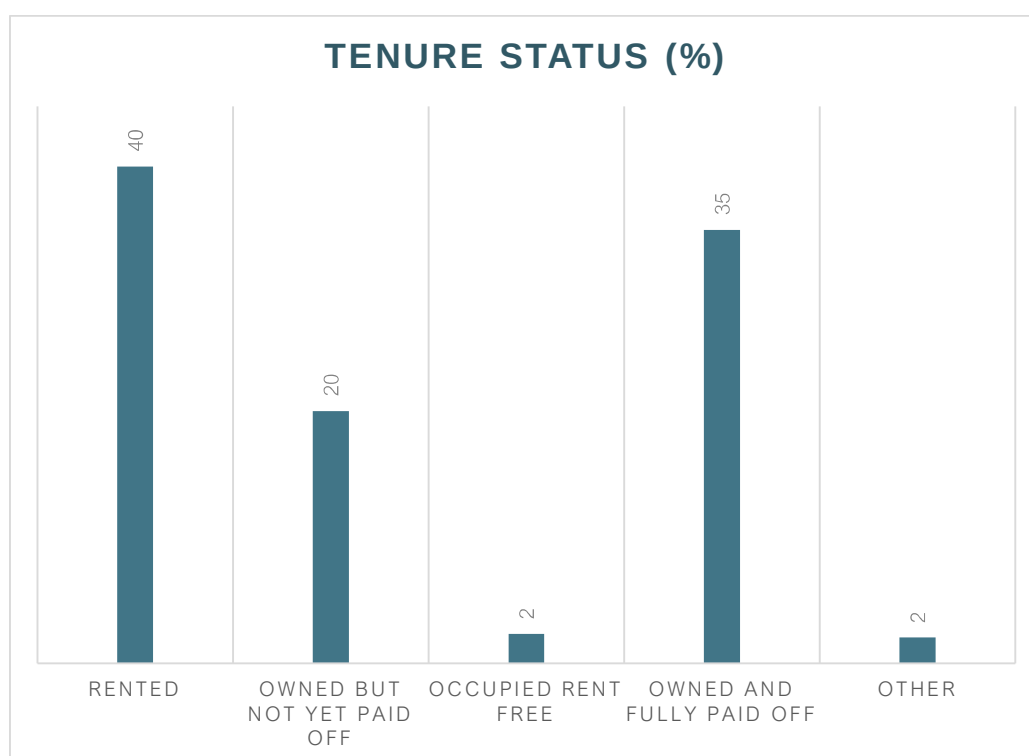
Group			Income		
		%			%
	18-24	4		<R5000	1
	25-34	15		R5000-R10000	2
	35-49	35		R10000-R15000	7
	50-65	35		R15000-R20000	3
	65+	11		R20000-R30000	16
				R30000-R40000	12
	Language	%		R40000-R50000	12
	Afrikaans	70		R50000-R60000	10
	English	22		R60000-R75000	5
	African Languages	5		R75000-R100000	10
	European & Asian languages	2	>R100000	12	
	Other	0			
	Life Cyle	%		LSM 1-4	3
	Young	18		LSM 5	0
	Full nest	49		LSM 6	2
	Empty nest	33		LSM 7	7
				LSM 8	8
		LSM 9		16	
		LSM 10		28	
		LSM 10+		35	

*LSM = Living Standard Measurement. The income per LSM category reflects the monthly household income.

LSM 1-4	<R5 000	LSM 6	R7 000	R10 000	LSM 8	R20 000	R30 000	LSM 10	R40 000	R75 000
LSM 5	R5 000	R7 000	LSM 7	R10 000	R20 000	LSM 9	R30 000	R40 000	LSM 10+	>R75 000

5.3. Tenure Status

The graph below highlights the tenure status of the dwelling units in the area. 55% are owned while 40% is rental accommodation mainly because of inflow and the lack of existing housing stock. High prices also play a very important role in this regard.



5.3.1. Semigration

Semigration based on previous studies conducted by Urban Studies indicated the following:

- The Southern Cape is the most important destination for semigration in South Africa.
- In the Greater George and Greater Mossel Bay areas between **130 and 160** newcomer households are moving in per month.
- This impact is confirmed by the population growth figures in Section 4.1.
- This trend is likely to continue.

6. RESIDENTIAL MARKET

In this section data were used from two sources namely:

- TPN data report for the area,
- Lightstone - Deeds office data.

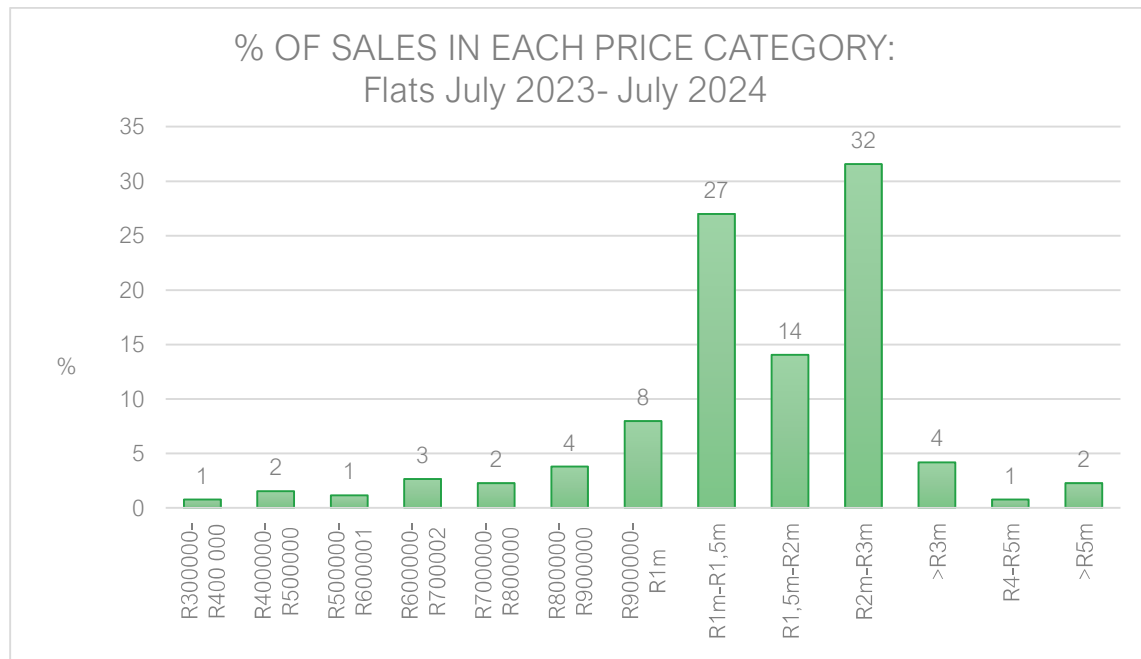
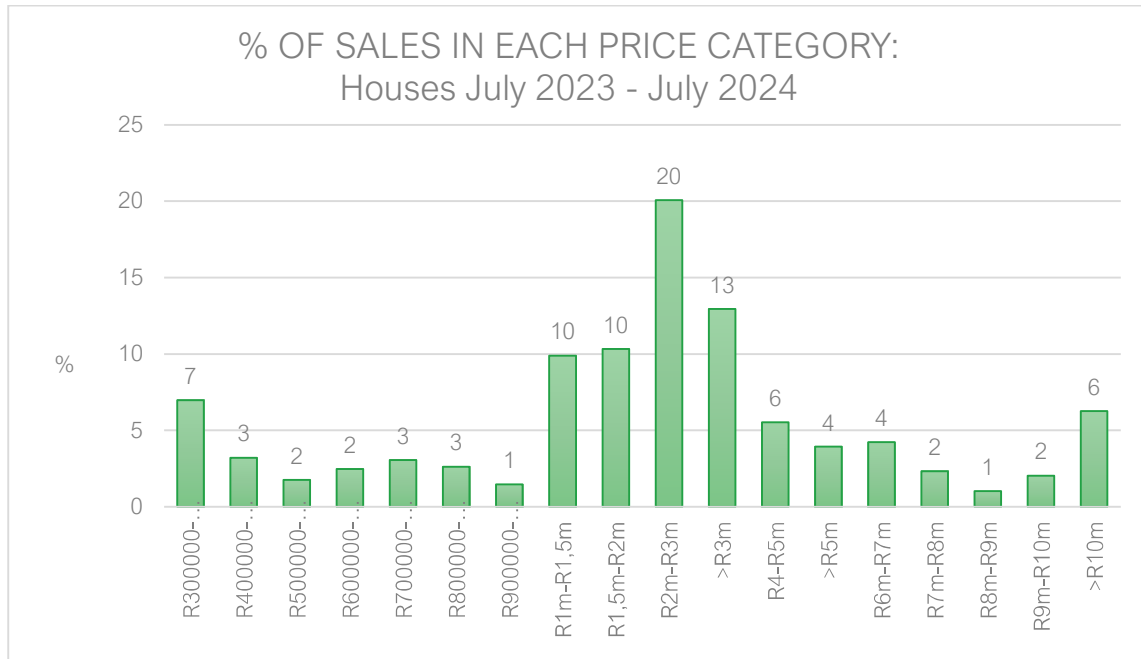
6.1. Supply Analysis – Freehold and Sectional Title Transfers

Table 6.1: House and Apartment Sales (July 2023 to July 2024)

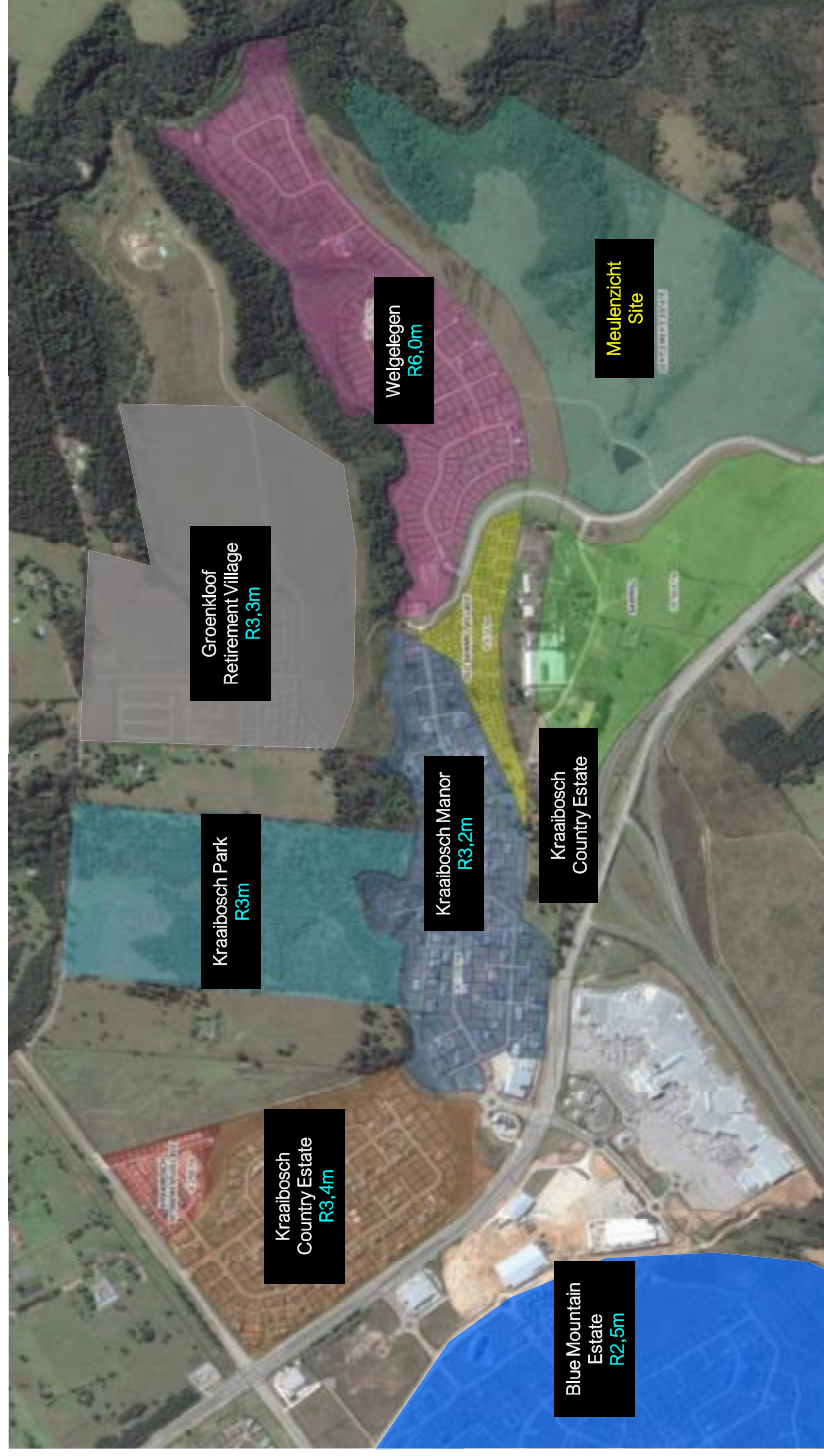
Area	Houses		Apartments			
	No. of sales	Ave Price	No. of sales	Ave Price	Ave Size in m²	Price/m²
Blanco	37	R2 700 000				
Blue Mountain Village	27	R2 500 000	6	R1 400 000	59	R23 729
Bo Dorp	14	R2 700 000				
Denneoord	14	R2 000 000				
Dormehls Drift	18	R3 800 000	77	R2 000 000	72	R27 778
George South	21	R2 300 000	43	R1 100 000	73	R15 068
Groenkloof	6	R3 300 000				
Hansmoeskraal	24	R2 000 000	25	R1 200 000	62	R19 355
Heather Park	24	R3 200 000				
Kingswood Gold estate	26	R5 400 000				
Kraaibosch Estate	6	R3 400 000				
Kraaibosch Manor	2	R3 200 000				
Kraaibosch Park	11	R1 600 000				
Kraaibosch Retirement	5	R3 100 000				
Welgelegen	6	R6 000 000				
FanCourt	18	R9 200 000				
Summary						
George total	427	R3 100 000	246	R1 800 000	88	R20 455
Hoekwil	21	R4 300 000	11	R1 900 000	130	R14 615
Kleinkrantz	30	R1 300 000				
Winderness	78	R4 100 000	10	R2 500 000	118	R21 186
	556		267			

Source: Lightstone, 2024

The following graphs show the % of sales in each price category for houses and apartments respectively.



Surrounding Housing Developments – Average House Prices 2024



6.2. TPN¹ Credit Bureau Information – Transfer Data

The two graphs below indicate the volume trends in both the sectional and full-title residential properties in the area. Note the following:

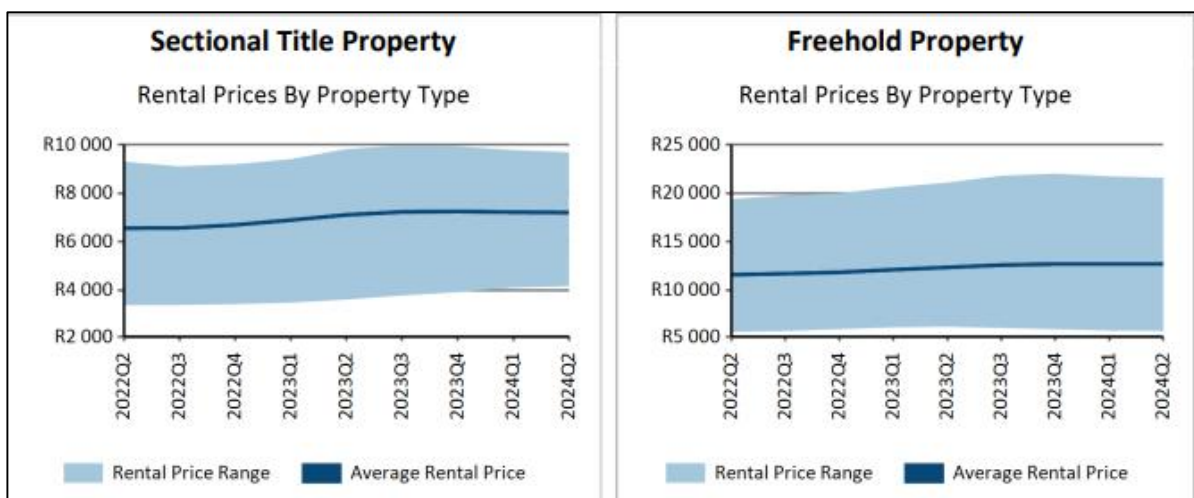
- The average full title house price has experienced high growth since 2022.
- On average 800 to 1 200 houses are sold in George per annum.
- The high-interest rate environment has negatively impacted the sales volumes over the past couple of years. There has been a slowdown in semigration volumes since end of Covid.



Source: TPN Report, 2024

6.3. TPN Rental Market Data

The following section highlights the rental residential performance over the past two years.



Source: TPN Report, 2024

¹ Areas included: George and Wilderness

The table below indicates the average **rentals** per type and per number of bedrooms.

