Appendix N: Visual Impact Assessment

Report:

Visual impact assessment for the proposed development of erf 28005, George

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Selected projects

- Visual impact assessment report for the proposed development of erf 2063, Wilderness, South Africa (Simon van Deventer Family Trust).
- Visual impact assessment report for the proposed development of portion 14 of farm 195, Victoria Bay, George. South Africa (Adante Property Development (Pty) Ltd).
- Visual impact assessment report for the proposed development of portions 278 and 282 of the farm Kraaibosch 195, George, South Africa (Oilcon Construction).
- Visual impact assessment report for the proposed development of erf 1058, Hoekwil, George, South Africa (Wealth Spring (Pty) Ltd).
- Visual impact assessment for the proposed Ebenheazer mixed-use development, Plettenberg Bay, South Africa (Bitou Municipality).
- Visual impact assessment for the proposed Green Valley mixed-use development, Plettenberg Bay, South Africa (Bitou Municipality).
- Visual impact assessment for Kao Diamond Mine, Lesotho (Kao Diamond Mine)
- Visual impact assessment for a run of the river hydropower facility with a maximum capacity of 30 MW on the banks of the Orange River. South Africa.
- Visual impact assessment for the development of the proposed 960 MW coal-fired power station, Lamu County, Kenya (Amu Power).
- Visual impact assessment for the proposed Garden Route Dam development, George, South Africa. (George Municipality).
- Visual impact assessment report for the proposed development on the remainder of Portion 47 (A Portion of Portion 1) of the Farm Ganse Vallei No 444 of portions 278 and 282 of the farm Kraaibosch 195, Plettenberg Bay, South Africa (Saper Investments (Pty) Ltd).

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GLOSSARY

Aesthetics	Relates to the pleasurable characteristics of a physical environment as perceived through the five senses of sight, sound, smell, taste, and touch.
Adverse visual impact	Any modification in landforms, water bodies, vegetation or any introduction of structures which negatively impacts the visual character of the landscape and disrupts the harmony of the basic elements (i.e. form, line, colour and texture).
Basic elements	The four design elements (form, line, colour and texture) which determine how the character of a landscape is perceived.
Contrast	Opposition or unlikeness of different forms, lines, colours or textures in a landscape and therefore the degree to which project components visually differs from its landscape setting.
Colour	The property of reflecting light of a particular intensity and wavelength (or a mixture of wavelengths) to which the eye is sensitive. It is the major visual property of surfaces.
Form	The mass or shape of an object(s) which appears unified, such as a vegetative opening in a forest, a cliff formation or a water tank.
Integration	The degree to which a development component can be blended into the existing landscape without necessarily being screened from view.
Interfluve	The area of higher ground which separates two rivers/watercourses which flow into the same drainage system
Key viewing locations	One or more points on a travel route, use area or a potential use area, where the view of a management activity would be most revealing.
Landscape character	The arrangement of a particular landscape as formed by the variety and intensity of the landscape features and the four basic elements of form, line, colour and texture. These factors give the area a distinctive quality which distinguishes it from its immediate surroundings.
Landscape features	Land and water form, vegetation and structures which compose the characteristic landscape.
Line	The path (real or imagined) that the eye follows when perceiving abrupt differences in form, colour or texture. Within landscapes, lines may be found as ridges, skylines, structures, changes in vegetative types or individual trees and branches.
Micro-topography	Small scale variations in the height and roughness of the ground surface; in the context of this report the definition includes structures such as buildings and larger-sized vegetation that can restrict views
Mitigation measures	Methods or procedures designed to reduce or lessen the adverse impacts caused by management activities.
Mountain, hill or ridge	Is a physical landscape feature, elevated above the surrounding landscape. It includes the foot/base, slopes and crest of the mountain, hill or ridge
Rehabilitation	A management alternative and/or practice which restores landscapes to a desired scenic quality.
Ridgelines	Ridgelines are defined as the line formed by the meeting of the tops of sloping surfaces of land. Significant ridgelines are ridgelines which, in general, are highly visible and dominate the landscape.

Scale	The proportionate size relationship between an object and the surroundings in which the object is placed.
Sense of place	The unique quality or character of a place, whether natural, rural or urban and relates to uniqueness, distinctiveness or strong identity. It is also sometimes referred to as genius loci meaning 'spirit of the place.
Texture	The visual manifestations of the interplay of light and shadow created by the variations in the surface of an object or landscape.
Visual modification	A measure of the visual interaction between a development and the landscape setting within which it is located.
Viewshed	The creation of a computer generated probable viewshed to define the extent to which the planned infrastructure is visible from key viewing locations.
Visual Sensitivity	The degree to which a change to the landscape will be perceived adversely.
Visual Impact	A measure of joint consideration of both visual sensitivity and visual modification

1. INTRODUCTION

1.1 General

Visual impact assessments should not be an obstacle in the approval process of a proposed development. Visual input, especially at the early concept stage of the project, can play an important role in helping to formulate design alternatives, as well as minimising impacts, and possibly even costs, of the project

It is in the nature of visual and scenic resources to include abstract qualities and connotations that are by their nature difficult to assess or quantify as they often have cultural or symbolic meaning. An implication of this is that impact ratings cannot simply be added together. Instead, the assessment relies on the evaluation of a wide range of considerations, both objective and subjective, including the context of the proposed project within the surrounding area.

The analysis of the interaction between the existing visual environment and the planned infrastructure provides the basis for determining visual impacts and mitigation strategies. This visual impact assessment provides an overview of the landscape character of the locality and assesses the degree to which the proposed development would be visually appropriate.

1.2 Methodology

1.2.1 The sequence of work employed in this study

A desktop survey using 1:50,000 topographical survey maps, Google Earth, and ArcMap (Esri, ArcGIS software) was undertaken. Following the desktop information gathering process, a site visit was conducted to test the conclusions of the terrain analysis, identify receptors and appraise the local landscape.

The methodology employed by this visual assessment is based on the following methodologies:

- The United States Department of Agriculture: Forestry Service - *Landscape Aesthetics*;
- The United States Bureau of Land Management Visual Resources Management;
- The Landscape Institute and the Institute of Environmental Management & Assessment - Guidelines for Landscape and Visual Impact Assessment; and
- The Provincial Government of the Western Cape's Guideline for involving visual and aesthetic specialists in EIA processes and the Guidelines for Landscape

1.2.2 Written and drawn material was made available

- Architectural drawings and 3D models
- Site development plan
- Specialist reports

1.2.3 Receiving site

The receiving site was assessed, and areas of the locality from where the development appeared to be likely visible, adjacent lands, and local roads.

This study was conducted in July 2026. The weather on the days of the site visit was clear and open. A photographic survey of the site and surrounding areas was carried out.

The visual assessment was undertaken using standard criteria such as geographic view-sheds and viewing distances as well as qualitative criteria such as compatibility with the existing landscape character and settlement pattern. Potentially sensitive areas were assessed, and mitigation measures were evaluated.

1.3 Assumptions and limitations

It should be noted that the 'experiencing' of visual impacts is subjective and largely based on the perception of the viewer or receptor. The presence of a receptor in an area potentially affected by the proposed development does not thus necessarily mean that a visual impact would be experienced.

Value can be placed in a landscape in terms of its aesthetic quality, or in terms of its sense of identity or sense of place with which it is associated. If no such values are held with respect to a landscape, there is less likely to be a perception of a visual impact if the landscape becomes subject to visual alteration. Development within a landscape may not be perceived negatively at all if the development is associated with progress or upliftment of the human condition.

The perception of visual impacts is thus highly subjective and involves 'value judgements' on behalf of the receptor. The context of the landscape character, the scenic/aesthetic value of an area, and the types of land use practised tend to affect the perception of whether landscape change (through development) would be considered an unwelcome intrusion.

The abovementioned landscape values can be interlinked, but can also be conflicting, e.g. amenity values associated with a landscape held by a certain group of people as described above may conflict with economic values associated with the market or development possibility of the landscape that is held by others. It is in this context that visual impact associated with a potential development often arises as an issue in environmental impact assessments.

1.3.1 Data

The best currently and readily available datasets were utilized for the visual impact assessment. It is important to note that variations in the quality, format and scale of available datasets could limit the scientific confidence levels of the visual impact assessment outcomes.

1.3.2 Visualisation

It must be remembered that any visualisation (3D models, photomontages, photos and maps) of complex natural and man-made elements produce perceptions, interpretations and value judgements that are not always consistent with those that would be produced by actual encounters with the elements represented. Visualisations should, therefore, be considered an approximation of the three-dimensional visual experiences that an observer would receive in the field and must be subjected to subsequent field testing and verification

Photomontage is the superimposition of an image onto a photograph to create a realistic representation of proposed or potential changes to any view. The overall aim of photography and photomontage is to represent the landscape context under consideration and the proposed development, both as accurately as is practical. It must be kept in mind that the human eye sees differently than a camera lens, both optically and figuratively.

The focusing mechanisms of human eyes and camera lenses are different. Human vision is binocular, and dynamic compared to a camera that tends to flatten an image.

2. APPLICABLE POLICIES AND GUIDELINES

Several government policies and plans, guidelines, environmental management instruments and other decision-making instruments are relevant to the site and development and have been reviewed. These include:

2.1 The Western Cape Provincial Spatial Development Framework (PSDF)

Makes provision for:

- the protection and sustainable use of Landscape and Scenic Resources,
- the protection, management and enhancement of the provinces Sense of Place, Heritage and Cultural Landscape

2.2 The George Municipality Spatial Development Framework

The George Spatial Development Framework (GSDF) states that the impact of developments on visual landscapes and corridors must be minimized.

The GSDF recognizes the following:

- Valuable view corridors, undeveloped ridgelines, cultural landscape assets and existing vistas should not be compromised by any development proposal or cumulative impact of development proposals. The proportion of urban development up the slope of a prominent hill or mountain should not degrade its aesthetics/visual value
- Developments higher than the 280m contour line or on slopes steeper than 1:4 must be prevented
- Scenic routes provide public access to the enjoyment of the landscapes located in the municipal area. 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.

2.3 The George Municipality Landscape Characterisation Visual Resources Management Analysis

The George Municipality's Landscape Characterisation Visual Resource Management Analysis (2009) determines visually sensitive areas in the George landscape and must be applied to manage the visual impacts of development.

The George Municipality's Landscape Characterisation Visual Resource Management Analysis states the following:

- Significant view corridors add value to George's sense of place and create a perception of space by focussing on views outside of the built-up envelope.
- The road systems in the Garden Route are a vital component of the tourism economy as they create scenic view corridors. View corridors are linear geographic areas that are visible to users of the route, usually situated along movement routes such as the Seven Passes road to Knysna.
- A Class I Visual Resource Management is assigned to those areas where a management or specialist decision has been made to maintain a natural landscape. Significant ridgelines within the George municipal area have been allocated a Class 1 rating.

2.4 The Garden Route Environmental Framework

This document provides baseline data on the Topographical, Visual and 'Sense of Place' aspects in the Garden Route, the sensitivity, constraints and development guidelines for the area assist in informing decision-making.

Management Guidelines are provided for Ecologically Sensitive Geographical Areas. Of particular reference to this report are the guidelines for development in:

- Topographically Sensitive Geographical Areas;
- Conservation and Protected Areas; and
- Visually Sensitive Landscape Geographical Areas.

Risks include:

- Erosion of steep slopes;
- The potential for visual and light pollution;
- Destruction of visual topographical quality;
- Development impact of sensitive topographical features and landscapes;
- Inappropriate large-scale development;
- Sprawling urbanization; and
- Large-scale change of land use developments outside of the urban edge.