Bedroom Number	Year	Market Low	Average Rental	Market High	Bedroom Number	Year	Market Low	Average Rental	Market High
<2Bed	2022	R3 000	R5 043	R7 000	<3Bed	2022	R5 200	R8 805	R16 251
	2023	R3 385	R5 572	R8 475		2023	R5 564	R10 068	R18 000
	2024	R3 575	R5 785	R8 475		2024	R5 564	R12 192	R21 000
2Bed	2022	R5 645	R7 090	R9 000	3Bed	2022	R9 600	R15 404	R22 500
	2023	R5 800	R7 729	R9 980		2023	R9 600	R15 807	R23 200
	2024	R5 900	R7 965	R9 350		2024	R6 634	R15 136	R22 000
>2Bed	2022	R17 440	R17 440	R17 440	>3Bed	2022	R11 900	R18 739	R26 500
	2023	R9 000	R13 714	R17 440		2023	R8 510	R19 504	R32 750
	2024	R9 000	R11 100	R14 500		2024	R12 100	R20 918	R29 900

6.4. Rental Stock on the Market

The table below indicates the residential stock on the market. There are **±190 rental** units currently on the market in George and Wilderness.

Table 6.2: Rental Apartment Stock

Area	Type	1b1b	2b1b	2b2b	3b1b	3b2b	3+b
Dormehls	Flat	R8 300	R12 000	R12 900		R14 000	
George Central	Flat	R5 450	R9 600	R13 500		R14 500	
George East	Flat	R4 500	R9 500	R12 000			
George South	Flat	R7 500	R9 000				
Heather Park	Flat	R7 500	R10 000				
Herolds Bay	Flat	R8 600		R16 500			R25 000
Wilderness	Flat		R16 300			R21 000	
Blanco	House				R17 400	R22 500	R24 000
Blue Mountain Village	House		R13 100			R19 000	R30 000
Denneoord	House		R7 200			R15 000	
Dormehls	House	R12 000	R18 000			R19 500	
George Central	House			R16 100		R16 500	
George East	House			R11 800			
George South	House				R12 500	R14 600	R16 700
Heather Park	House					R21 400	R26 000
Herolds Bay	House	R9 200				R20 700	R22 500
Kingswood Estate	House			R22 000		R28 000	R33 000
Wilderness	House					R24 000	R40 500

Source: Property24.com

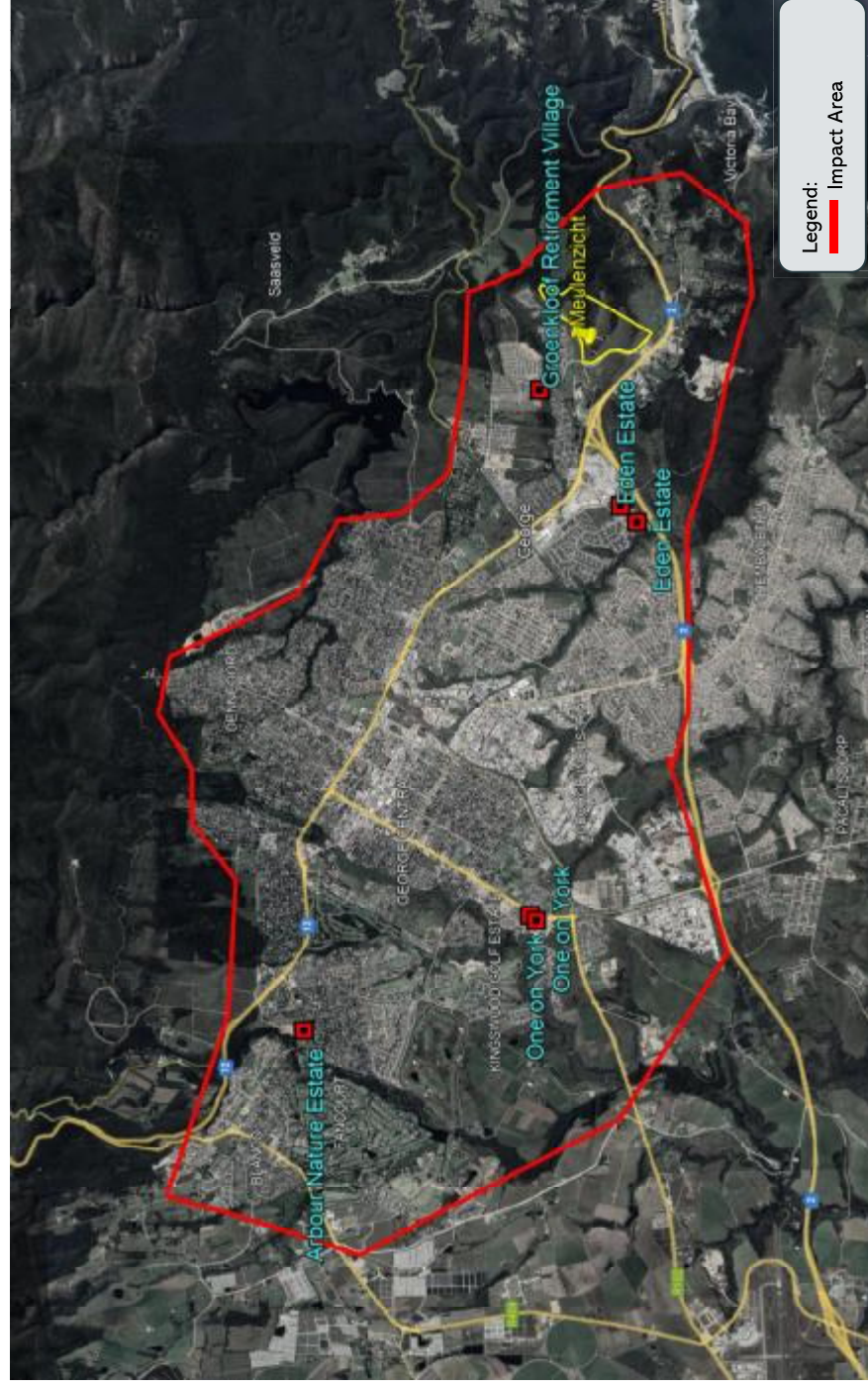
6.5. Comparative Developments

The table and map below highlight **the comparative** stock in the surrounding market.

Groenkloof Retirement Village	Price	Size (m ²)	Price/m ²
1B1B	R1 950 000	92	R21 196
2B2B	R2 590 000	129	R20 078
2B2B	R3 120 000	163	R19 141
Mooikloof 136 houses	Price	Size (m ²)	Price/m ²
2B2B	R2 015 000	129	R15 620
3B2B	R1 988 000	127	R15 654
3B2B	R2 218 000	140	R15 843
3B2B	R2 318 000	147	R15 769
3B2,5B	R2 297 000	138	R16 645
3B2,5B	R2 403 000	156	R15 404
Eden Residential Estate 169 houses	Price	Size (m ²)	Price/m ²
2B2B	R3 130 000	132	R23 712
3B2B	R3 230 000	180	R17 944
3B2B	R3 600 000	183	R19 672
One of York 89 townhouses	Price	Size (m ²)	Price/m ²
2B1B	R2 475 000	106	R23 349
3B1B	R2 670 000	118	R22 627
One on York Group Housing 40 houses	Price	Size (m ²)	Price/m ²
3B2B	R3 048 000	112	R27 214
3B2B	R3 181 000	135	R23 563
Arbour Nature Estate 33 houses	Price	Size (m ²)	Price/m ²
3B2B	R3 300 000	123	R26 829
3B2B	R3 675 000	121	R30 372
3B 2,5B	R3 700 000	162	R22 840
3B 2,5B	R4 025 000	151	R26 656
Arbour Nature Estate 54 apartments	Price	Size (m ²)	Price/m ²
2B2B	R2 295 000	60	R38 250
2B2B	R2 095 000	54	R38 796
Eden Residential Estate 57 apartments	Price	Size (m ²)	Price/m ²
2B2B	R1 850 000	61	R30 328
2B2B	R1 930 000	65	R29 692

Source: Hellohouse.com

George: Residential Developments in the Area



Map Produced by Urban Studies, 2024
Software: Google Earth Pro

6.6. Residential Development in the Area

Surrounding Housing Developments



Adjoining Estates

The table below indicates houses currently on the market in the area.

Welgelegen Estate	Price
5B3B	R7 550 000
4B3B	R7 500 000
4B3B	R7 250 000
Kraaibosch Country Estate	Price
2B2B	R4 050 000
3B2B	R4 750 000
3B3B	R4 950 000
5B2B	R4 995 000
3B2B	R3 990 000
Blue Mountain Village	Price
2B2B	R2 450 000
2B2B	R2 550 000
3B2B	R2 995 000
3B2B	R3 090 000
3B2B	R4 480 000

Source: Property24.com

7. OTHER MARKETS

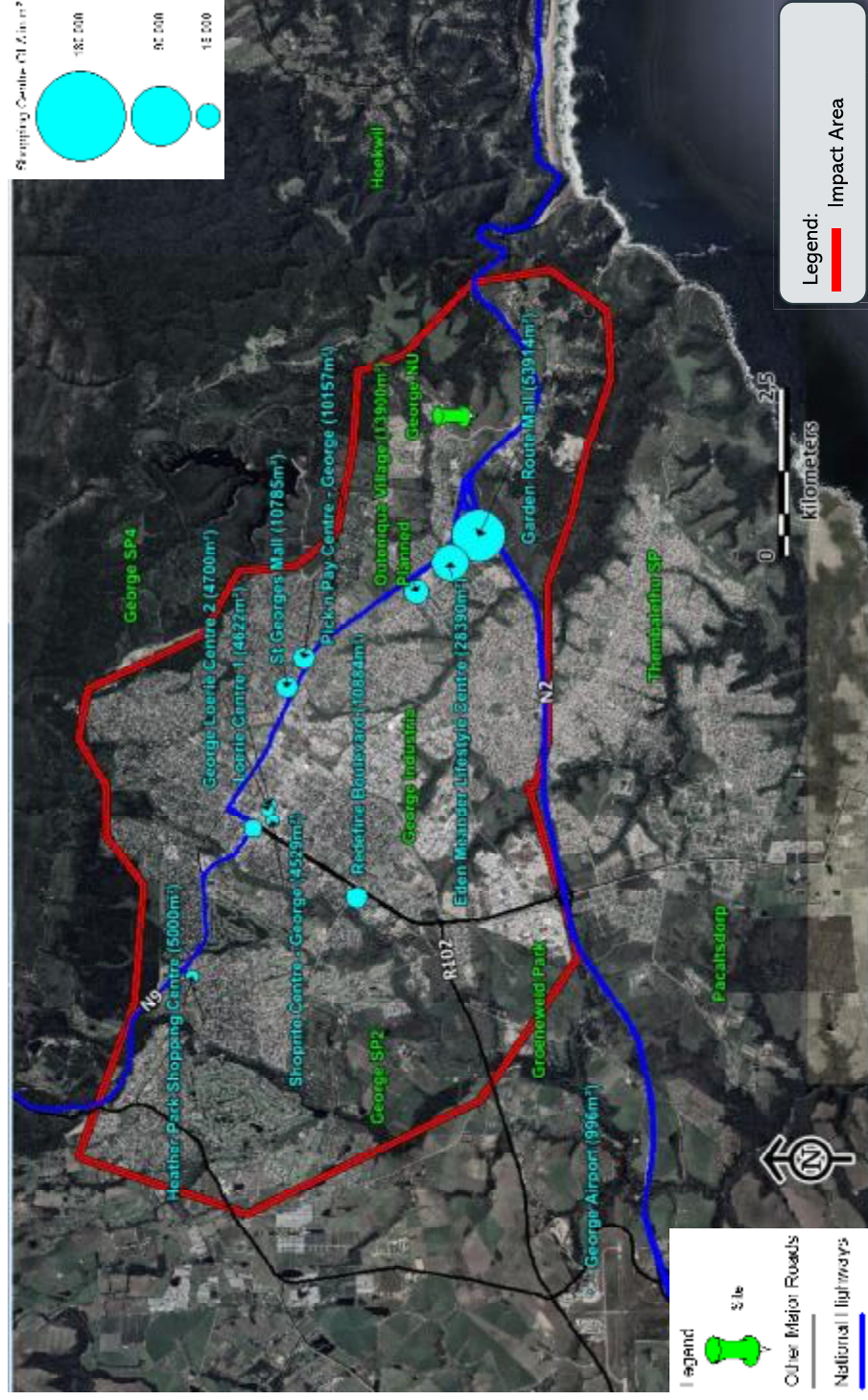
7.1. Retail Market

The following table and map indicate the shopping centre supply in the area. The retail sector is well-established in George. There is a strong concentration close to Garden Route Mall. A new shopping centre adjacent to Eden Meander, Outeniqua Lifestyle Centre (13 900m²) is currently under construction.

Table 7.1: Shopping Centre Supply

Centre	Size in m ²
Garden Route Mall	53 914
Eden Meander Lifestyle Centre	30 817
Outeniqua Village (Planned)	13 900
Redefine Boulevard	12 016
St Georges Mall	10 785
Pick n Pay Centre - George	10 157
York Mall	7 938
Heather Park Shopping Centre	5 000
George Loerie Centre 2	4 700
Loerie Centre 1	4 622
Shoprite Centre - George	4 529
George Airport	996
Total	159 374
Job Opportunities	5 300