Objectives include:

- Maintain the integrity of the Garden Route Landscape;
- Limit development on steep slopes;
- Enhance and protect the topographical landscape backdrop to the Garden Route;
- Manage development on steep slopes, discouraging development;
- Limit development densities
- Retain the 'sense of place' of villages and hamlets;
- Enforce building control and aesthetics;
- Protect the 'sense of place' of the Garden Route;
- Protect and enhance the visual quality of prominent tourism routes, meanders and nodes;
- Protect the visual integrity of the South African National Park asset, as well as provincial nature reserves; and
- Limit and prohibit development on prominent visually sensitive and exposed features.

2.5 Heritage and Scenic Resources: Inventory and Policy Framework for the Western Cape

The study provides input on cultural and scenic resources and provides a guide for the identification and conservation of these resources. The report focuses on the broader regional scale rather than the local landscapes or individual site scales and is, therefore, an overview rather than a detailed inventory of cultural and scenic resources.

2.6 DEA&DP Guideline for Management of Development on Mountains, Hills & Ridgelines

Key decision-making criteria regarding development on mountains, hills and ridges, relevant to this visual impact assessments, are:

- to avoid inappropriate development (i.e. intrusive and consumptive development) on mountains, hills and ridges taking into account the character of the existing environment;
- to ensure that where development does take place, that its layout and design take account of sensitive features and environmental constraints, thereby promoting environmentally sensitive development of projects on mountains, hills and ridges where development is authorized;

- to preserve landform features through ensuring that the siting of facilities is related to environmental resilience and visual screening capabilities of the landscape;
- to ensure that the scale, density and nature of the developments are harmonious and in keeping with the sense of place and character of the area.

Environmental characteristics such as steep slopes (steeper than 1:4) and development on the crest of a mountain, hill or ridge will serve as key indicators of environmental sensitivity.

3. PROJECT DESCRIPTION

3.1 Project location

The proposed development will be located on erf 28005 just outside George wedged between Knysna and the N2 road (**Figure 1**).

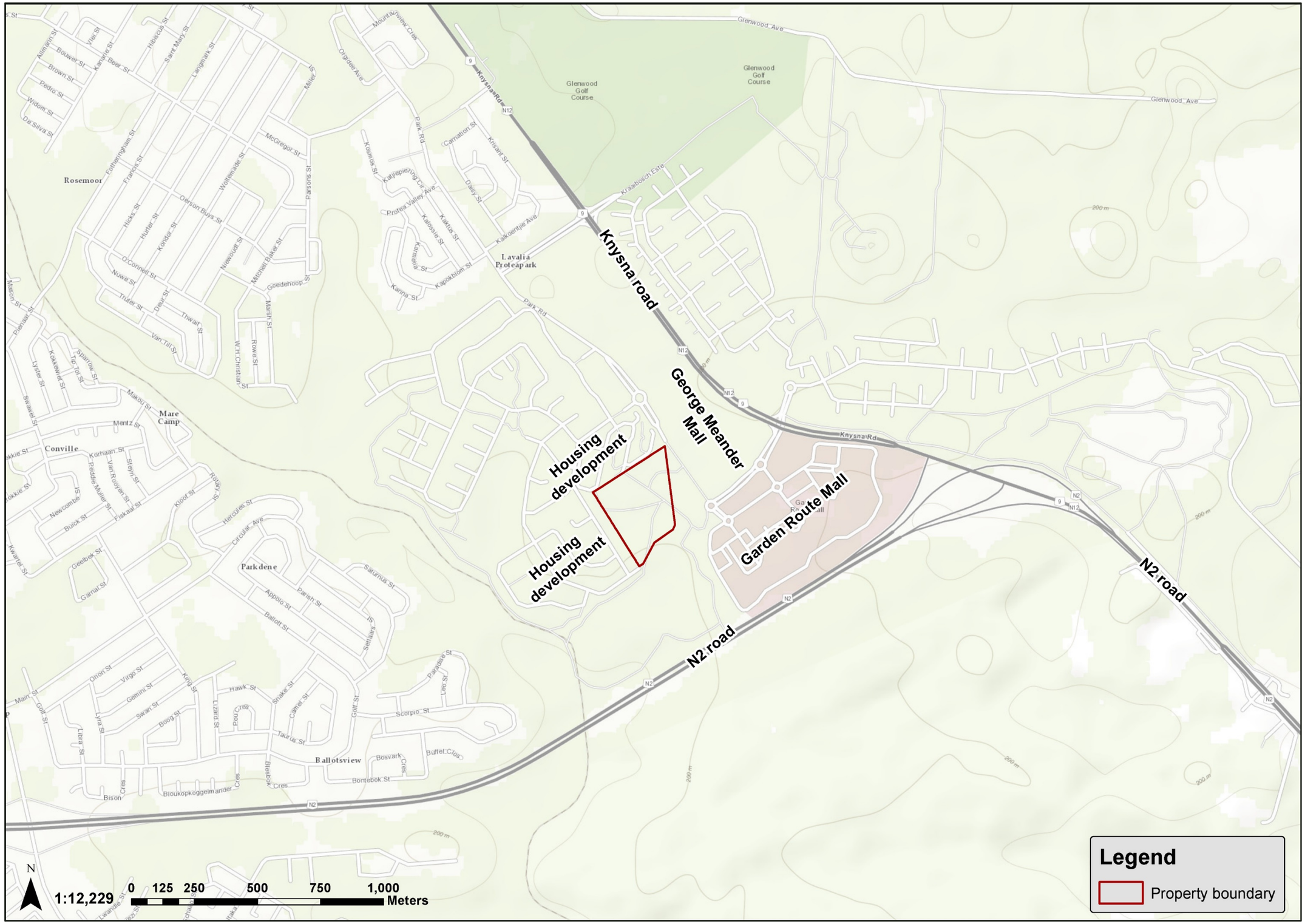

Figure 1: Project location

3.2 Development description

The proposed development will consist of the following components (**Figure 2**):

- 28-unit 3 storey buildings (1 building)
- 36-unit 4 storey buildings (9 buildings)
- 40-unit 4 storey buildings (7 buildings)
- 48-unit 4 storey buildings (1 buiding)
- Gymnasium
- Clubhouse
- Maintenance building
- Gatehouse
- Covered parking

The site is currently zoned Business 1, which permits a maximum site coverage of 100% and a maximum building height of 15 m. The application proposes to rezone the site to Residential 4, which retains the 15 m height allowance but limits site coverage to a maximum of 60%. The proposed development has an estimated site coverage of 39.6%.

Figure 2: Site development plan

4. METHODOLOGY

It is in the nature of visual and scenic resources to include abstract qualities and connotations that are by their nature difficult to assess or quantify as they often have cultural or symbolic meaning. It is necessary therefore to include both quantitative criteria (such as viewing distances), and qualitative criteria (such as sense of place), in visual impact assessments.

An implication of this is that impact ratings cannot simply be added together. Instead, the assessment relies on the evaluation of a wide range of considerations, both objective and subjective, including the context of the proposed project within the surrounding area. The phrase “beauty is in the eye of the beholder” is often quoted to emphasize the subjectivity in undertaking a visual impact assessment

The analysis of the interaction between the existing visual environment (landscape character and sense of place) and the planned infrastructure provides the basis for determining visual impacts and mitigation strategies. This is completed by defining the visual effect of the planned infrastructure and visual sensitivity of viewing locations to determine impact.

The evaluation of the existing visual environment consists of the assessment of both the landscape setting and key viewing locations within it. The landscape setting can be defined in terms topography, vegetation, hydrology and land-use features. These elements define the existing visual character of the landscape with which the planned infrastructure interacts.

The use of the basic elements of form, line, colour and textures has become the standard in describing and evaluating landscapes. Modifications in a landscape which repeat the landscape’s basic design elements are said to be in harmony with their surroundings. Modifications which do not harmonize, often look out of place and are said to contrast or stand out in unpleasing ways.

Value can be placed in a landscape in terms of its aesthetic quality, or in terms of its sense of identity or sense of place with which it is associated. If no such values are held with respect to a landscape, there is less likely to be a perception of a visual impact if the landscape becomes subject to visual alteration. Development within a landscape may not be perceived negatively at all if the development is associated with progress or upliftment of the human condition.

The perception of visual impacts is thus highly subjective and thus involves ‘value judgements’ on behalf of the receptor. The context of the landscape character, the scenic / aesthetic value of an area, and the types of land use practised tend to affect the perception of whether landscape change (through development) would be considered to be an unwelcome intrusion. Sensitivity to visual impacts is typically most pronounced in areas set aside for the conservation of the natural environment (such as protected natural areas or conservancies), or in areas in which the natural character or scenic beauty of the area acts as a drawcard for visitors (tourists) to visit an area, and accordingly where amenity and utilitarian ecological values are associated with the landscape.

When landscapes have a highly natural or scenic character, amenity values are typically associated with such a landscape. Structural features such as power lines and other electricity transmission developments and related infrastructure are not a feature of the natural environment but are rather representative of human (anthropogenic) change to a landscape.

Thus, when placed in a largely natural landscape, such structural features can be perceived to be highly incongruous in the context of the setting, especially if they affect or change the visual quality of a landscape. It is in this context of incongruity with a natural setting that new developments are often perceived to be a source of visual impact.

4.1 Observer locations

Observer locations (views from communities, major roads, conservation areas etc.) are those areas where people (receptors) are likely to obtain a view of the planned infrastructure. These viewing locations have different significance based on numerous factors, collectively evaluated though land use and viewing distance to the planned infrastructure.

The selection of the key viewing locations is based on their location within the defined view-shed where they would have a clear view of the planned infrastructure.

Factors that will be considered in selecting the key viewing locations are:

- **The angle of observation** - The apparent size of a project is directly related to the angle between the viewer's line-of-sight and the slope upon which the planned infrastructure is to take place. As this angle nears 90 degrees (vertical and horizontal), the maximum area is viewable.
- **Numbers of viewers** - Areas seen and used by large numbers of people are potentially more sensitive. Protection of visual values usually becomes more important as the number of viewers increase.
- **Length of time the project is in view** - If the viewer has only a brief glimpse of the planned infrastructure, the contrast may not be of great concern. If, however, the planned infrastructure is subject to view for a long period, as from an overlook, the contrast may be very significant.
- **Distance from the project** - The greater the viewing distances, the lower the visual sensitivity. The visual modification of a development is assumed to be the highest when the observer is very close to it and has a direct line of sight. The visual modification then decreases with distance and is also known as distance decay (Hull & Bishop, 1988).
- **Field of vision** - The visual impact of a development can be quantified to the degree of influence on a person's field of vision both horizontally and vertically. The visual impact of a development will vary according to the proportion in which a development impacts on the central field of vision. Within the central field of vision images are sharp, depth perception occurs and colour discrimination is possible. Developments, which take up less than 5% of the central field of vision, are usually insignificant in most landscapes (Human Dimension and Design, 1979).
- **Visibility** - Viewed by the human eye 1.8 m from the ground across a "flat" surface such as the sea, the horizon will be of the order of 6 km distant, due to the curvature of the earth. Viewed at an elevation of 60 m, the horizon will be of the order of 32 km distant and from the top of a 1000 m mountain, the horizon will be at a distance of approximately 113 km. A tall structure standing above the horizon would, of course, increase these distances significantly; for example, for an observer at 1.8 m who is viewing a man-made structure 50 m tall, the effective distance to the horizon is 34 km and for a 100 m structure the distance is 46 km (Miller & Morrice, no date). In addition, mist, haze or other atmospheric conditions may significantly affect visibility (Hill et al, 2001).

4.2 Visual sensitivity

Visual sensitivity is a measure of how critically a change to the existing landscape is viewed by people from different land-use areas in the vicinity of a development.

The degree of visual sensitivity of an area is closely related to the aesthetic quality of the area, as well as to the value placed in the aesthetic quality of the landscape but is also related to the area's socio-economic profile. In this regard, residential, tourist and/or recreation areas generally have a higher visual sensitivity than other land-use areas (e.g. industrial, agricultural or transport corridors), because they use the scenic amenity values of the surrounding landscape and may be used as part of a leisure experience and often over extended viewing periods.

It is important to note that the presence of natural / perceived natural and rural elements or areas within the landscape as viewed from the surrounds of the project area can engender perceptions of aesthetic quality or

value to the landscape. Many studies of landscape conservation have highlighted the value placed by people in rural or natural landscapes. A rural landscape can be defined as an area where an interaction between humans and nature over time has led to the development of a landscape that has its characteristics, and which is a middle ground between an urban landscape and wilderness, consisting of human activities that are related to the natural environment, such as agriculture and pastoral activities (Mazehan et al, 2013). A natural landscape, as defined in this report is close in appearance to how the landscape would appear without human alteration – i.e. mimicking or closely resembling that of a wilderness.

Placing value in a landscape is a psychological and cultural practice; values and meanings are not intrinsic to the landscape, but rather they are phenomena created by humans through their cultural practices (Pun, 2004). It is thus important to note that perceptions of a landscape may not be universally shared, and different individuals or groups of people may perceive or treat the same landscape differently, in turn ascribing different values and meanings to it (Pun, 2004). Values and meanings ascribed by local people may not be evident to an outsider.

There are different types of values that can be placed on a landscape; i.e. economic values (e.g. the relevance of the landscape for business enterprises, or the market possibility of products from the landscape), amenity values (values related to the non-material benefits associated with it) and security values (Pun, 2004). Amenity values can be subdivided into different sub-categories; "intrinsic" ecological value, scientific and educational value, aesthetical and recreational value, and orientational and identity value.

Landscapes and the viewing of landscapes have also been shown to have positive psychological and health benefits; Velarde et al (2007), have shown through an examination of various environmental psychology studies that visual exposure to natural landscapes (e.g. by means of viewing natural landscapes during a walk, or viewing from a window) generally has a beneficial impact on human health (e.g. reduced stress, facilitating recovery from illness, and behavioural changes that improve mood and general well-being).

Landscape as a source of beauty is prevalent within the arts and is a strong drawcard for recreational activities. In addition, the landscape is an element in the ability of people to orient themselves and is strongly related to people's cultural identity and sense of place. It is in this context that value is placed in natural or rural landscapes, and it follows that such value would be placed on views in an area such as the study area which is largely natural, and which has high aesthetic value by virtue of its scenic nature.

The above values can be interlinked, but can also be conflicting, e.g. amenity values associated with a landscape held by a certain group of people as described above may conflict with economic values associated with the market or development possibility of the landscape that is held by others. It is in this context that visual impact associated with a potential development often arises as an issue in environmental impact assessments.

The latter three sub-categories of amenity value described above – aesthetic, identity and psychological health value are typically involved in the perception of visual impact and constitute the elements of the 'visual sensitivity' associated with that landscape, as development within a landscape can change the landscape to the degree to which the amenity value associated with a landscape would be considered to be degraded or no longer present.

Visual sensitivity may range from high to low, depending on the following additional factors:

- **The visual absorption capacity** - The potential of the landscape to conceal the proposed project will reduce or increase visual sensitivity.
- **Viewing distance** – The greater the viewing distance, the lower the visual sensitivity. The visual modification of a development is assumed to be the highest when the observer is very close to it and has a direct line of sight. The visual modification decreases with distance and is also known as distance decay (Hull & Bishop 1988).

- **Length of time** the project is in view - If the viewer has only a brief glimpse of the planned infrastructure, the contrast may not be of great concern and the visual sensitivity low. If, however, the planned infrastructure is subject to view for a long period, as from an overlook, the contrast may be very significant.
- **General orientation** - General orientation of residences to landscape areas affected by a project. Residential, tourist and/or recreation areas with a strong visual orientation towards the planned infrastructure (i.e. those with areas such as living rooms and/or verandas orientated towards it), will have a higher visual sensitivity than those not orientated towards the planned infrastructure.
- **Relative planned infrastructure size** - The contrast created by the project is directly related to its size and scale as compared to the surroundings in which it is placed.
- **Type of users** - Visual sensitivity will vary with the type of users. Recreational sightseers may be highly sensitive to any changes in visual quality, whereas workers who pass through the area regularly may not be as sensitive to change.
- **Numbers of viewers** - Areas seen and used by large numbers of people are potentially more sensitive. Protection of visual values usually becomes more important as the number of viewers increases.
- **Adjacent land uses** - The inter-relationship with land uses in adjacent lands can affect the visual sensitivity of an area. For example, an area within the view-shed of a residential area may be very sensitive, whereas an area surrounded by commercially developed lands may not be visually sensitive.
- **Special areas** - Management objectives for special areas such as natural areas, wilderness areas, conservation areas, scenic areas, scenic roads or trails frequently require special consideration for the protection of the visual values. This does not necessarily mean that these areas are scenic, but rather that one of the management objectives may be to preserve the natural landscape setting. The management objectives for these areas may be used as a basis for assigning sensitivity levels.

Landscapes are subdivided into three (3) distanced zones based on relative visibility from travel routes or observation points (receptors). The three zones are:

- Foreground-Middle ground Zone - This is the area that can be seen from each travel route for a distance of 0 to 5 kilometres where management activities might be viewed in detail. The outer boundary of this distance zone is defined as the point where the texture and form of individual plants are no longer apparent in the landscape. In some areas, atmospheric conditions can reduce visibility and shorten the distance normally covered by each zone.
- Background Zone - This is the remaining area which can be seen from each travel route to approximately 24 kilometres but does not include areas in the background which are so far distant that the only thing discernible is the form or outline. To be included within this distance zone, vegetation should be visible at least as patterns of light and dark.
- Seldom-Seen Zone - These are areas that are not visible within the foreground-middle ground and background zones and areas beyond the background zones.

Land-use areas are generally characterised in terms of low, moderate or high visual sensitivity, as follows:

- Low visual sensitivity - industrial areas, local roads, mining and degraded areas.
- Moderate visual sensitivity - tourist roads, major roads, sporting or recreational areas and places of work.
- High visual sensitivity - rural residences, recreation areas, conservation areas, scenic routes or trails.

4.3 Visual modification

Visual modification is a measure of the level of visual contrast and integration of the planned infrastructure with the existing landscape. An existing landscape has certain visual characteristics expressed through the visual elements of form, shape, line colour and texture. A development that has different visual characteristics than the existing landscape will create contrast with the existing landscape. If similar infrastructure already forms part

of the existing landscape, the visual effects of the planned infrastructure will borrow visual character from these operations, reducing visual modification.

The degree to which the visual characteristics of the planned infrastructure contrast with the existing landscape will determine the level of visual modification. For example, a newly created mine will have high visual modification due to strong contrast. An extension of operations in an existing mine will have lesser visual modification. A successfully rehabilitated mine area will also have a lower visual modification due to limited contrast with the existing landscape.

Similarly, a project is said to be integrated with the existing landscape based on issues of scale, position in the landscape and contrast. High visual integration is achieved if a development is dominated by the existing landscape and is of small scale and/or limited contrast.

The level of visual modification generally decreases with distance and is categorised as follows:

- **Negligible (or very low) level of visual modification** – where the development is distant and/or relates to a small proportion of the overall view-shed.
- **Low level of visual modification** - where there are minimal visual contrast and a high level of integration of form, line, shape, pattern, colour or texture values between the development and the landscape. In this situation, the development may be noticeable but does not markedly contrast with the landscape.
- **Moderate level of visual modification** - where a component of the development is visible and contrasts with the landscape, while at the same time achieving a level of integration. This occurs where surrounding topography, vegetation or existing modified landscape provide some measure of visual integration or screening.
- **High level of visual modification** - where the major components of the development contrast strongly with the existing landscape and demand attention.

The following factors must be considered when applying visual modification categories:

- **Length of time the project is in view** - If the viewer has only a brief glimpse of the project, the contrast may not be of great concern. If, however, the project is subject to view for a long period, from a viewing location, the contrast may be very significant.
- **Relative size or scale** - The contrast created by the project is directly related to its size and scale as compared to the surroundings in which it is placed.
- **Recovery time** - The amount of time required for successful re-vegetation should be considered. Recovery usually takes several years and goes through several phases (e.g. bare ground to grasses, to shrubs, to trees, etc.). It may be necessary to conduct contrast ratings for each of the phases that extend over long time periods. Those conducting contrast ratings should verify the probability and timing of vegetative recovery.
- **Atmospheric conditions** - The visibility of planned infrastructure due to atmospheric conditions, such as air pollution or natural haze, should be considered
- **Motion** - Movement such as waterfalls, vehicles or plumes draw attention to a project.
- **Form** - Contrast in form results from changes in the shape and mass of landforms or structures. The degree of change depends on how dissimilar the introduced forms are to those continuing to exist in the landscape.
- **Line** - Contrasts in line result from changes in edge types and interruption or the introduction of edges, bands, and silhouette lines. New lines may differ in their sub-elements (boldness, complexity, and orientation) from existing lines.
- **Colour** - Changes in value and hue tend to create the greatest contrast. Other factors such as chroma, reflectivity and colour temperature, also increase the contrast.

- **Texture** - Noticeable contrast in texture usually stems from differences in the grain, density and internal contrast. Other factors such as irregularity and directional patterns of texture should also be considered.

5. VISUAL ASSESSMENT OF THE SITE AND PROPOSED DEVELOPMENT

The DEA&DP Guideline for involving visual & aesthetic specialists in EIA processes document provides a number of criteria that relate specifically to Visual Impact Assessments namely:

- Visibility of the project
- Visual exposure
- Visual sensitivity of the area
- Visual sensitivity of receptors
- Visual Absorption Capacity
- Visual Intrusion.

It is recommended that the proposed project should be assessed against these criteria before attempting to assess the visual impact of the proposed development.

5.1 Description of the affected area and the scenic resources

The development is situated in the Garden Route, in the southeastern extent of the Western Cape (**Figure 1**). The area is a scenic, coastal area with a rich, visual diversity. This diverse and beautiful coastal area is a landscape formed over millions of years and numerous sea-level changes. The Outeniqua Mountain, which consists of hard and folded Table Mountain Quartzite, forms a majestic backdrop to a coastal platform, in the north (**Figure 3**).