George – Shopping Centre Supply

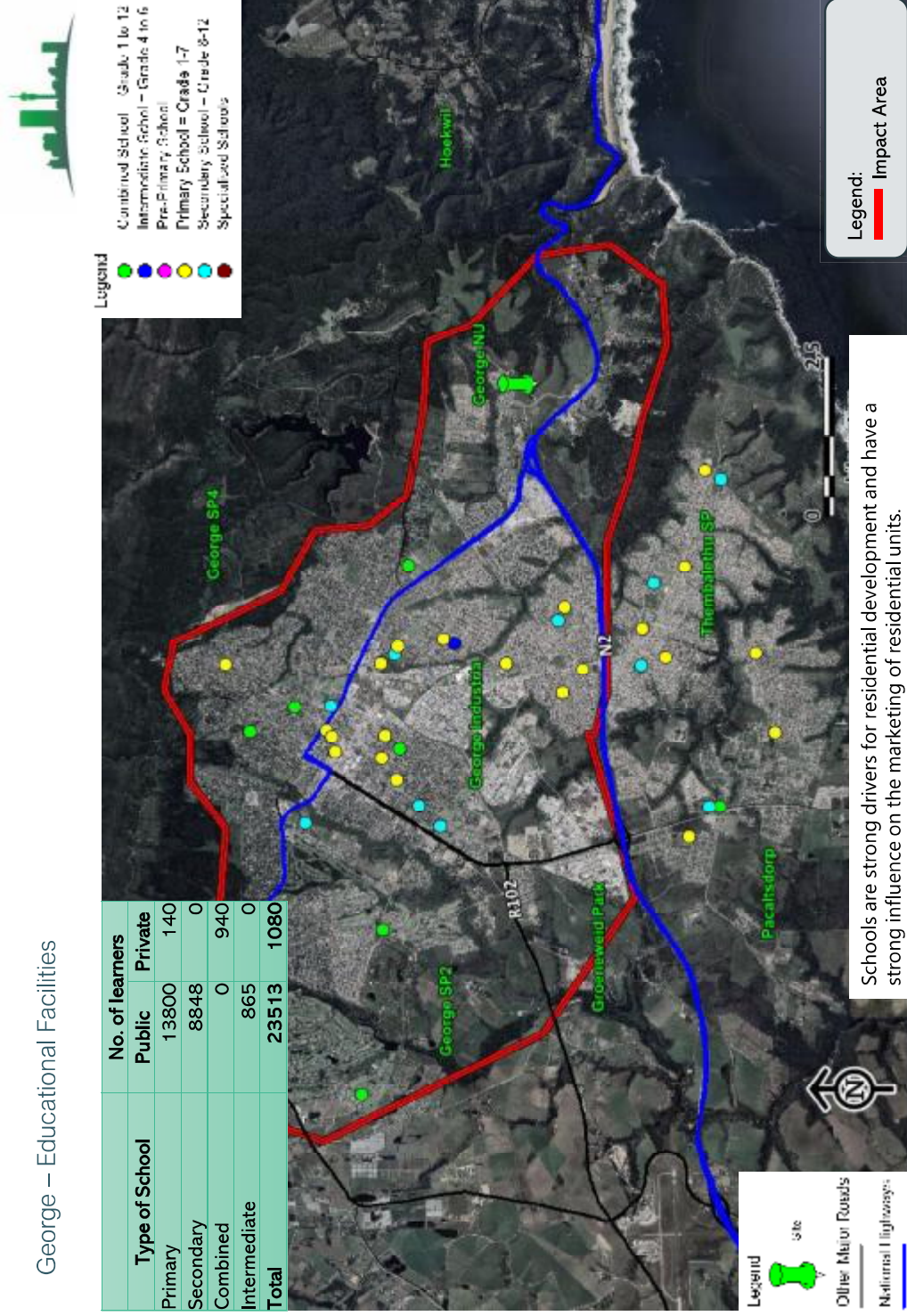


Map Produced by Urban Studies, 2024
Software: MapInfo Pro v19

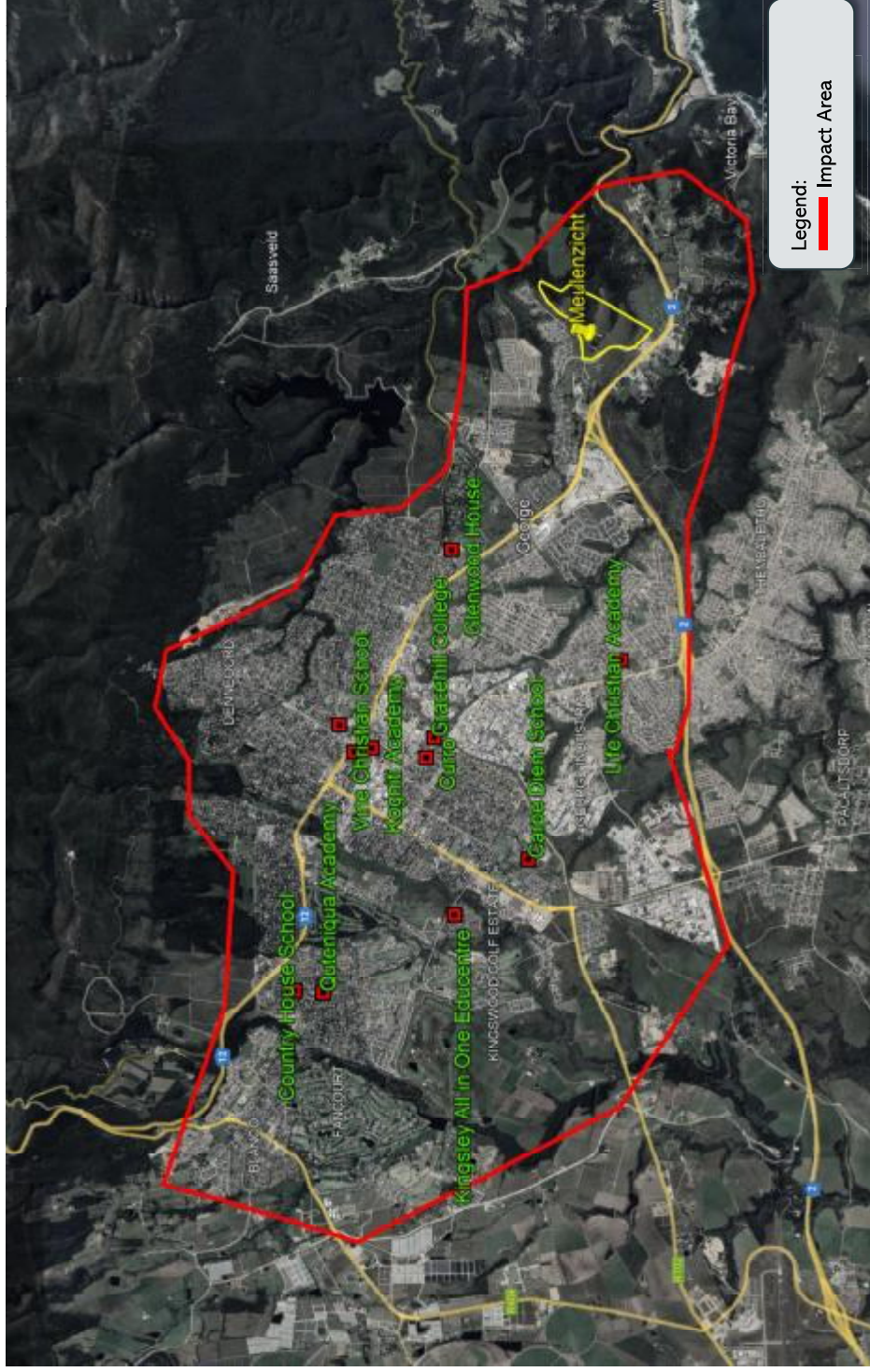
7.2. Education Facilities

George – Educational Facilities

Type of School	No. of learners	
	Public	Private
Primary	13800	140
Secondary	8848	0
Combined	0	940
Intermediate	865	0
Total	23513	1080

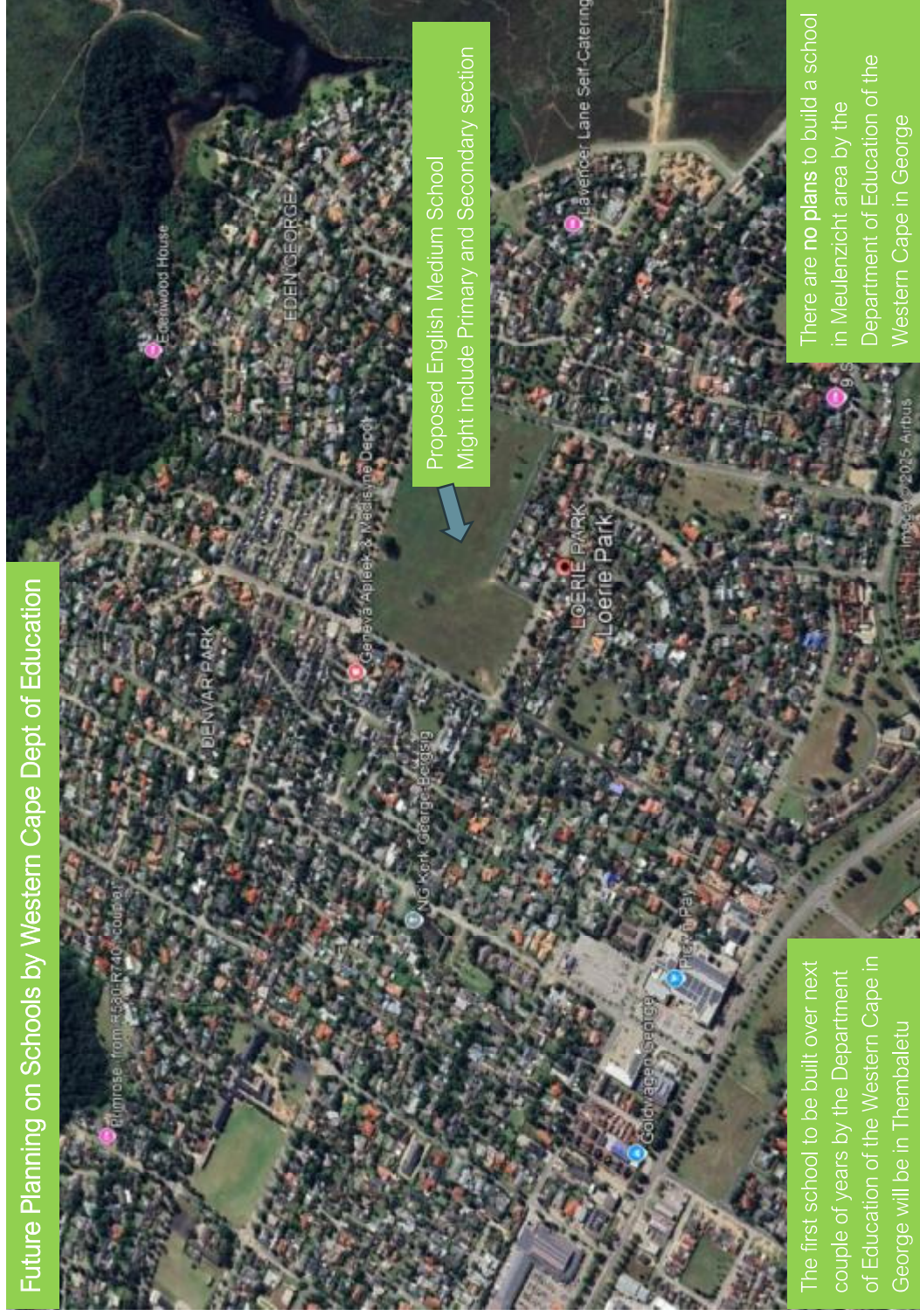


Map Produced by Urban Studies, 2024
Software: MapInfo Pro v19



Map Produced by Urban Studies, 2024
Software: Google Earth Pro

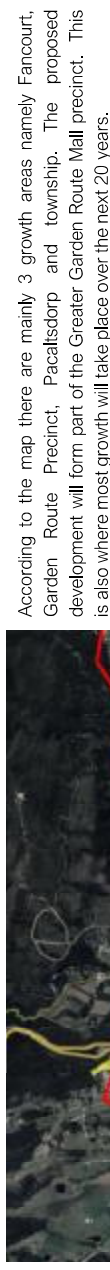
Future Planning on Schools by Western Cape Dept of Education



8. DYNAMICS OF THE AREA

8.1. Historical Growth

George Historical Growth In The Area 2012-2024

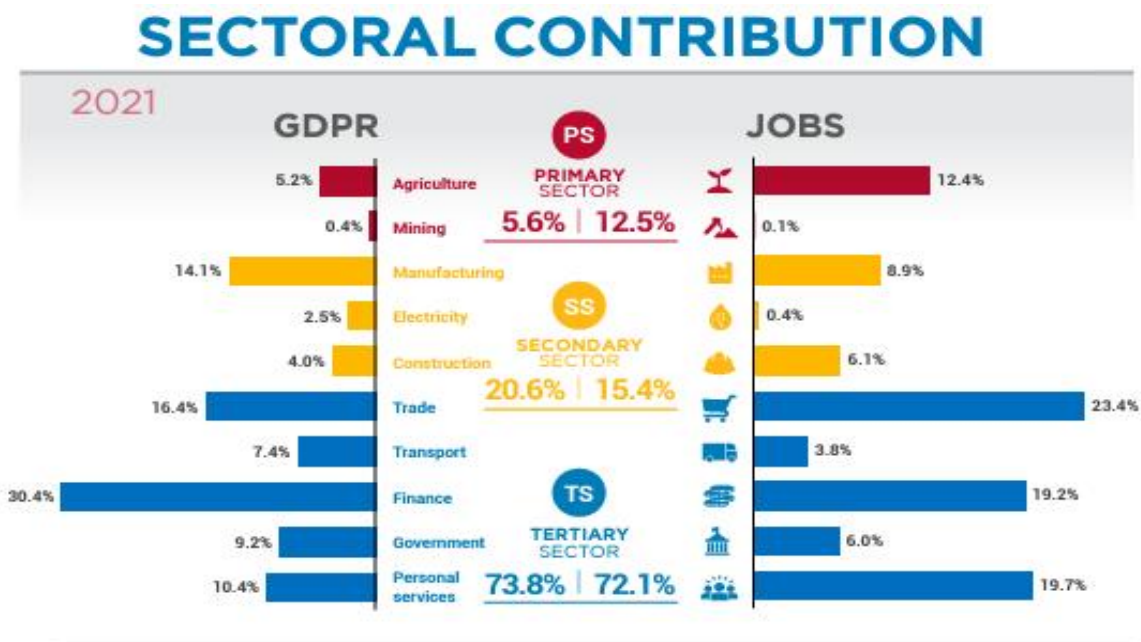


Map Produced by Urban Studies, 2024
Software: Google Earth Pro

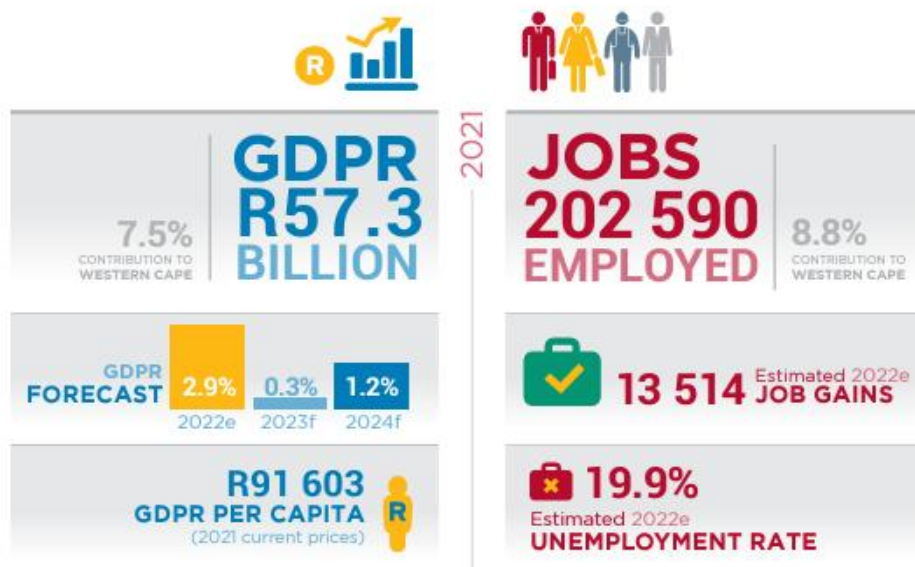
8.2. Economic Analysis

From: Western Cape Government: Municipal Economic Review and Outlook, Garden Route District, 2023/24:

The figure below contains updated economic information and indicates the jobs per sector of the Garden Route District. Outstanding drivers are finance including a large component of workers from home, trade with a very strong regional function and personal service. These are also the main sectors for semigration and self-employment.



Source: Western Cape: Municipal Economic Review and Outlook, Garden Route District, 2023/24



NUMBER OF BUSINESSES PER TOWN, 2022

Garden Route District

Roads

- National roads
- Regional roads
- GRD boundary

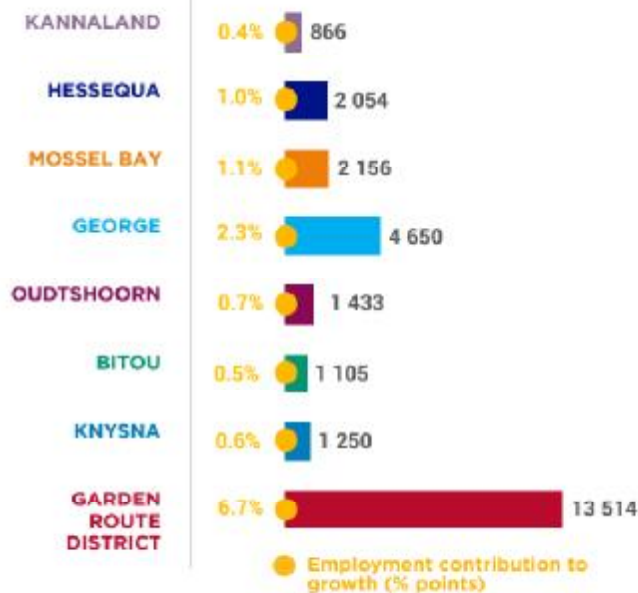


MUNICIPAL CONTRIBUTIONS TO GDPGR AND EMPLOYMENT GROWTH, Garden Route District, 2022e



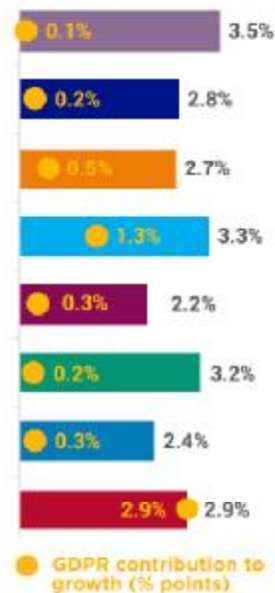
JOBS

Change in employment



GDPGR

GDPGR growth

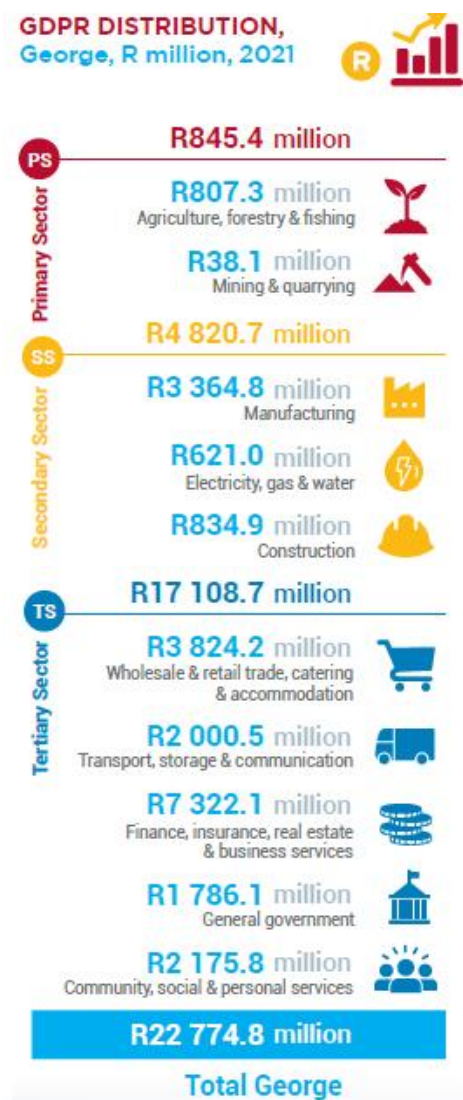


8.2.1. George Local Municipality

The town of George is the epicentre of local and regional government services and retail activities. The larger municipal area, in turn, has a thriving agriculture sector specialising in mixed farming and non-perennial crops.