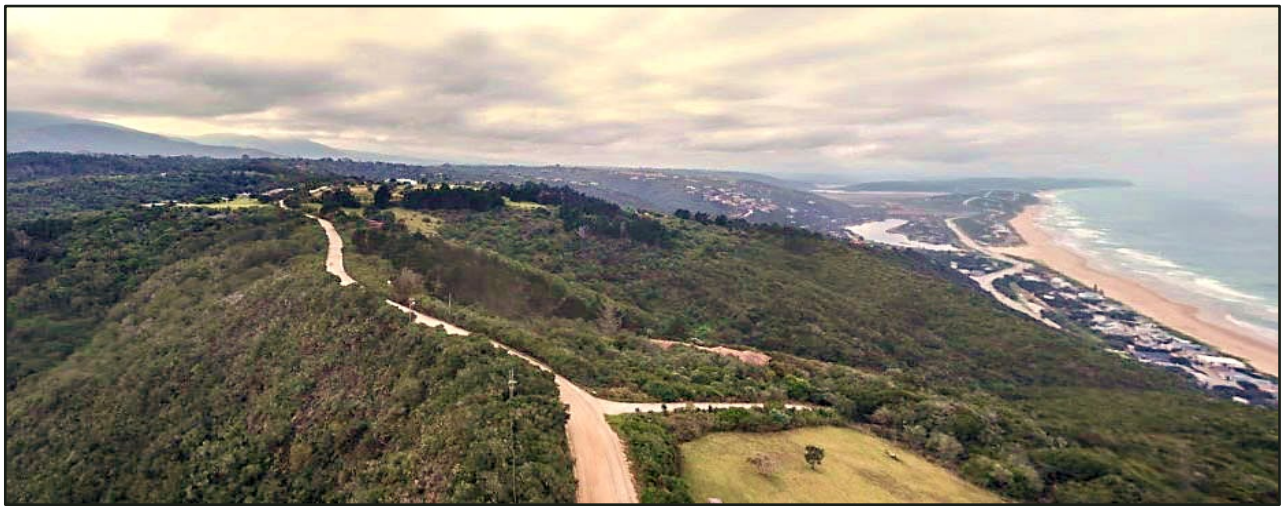

Figure 3: A view of the undulating coastal platform and Outeniqua mountains in the Garden Route

From: The Garden Route Environmental Framework (2010)

"The landscape of the Garden Route comprises an intricate mosaic of landforms, which further supports its diverse ecological features. These features extend from coastal features, through to the lake system, framed by the backdrop of the high Outeniqua mountains. The area is similarly dissected by numerous rivers draining the highlands to the coast. The coastal landscape is characterised by sensitive foredune systems which are prone to erosion, and which perform critical ecological functions, and which similarly are sought after for residential property development. The area is characterised by cover sands on steep slopes surrounding the lakes and estuaries, which are unstable and unsuitable for development activity.

and

The Garden Route has been named as such due to the visual and aesthetic quality attached to the region. Similarly, the region is considered as one of the most scenic in the country, attracting significant numbers of domestic and international tourist throughout the year. This asset is, unfortunately, one of the regions limiting factors. Due to the perceived high - quality of life associated with the region underpinned by scenic topography, quaint villages and hamlets, large tracts of natural open space systems supported by an extensive national park system (Garden Route National Park); the Garden Route has become the ideal location of retired individuals from the larger cities, as well as a growing international interest. This insatiable demand for development land for residential and tourism use is limited by the biophysical, physical and aesthetic constraints of the area. It is indeed the case of the "exact reasons for the attraction could become its downfall".

The proposed development is located along a section of the N2 and Knysna roads that are fully developed with shopping centers, housing and other businesses.

5.2 Surrounding land uses

The proposed development site is surrounded by two shopping malls, residential housing developments, and other commercial businesses along the N2 and Knysna Road corridor. No sensitive visual receptors such as conservation areas or formally designated scenic lookouts are located within the immediate surrounds of the site. The existing built character of the surrounding area creates a precedent for development of a commercial and residential nature at the site (**Figure 4**).

5.3 Topography

The proposed development site is located on a flat area with no significant topographic variation. The surrounding land uses similar flat terrain. The site is not located on or near a ridgeline, elevated slope, or prominent topographic feature. Consequently, topography does not serve as a major visual screening mechanism at this site, nor does it represent a sensitive visual resource in the immediate locality.

5.4 Local vegetation

The proposed project site supports natural vegetation (Garden Route Granite Fynbos, South African National Biodiversity Institute 2024 Final Vegetation Map of South Africa, Lesotho and Swaziland) however, this vegetation occurs as an isolated island within a substantially transformed urban environment, surrounded by existing commercial and residential developments on nearly all sides. The site is connected to the broader open space system only by a narrow strip of natural area linking it toward the N2 road, which limits both its ecological continuity and its contribution to a larger visually intact landscape unit.

As a result, although the vegetation contributes some local green character and visual softening, it does not form part of a broad, continuous natural landscape and has a reduced scenic and visual resource value in the context of the surrounding developed corridor. The proposed development will replace this isolated patch of vegetation within the development footprint with built form, resulting in a localised change in visual character from a vegetated enclave to an urban residential development

5.5 Protected landscapes

The proposed development site lies within the Garden Route Biosphere Reserve buffer zone. However, the site is surrounded by existing commercial and residential developments and does not constitute an ecologically or visually intact portion of the Biosphere Reserve. The broader designation requires that development be sensitive to the scenic and ecological values of the region, and appropriate mitigation measures must therefore be incorporated.

Figure 4: Surrounding land use

6. PROBABLE VIEW CATCHMENT

6.1 Probable view catchment

Slope and aspect are very important in the context of views. Topography expressed in the form of slope and aspect can perform an important role in limiting views or 'focusing' views in a certain direction. Viewers located low down within an enclosed valley would experience a limited visual envelope or viewshed, as the rising topography around them would prevent wider views of the surrounding terrain beyond the immediate valley.

Similarly, an object placed lower down in such an enclosed valley would have a limited viewshed, being shielded or partly shielded by the terrain surrounding it. A viewer located on a hill slope with a certain aspect would only be able to view the surrounding tertian in the direction of the aspect of the slope. Conversely, a viewer on a higher-lying interfluve will be exposed to potentially wide-ranging views over the surrounding terrain, and large objects placed in these terrain settings could similarly be visible from a wide area.

The micro-topography within the landscape setting in which the viewer and object are located is also important. The presence of micro-topographical features and objects such as buildings or vegetation that would screen views from a receptor position to an object can remove any visual impact factor associated with it.

Fischer (1995) analysed the effects of data errors on viewsheds (view catchment) calculated by Geographic Information Systems and has shown that the calculations are extremely sensitive to small errors in the data and the resolution of the data and the errors in viewer location and elevation. Other studies have also shown that a viewshed calculated using the same data but with eight different Geographic Information Systems can produce eight different results.

Hankinson (1999) also states that viewshed are never accurate, and they contain several sources of error and may not always be feasible to separate these errors or to estimate their size and potential effects. It is, therefore, better to describe a viewshed analysis as a probable view catchment that must be subjected to subsequent field testing and verification.

A probable view catchment can be based on topography only and shows areas that will be screened by intervening hills, mountains etc. A probable topographic (digital terrain relief model) view catchment does not consider heterogeneous and complex natural and man-made elements in the surrounding landscape. A digital terrain model (DTM) can be created from existing contour data. A view catchment based on a digital surface model (DSM) does consider intervening vegetation, buildings or small variations in topography, such as road cuttings. Digital surface models are expensive and not a viable option for small projects.

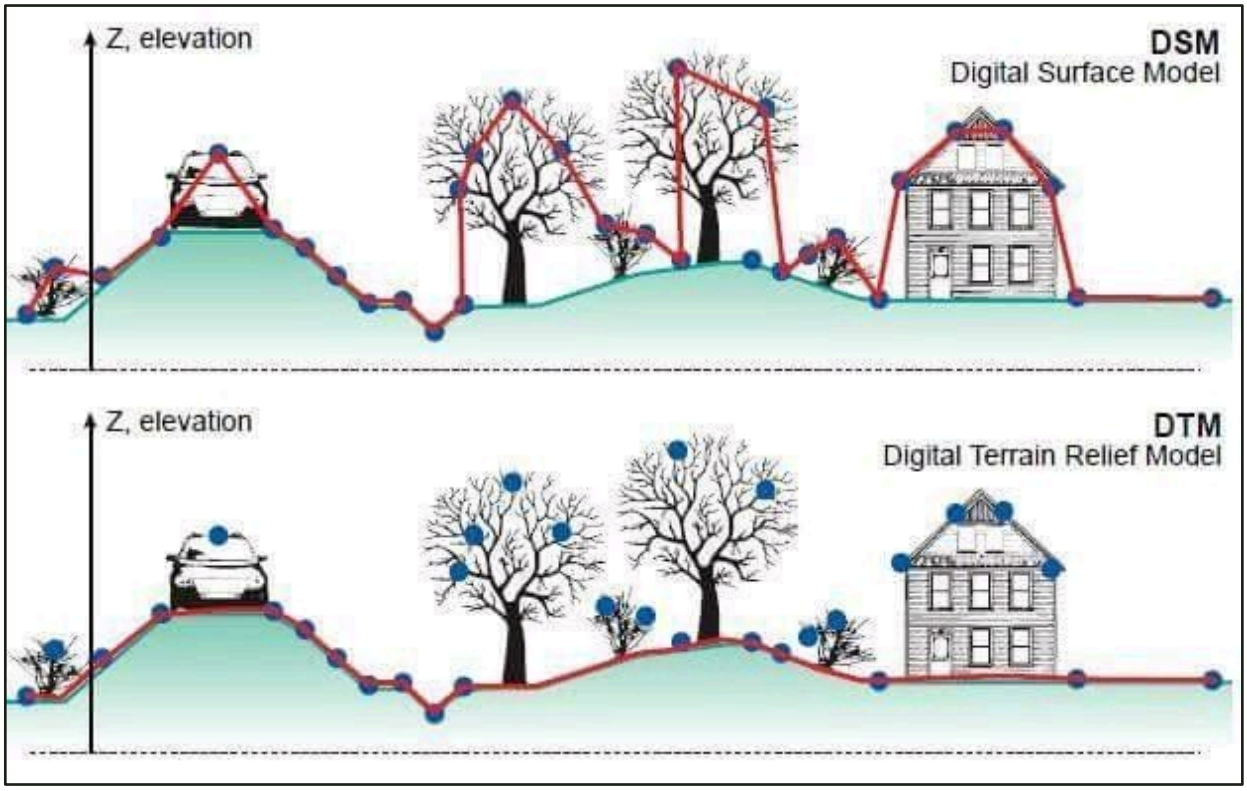

Figure 5: Terrain models

Therefore, a probable catchment is a conservative assessment of those areas that may be visually impacted by the planned infrastructure. Increasing the sophistication/accuracy of the probable viewshed by the addition of data (DSM) on complex natural and man-made elements in the landscape is desirable, but it will introduce further errors of detail and interpretation in the view catchment analysis.

7. VISIBILITY OF THE PROPOSED DEVELOPMENT

7.1 Zone of visual influence

The geographical area from which the proposed development will theoretically be visible, or probable view catchment, is dictated by topography. Theoretically, the development site could be seen from all surrounding areas. However, distance, developments, houses and vegetation will reduce the actual view catchment that the proposed development site will have, to a much smaller area (zone of visual influence).

Based on the information gathered from the various observer locations the zone of visual influence was determined for the development (**Figure 6**). It spans an area of approximately 0.5 km south, 0.3 km west, 0.9 km north and 0.6 km to the east. According to the specific criteria for visual impact assessments, the visibility of the site is **local**, being visible from an area less than 5km away.

7.2 Receptors

The level of visual impact considered acceptable is dependent on the type of receptors. The following receptor sensitivity ratings were considered:

- High sensitivity – e.g. residential areas, nature reserves and scenic routes or trails
- Moderate sensitivity – e.g. sporting or recreational areas, or places of work
- Low sensitivity – e.g. industrial, or degraded areas

The following receptor sensitivity ratings have been applied to the identified observer locations and receptor groups within the Zone of Visual Influence (ZVI) of the proposed development on erf 28005, George.

High sensitivity receptors are the residential properties directly adjacent to the development (Observer location C). The single-storey residential properties located on the southern and western boundary of the proposed development site are classified as high sensitivity receptors. These receptors are permanent, long-term residents who occupy their properties on a daily basis and who have a vested interest in the character and quality of their immediate visual environment. Unlike road users who experience views briefly and from a distance, residents at this location are static viewers at close range, with direct lines of sight toward the proposed development. Their existing outlook is oriented toward the Outeniqua Mountains to the north, and the proposed multi-storey apartment blocks introduce a significant change in scale and massing at close range relative to the prevailing single-storey residential character. The sensitivity of these receptors is further elevated by the potential for shadow effects from the taller buildings and the partial obstruction of mountain views. For the purposes of this assessment, the directly adjacent residential receptors on the southern and western boundary are therefore assigned a high sensitivity rating.