The municipal area is considered a hub for dairy processing, with Clover, Lancewood, Morning Milk, Butlers Farmhouse Cheeses and Silver Lily Cheese Farm operating in the area and providing 829 formal jobs.

Beyond George, tourism is an important local employer, with the short-term accommodation industry being the largest employer in the Wilderness area. Uniondale, Haarlem and Waboomskraal economies rely extensively on agriculture. These areas specialise in mixed farming, vegetable production and cultivating pome and stone fruits.



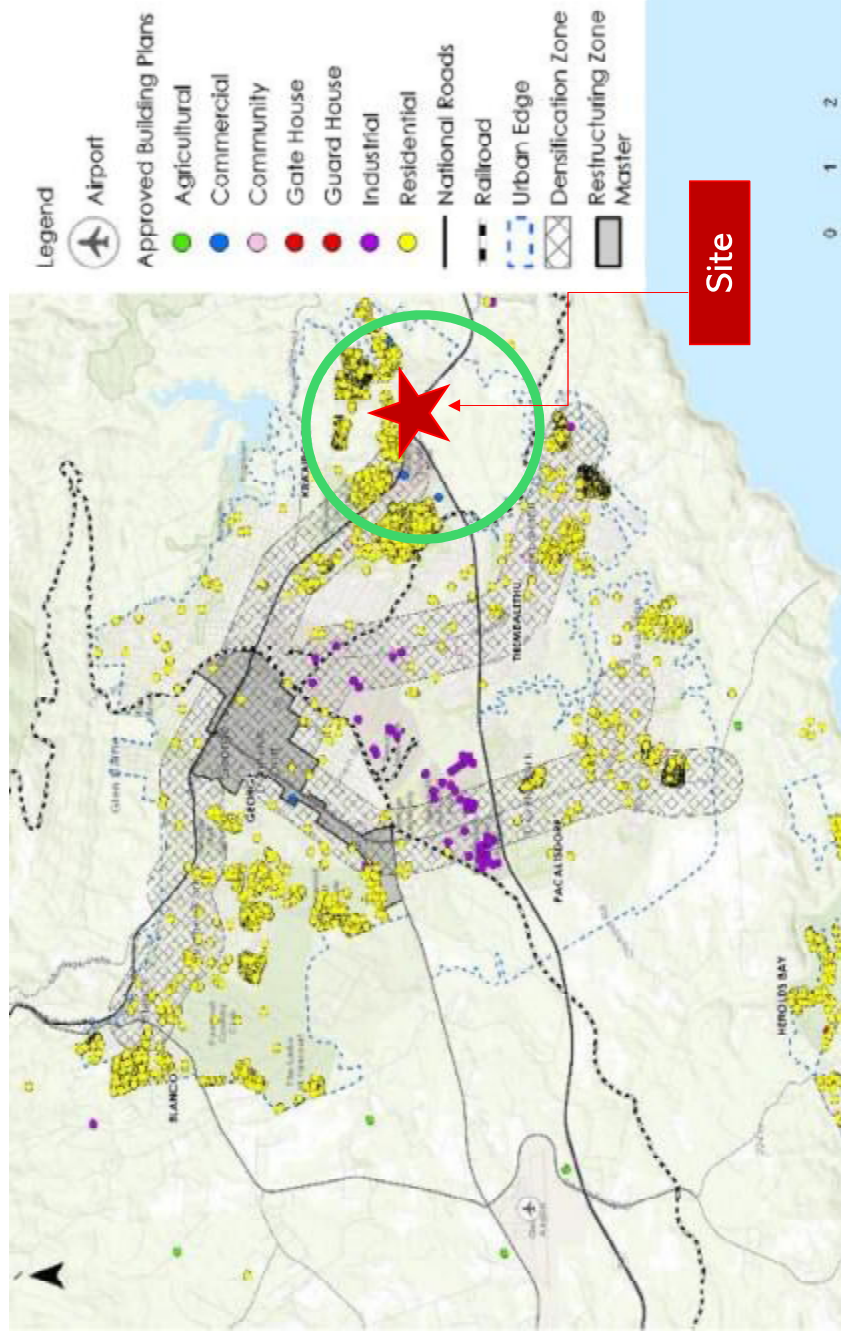
8.2.2. Overview of George City Area

According to the latest **Municipal Spatial Development Framework (May 2023)** the key variables for the city are:

- Number of registered properties = 53 729;
- Housing estate = 34 complexes;
- Sectional title/ multiple units = 4 529;
- Single residential erven = 41 308 erven;
- Agriculture (incl. small holdings, properties in natural areas) = 4 003 properties;
- Business/ commercial = 962 properties;
- Number of Informal structures (GM Survey 2021) = 10 684 structures.

The maps below indicate the building plans approved as well as the composite spatial framework plan for George City.

George Building Plans Approvals George City Area



Map Produced by Urban Studies, 2023
Source: George MSDF 2023

The following table gives an indication of the backlog and expected new houses to be built over the next 10 years. The most important about the table is the high **residential growth expected** for George. Refer to Section 6.6 for detailed information about residential development in the area.

Table 8.1: Functional Areas Housing Demand

FUNCTIONAL AREA NAME	Housing Backlog (2022)	New Households (2021 - 2031)	TOTAL HOUSING DEMAND
1) George City Area	18288	13565	31853
1.1) Blanco	332	725	1057
1.2) Heatherlands	0	709	709
1.3) Bodorp	88	1696	1784
1.4) George CBD	0	1197	1197
1.5) George Industria	71	23	94
1.6) Ballotsview	2971	1584	4555
1.7) Pacaltsdorp	2450	1699	4149
1.8) Thembaletu	11431	4764	16195
1.9) Kraaibosch Expansion Area	0	0	0
1.10) Kraaibosch	0	599	599
1.11) Rosemore	945	509	1454
1.12) Gwaing	0	59	59
2) Uniondale & Surrounds	24	686	710
2.1) Uniondale Urban	24	364	388
2.2) Uniondale Rural	0	322	322
3) Wilderness & Surrounds	428	568	996
3.1) Wilderness / Kleinkrantz / Touwsrante / Hoekwil	428	568	996
4) George Rural	200	479	679
4.1) George Rural	200	479	679
5) Haarlem & Surrounds	32	558	590
5.1) Haarlem Urban	32	124	156
5.2) Haarlem Rural	0	434	434
6) Herolds Bay & Surrounds	0	138	138
6.1) Herolds Bay / Herolds Bay Heights / Ou Baai	0	138	138
GRAND TOTAL	18972	15994	34966

Source: George Spatial Development Framework 2023/27

8.2.3. Spatial Budget Base

The tables and map below confirm the high expected growth in George City and in particular around the Meulenzicht Landgoed site.

Table 8.2: Spatial Budget – All Plans

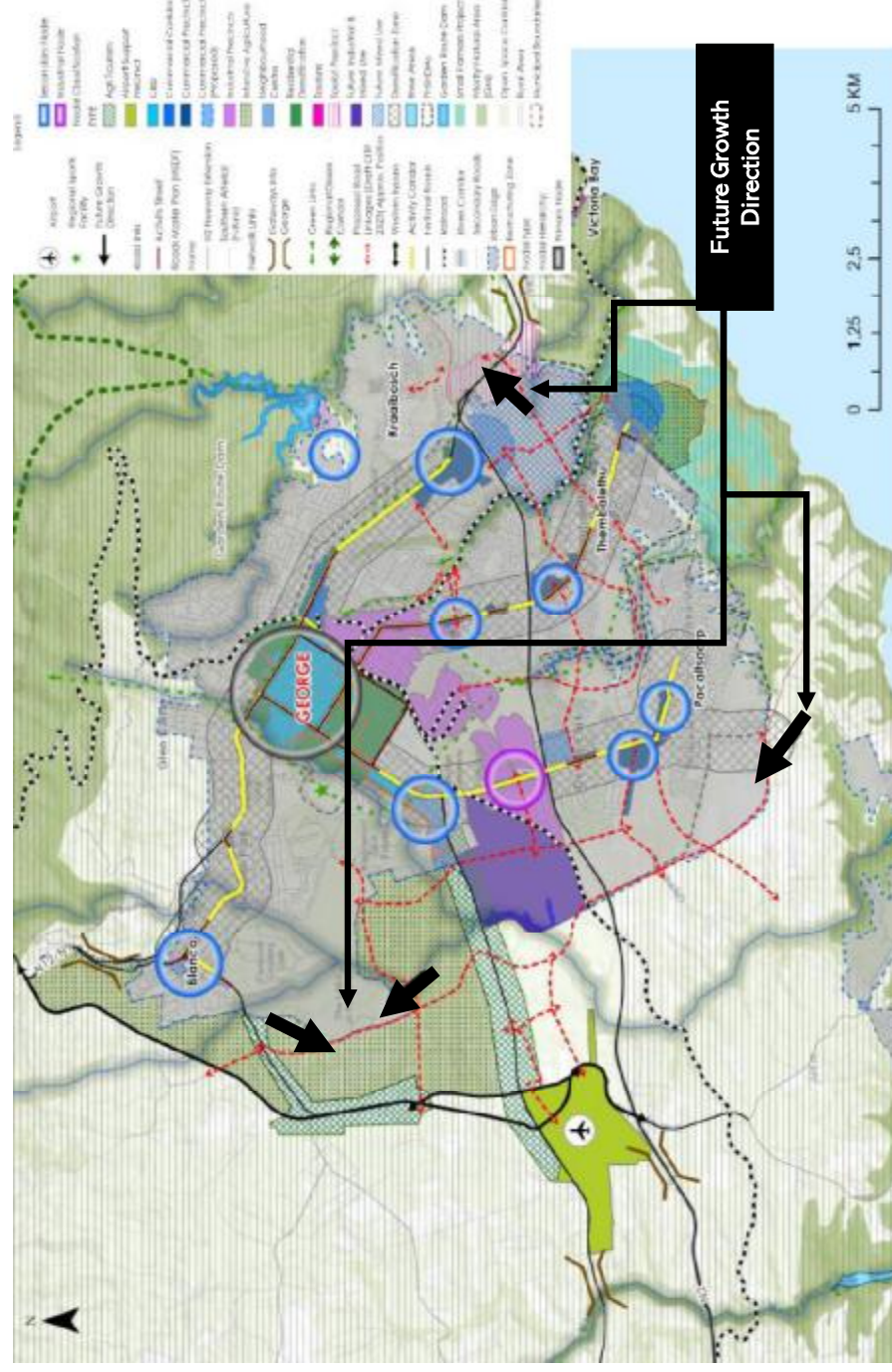
	Total
Approved - opportunities remaining	3 301
Approved - no top structures yet	5 044
Proposed - not yet approved	5 086
Vacant to be investigated	25 931
Total Number of Units	39 362
<i>Informal Upgrade</i>	

Table 8.3 indicates the plans for developments near the site. The numbers mentioned in the table correspond with the numbers on the map.

Table 8.3: Spatial Budget – All Plans near Subject Site

Number on Map	Area/Description	No of units
Approved - opportunities remaining		
66	Business	1
68	Retirement Village	122
80	Mainly low density single	107
91	Mainly low density	6
92	Mainly low density	15
93	Residential	80
96	Business	1
98	Business	1
100	Business	1
101	Private	59
107	No data	
Approved -no top structures yet		
16	Group Housing	170
19	Mainly low density	308
72	Mixed use	76
106	Mainly low density	250
Proposed not yet approved		
11	Residential	177
21	Vacant	820
63	Mainly low density	91
65	Mixed use	1123
67	Mainly low density	302
70	Mainly low density	270
95	Mainly low density	405
105	Mainly low density	580
Vacant to be investigated		
12	Kraaibosch	7250
115	Vacant Zone	670
116	Vacant Zone	185

Composite Spatial Development Framework George City Area



Map Produced by Urban Studies, 2023
Source: George MSDF 2023



URBAN STUDIES

8.3. New Developments

Apart from the new residential developments planned for the area, the following other developments are also in the pipeline:

- Mediclinic to move to new premises
- As part of the One on York development, a retail centre of ±8 000m² is planned anchored by Spar and DisChem.
- Gwayang – mixed use precinct – The precinct forms part of a cluster of existing and proposed nodes along the western access to the urban area and is situated along the R102 (airport road). Planning process is expected to be concluded at the end of 2024.
- **George Airport Business Park:** The 19,5-hectare development will offer a full spectrum of industrial and commercial warehousing solutions geared towards agri-logistics, call centres, cold storage, oil and gas and other ancillary, light industrial enterprise along with a filling station and associated retail.
- Airport Business Park precinct is Spear REIT, having just broken ground with bulk infrastructure, is investing R400 million over a 5-year period towards GTX Park which will be situated within the Airport Business Park precinct. Upon completion, GTX Park will encompass a total of 30,000m² of cutting-edge, light industrial units spread across nine sites.

8.4. Future Planning on Schools

The following schools are planned by the Department of Education of the Western Cape in George:
Contact person: Claire Du Plessis Tel 044 803 8374, Deputy Chief Educational Specialist/

- A school in Thembaletu has been approved by the Department of Education to be constructed over the next few years. It is not decided whether it will be a Primary or a Secondary School.
- The next school to be developed is in Loeriepark where the Department of Education own a piece of land. This will be an English medium school, and it is not decided whether it will be a primary or a secondary school or both.
- The Department of Education is also investigating the repurposing of schools: to repurpose specific types of schools to cater for other education needs as well as to look at renovating existing buildings to school uses.
- There are no plans to build a school in the broader Meulenzich area. However, a need for a school will arise as the number of households increase dramatically over the next couple of years.

See map on p22.

9. SITE EVALUATION

The following table shows the site evaluation and location rating for residential development purposes at the Meulenzicht Landgoed site.

Table 9.1: Residential Site Evaluation & Location Rating

Location Variables	Rating 2024
Residential Affordability	8
Security	9
Attractiveness of the area	9
Community facilities	8
Schools	6
Medical facilities	7
Shopping facilities	9
Infrastructure	8
Transport facilities	8
Prestige value of the area	9
Socio-economic profile	9
Type of housing	8
Accessibility to workplace	9
Age of the area	8
General location	8
Future Growth Prospects	9
Total	83%

Quality of Rating	
>80%	Very Good
70%-80%	Good
60%-70%	Average
50%-60%	Below Average
<50%	Poor

George Meulenzicht - Micro Location



Map Produced by Urban Studies, 2024
Software: Google Earth Pro

10. MARKET POTENTIAL

10.1. Residential Affordability

The following table shows the residential affordability of the George impact area (the profile data does not include the areas of Pacaltsdorp and Thembaletu). Note that the target market of the proposed development **will form part of LSM 10-10+**.

Table 10.1: Residential Affordability

LSM	Impact Area LSM Profile	Household Income	Residential Affordability	Rentals Achievable	Average House Price Affordability
1-4	2%	R 3 500	R 1 050	R750-R1100	-
5	2%	R 5 500	R 1 650	R1100-R1750	-
6	9%	R 15 000	R 4 500	R2000-R4000	-
7		R 20 000	R 6 000	R4000-R6000	R450 000-R750 000
8	24%	R 30 000	R 9 000	R6000-R9000	R750 000-R1 000 000
9		R 40 000	R 12 000	R9000-R12000	R1 000 000-R1 500 000
Low 10	28%	R 50 000	R 15 000	R12000-R15000	R1 500 000-R2 500 000
Mid 10	35%	R 65 000	R 19 500	R15000-R19500	>R2 500 000
High 10		R 75 000	R 22 500	>R19500	

10.2. Residential Demand

The following table shows the demand for new housing units in George per annum. Also note the two market share scenarios estimated for the proposed development. Based on this the Meulenzicht Landgoed can expect to sell between 42 and 98 units per annum.

LSM Profile	Annual Demand (moderate growth)	Annual Demand (high growth)	Recommended Housing Typology
Mid 10	490	665	Freehold Units - Housing Estate
High 10			
Aggregated Target Market Demand	490	665	
Market Share Scenario @:	Annual Demand (number of units)		
15%	42	74	
20%	56	98	

10.3. Recommended Product

The following is recommended for the various pockets/ estates as part of the overall development.

10.3.1. Apartment Stock

Unit Type	Size (m²)	Price Range		Development Mix
		Low	High	
1B1B	40-43	R 902 000	R 969 650	20%
2B2B	75-85	R 1 612 500	R 1 827 500	50%
3B2B	95-115	R 1 947 500	R 2 357 500	30%

Unit Type	Size (m²)	Rental Range		Development Mix
		Low	High	
1B1B	40-43	R 7 938	R 8 533	20%
2B2B	75-85	R 13 706	R 15 534	50%
3B2B	95-115	R 15 580	R 18 860	30%

10.3.1. Townhouse Stock

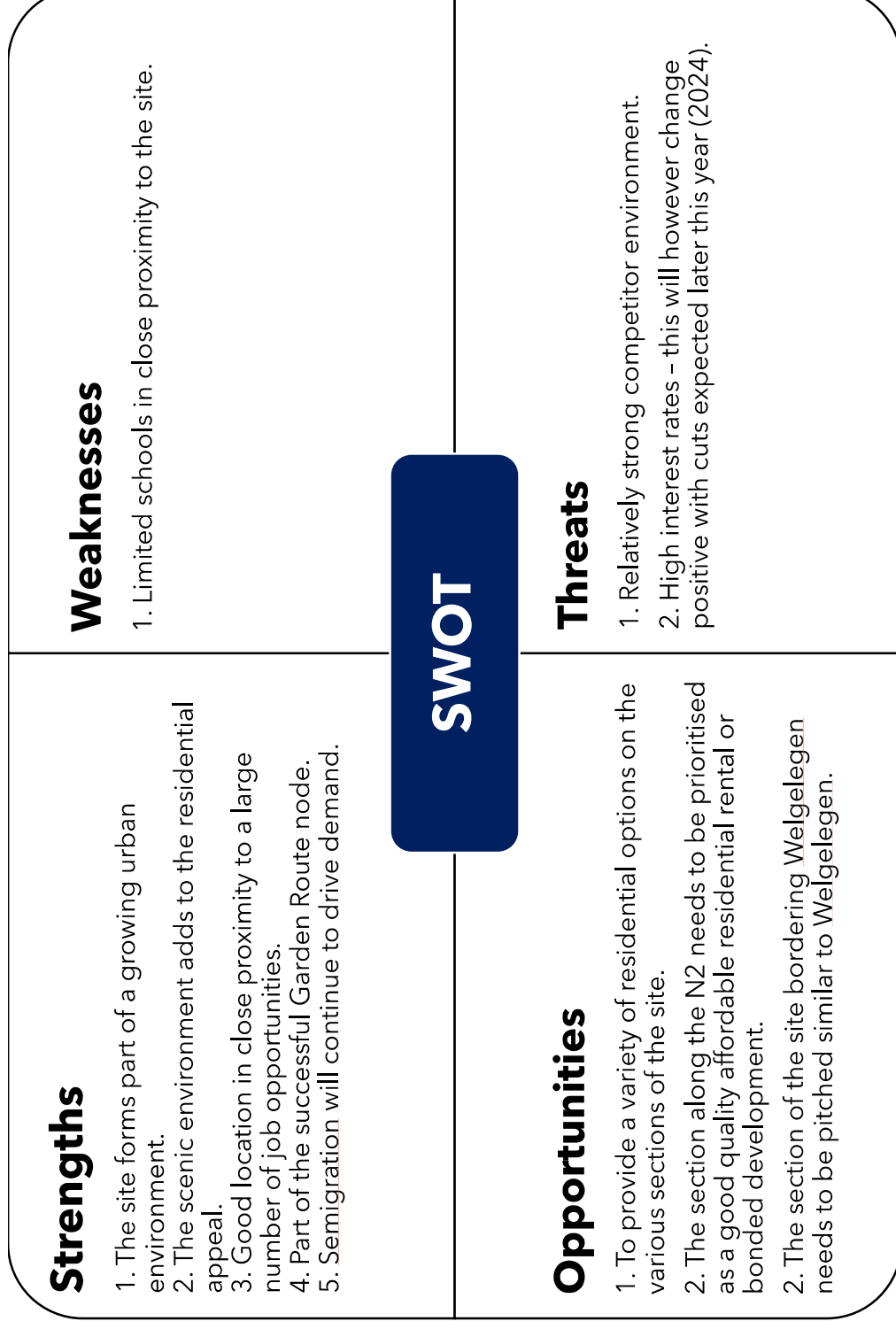
Townhouse Unit Type	Size (m²)	Price Range		Development Mix
		Low	High	
2B2B	90-100	R 1 845 000	R 2 050 000	30%
3B2B	110-120	R 2 233 000	R 2 436 000	70%

Unit Type	Size (m²)	Rental Range		Development Mix
		Low	High	
2B2B	70-78	R 14 760	R 16 400	30%
3B2B	95-105	R 17 864	R 19 488	70%

10.3.1. Freehold Housing Stock

Unit Type	Size (m²)	Price Range	
		Low	High
3Bed3.5Bath	185-200	R 3 607 500	R 3 900 000
4Bed3.5Bath	250-300	R 4 750 000	R 5 700 000

11. SWOT ANALYSIS



12. CONCLUSION

The area offers excellent medium to longer-term growth opportunities. The site evaluation rating of 83% confirms a beautiful attractive landscape area close to job opportunities.

All urban amenities and supporting land use development options beyond residential, should be incorporated into the Meulenzicht Landgoed development.

A portion of the land should be made available for education purposes. This can be mutually beneficial for all parties as the intention is to alleviate the pressure on the educational system with an early childhood development facility. Affordable residential units to also satisfy the need of teachers who struggles to find affordable housing in George should receive priority.

A small office component with modern office facilities which also includes workspace for tenants on a permanent or temporary basis. Boardroom facilities and hybrid desk space to rent as well as a coffee bar could be added.



MEULENZICHT LANDGOED & SOCIO- ECONOMIC STUDY

DECEMBER 2024

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1. INTRODUCTION

1.1. Background

Atterbury has appointed Urban Studies to conduct a socio-economic impact assessment for a new development in George, Western Cape.

The proposed development is located on the southeastern side of George. The Development will consist of two estates, **Meulenzicht Landgoed** and Oumeulen Village which consist of 227 and 506 units respectively.

The socio-economic impact assessment evaluates the project's need and desirability, aligning with the Environmental Impact Assessment (EIA) Regulations of 2014. Its purpose is to ensure the project delivers justifiable social and economic benefits while minimizing environmental harm.

The assessment identifies and analyses the positive and negative social and economic impacts on the surrounding community, considering ecological effects. It aims to support sustainable and equitable development by proposing practical management and mitigation strategies.

1.2. Methodology

The socio-economic impact study followed this methodology:

Orientation: The study began by understanding the proposed project at various stages of its lifecycle and its potentially affected environment.

Data Collection and Policy Review: Secondary research included reviewing government policies, local and provincial strategic plans, and data from Stats SA. This helped assess the project's alignment with government strategies and identify any potential concerns.

Baseline Profiling: The study area was described using key socio-economic variables such as population size, household numbers, economic structure, labour force, and employment. Census 2022, and municipal strategic documents informed this analysis, with a focus on the local area and directly affected zones.

Impact Identification: Socio-economic impacts expected during the project's lifecycle were identified. This step included impact analysis, evaluation, and a needs and desirability assessment from a locational perspective.

1.3. Data Gathering and consultation process

The project made use of both secondary and primary data.

1.3.1. Secondary data gathering

Secondary data was sourced from the following databases and documents:

- Stats SA Census, 2011 & 2022
- Integrated Development Plans (IDP)
 - George Local Municipality, Integrated Development Plan 2022 – 2027
- Spatial Development Frameworks
 - George Local Municipality, Spatial Development Framework 2023/27
- Provincial strategic documents
 - Municipal Economic Review and Outlook 2023/24
- Urban Studies' databank 2005-2024;

1.3.2. Assumptions, limitations and gaps

The following section outlines the key assumptions that form the basis of the assessment and discussions of the study.

- While all due care was taken to ensure that the assessment of impacts is accurate (and follows the conservative approach), the provision of additional data could potentially impact the assessment of the significance of some impacts.
- Project-related information supplied by the team involved in the project for the analysis is assumed to be reasonably accurate. Thus, all impacts are analysed based on this information. Any changes hereon cannot be accounted for in the analysis.
- The secondary data sources used to compile the economic baseline (dynamics of the economy and labour force), although not exhaustive, can be viewed as being indicative of broad trends within the study area.
- Possible impacts, as well as stakeholder responses to these impacts, cannot be predicted with complete accuracy, even when circumstances are similar, and these predictions are based on research and years of experience, taking the specific set of circumstances into account.

2. POLICY REVIEW

A policy review plays an integral role in the early stages of a project. The review provides a high-level indication of whether a project is aligned with the goals and aspirations of the developmental policy within a country and at a local level. Furthermore, the analysis indicates any red flags or developmental concerns that could jeopardise the development of the project. This assists in amending and preventing costly and unnecessary delays.

The following government strategic documents applicable to the delineated study areas were examined:

- Western Cape Strategic Plan (2019–2024)
- Integrated Development Plan (IDP) 2023–2027 for George Local Municipality
- George Municipal Spatial Development Framework (MSDF) 2023/27

2.1. Project Alignment with Provincial Policies

2.1.1. Western Cape Strategic Plan (2019–2024)

The Western Cape Strategic Plan (2019–2024) provides a comprehensive framework for addressing the province's challenges and leveraging opportunities over five years. It is centred around five Vision-Inspired Priorities (VIPs) that reflect the Western Cape Government's commitment to creating a safer, more inclusive, and prosperous province.

1. Safe and Cohesive Communities, focuses on reducing violent crime, enhancing public safety, and fostering social cohesion. Interventions include strengthening law enforcement capacity, addressing the needs of at-risk youth, and improving the safety of public spaces. These initiatives aim to create communities where residents and visitors feel secure.
2. Growth and Jobs, aims to stimulate economic growth and job creation by promoting investment, improving infrastructure, and developing skills to meet the demands of emerging sectors. The plan emphasises inclusivity and resource resilience to ensure the economy supports sustainable employment and competitiveness.
3. Empowering People, focuses on improving access to opportunities for meaningful and dignified lives. This includes enhancing education, healthcare, and skills development, as well as supporting family and community structures to foster individual and collective well-being.
4. Mobility and Spatial Transformation, seeks to improve access to economic and social opportunities through better spatial planning and public transport systems. It prioritises the development of mixed-use, mixed-income neighbourhoods and the reduction of commuting times to ensure more inclusive and connected communities.
5. Innovation and Culture, focuses on building a competent and responsive government that leverages innovation to deliver citizen-centric services. It aims to strengthen governance, accountability, and collaboration across all sectors.

Cross-cutting themes such as gender equality, youth empowerment, and climate resilience are integrated into the plan to address systemic challenges and build a more equitable and sustainable future. The plan aligns with global and national frameworks, including the UN Sustainable Development Goals (SDGs) and South Africa's National Development Plan (NDP), and encourages collaboration through a "Whole-of-Society Approach."

Relevance to Meulenzicht Landgoed:

The Meulenzicht Landgoed development aligns well with the Western Cape Strategic Plan by supporting job creation, improved housing, and local economic opportunities. The project's residential and potential commercial components contribute to economic stimulation and holistic community well-being.

2.2. Project Alignment with Municipal Policies

2.2.1. Integrated Development Plan (IDP) 2023–2027 for George Local Municipality

The Integrated Development Plan (IDP) 2023–2027 for George Municipality provides a comprehensive strategic framework to guide governance, resource allocation, and sustainable development over the five-year planning period. The IDP integrates the municipality's budget with its developmental and service delivery priorities, ensuring a cohesive and inclusive approach.

The IDP prioritises good governance through a structured legal and institutional framework. It places a strong emphasis on community engagement, recognising the value of public participation in identifying and addressing the most pressing needs of the municipality. Through regular consultations, the municipality ensures that its plans reflect the aspirations and challenges of its residents. Additionally, the IDP aligns with national and provincial policies to promote coordinated and integrated planning across governmental spheres.

The situational analysis of George Municipality identifies trends and conditions influencing development, such as population growth, service delivery, and economic performance. The document underscores the importance of spatial planning to accommodate urban expansion while protecting natural resources and promoting sustainable land use. The alignment of the IDP with the Spatial Development Framework (SDF) ensures that spatial and infrastructural planning supports broader developmental goals.

Economic growth and job creation are central to the IDP's objectives, with a focus on bolstering key sectors like tourism, agriculture, and manufacturing. Infrastructure investments are also highlighted, particularly in water, sanitation, and electricity, to support both residential and industrial development.

Public safety, environmental sustainability, and social inclusion are addressed through targeted initiatives. These include disaster management planning, climate adaptation strategies, and community development programmes.

This strategic document establishes a foundation for George Municipality to navigate current challenges and leverage opportunities, fostering a resilient and inclusive future for its residents.

Relevance to Meulenzicht Landgoed:

- **Spatial Planning:** The IDP integrates the Spatial Development Framework, guiding sustainable land use and urban expansion, directly applicable to Meulenzicht Landgoed planning.
- **Housing and Infrastructure:** With a focus on addressing housing backlogs and improving infrastructure, the development supports the IDP's goals for mixed-use and high-density housing.
- **Service Delivery:** Meulenzicht Landgoed will benefit from the IDP's prioritisation of essential services like water, sanitation, and electricity.
- **Economic Growth:** The inclusion of residential and potential commercial components aligns with the IDP's emphasis on job creation and local economic stimulation.
- **Sustainability:** The IDP's environmental and climate resilience priorities ensure Meulenzicht Landgoed development integrates green practices.
- **Community Engagement:** Public participation in the development process ensures alignment with municipal objectives and local needs.

2.2.2. George Municipal Spatial Development Framework (MSDF) 2023/27

The George Municipal Spatial Development Framework (MSDF) 2023/27 outlines a comprehensive spatial strategy for guiding the growth and development of the George Municipality. This high-level framework aligns with national and provincial policies, including SPLUMA and LUPA, ensuring sustainable land use and investment decisions over the next five years. The MSDF addresses critical aspects of spatial planning, balancing urban development with environmental conservation, socio-economic growth, and infrastructure expansion.

The MSDF emphasises the preservation of the natural and rural environment, recognising the region's ecological and biodiversity assets. Key natural features such as biodiversity corridors, wetlands, and coastal areas are earmarked for protection, ensuring that future urban growth does not compromise these critical ecological systems. The framework seeks to balance growth with environmental resilience, promoting a “green” urban form that integrates natural spaces into the built environment.

In the built environment, the framework addresses population growth, housing demand, and urban expansion. The MSDF supports densification, mixed-use developments, and integrated housing strategies to address socioeconomic disparities and promote inclusive urban growth. Infrastructure planning is central to these efforts, ensuring that new developments align with existing services and support the overall spatial vision for the municipality.

Socio-economic development forms another cornerstone of the MSDF. It identifies key economic sectors such as tourism, agriculture, manufacturing, and finance as drivers of growth, aiming to strengthen George's role as a regional economic anchor. The framework also highlights the

importance of reducing unemployment, addressing inequalities, and supporting informal economic activities to foster a more inclusive economy.

Accessibility and mobility are prioritised through the enhancement of public transport systems, non-motorised transport infrastructure, and road networks. These initiatives aim to improve connectivity, reduce congestion, and support economic and social interactions across the municipality. Strategic investment in transportation corridors is viewed as critical to unlocking further growth and linking key nodes within George and its surrounding areas.

The MSDF introduces a spatial budget, delineating areas for urban expansion based on demographic trends and housing demand. This approach ensures efficient land use and resource allocation while promoting economic development in key growth nodes. Furthermore, the implementation framework outlines institutional and financial mechanisms to support the delivery of spatial strategies, including capital expenditure prioritisation to align with long-term goals.

This spatial framework provides a structured vision for George's development, focusing on sustainability, integration, and resilience while accommodating future growth and addressing current socio-economic challenges. It serves as a critical tool for guiding municipal decisions and investments in alignment with broader development objectives.

Relevance to Meulenzicht Landgoed Development:

- The framework emphasises sustainable land use, aligning with the ecological sensitivities of the Kraaibosch area.
- The MSDF encourages developments that integrate with existing infrastructure and enhance connectivity within the George area.
- Addresses the housing backlog and supports mixed-use developments to cater to various income levels, potentially applicable to Meulenzicht Landgoed residential erven and higher-density housing units.
- Supports developments that contribute to job creation and economic diversification, particularly in identified growth nodes.

3. BASELINE INFORMATION

3.1. Population and Household Size

The demographic information is based on the Census 2022 data. The average population growth and household size of the George Municipality are used as a proxy to estimate the population and household size of the market area.

Table 2.1: Population Numbers and Projections – Local Municipality

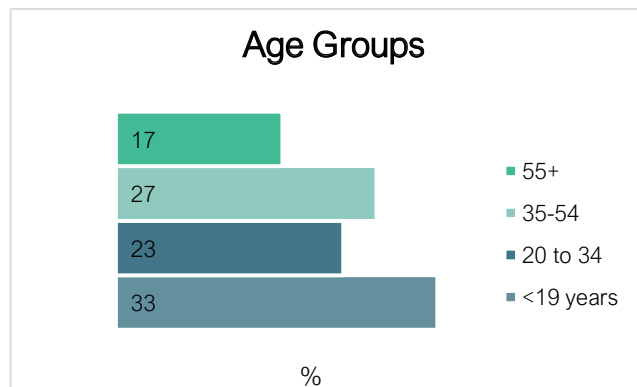
	Year	Population	Households	Growth per annum
George Local Municipality	2011	193 672	53 549	
	2022	294 929	85 931	4.3%
	2024	318 995	92 943	
	2029 (Projected at a 3% growth rate per annum)	388 106	113 079	

3.2. Age Profile

An age group classification was conducted to determine the percentage of the potentially economically active (PEA) population in relation to the not economically active (youth and retired) population. The table below presents an explanation of the age group classifications.