Observer location A is located adjacent to the N2 National Road, to the east of the development site. National roads carry a high volume of road users and are therefore classified as movement corridors with moderate receptor sensitivity in terms of the applicable guidelines. However, it is noted that this section of the N2 at the location of the proposed development is urban and commercial in character and does not qualify as a route of high or medium scenic significance under the applicable guidelines. Road users travelling along the N2 are in motion at highway speed, limiting the duration of any views, and the development site lies approximately 500 m to the west, with intervening commercial buildings and established vegetation providing substantial screening. Despite the high volume of road users, the receptor sensitivity rating for Observer location A is appropriately classified as moderate, consistent with its function as a movement corridor rather than a scenic or amenity route.

Observer location B is located on Knysna Road, to the north of the development site, at the traffic circle between the George Meander Mall and the Toyota garage. This public road is likewise classified as a movement corridor with moderate receptor sensitivity, given the relatively high volume of road users who pass along this section of Knysna Road. Pedestrians along the road verge are also classified as moderate sensitivity receptors at this location, as they are in transit rather than occupying static viewpoints. As with Observer location A, the surrounding environment is characterised by commercial and retail land uses and does not constitute a scenic or high-amenity route. The receptor sensitivity for Observer location B is accordingly assessed as moderate.

Commercial properties, retail centres (including the George Meander Mall and Garden Route Mall), and places of work within the broader ZVI are classified as moderate sensitivity receptors in accordance with the guidelines, which specifically identify places of work and sporting or recreational areas in this category. These receptors are accustomed to a dynamic, commercially active urban environment and have a lower expectation of visual amenity than residential or natural areas.

No receptors within the delineated ZVI have been identified as falling squarely within the low sensitivity category, which typically applies to industrial or significantly degraded landscapes. While the broader commercial corridor along Knysna Road and the N2 exhibits a level of visual complexity and built-up character that reduces overall visual sensitivity, it does not constitute an industrial or degraded landscape to a degree that would warrant a low sensitivity classification.

Figure 6: Observer locations

Figure 7: Observer location A

Figure 8: Observer location B

Figure 9: Observer location C

7.3 Visual exposure

The visual impact of a development diminishes at an exponential rate as the distance between the observer and the object increases. Relative humidity and fog in the area directly influence the effect. Increased humidity also causes the air to appear greyer which diminishes detail. Thus, the impact at 1 km would be 25% of the impact as viewed from 500 m. At 2km, it would be 10% of the impact at 500 m. The inverse relationship between distance and visual impact is well-recognised in visual analysis literature (Hull and Bishop, 1998) and was used as important criterion for this study.

Thus, visual exposure is an expression of how close receptors are expected to get to the proposed development regularly. For this assessment, close-range views (equating to a high level of visual exposure) are views over a distance of 500 m or less, medium-range views (equating to a moderate/medium level of visual exposure) are views of 500 m to 2 km, and long-range views are over distances greater than 2 km (low levels of visual exposure).

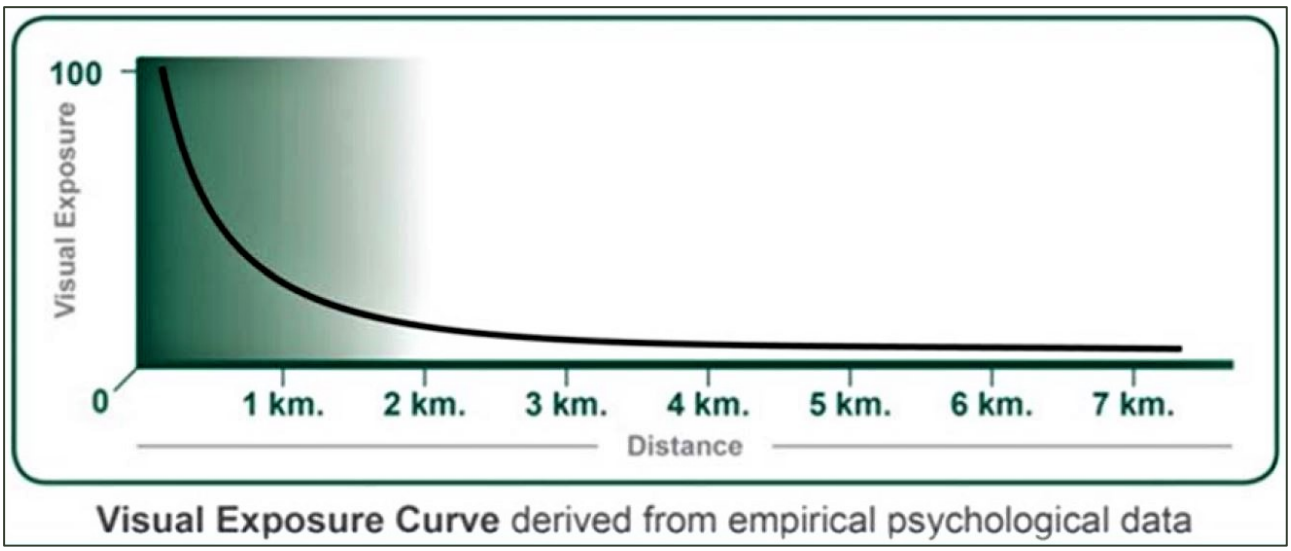

Figure 10: Visual exposure graph

Within the Zone of Visual Influence view corridors, viewpoints and receptors will experience "Visual Exposure" to the proposed development. The following visual exposure classes were considered during the assessment:

- High exposure – dominant or clearly noticeable
- Moderate exposure – recognisable to the viewer
- Low exposure – not particularly noticeable to the viewer

7.3.1 View corridors

7.3.1.1 Observer location A view corridor

Observer location A is located adjacent to the N2 road, to the east of the development site, and is classified as a movement corridor with moderate receptor sensitivity. Although the N2 carries a high volume of road users, the character of this section of the road is urban and commercial rather than scenic, with the western side of the N2 at this location occupied by the Garden Route Mall and associated commercial structures, and residential developments. The proposed development therefore does not occupy an open or undeveloped landscape setting when viewed from this corridor instead, it is located within an already substantially built-up urban node.

The proposed development is set back approximately 500 m from the N2. Between the N2 and the site, the western roadside is occupied by the Garden Route Mall, George Meander Mall, Builders Warehouse, and associated commercial structures, which act as a near-continuous physical screen along this side of the road. As a result, direct views from the N2 towards the site are largely obstructed, and only a single narrow gap between these intervening commercial structures provides any opportunity for glimpsed views of the proposed development. The combination of set-back distance and intervening built fabric means that any visible portion of the development is anticipated to be limited to the uppermost one to two floors above the rooflines of the intervening structures and would occupy a small and peripheral part of the road user's field of vision.

The visual exposure of road users at this location is further reduced by the nature of observation from a moving vehicle. Vehicles travel at speed along the N2, and occupants are seated at a relatively low position within their vehicles, both of which reduce the proportion of any development that falls within the functional field of view and limit the duration of any view to a matter of seconds. Where the development occupies less than approximately five percent of the central field of vision, the degree of visual modification is considered insignificant in terms of established methodology.

The directional orientation of traffic also materially influences exposure. Vehicles travelling from Cape Town towards George may obtain brief, forward-facing glimpses of the proposed development through the narrow view gap where the site is not fully screened. By contrast, vehicles travelling from Knysna towards Cape Town will generally have the proposed development behind or to the side of them along this section of the N2 and will experience little to no meaningful visual exposure. This directional asymmetry means that a significant proportion of road users at Observer location A will not have any effective view of the site at all.

Although the N2 falls within the broader Garden Route scenic corridor policy designation, the practical scenic significance of this specific section is low, given that the roadside environment is dominated by approved built development, with the principal remaining scenic element being the distant Outeniqua mountain backdrop rather than the immediate roadside setting. Visual exposure from Observer location A is therefore assessed as **low**, notwithstanding the high volume of road users along this corridor.

7.3.1.2 Observer location B view corridor

Observer location B is located on Knysna Road, to the north of the development site, and is classified as a public road with moderate receptor sensitivity, where road users experience the surrounding environment in passing rather than from a static viewing position.

Knysna road is fully developed on both sides along this section, with commercial buildings, retail infrastructure, and trees planted alongside the road forming a near-continuous built edge that screens most direct views towards the proposed development. The George Meander Mall occupies the southern frontage of Knysna Road at this location, and a Toyota garage and associated commercial structures occupy the opposite side, such that the road corridor is enclosed by existing built development on both sides.

A traffic circle at this location provides vehicular access between Knysna Road and the various businesses and the George Meander Mall. The gap created by this access road and the turning area between the commercial buildings introduces a narrow view corridor through which intermittent and brief glimpsed views towards the proposed development are possible. However, this corridor is limited in angular width and is oriented obliquely rather than directly towards the site, which reduces the proportion of the development visible, and the degree of visual modification experienced by passing road users.

Where views through this gap are possible, they will be partial and of short duration. The proposed development is set back approximately 500 m from Knysna Road, and only the uppermost one to two floors of

the four-storey apartment blocks are anticipated to be visible above the rooflines of the intervening George Meander Mall and associated structures. At this distance, and with the field of view constrained by the width of the gap between buildings, the visible portion of the development will occupy a small fraction of the road user's central field of vision, which is a key factor in determining the degree of visual modification.

As with all movement-corridor observer locations, visual exposure for vehicle occupants at Observer location B is further reduced by the speed of travel and the low seated position of occupants, both of which limit the effective field of view and restrict the duration of any view to a matter of seconds. Road users travelling in the direction away from the development will have no meaningful views at all, as the site will be largely behind them along this section of Knysna Road.

Although Knysna road is a public road, pedestrian activity along this section is limited, and the number of people walking alongside the road is low. Pedestrians moving along the road would in principle have a higher eye level and a slower pace than vehicle occupants, allowing a marginally greater opportunity for views through gaps in the built fabric. However, given the low number of pedestrians and the fact that screening conditions along the road are largely the same as those experienced by vehicle occupants, the overall contribution of pedestrian receptors to visual exposure at this location is negligible.

A residential development is located on the northern side of Knysna Road, opposite the commercial frontage. A soil berm with established mature vegetation runs along the road boundary of this development and largely screens views from the first row of houses towards the proposed development. The second row of houses is in turn screened by the first row, further reducing any visual exposure to the site from within the residential development. As a result, residents on the northern side of Knysna Road are unlikely to experience meaningful or sustained views of the proposed development, and this receptor group does not materially alter the overall visual exposure assessment at Observer location B.

7.3.1.3 Observer location C view corridor

Observer location C is located next to the residential development situated on the southern boundary of the proposed development site. Unlike the movement-corridor observer locations assessed at the N2 and Knysna Road, receptors at this location are static, long-term residents who occupy their properties on a permanent basis and therefore have a higher degree of sensitivity to changes in their immediate visual environment. The receptor sensitivity at Observer location C is accordingly assessed as **moderate to high**, reflecting the residential nature of the viewing population and the proximity of these receptors to the proposed development.

The existing single-storey houses along the southern and western boundary currently enjoy relatively open views towards the Outeniqua mountain range, which forms a prominent and visually significant backdrop to the north and northwest of George. This mountain backdrop represents the principal scenic resource of value at this observer location, and any development that introduces built form into the mid-ground of these views has the potential to partially interrupt or reduce the quality of the mountain panorama currently experienced by these residents. Although the proposed apartment blocks at four storeys will not reach the elevation of the mountain skyline, the introduction of multi-storey built form into what is currently an open vegetated setting will reduce the horizontal extent of unobstructed mountain views available from ground level within adjacent single-storey properties.

The degree of visual modification experienced by residents at Observer location C will vary depending on the proximity of individual properties to the shared boundary. Properties immediately adjacent to the development boundary will experience the most direct and sustained views of the proposed apartment blocks, with the upper floors and roofline of the nearest buildings likely to dominate a portion of the forward field of vision from ground-floor windows and private outdoor spaces. The apparent scale and massing of the proposed

development, relative to the existing single-storey character of the surrounding residential fabric, will be a noticeable change for these immediately adjacent residents, even though the broader landscape context remains of low to moderate visual sensitivity.

In addition to the visual intrusion of built form, residents on the southern and western boundary may be affected by shadow cast from the proposed multi-storey apartment blocks, particularly during morning and late afternoon hours when the sun angle is low. Given the height of the proposed buildings relative to the single-storey houses on the boundary, shadow effects could extend into adjacent private outdoor spaces and gardens, reducing the amenity of these areas during parts of the day. The significance of this effect will depend on the precise orientation of individual properties relative to the nearest apartment blocks and the seasonal variation in sun angle.

The proposed development site is the last remaining undeveloped parcel within an otherwise established urban node, and that the George Municipality has approved several multi-storey residential developments within the broader town area. The introduction of four-storey development at this location therefore represents an incremental intensification of an already developed urban area rather than a fundamental transformation of a natural or rural landscape. Nonetheless, for the immediately adjacent single-storey residential receptors at Observer location C, the change in scale, massing, and outlook at close range is real and constitutes the most significant visual impact associated with the proposed development.

Visual exposure from Observer location C is assessed as **moderate**, with the most significant effects confined to the immediately adjacent properties on the southern and western boundary where views of the proposed apartment blocks will be direct and sustained. Appropriate design mitigation measures, including landscaped boundary buffers, stepped massing at the residential interface, and a considered building colour scheme are recommended to reduce the visual dominance of the proposed development as experienced from this observer location.

7.4 Visual sensitivity

The inherent visibility of a project site's landscape is usually determined by a combination of topography, landform, vegetation cover, settlement pattern and special features. This translates into visual sensitivity. The following visual sensitivity classes were considered during the assessment:

- High visual sensitivity – highly visible and potentially sensitive areas in the landscape,
- Moderate visual sensitivity – moderately visible areas in the landscape,
- Low visual sensitivity – minimally visible areas in the landscape

The visual sensitivity is a measure of how critically a change to the existing landscape is viewed by people from different land-use areas in the vicinity of a development. The degree of visual sensitivity of an area is closely related to the aesthetic quality of the area, the value placed in that quality, and the area's socio-economic profile. Residential, tourist, and recreational areas generally have a higher visual sensitivity than other land-use areas such as industrial zones, major roads, or transport corridors, because these receptors use the scenic amenity values of the surrounding landscape over extended viewing periods.

The inherent visual sensitivity of the development site and its surrounding landscape is determined by a combination of topography, vegetation cover, settlement pattern, land use, and special features. For erf 28005 and its surroundings, these factors must be assessed within their correct context: the site is located within an established and commercially active urban node situated behind the Garden Route and George Meander Mall and is set back approximately 500 m from both the N2 and Knysna Road. The surrounding environment is substantially transformed, with commercial malls, retail infrastructure, business premises, and residential development occupying land on all sides of the site. In this context, the visual sensitivity of the site and its broader Zone of Visual Influence is assessed as low to moderate, reflecting the already modified urban

character of the area while recognising that sensitivity varies between different receptor types within the zone.

7.5 Visual absorption capacity

The visual absorption capacity (VAC) of a landscape refers to its potential to conceal or absorb a proposed development within its existing visual character. A landscape with a high VAC that is achieved through topography, vegetation cover, existing development, or landscape fragmentation is better able to screen and integrate a new development, thereby reducing the degree of visual modification experienced by observers. Conversely, a landscape with a low VAC, such as an open, flat, or pristine environment, offers little concealment and any new development will stand out with greater contrast. The following visual absorption classes were considered during the assessment:

- High VAC – effective screening is provided by topography, vegetation and existing infrastructure
- Moderate VAC - partial screening is provided by topography, vegetation and existing infrastructure
- Low VAC - little screening is provided by topography, vegetation and existing infrastructure

The proposed development site is essentially flat and sits at the same general elevation as the surrounding road infrastructure and adjacent commercial and residential developments. The site is positioned within a contained urban node, set back behind the Garden Route Mall and the George Meander Mall, which function as the primary built mass between the site and the external road corridors. From the N2 road corridor (Observer location A), the section of the N2 that contains the narrow view corridor towards the site sits at a lower elevation relative to the development. This relative elevation difference means that any portion of the proposed apartment blocks that may be glimpsed through the narrow view corridor would be seen from below, with the buildings appearing against the backdrop of the existing urban fabric rather than prominently against the open sky. Beyond this narrow view corridor, the Garden Route Mall effectively closes all further views of the development from the N2, with no meaningful sightlines remaining as road users continue along the corridor.

From Knysna Road (Observer location B), the flat and uniform topography provides no elevation-based screening but also introduces no topographic amplification of the proposed development's visual presence. The site and road are at comparable elevations, and any views that exist are limited by the intervening built structures rather than by changes in ground level.

From the immediately adjacent residential properties on the southern and western boundary (Observer location C), the flat topography provides no concealment of the proposed development. The proposed four-storey apartment blocks will be seen at close range above the existing single-storey built fabric, with no meaningful change in ground level to reduce effective building height or break sightlines.

The topographic contribution to Visual Absorption Capacity (VAC) is therefore assessed as negligible to low from the road corridors, where the lower-lying position of the N2 at the narrow view corridor slightly reduces the effective height of the proposed development as seen against the sky, but where built screening by the Garden Route Mall renders topography largely irrelevant beyond that point. From the adjacent residential receptors on the southern and western boundary, the flat topography provides no concealment whatsoever, and the topographic contribution to VAC is assessed as negligible.

The most significant contributor to the VAC at this location is the existing surrounding built environment. The site is enclosed on its northern boundary by the George Meander Mall and associated commercial structures, and on its western side by the Garden Route Mall and further retail and commercial development. These existing structures form a near-continuous physical screen between the site and the N2 and Knysna Road corridors, restricting views towards the development to a narrow and intermittent corridor. The development is set back approximately 500 m from both road corridors, and at this distance the intervening commercial

structures are tall enough to screen most direct lines of sight, with only the uppermost one to two floors of the proposed apartment blocks likely to be visible above the existing rooflines. On the opposite side of Knysna Road, a soil berm with established mature vegetation further reduces visual exposure from the adjacent residential development. The contribution of existing built development to the VAC is assessed as **high** from public road corridors and **moderate** from properties immediately north of Knysna Road.

The proposed development site currently supports natural vegetation that forms an isolated patch within the surrounding urban fabric, connected to the broader open space system only by a narrow strip of natural area linking it toward the N2. While this vegetation contributes some localised visual softening and green character in the current baseline condition, it does not form part of a broad or continuous natural landscape and has a reduced scenic and visual resource value in the context of the surrounding developed corridor. The contribution of the existing vegetation to the overall VAC is therefore assessed as low.

All existing vegetation on the site will be removed during construction to accommodate the proposed development footprint. During the construction phase, the removal of vegetation will temporarily reduce the VAC at this location, as the visual softening and screening currently provided by the existing plant cover will be absent and the development will be more exposed to view from adjacent receptors. This represents the period of greatest visual modification, and the VAC during construction is assessed as **low**. Following construction, a landscape plan will be implemented across the development. The establishment of landscaping, including boundary planting, street trees, and soft landscaping within the development will progressively restore a degree of visual softening and contribute to the integration of the built form with the surrounding environment. As landscaping matures over time, it will increasingly screen and soften the lower portions of the apartment blocks when viewed from adjacent properties and road corridors and will improve the overall visual compatibility of the development with its surroundings. The contribution of vegetation to the VAC is therefore expected to increase progressively from low during and immediately after construction to low to moderate as the landscape plan matures.

The VAC of a landscape is also influenced by the degree to which the surrounding land use context is already modified, as existing development of similar character reduces the visual contrast that a new development would introduce. In this respect, the visual character of the surroundings of erf 28005 is that of an established commercial and residential urban node, with structures of varying heights, massing, and materials already present across the immediate area. The proposed four-storey residential development, while taller than the majority of adjacent structures, does not represent a fundamental departure from the built character of the broader node, particularly given that the George Meander Mall and sections of the Garden Route Mall already include structures exceeding single-storey height. Modifications to a landscape that repeat or broadly reflect the landscape's existing design elements are more readily absorbed and less likely to create strong visual contrast. In this context, the visual character of the surrounding area contributes a moderate VAC, as the site is not located within a high-quality, pristine, or scenically sensitive environment.

Taking all four factors together, the moderately varied topography, the significant screening provided by intervening commercial development, the limited and declining contribution of existing vegetation, and the already modified urban visual character of the area the overall VAC of the site and its surroundings is assessed as moderate to high from public road corridors and low to moderate from the immediately adjacent residential properties on the southern and western boundary. This assessment supports the conclusion that the proposed development will be visually absorbed to a considerable degree when viewed from the N2 and Knysna Road, while acknowledging that the VAC is more limited for the closest residential receptors who will experience the development at close range and without the benefit of significant intervening screening.

7.6 Visual intrusion

Visual intrusion is defined as the level of compatibility or congruence of the project with the particular qualities of the area, or its sense of place. This is related to the idea of context and maintaining the integrity of the

landscape or townscape. The assessment of visual intrusion takes into account the height, massing, and scale of the proposed development relative to its surroundings, the distance and orientation of affected receptors, and the degree of screening provided by intervening structures, vegetation, and topographyThe following visual intrusion classes were considered during the assessment:

- High visual intrusion – the proposed development results in a noticeable change or is discordant with the surroundings
- Moderate visual intrusion – the proposed development partially fits into the surroundings but is clearly noticeable
- Low visual intrusion – the proposed development creates minimal change or blends in well with the surroundings

Visual intrusion from the N2 road corridor is assessed as **low**. The proposed development is set back approximately 500 m from the N2, and the intervening built environment including the Garden Route Mall and associated commercial structures forms a near-continuous physical screen between the road and the site. Where a narrow view gap exists, only the uppermost one to two floors of the proposed four-storey apartment blocks are likely to be visible above the existing rooflines. At this distance and through this limited aperture, the proposed development will occupy a small fraction of the road user's central field of vision, below the approximate five percent threshold at which visual modification is generally considered insignificant. The commercial and retail character of the N2 corridor at this location further reduces the perception of intrusion, as the existing visual context is already dominated by large-format built structures. The degree of visual intrusion experienced by road users on the N2 is therefore negligible to low.

Visual intrusion from Knysna Road is similarly assessed as **low**. Knysna Road is fully developed on both sides along this section, with the George Meander Mall and associated commercial structures occupying the southern frontage. The narrow view corridor created by the traffic circle gap between these structures provides only oblique and intermittent glimpsed views towards the proposed development. At a set-back distance of approximately 500 m, the proposed development will recede significantly in the visual field, and the visible portion limited to glimpsed roofline elements above the surrounding commercial structures will not constitute a dominant or intrusive presence in the viewshed experienced by-passing road users. The residential development on the northern side of Knysna Road is further protected from visual intrusion by a soil berm with established mature vegetation along the road boundary, and the second row of houses is screened by the first row, such that intrusion into this residential setting is limited.

The most significant visual intrusion associated with the proposed development will be experienced by the single-storey residential properties located directly along the southern and western boundary of the site. These properties are in close proximity to the development footprint and currently enjoy views across the open vegetated site towards the Outeniqua mountain backdrop to the north. The introduction of 18 apartment blocks at close range will constitute a clear and direct visual intrusion for these immediately adjacent properties. The proposed buildings will be noticeably taller than the existing single-storey residential fabric, and the upper floors and rooflines of the nearest apartment blocks will dominate a portion of the forward field of vision from ground-floor windows, living areas, and private outdoor spaces of properties on the shared boundary.