Age	Category	Socio-Economic Contribution	Dependence
Younger than 20 years	Junior population	The non-working population who does not generate any form of income	Dependent on an adult to provide to their needs
Between 20 to 64 years	Potentially economically active (PEA) population	The working population and main generators of income	Independent/usually provide for the other groups
65 years and older	Senior population	The retired population who are no longer productive within the working environment	Dependent on government or relatives to provide for their needs

The age distribution of the George Municipality is indicated in the figures.



3.3. Economy & Labour Force

The economy of the George municipal area was valued at R22.8 billion in 2021, with sectors such as finance (32.2%), trade (16.8%) and manufacturing (14.8%) leading the way in terms of GDPR contributions. The town of George is the epicentre of general government services and retail activities. The larger municipal area, in turn, has a thriving agriculture sector specialising in mixed farming and non-perennial crops.

Since the tertiary sector is the largest contributor to GDPR and employment, most workers in the George municipal area are either semi-skilled (31.6%) or skilled (28.0 %). Over the last decade, most new formal employment opportunities have been for skilled workers – a testament to George's growth as a commercial hub in the Garden Route District. The informal sector also plays an integral role in employment, with 18.3% of workers being informally employed, typically in the construction, trade and transport sectors.



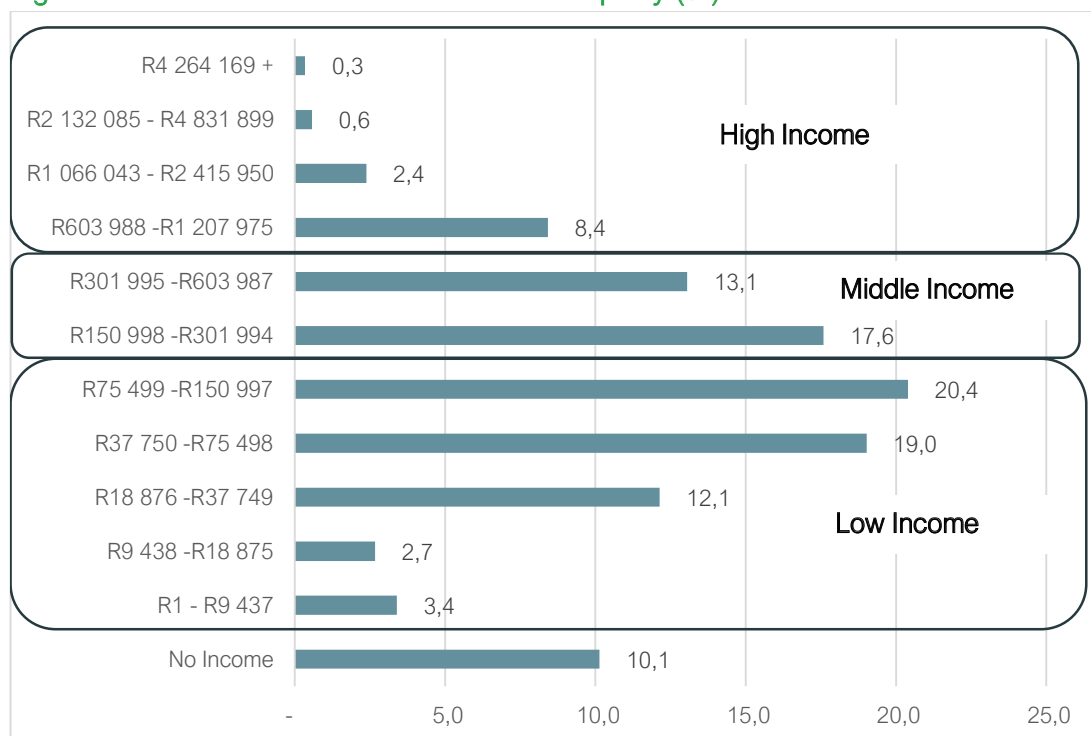
EMPLOYMENT PROFILE

Unemployment rate	Labour force participation rate	Labour absorption rate (employment-to-population ratio)	Not economically active proportion of working-age population
2021 2022e	2021 2022e	2021 2022e	2021 2022e
19.6%18.4%	64.9%67.4%	52.2%55.0%	35.1%32.6%

3.4. Household Income

Household income can be used as an important factor in assessing and determining the affordability and the ability of households to access housing.

Figure 3.1: Household Income – Local Municipality (%)



The figure above shows that the majority of the population in George Municipality (57.6%) fall within the low-income category. The second-largest portion of the population (30.7%) fall within the middle-income category and only 17.1% of the population are classified as high income.

4. ACCESS TO SERVICE AND STATE OF LOCAL BUILT ENVIRONMENT

Access to basic services is part of the constitutional mandate for the government to ensure that citizens have access to basic services such as water, sanitation, and electricity. Access to services also indicates the level of development and the standard of living of the people in the study area.

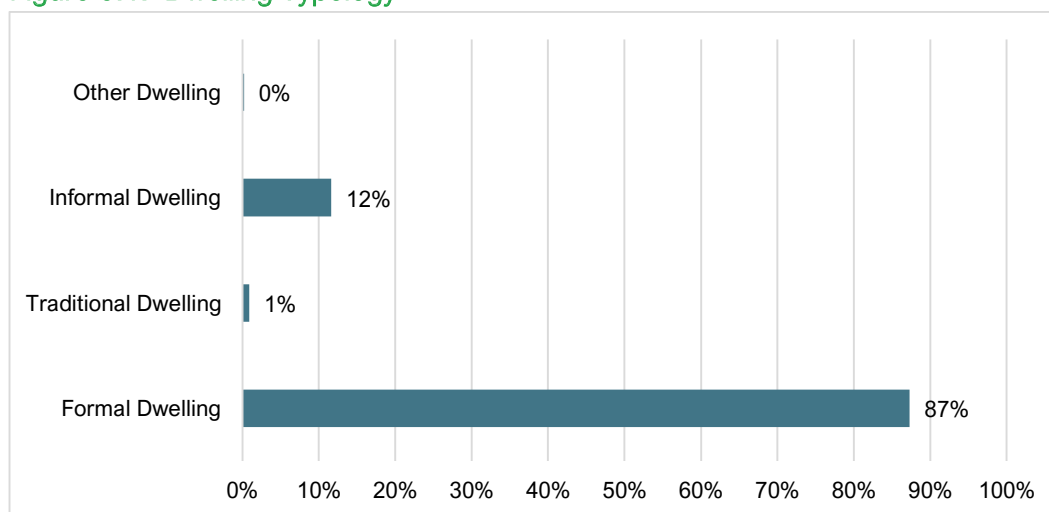
4.1. Housing

This subsection aims to provide an overview of the various dwelling typologies within the study area and their prominence within the market.

4.1.1. Dwelling Typology in the George Municipality

This section provides an overview of the various dwelling typologies within George and their prominence within the market.

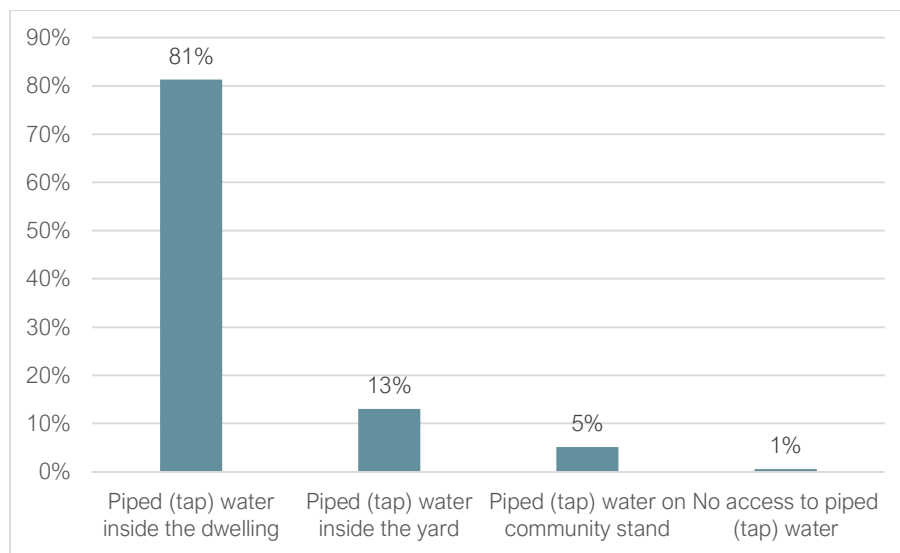
Figure 3.1: Dwelling Typology



4.2. Access to basic services

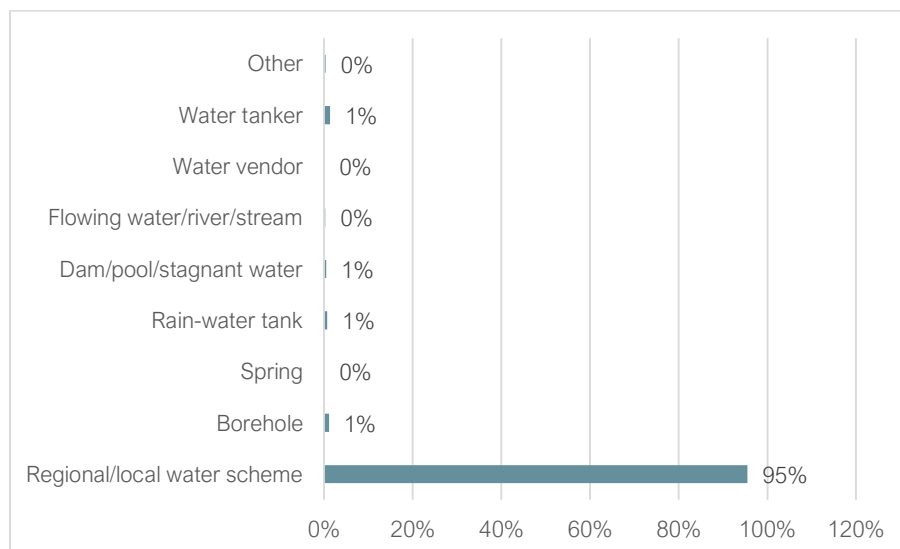
4.2.1. Access to Water

The following figure indicates the access to water of households in the demarcated market areas.



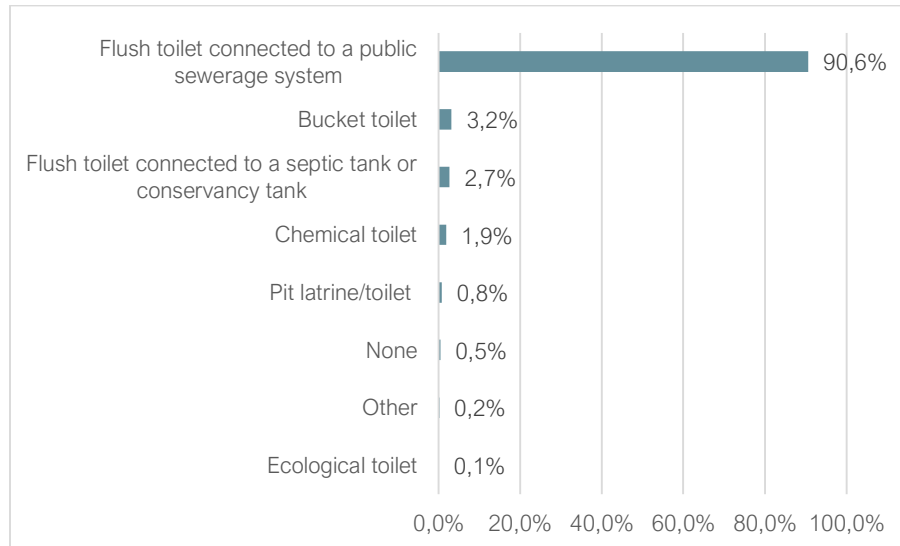
4.2.2. Source of Water

The following figure indicates the source of water for households in George Local Municipality.



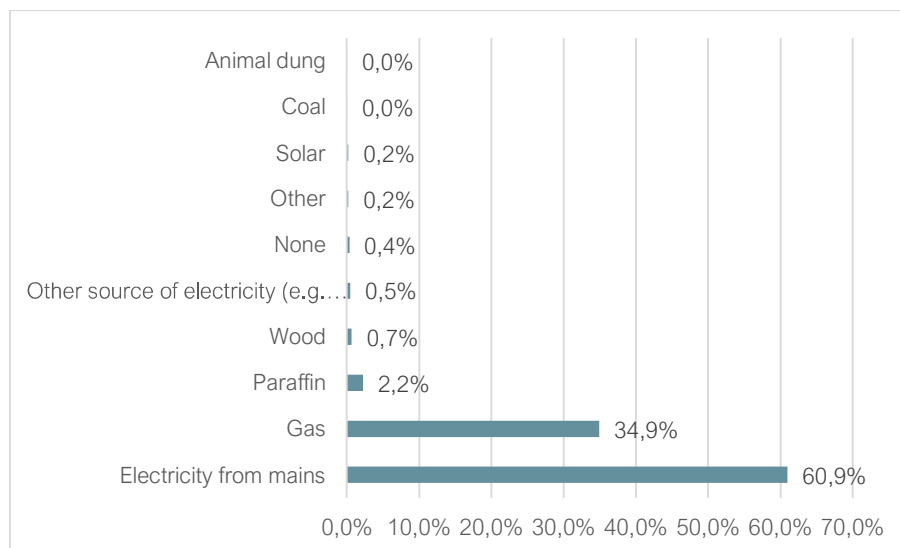
4.2.3. Access to Sanitation

The following figure indicates the access to sanitation of households within George Local Municipality.



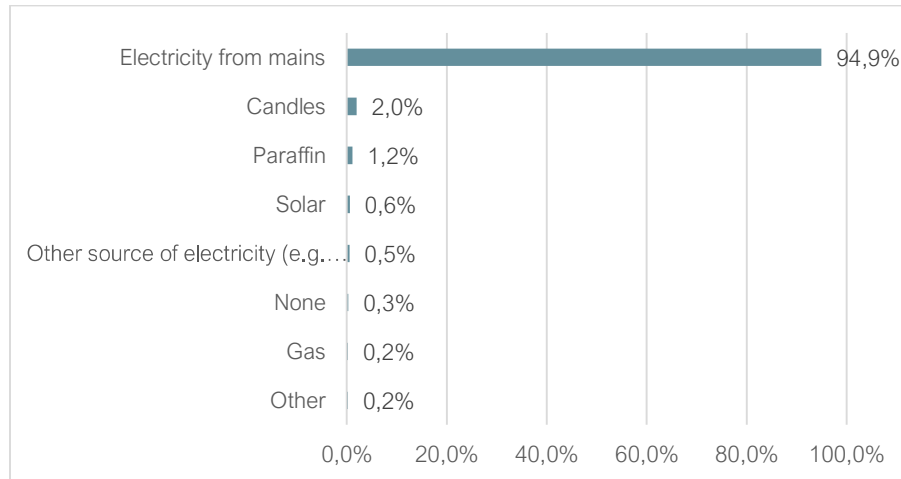
4.2.4. Access to Energy for Cooking

The following figure indicates the access to energy for cooking for households in the George Local Municipality.



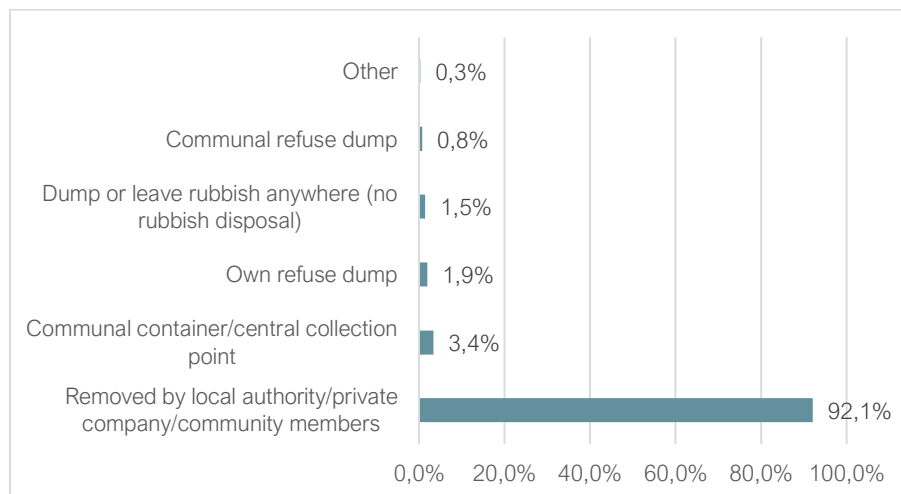
4.2.5. Access to Energy for Lightning

The following figure indicates the access to energy or fuel for lighting for households in the George Local Municipality.



4.2.6. Access to Refuse and Rubbish

The following figure indicates the access to refuse and rubbish collection for households in the George Local Municipality.



Currently, most households within the George Local Municipality have adequate access to basic services such as living in a formal dwelling with access to piped water inside their dwelling provided by a regional or local water scheme. Most households have a flushed toilet connected to a sewerage system and use either electricity from mains or gas for cooking. The expected increase in population in the area may place more pressure on existing infrastructure and service delivery and may therefore require upgrading and regular maintenance.

5. IMPACT ANALYSIS

5.1. Introduction

This section analyses the socio-economic impacts that are expected to occur because of the development of the proposed project and an evaluation of these impacts according to the predefined criteria. The potential socio-economic impacts identified arise because of the construction and operational phases of the proposed housing development; thus, the impacts are assessed for both construction and operational phases, where applicable.

5.2. Impact Rating Approach

Nature of the Impact
A brief description of the type of impact (positive or negative) the proposed development will have on the affected environment.
Spatial Scale of Impact
The physical extent of the impact. The impact could be: ▪ Area specific: the impacted area extends only as far as the actual footprint of the activity. ▪ Local (Same Suburb): the impact will affect the entire or substantial portion of the site/property. ▪ Neighbouring (within 5km): The impact could affect the area including the neighbouring farms, properties and transport routes. ▪ Regional areas (5km to 50km): Impact could be widespread with regional implication. ▪ National: Impact could have a widespread national level implication.
Duration of Impact
The lifespan of the impact could be: ▪ One day to one month (immediate): The impact is quickly reversible within a period of one year, or limited to the construction phase ▪ One month to one year (Short term): The impact will have a short-term lifespan (1 month to 1 year) ▪ One year to 10 years (medium term): The impact will have a long-term lifespan (1 year to 10 years). ▪ Life of the activity (long term): The impact will be permanent beyond the lifespan of the development.
Intensity of Impact
These criteria evaluate the intensity of the impact and are rated as follows: ▪ Insignificant / non-harmful: The activity will only have a minor impact on the affected environment in such a way that the natural processes or functions are not affected. ▪ Small / potentially harmful: The activity will have a low impact on the affected environment. ▪ Significant / slightly harmful: The activity will have a medium impact on the affected environment, but function and process continue, albeit in a modified way. ▪ Great / harmful: The activity will have a high impact on the affected environment which may be disturbed to the extent where it temporarily or permanently ceases.

- **Disastrous / extremely harmful / within a regulated sensitive area:** The activity will have a very high impact on the affected environment which may be disturbed to the extent that it temporarily or permanently ceases.

Probability of Impact

This describes the likelihood of the impacts actually occurring. The likelihood can be described as:

- **Improbable:** The possibility of the impact occurring is highly improbable
- **Low:** The possibility of the impact occurring is very low, due either to the circumstances, design or experience.
- **Medium:** There is a possibility that the impact will occur to the extent that provision must be made, therefore.
- **High:** There is a high possibility that the impact will occur to the extent that provision must be made, therefore.
- **Definite:** The impact will definitely take place regardless of any prevention plans, and there can only be relied on mitigatory actions or contingency plans to contain the effect.

Significance

Significance is determined through a synthesis of the various impact characteristics and represents the combined effect of the extent, duration, intensity and probability of the impacts.

- **No significance:** The impact is not substantial and does not require any mitigatory action.
- **Low significance:** The impact is of little importance, but may require limited mitigation
- **Medium significance:** The impacts will have a moderate influence on the proposed development and/or environment. The impact can be bettered by a modification in the project design or implementation of effective mitigation measures.
- **High significance:** The impact is of great importance. Failure to mitigate, with the objective of reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation and management are essential.

The following assessment scale will be used to determine the significance of the impact on the environment:

$$\text{Significance} = (\text{probability} + \text{duration} + \text{extent}) \times \text{intensity}$$

- Probability: 1 – 5
- Extent: 1 – 5
- Duration: 1 – 4
- Intensity: 1 – 10

Significance rating criteria:

Score	Significance of impact	Description of significance
> 75	High environmental significance	An impact that could influence the decision about whether or not to proceed with the project regardless of any possible mitigations
50 - 75	Medium environmental significance	An impact or benefit which is sufficiently important to require management, and which could have an influence on the decision unless it is mitigated.
< 50	Low environmental significance	Impacts with little real effect and which should not have an influence on or require modification of the project design.

5.3. Impact Analysis

The following potential impacts were identified and examined in greater detail:

- Impact on the sense of place
- Demographic shifts due to residential development
- Impact on crime Impact on the local economy
- Impact on employment opportunities
- Impact on basic services, social facilities, and economic infrastructure

5.3.1. Impact on the sense of place

The proposed development is expected to affect the activities on the roads near the project site. This may result in the congestion of roads, driveways and walkways with the movement of construction vehicles and construction workers during the construction phase. In the operational phase, the development is expected to increase traffic congestion on the roads within the immediate study area

Impact on the sense of place	CAPEX	Nature: The construction of the development is expected to affect the activities on the roads near the project site				
			Without Mitigation		With Mitigation	
		Extent/Scale	Neighbouring (3)	3	Local (2)	2
		Duration	Short term (2)	2	Short term (2)	2
		Intensity	Medium (6)	6	Medium (6)	6
		Probability	High (4)	4	High (4)	4
		Significance	Medium environmental significance	54	Medium environmental significance	48
		Status (Positive or negative)	Negative		Negative	
		Can impacts be mitigated?	Yes			
		Mitigation	• Create strict controls on the roads leading to the facility and prevent people from parking on the side of the roads, driveways, and other public areas that may inconvenience other road users. • Vehicles should be towed away if parked in non-designated areas and such practices should be made abundantly clear among the construction workers and construction managers to avoid unnecessary conflicts.			
	OPEX		Without Mitigation		With Mitigation	
		Extent/Scale	Neighbouring (3)	3	Area (1)	1
		Duration	Long term (4)	4	Long term (4)	4
		Intensity	High (8)	8	High (8)	8
		Probability	High (4)	4	High (4)	4
		Significance	High environmental significance	88	Medium environmental significance	72
		Status (Positive or negative)	Negative		Negative	

		Can impacts be mitigated?	Yes
		Mitigation	• Develop secure parking for residents in the facility. • Develop visitors parking bays in the facility

5.3.2. Demographic shifts due to residential development

It is anticipated that there will be an influx of migrant workers during the construction phase of the development. The construction of the proposed development will attract those who are looking for job opportunities and some may be willing to relocate to the area during the construction phase. These may potentially remain during the operational phase. The influx may result in an increase of informal settlements or backyard houses and an overall increase in the population in the short and medium term.

Demographic shifts due to residential development	CAPEX	Nature: The construction of the housing development is expected to result in an influx of migrant workers				
			Without Mitigation		With Mitigation	
		Extent/Scale	Regional (4)	4	Neighbouring (3)	3
		Duration	Medium term (3)	3	Medium term (3)	3
		Intensity	High (8)	8	Medium (6)	6
		Probability	Definite (5)	5	Definite (5)	5
		Significance	High environmental significance	96	Medium environmental significance	66
		Status (Positive or negative)	Negative		Negative	
		Can impacts be mitigated?	Yes			
		Mitigation	• Prioritise local people for work opportunities • Ensure the transfer of skills – highly skilled construction workers must work together with low to medium skilled workers to facilitate the skills sharing and transfer process. • Establish skills desks at the site to identify the labour force with the correct skills that could be employed immediately or could be trained for specific positions during construction.			
	OPEX		Without Mitigation		With Mitigation	
		Extent/Scale	Regional (4)	4	Neighbouring (3)	3
		Duration	Long term (4)	4	Long term (4)	4
		Intensity	Medium (6)	6	Low (4)	4
		Probability	Definite (5)	5	Definite (5)	5
		Significance	High environmental significance	78	Low environmental significance	48
		Status (Positive or negative)	Negative		Negative	
		Can impacts be mitigated?	Yes			
		Mitigation	• Prioritise local people for work opportunities			

5.3.3. Impact on crime

Any new development might create an environment for crime thus, the impact thereof is measured below.

Impact on crime	CAPEX	Nature: The construction of the housing development is expected to affect the number of crime incidents in George			
			Without Mitigation		With Mitigation
		Extent/Scale	Local (2)	2	Local (2)
		Duration	Short term (2)	2	Short term (2)
		Intensity	Extreme (10)	10	Medium (6)
		Probability	High (4)	4	High (4)
		Significance	High environmental significance	80	Medium environmental significance
		Status (Positive or negative)	Negative		Negative
		Can impacts be mitigated?	Yes		
		Mitigation	• Prioritise local people for work opportunities • Ensure the transfer of skills – highly skilled construction workers must work together with low to medium skilled workers to facilitate the skills sharing and transfer process. • Establish skills desks at Bryanston to identify the labour force with the correct skills that could be employed immediately or could be trained for specific positions during construction.		
	OPEX		Without Mitigation		With Mitigation
		Extent/Scale	Local (2)	2	Local (2)
		Duration	Medium term (3)	3	Medium term (3)
		Intensity	Medium (6)	6	Medium (6)
		Probability	Definite (5)	5	High (4)
		Significance	Medium environmental significance	60	Medium environmental significance
		Status (Positive or negative)	Negative		Negative
		Can impacts be mitigated?	Yes		
		Mitigation	• Enclose the development with a fence • Acquire the services of a security company • Install security cameras • Monitor and restrict access		

5.3.4. Impact on the local economy

The proposed development is anticipated to have a positive direct impact on the local and regional economy through construction and sub-contracting. The construction phase of the development is anticipated to contribute to business growth through the purchase of building materials and

equipment from within the local area. Local and regional economic sectors such as the construction, transport, wholesale and retail trade sectors are anticipated to be positively impacted by the proposed development. The following are the broad activities that are anticipated to result in the stimulation of the regional economy:

- Growth in business activity
- Increased private investment
- Increase in household income
- Increased spending on goods and services, which will result in the flow of money back into the local economy through the multiplier effect.

Following the construction phase, the operating expenditure will further stimulate the local economy and contribute to the GDP of the George Local Municipality in the long term. As a result of the project location, the economic benefits will be felt by both the town of George and the Municipality. Economic benefits are expected across various dimensions of the local and regional economies.

Impact on the local economy	CAPEX	Nature: The construction of the housing development is expected to positively affect the local and regional economy				
			Without Mitigation		With Mitigation	
		Extent/Scale	Regional (4)	4	Regional (4)	4
		Duration	Medium term (3)	3	Medium term (3)	3
		Intensity	Medium (6)	6	High (8)	8
		Probability	Definite (5)	5	High (4)	4
		Significance	Medium environmental significance	72	High environmental significance	88
		Status (Positive or negative)	Positive		Positive	
		Can impacts be mitigated?	Yes			
		Mitigation	• Make use of domestically produced building material and equipment. Prioritise the procurement of goods and services from the local SMMEs and particularly SMMEs located in the study area			
	OPEX		Without Mitigation		With Mitigation	
		Extent/Scale	Neighbouring (3)	3	Neighbouring (3)	3
		Duration	Long term (4)	4	Long term (4)	4
		Intensity	Low (4)	4	Medium (6)	6
		Probability	High (4)	4	Definite (5)	5
		Significance	Low environmental significance	44	Medium environmental significance	72
		Status (Positive or negative)	Positive		Positive	
		Can impacts be mitigated?	Yes			
		Mitigation	• Make use of domestically produced building material and equipment. Prioritise the procurement of goods and services from the local SMMEs and particularly SMMEs located in the study area			

5.3.5. Impact on employment opportunities

The proposed development is anticipated to create direct, indirect and induced employment opportunities. Direct employment opportunities are expected to occur through the employment of construction workers, which is anticipated to be short-term or last until the construction phase is complete. The development is anticipated to attract a pool of skilled and semi-skilled labour in the local area and is expected to result in the transfer of skills during the construction phase. Furthermore, transactions with building material suppliers will potentially create indirect job opportunities; suppliers will potentially hire additional factory workers as well as equipment and material producers due to the demand for building equipment.

During the operational phase, direct employment creation is anticipated through the following activities: (i) cleaning and maintenance of the building, (ii) safety and security and (iii) building management.

Indirect employment creation will occur through transactions with suppliers such as cleaning material suppliers and security services. These may be outsourced from external companies and may provide those companies to hire more employees to produce the supplies or offer the needed services. Induced employment creation will be created through retail jobs that will be created as those who are employed during the operational phase of the development will spend their disposable income on goods and services. The increase in business sales may potentially create an incentive for retail stores to employ more workers.

Impact on employment opportunities	CAPEX	Nature: The construction of the housing development is expected to positively affect the local and regional economy				
			Without Mitigation		With Mitigation	
		Extent/Scale	Regional (4)	4	Regional (4)	4
		Duration	Medium term (3)	3	Medium term (3)	3
		Intensity	High (8)	8	High (8)	8
		Probability	Definite (5)	5	Definite (5)	5
		Significance	High environmental significance	96	High environmental significance	96
		Status (Positive or negative)	Positive		Positive	
		Can impacts be mitigated?	No			
		Mitigation	• None			
	OPEX		Without Mitigation		With Mitigation	
		Extent/Scale	Neighbouring (3)	3	Neighbouring (3)	3
		Duration	Long term (4)	4	Long term (4)	4
		Intensity	Medium (6)	6	Medium (6)	6
		Probability	High (4)	4	High (4)	4

		Significance	Medium environmental significance	66		66
		Status (Positive or negative)	Positive		Positive	
		Can impacts be mitigated?	No			
		Mitigation	• None			

The table below presents the expected job creation opportunities during the operation phase.

Table 5.1. OPEX Jobs Creation

Meulenzicht Landgoed				
Phase B1	Full title erven	83		50
Phase B2	Full title erven	49		29
Phase B3	Full title erven	25		15
Phase B4	Full title erven	70		42
Phase B5	Treatment Plans			10
Phase C	Future expansion			-
Subtotal:				

The employment opportunities anticipated during the operations phase Meulenzicht Landgoed is projected to create 146 opportunities.

5.3.6. Impact on basic services, social facilities, and economic infrastructure

The state of service delivery in George is satisfactory with minor backlogs. The influx of construction workers and job seekers will create additional demand for basic services and social services. Should the expectation of job creation not be properly managed, the development will increase the strain on the government to deliver the required social services. Furthermore, in the event where migrant workers decide to reside in George after the construction phase, there will be an increase in informal dwellings, and these will require basic services.

At the construction phase, there will be movement of construction material, machinery and equipment. The transportation of these items' places stress on road infrastructure – potentially causing roads to deteriorate.

Impact on basic services, social facilities, and economic infrastructure	CAPEX	Nature: The construction of the housing development is expected to increase the stress on government to deliver services.				
			Without Mitigation		With Mitigation	
		Extent/Scale	Regional (4)	4	Regional (4)	4
		Duration	Short term (2)	2	Short term (2)	2
		Intensity	Medium (6)	6	Low (4)	4
		Probability	Definite (5)	5	Definite (5)	5
		Significance	Medium environmental significance	66	Low environmental significance	44
		Status (Positive or negative)	Negative		Negative	
		Can impacts be mitigated?	Yes			
		Mitigation	• Clearly inform the local municipality of the potential impact of the proposed project in order for the necessary preparations to take place. • Provide public transportation service for workers in order to reduce congestion on roads.			
	OPEX		Without Mitigation		With Mitigation	
		Extent/Scale	Neighbouring (3)	3	Neighbouring (3)	3
		Duration	Long term (4)	4	Long term (4)	4
		Intensity	Medium (6)	6	Low (4)	4
		Probability	High (4)	4	High (4)	4
		Significance	Medium environmental significance	66	Low environmental significance	44
		Status (Positive or negative)	Negative		Negative	
		Can impacts be mitigated?	Yes			
	Mitigation					

			• Promote the usage of green infrastructure for electricity and water reticulation. • Provide public transportation service for workers who live off-site to reduce congestion on roads.
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5.4. Conclusion

Regarding the impact assessment, Table 5.1 and Table 5.3 below summarise the socio-economic impacts linked to the proposed development. The key concerns and negative impacts are largely anchored around the anticipated influx of migrant labour and job seekers, an increase in local crime incidents, increased pressure on service delivery, and increased traffic congestion. However, various mitigation measures have been proposed, including prioritising local skills and businesses, facilitating skills transfers between skilled labour and low-skilled local labour, strict site access control, and involving the municipality in the project so that it can plan on its service delivery accordingly. Generally, the recommended mitigation measures should address the anticipated negative impacts. On the other hand, positive impacts such as job creation, skills transfer, and stimulation of local and regional economies, should also be ensured by the proposed residential development.