The degree of visual intrusion will vary with proximity. Properties directly adjacent to the development boundary will experience the greatest intrusion, as the proposed buildings will be prominent in their immediate view and will partially interrupt views of the Outeniqua mountains previously unobstructed by built form. Properties further from the boundary will experience a reduced but still noticeable change in their visual environment, as the proposed development introduces a new mid-rise built edge into what is currently an open, vegetated setting. In addition to the direct visual intrusion of built form, the proposed multi-storey apartment blocks have the potential to cast shadow onto adjacent private outdoor spaces and gardens during parts of the day, particularly during morning and late afternoon hours when sun angles are low. The

significance of this effect will depend on the orientation of individual properties relative to the nearest apartment blocks.

The proposed development constitutes an incremental intensification of an already developing urban node, and that the George Municipality has approved multi-storey residential developments within the broader town area. The introduction of four-storey development at this location therefore does not represent the intrusion of urban development into a natural or rural landscape, but rather a change in scale and massing within an established urban context. Nonetheless, for the immediately adjacent single-storey residential receptors, the visual intrusion is real and constitutes the most significant visual impact associated with the proposed development. Appropriate mitigation in the form of landscaped boundary buffers, stepped massing at the residential interface, and a considered building colour scheme is recommended to reduce the visual prominence of the development as experienced from these properties.

8. POTENTIAL VISUAL IMPACTS OF THE PROPOSED DEVELOPMENT

The assessment of visual impacts is based on a synthesis of criteria including nature of impact, extent, duration of the impact, intensity, probability of occurrence, reversibility, irreplaceable loss of resources, cumulative effect and level of significance.

8.1 Nature of the impact

The nature of the visual impacts will be the visual effect the activity would have on the receiving environment. The nature of the visual impact of the proposed development on erf 28005 arises primarily from the change in land use and built character of the site. The site is currently zoned Business 1, which permits a maximum site coverage of 100% and a maximum building height of 15 m. The application proposes to rezone the site to Residential 4, which permits the same maximum building height of 15 m but a reduced maximum site coverage of 60%. The proposed development, comprising 18 apartment blocks of up to four storeys, has an estimated site coverage of 39.6% that is substantially below both the 100% permitted under the existing Business 1 rights and the 60% permitted under the proposed Residential 4 rights. The nature of the visual impact is therefore one of urban intensification within an existing commercial and residential node, rather than the introduction of urban development into a natural or undisturbed landscape.'

The proposed development will alter the visual character of the site from a natural, vegetated setting to a built residential environment, clearly visible from the immediately adjacent properties and from oblique viewpoints along Knysna Road and, to a lesser extent, the N2. The change will introduce new form, line, massing, colour, and texture elements into the existing visual environment and will alter the skyline profile experienced by neighbouring residential receptors. The primary visual impact is one of increased built mass and scale at close range, most acutely experienced by the directly adjacent single-storey residential properties on the southern and western boundaries of the site. These visual impacts will be:

Pre-construction phase:

- Removal of some vegetation will be required for earthworks. Some vegetation would also be cleared for building thereby increasing the visibility of the site and resulting in a loss of the vegetation visual resource.

Construction phase:

- During construction, earthworks, cleared surfaces, construction materials, and temporary structures will increase the visual prominence of the site from adjacent receptors and will represent the period of greatest visual modification and lowest visual absorption capacity.

Operational phase:

- The completed development will change the visual character of the site from an open, vegetated urban enclave to a mid-rise residential built environment. The most significant permanent visual impact will be experienced by the immediately adjacent single-storey residential properties on the southern and western boundary, where the proposed four-storey apartment blocks will be visible at close range and without the benefit of significant intervening screening. From public road corridors on the N2 and Knysna Road, views will be limited to intermittent glimpsed views of the uppermost floors above the rooflines of the intervening commercial structures, given a set-back distance of approximately 500 m and the near-continuous screening provided by the Garden Route Mall, George Meander Mall, and associated commercial structures.

8.2 Impact assessment criteria

The assessment of visual impacts is based on a synthesis of criteria including nature of impact, extent, duration of the impact, intensity, probability of occurrence, reversibility, irreplaceable loss of resources, cumulative effect and level of significance.

8.2.1.1 The extent of the impact

Extent refers to the geographical area or spatial distribution over which a visual impact will be experienced. It describes how far from the proposed development the visual impact will be noticeable.

The extent of the visual impact for the proposed development pre- and post-mitigation is **local**, being visible from an area less than 5 km away and limited to the immediate surroundings of the site. The Zone of Visual Influence spans approximately 0.5 km to the south, 0.3 km to the west, 0.9 km to the north, and 0.6 km to the east. The Outeniqua Mountain backdrop will remain the dominant visual element in the wider landscape and the development does not alter views from regional or national viewpoints. The extent is assessed as **local** both before and after mitigation.

8.2.1.2 Duration of the project

The duration measures the time period over which the visual impact will persist.

The duration of the construction phase impact is assessed as **short-term** (0–5 years), corresponding to the construction period, after which construction-phase effects will cease. The operational impact, associated with the permanent introduction of the residential built form, is assessed as **permanent**, as the development constitutes a lasting change in the character of the site. The contribution of the landscape plan to progressively softening the visual impact will be realised over the medium term (5–10 years) as boundary planting and screen vegetation mature.

8.2.1.3 The intensity of the impact

The Intensity of the proposed project describes the degree or severity of alteration to the visual character, landscape quality, or viewing experience. It reflects how noticeably and dramatically the development changes what viewers see and experience.

The proposed development site coverage is 39.6%, which is substantially below both the 100% permitted under the current Business 1 zoning and the 60% permitted under the proposed Residential 4 zoning, resulting in a lower ground-level building footprint than either the existing or proposed zoning would otherwise allow.

The proposed development will have a **low pre-mitigation** visual impact intensity that creates a visible moderate but not fundamental change to the visual character. The **post-mitigation** visual impact intensity will

be **very low.** A design-based mitigation approach that includes setbacks, vegetation screening, and architecture will create minimal residual visual impact becomes minimal and well-integrated.

The intensity of the visual impact varies by receptor type. For the immediately adjacent single-storey residential properties on the southern and western boundary, where the proposed apartment blocks will be viewed at close range without significant intervening screening, the pre-mitigation intensity is assessed as **high**, reflecting a clearly visible and materially significant change in scale and massing relative to the existing single-storey residential character. For road corridor receptors on the N2 and Knysna Road, where the development is substantially screened by intervening commercial structures and is visible only through narrow view gaps, the pre-mitigation intensity is assessed as **low**. Post-mitigation, with the implementation of landscaped boundary buffers, massing reductions at the residential interface, and a considered colour scheme, the intensity for adjacent residential receptors is expected to reduce to **medium** and for road corridor receptors to **low to negligible**.

8.2.1.4 The probability of the impact

Probability describes the likelihood that a predicted visual impact will actually occur. It accounts for uncertainty, design flexibility, and management factors that may prevent or reduce the anticipated impact.

The probability of the visual impact occurring is assessed as **definite** for the operational phase. The proposed four-storey apartment blocks will be visible from the identified observer locations once constructed, regardless of mitigation. The construction phase impact is similarly rated as **definite** for the duration of the construction period. With the comprehensive implementation of mitigation measures, including screening vegetation, architectural design, colour treatment, and landscape integration, the probability of the impact being experienced at a significant level of intensity is substantially reduced, but the occurrence of some degree of visual impact remains certain.

8.2.1.5 Reversibility

Reversibility describes the degree to which the visual impact can be undone or the landscape restored to its original condition (or similar character) after the activity ceases or is modified.

The operational impact of the proposed development, involving the permanent replacement of natural vegetation with a multi-storey built residential environment, is assessed as **irreversible** in practical terms, as the change cannot be reversed without the full demolition of the development. The construction phase impact is **partially reversible**, as the site will take on its final developed character upon completion. The progressive maturation of the proposed landscape plan will partially offset the loss of visual softening associated with the removal of the existing vegetation but will not restore the pre-development character of the site.

8.2.1.6 Irreplaceable loss of resources

This criterion addresses whether the visual impact results in permanent loss of unique, rare, or irreplaceable visual resources. It measures the significance of what is lost and whether that loss is recoverable or represents genuine diminishment of visual resources.

The proposed development will result in a **minor** loss of visual resources. The natural fynbos vegetation on the site, while of ecological value, is not classified as a unique or regionally irreplaceable visual resource in the context of the surrounding urban node, occurring as an isolated patch within a substantially developed urban environment. The primary loss of local visual amenity is the partially unobstructed views of the Outeniqua mountain backdrop currently enjoyed by immediately adjacent residential properties, which will be partially interrupted by the introduction of the proposed apartment blocks. This represents a minor to moderate loss of local scenic amenity for the closest receptors but does not constitute a regional or national loss of visual heritage. Irreplaceable loss remains **minor** pre-and post-mitigation.

8.2.1.7 Cumulative effect

Cumulative effect describes the combined or additive visual impact of a proposed development in combination with existing developments, past activities, and reasonably foreseeable future developments in the area. It addresses whether the development contributes to broader landscape degradation or fragmentation.

The proposed development has a **low** cumulative visual impact. The landscape contains existing developments, and the proposed development will contribute incrementally to visual change or fragmentation, but the cumulative effect is localized and not substantially altering the broader landscape character. The proposed development does not occur in isolation and should be considered in the context of the broader pattern of urban intensification in the George urban node.

The cumulative visual impact is assessed as **low**, as the landscape already contains significant existing commercial and residential development of varying heights and massing, and the proposed development will contribute incrementally to visual change within an already substantially modified urban context. Nonetheless, it is noted that the cumulative impact of multiple developments of this scale and type, located across the urban edge without adequate visual management, has the potential to progressively erode the scenic character of George, particularly in areas with high foreground visual exposure to the N2 scenic corridor. The George Municipal SDF acknowledges this risk and emphasises the importance of maintaining the Garden City character of George.

8.2.1.8 Significance

Significance is the overall, synthesized assessment of whether a visual impact is minor, moderate or high. Significance is determined by integrating the above criteria (extent, duration, intensity, probability, reversibility, irreplaceable loss, cumulative effect) into a final judgment.

The proposed development has a **low** significance before and after mitigation. The visual impact is minor and localized. While the impact is noticeable, it is well-contained within a limited area and does not substantially alter landscape character or affect significant visual resources.

The overall significance of the visual impact varies by receptor and phase. For the immediately adjacent single-storey residential receptors on the southern and western boundary of the site, the pre-mitigation significance is assessed as **high**, given the close-range proximity, the direct and sustained nature of views, and the degree to which the proposed apartment blocks will alter the existing outlook and partially interrupt views of the Outeniqua mountain backdrop. For road corridor receptors on the N2 and Knysna Road, the significance is assessed as **low** pre-mitigation, reflecting the limited, screened, and intermittent nature of any views of the proposed development. Following the implementation of recommended mitigation measures — including a detailed landscape plan, landscaped boundary buffers, stepped massing at the residential interface, a considered colour and materials scheme, and appropriate lighting management the residual significance is expected to reduce to **medium** for adjacent residential receptors and **low to negligible** for road corridor receptors.