Table 5.2: Summary – without Mitigation Measures

Impact without Mitigations						
Potential Impact Description	Phase	Spatial Scale	Duration of Impact	Intensity of Impact	Probability of Impact	Significance Score
Impact on sense of place	Construction	3	2	6	4	
	Operational	3	4	8	4	
Demographic shifts due to residential development	Construction	4	3	8	5	
	Operational	4	4	6	5	
Impact on Crime	Construction	2	2	10	4	
	Operational	2	3	6	5	
Impact on local economic	Construction	4	3	6	5	
	Operational	3	4	4	4	
Impact on employment opportunities	Construction	4	3	8	5	
	Operational	3	4	6	4	
Impact on basic services, social facilities, and economic infrastructure	Construction	4	2	6	5	
	Operational	3	4	6	4	
Impact Analysis Summary						72,17
Overall Impact						Medium

Table 5.3: Summary – with Mitigation Measures

Impact with Mitigations						
Potential Impact Description	Phase	Spatial Scale	Duration of Impact	Intensity of Impact	Probability of Impact	Significance Score
Impact on sense of place	Construction	2	2	6	4	
	Operational	1	4	8	4	
Demographic shifts due to residential development	Construction	3	3	6	5	
	Operational	3	4	4	5	
Impact on Crime	Construction	2	2	6	7	
	Operational	2	3	6	4	
Impact on local economic	Construction	4	3	8	4	
	Operational	3	4	6	5	
Impact on employment opportunities	Construction	4	3	8	5	
	Operational	3	4	6	4	
Impact on basic services, social facilities, and economic infrastructure	Construction	4	2	4	5	
	Operational	3	4	4	4	
Impact Analysis Summary						63,67
Overall Impact						Medium

6. CONCLUSION

The socio-economic impact assessment for the proposed Meulenzicht Landgoed development in George, Western Cape, evaluates both the positive and negative effects on the surrounding community. The project, consisting of two estates with 733 units, aims to align with provincial and municipal policies to promote economic growth, job creation, and sustainable infrastructure development.

Key findings of the assessment include:

- Positive Impacts:
 - **Local Economic Growth:** The development will stimulate both the local and regional economies through job creation, increased business activity, and the circulation of capital within local markets.
 - **Employment Opportunities:** Direct, indirect, and induced jobs will be created, particularly during construction and through ongoing operations, such as maintenance and security services. Direct jobs opportunities during the OPEX phase are expected to be around 146 sustained employment opportunities.
 - **Skills Transfer:** The project will facilitate skill development by pairing skilled construction workers with local labour, promoting long-term capacity building.
- Negative Impacts:
 - **Increased Crime:** The influx of construction workers and migrants may result in higher crime rates, though security measures, including fencing, cameras, and restricted access, are recommended.
 - **Pressure on Local Services:** The influx of workers and residents could strain local services such as water, sanitation, and roads, particularly if migrant workers stay after construction. Mitigation strategies include improved service planning and public transportation for workers.
 - **Traffic Congestion:** Both during construction and operational phases, traffic on surrounding roads will increase. Proposed mitigations include traffic management and the development of parking facilities.
 - **Demographic Shifts:** An influx of migrant workers during the construction phase could lead to increased informal settlements and a growing population, potentially straining infrastructure.

The assessment concludes that while there are concerns related to increased crime, service delivery, and traffic, the implementation of mitigation measures such as prioritising local labour, enhancing security, and ensuring proper municipal engagement should mitigate these effects. Overall, the project is expected to have a medium significance impact, with positive outcomes in terms of economic stimulation and employment.



PLAN 1

LOCALITY PLAN

GEORGE ERVEN 25537; 25538 & 25541



Marike Vreken
URBAN & ENVIRONMENTAL PLANNERS

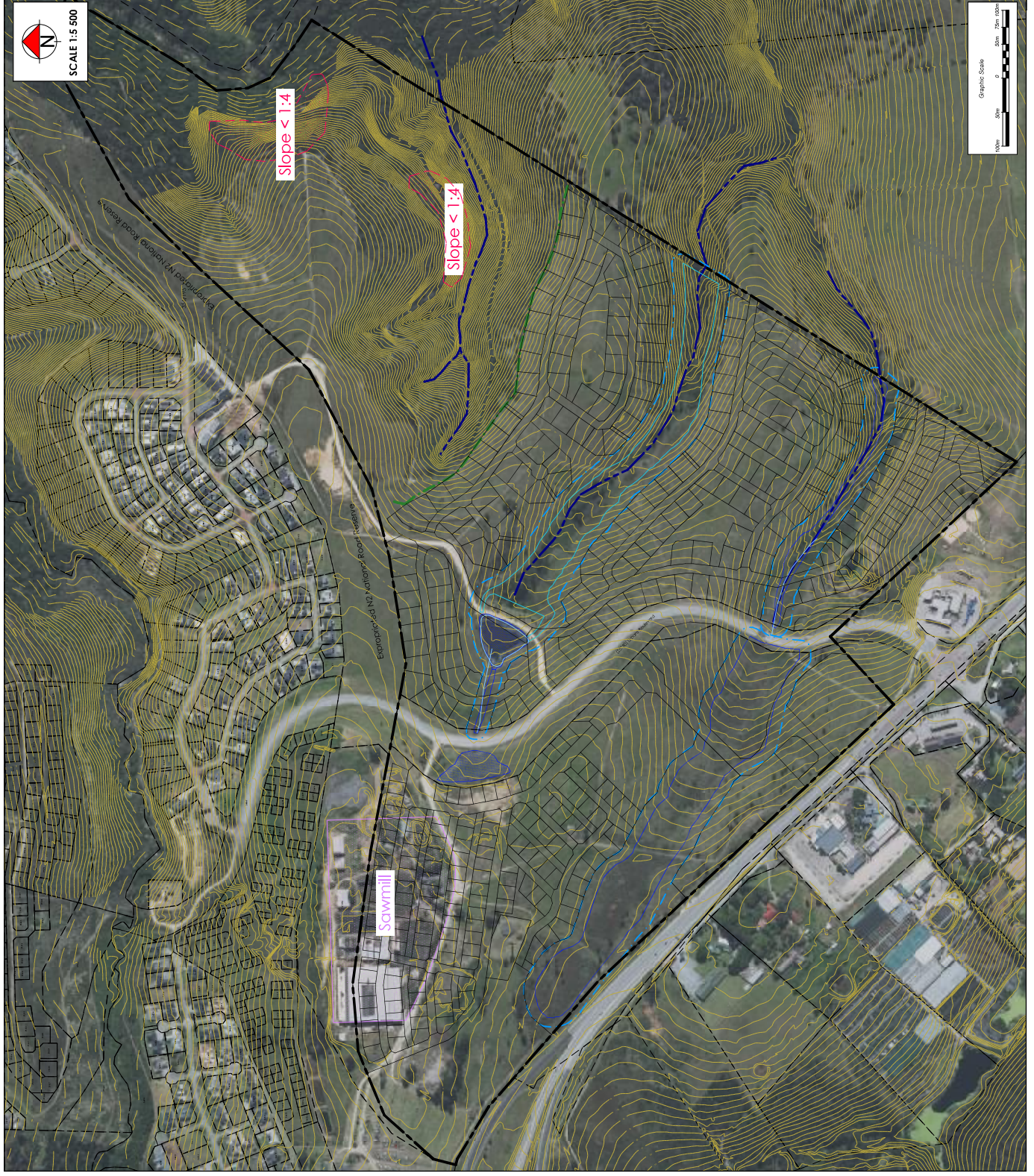
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PLAN 2

GEORGE ERVEN
25537, 25538; 25541
& PTN OF URBANS
BOULEVARD

SITE CHARACTERISTICS

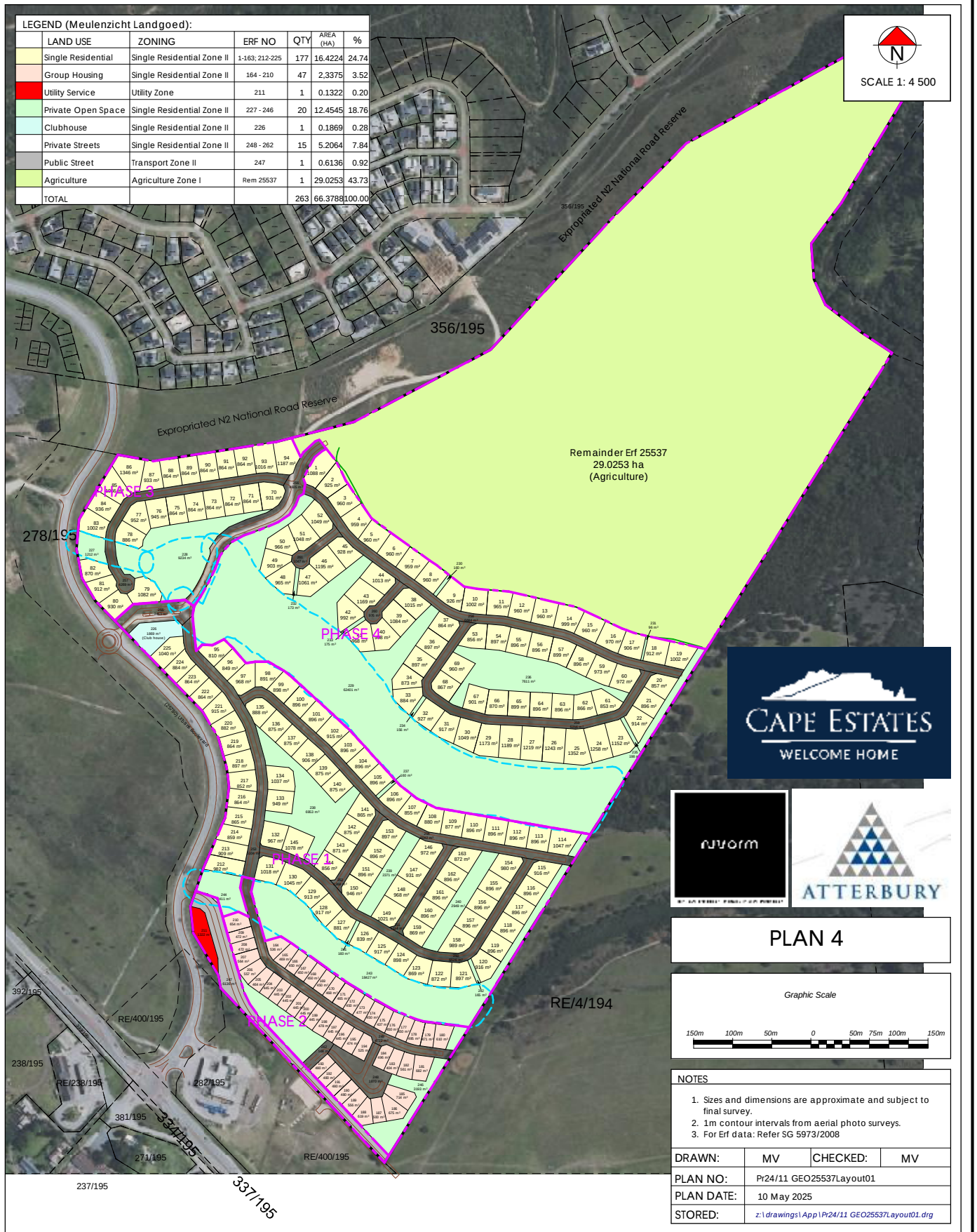


LEGEND (Meulenzicht Landgoed):

LAND USE	ZONING	ERF NO	QTY	AREA (HA)	%
Single Residential	Single Residential Zone II	1-163; 212-225	177	16.4224	24.74
Group Housing	Single Residential Zone II	164 - 210	47	2.3375	3.52
Utility Service	Utility Zone	211	1	0.1322	0.20
Private Open Space	Single Residential Zone II	227 - 246	20	12.4545	18.76
Clubhouse	Single Residential Zone II	226	1	0.1869	0.28
Private Streets	Single Residential Zone II	248 - 262	15	5.2064	7.84
Public Street	Transport Zone II	247	1	0.6136	0.92
Agriculture	Agriculture Zone I	Rem 25537	1	29.0253	43.73
TOTAL			263	66.3788	100.00



SCALE 1: 4 500



CAPE ESTATES
WELCOME HOME



PLAN 4

Graphic Scale



NOTES

- Sizes and dimensions are approximate and subject to final survey.
- 1m contour intervals from aerial photo surveys.
- For Erf data: Refer SG 5973/2008

DRAWN:	MV	CHECKED:	MV
PLAN NO:	Pr24/11 GEO25537Layout01		
PLAN DATE:	10 May 2025		
STORED:	z:\drawings\11\Pr24/11 GEO25537Layout01.dwg		

GEORGE ERF 25537
(MEULENZICHT LANDGOED)

LAYOUT PLAN

APPROVED IN TERMS OF SECTION 23(1) OF THE
GEORGE MUNICIPALITY'S BY-LAW ON
MUNICIPAL PLANNING AS PUBLISHED IN
P.N. 8747/2023 ON 21 APRIL 2023.

MUNICIPAL MANAGER

DATE: _____

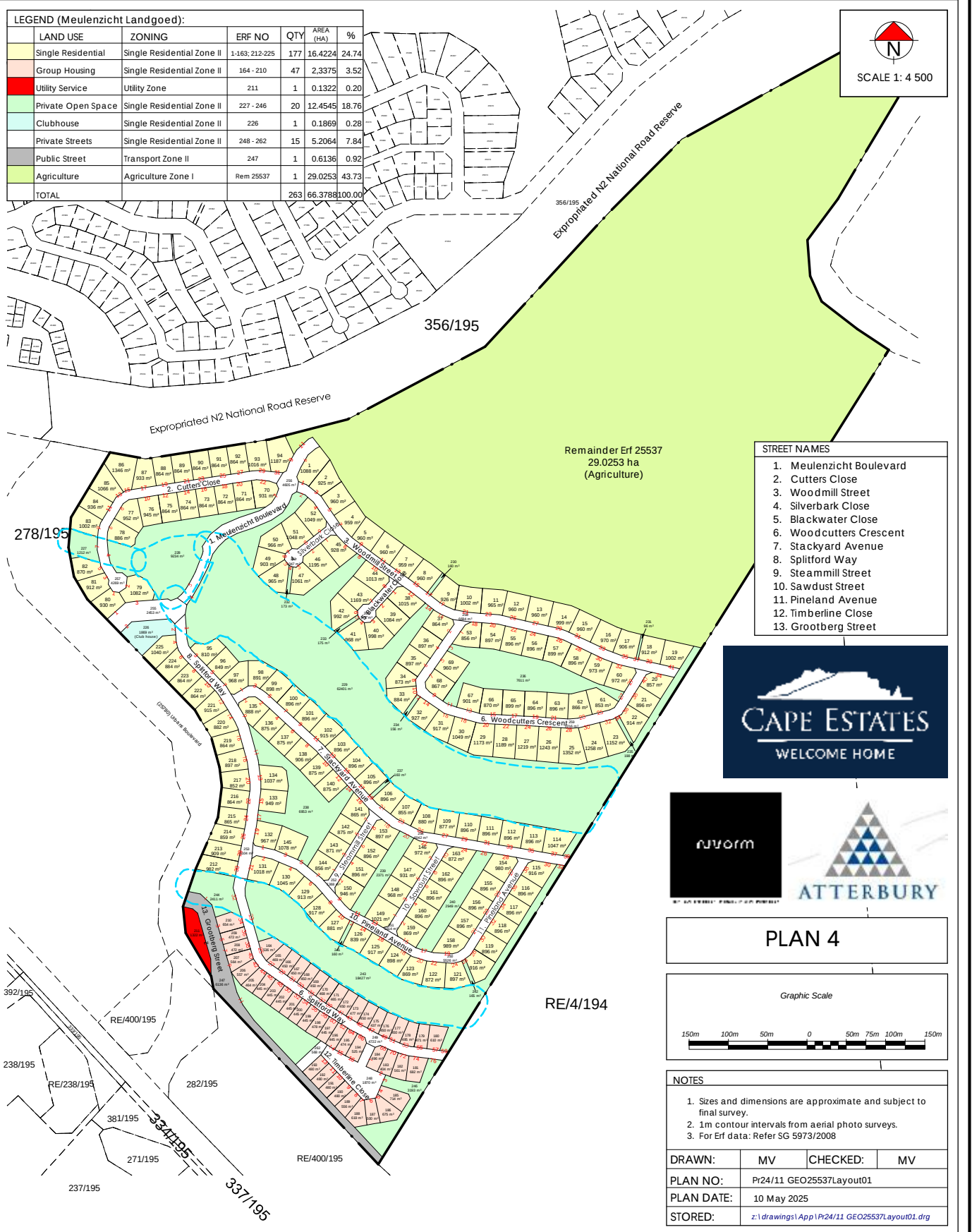


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LEGEND (Meulenzicht Landgoed):					
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Agriculture	Agriculture Zone I	Rem 25537	1	29.0253	43.73
TOTAL			263	66.3788	100.00



SCALE 1: 4 500



GEORGE ERF 25537
(MEULENZICHT LANDGOED)

STREET NAME &
NUMBERING PLAN

APPROVED IN TERMS OF SECTION 23(1) OF THE
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