8.3 Conclusion

The proposed development involves the construction of 18 residential apartment buildings on erf 28005, George. The site is located within the existing urban edge, immediately west of the N2 and south of Knysna Road, in an established commercial node that includes the Garden Route Mall, George Meander Mall, Builders Warehouse, and associated commercial developments. The site is currently undeveloped and covered by natural fynbos vegetation, giving it a distinctive open and green character within an otherwise heavily developed urban commercial precinct. The site is currently zoned Business 1 (100% site coverage, 15m height limit) and the application seeks to rezone it to Residential 4 (60% site coverage, 15 m height

limit); the proposed development's estimated site coverage of 39.6% is well within both the existing and proposed limits.

This Visual Impact Assessment examined the proposed development from three observer locations, namely the N2 road corridor, Knysna Road, and the directly adjacent residential neighbourhood to the south and west, as well as from the broader George and Garden Route landscape context, and the findings differ significantly depending on who is looking and from where. Considering first the N2 road corridor at observer location A, the N2 carries a high volume of traffic, but its visual character at this location is already dominated by large-format commercial buildings, including the Garden Route Mall, that sit between the road and the development site and substantially screen the proposed development from approaching vehicles. Only a narrow gap in the built-up commercial frontage provides any view toward the site, and even then, views are fleeting due to vehicle speed, the seated position of road users, and the oblique angle of approach. Traffic approaching from Knysna will have the development behind them and will experience no meaningful view at all. The visual impact from the N2 is therefore assessed as low, both before and after mitigation.

Turning to Knysna Road at observer location B, the road provides somewhat more direct access to views of the site, as the proposed development's northern and eastern elevations will be visible from the road over and around existing commercial structures. However, this is also a movement corridor with moderate receptor sensitivity, occupied by pedestrians, cyclists, and passing vehicle occupants who are oriented toward the road itself rather than the broader landscape. Views will be of a built residential development within an established urban commercial context, which does not represent a jarring or incongruous visual intrusion in this setting. The visual impact from Knysna Road is assessed as low to medium before mitigation and low after the implementation of mitigation measures.

The most significant visual impact of the proposed development is experienced from the adjacent residential properties at observer location C. The residential properties along the southern and western boundary of erf 28005 are single-storey dwellings classified as high-sensitivity receptors, and residents of these homes will look directly at four-storey buildings from distances of only a few metres. This will fundamentally alter the visual outlook from these properties, partially blocking views of the Outeniqua mountain backdrop that currently give this neighbourhood much of its visual amenity and sense of place.

Before mitigation, the intensity of visual impact from these properties is high and the significance is high. Mitigation measures, including a landscape buffer of indigenous screening vegetation along the shared boundary, stepped massing and architectural articulation of the building facades facing the residential boundary, a considered colour scheme using earthy non-reflective tones, and a detailed landscape plan, can reduce contrast and improve visual integration over time, but cannot remove the impact. A four-storey building remains a four-storey building. After mitigation, the residual intensity is medium and the residual significance is medium for these receptors, representing a permanent and irreversible change to the visual environment of these neighbouring properties.

In terms of the wider landscape context, the proposed development is located within the George urban node and well within the urban edge defined by the George Municipal Spatial Development Framework. The site does not fall on or near a ridgeline, mountain, or topographically prominent features, and does not intrude into the skyline as seen from the N2 scenic corridor or from any heritage or conservation area. The Outeniqua mountains will remain the dominant visual backdrop in all views and will not be obscured by the proposed development from any public viewing location. The wider visual character of this part of George is that of an established urban commercial and residential node, and in this context the proposed residential development represents an intensification of urban land use consistent with the commercial character of the surrounding area and consistent with the type of development that the GSDF and the Garden Route Environmental Framework seek to accommodate within the urban edge.

The proposed development on erf 28005 is visually acceptable from the perspective of the wider George urban landscape, the N2 scenic corridor, and the Garden Route regional context, with a low visual impact on public road users and the broader townscape consistent with the urban commercial character of the surrounding node. The development does not threaten any heritage, conservation, or regionally significant scenic resource. The visual impact on the directly adjacent single-storey residential neighbours is, however, significant and permanent. With carefully designed, specific, and enforceable mitigation conditions focused on the boundary interface with the residential properties to the south and west, the residual visual impact can be reduced to a medium level.

9. VISUAL CONSTRAINTS & MITIGATION

Visual Garden Route Environmental Management Framework (GREMF) has identified the inappropriate placement of development infrastructure on prominent and exposed topographical features such as ridgelines as a risk to the visual landscape of the Garden Route. While the proposed development on erf 28005 is not located on a ridgeline or topographically sensitive feature, the introduction of 18 multi-storey residential buildings within a predominantly single-storey residential and commercial context nevertheless requires a clearly defined mitigation framework to reduce visual impact, in particular on the directly adjacent residential properties to the south and west.

The GREMF states that proposed developments within areas of outstanding natural beauty, scenic drives and panoramic views must be sensitive to natural beauty and consider the following aspects when planning the development:

- Infrastructure should be visually unobtrusive
- Materials and colours used for the development should blend into the surrounding landscape
- Infrastructure should be grouped in clusters with open spaces between clusters
- Infrastructure should not interfere with the skyline (ridgelines), landmarks, major views and vistas
- The development should not increase light, noise or effluent pollution
- The development should correspond to the historical, architectural and landscape style of surrounding layout and buildings

9.1 Visual mitigation measures

General visual mitigation principles to reduce visual impact can be categorised as:

- On-site treatments to reduce visual effects; and
- Treatments at viewer locations to reduce visual sensitivity.

On-site treatments involve rehabilitation of landforms and land cover, while viewer location treatments involve a range of treatments to screen views, filter views and/or re-orientate primary views.

On-site treatments might include:

- Visual and ecological planting patterns of indigenous vegetation to achieve landscape patterns that emulate in part existing mixes of tree and grass cover in the surrounding landscape.
- Minimising exposure of work areas to sensitive receptors.
- Preparing an internal landscape plan for rehabilitation areas.

At viewer location treatments include:

- Landscape design and plantings for affected locations. This will require an appropriately qualified person to visit the affected locations and develop a landscape plan to screen or filter views of the project areas.

Design fundamentals are general design principles that can be used for all forms of activity or development, regardless of the resource value being addressed. Applying the following three fundamentals will assist with mitigation measures:

- Proper siting or location.
- Reducing unnecessary disturbance.
- Repeating the elements of form, line, colour and texture of the surrounding landscape.

Design strategies are more specific activities that can be applied to address visual design problems. The following strategies will not necessarily apply to every proposed activity or project:

- Colour selection
- Earthwork
- Vegetative manipulation
- Structures
- Reclamation/Restoration
- Linear alignment design considerations

The fundamentals and strategies mentioned above are all interconnected, and when used together, can help resolve visual impacts from proposed activities or developments.

9.1.1 Massing and building design at the residential interface

The most significant and irreversible visual impact identified in this assessment is the introduction of four-storey apartment blocks directly adjacent to single-storey residential properties on the southern and western boundary of the site. Architectural design responses at this interface are the most effective available mitigation for this impact.

The following measures are required at the residential interface:

The buildings positioned along the southern and western boundary must incorporate a stepped massing profile, whereby the uppermost storey is set back from the boundary-facing elevation. This stepping reduces the apparent vertical mass of the buildings as seen from adjacent single-storey properties and introduces a degree of visual graduation between the proposed four-storey development and the existing single-storey residential fabric.

Horizontal articulation of the building facades facing the southern and western boundary must be incorporated into the architectural design. Facades should avoid presenting a single unbroken wall plane to adjacent properties. The use of recessed sections, balcony variations, projecting architectural elements, and varied roofline profiles will break the perceived massing and reduce the visual monotony of the boundary-facing elevations.

A minimum building setback of 5 m from the shared southern and western boundary is recommended. This setback, combined with the proposed boundary planting buffer, will create a spatial separation between the built form and adjacent residential properties that marginally reduces the perceived height and mass of the apartment blocks as seen from within those properties.

Flat or low-pitched roof profiles with non-reflective, matte finishes are required on all buildings. Complex roof forms with multiple planes are preferred over simple pitched roofs, as they break up the apparent mass of the building when viewed from below and reduce the sharpness of the silhouette as seen against the sky.

9.1.2 Colour and material selection

The selection of exterior colours and materials for the proposed apartment blocks is the most cost-effective measure available for reducing the visual contrast between the development and its surroundings.

Exterior wall colours must be selected from an earthy, muted palette that references the natural tones of the Garden Route landscape. Warm greys, sandy beiges, ochres, and soft terracottas are appropriate. Bright white, stark grey, and high-contrast colour combinations must be avoided, as they increase the visibility of the development from surrounding roads and residential properties and create strong contrast against the natural and built context. All exterior wall finishes must be low sheen or matte. Glossy or semi-gloss finishes reflect sunlight and increase the visual prominence of the buildings from distance viewpoints, including the N2 and Knysna Road corridors. This is particularly important for the upper floors of the apartment blocks, which are the portions most likely to be visible above the rooflines of the intervening commercial buildings from public roads.

Exterior glass must be specified with diffuse rather than reflective properties. Large arrays of mirror-glass windows on the upper floors of the buildings facing the N2 or Knysna Road must be avoided, as these create visible glare from distance viewpoints and draw attention to the development. Deep eaves, overhangs, and louvred screens should be used to shade glazed elevations and reduce reflected light.

Building materials should be selected for their visual compatibility with the surrounding residential and commercial context. The use of textured render, face brick in appropriate tones, and natural stone elements at the lower floors and boundary-facing elevations will provide visual warmth and texture that reduces the starkness of the built form as seen from adjacent residential properties.

9.1.3 Boundary landscaping and vegetation management

Landscaping at the southern and western boundary is the primary long-term mitigation measure for the visual impact on adjacent residential properties. While vegetation cannot eliminate the visual impact of four-storey buildings, a well-designed and well-maintained boundary planting buffer will progressively soften the interface between the proposed development and the existing residential fabric and will, over time, screen the lower floors of the apartment blocks from within adjacent properties.

A detailed landscaping plan prepared by a registered landscape architect must be submitted as part of the building plan application. The plan must specifically address the southern and western boundary interface and must include a combination of fast-growing pioneer screening species, medium-growth indigenous shrubs and trees, and slower-growing canopy trees that will provide long-term height and screening.

All boundary planting must consist exclusively of indigenous plant species appropriate to the Garden Route. The boundary planting buffer must be a minimum of 3 m wide on the development side of the boundary, to allow for healthy root development, canopy spread, and long-term survival of the screening vegetation. A landscape management plan covering a minimum period of five years post-installation must be prepared and implemented, with annual assessment and replacement of failed planting.

Internal landscaping throughout the development must include a generous provision of canopy trees between and around the apartment blocks. The combination of boundary planting and internal soft landscaping will

progressively green the development and contribute to the visual integration of the built form with the surrounding environment. Lawn alone is insufficient and a mix of lawn, indigenous groundcovers, shrubs, and trees must be specified.

9.1.4 Lightning design

Outdoor lighting for the proposed development must be designed and specified to minimise light spill beyond the development boundary and to prevent visible light pollution from adjacent residential properties and from the N2 and Knysna Road corridors.

All external lighting along roads, pathways, and parking areas within the development must be of the bollard or downward-facing type, with full cut-off shielded fixtures that prevent light from projecting upward or sideways. Only the illuminated ground surface should be visible from outside the development, not the light source itself. Security lighting at the perimeter of the development must be movement-activated and must not remain on continuously throughout the night. No floodlighting is permitted at the entrance gatehouse. No building facade uplighting or roof illumination is permitted on any of the apartment blocks.

Interior lighting within the apartment units must be designed to prevent the buildings from creating a mass light effect visible from surrounding residential properties. This is particularly relevant for the upper floors of the apartment blocks facing the southern and western boundary, which will be in the direct field of view of adjacent single-storey residents. Window coverings must be specified or encouraged to be closed during evening hours.

9.1.5 Construction management

The construction phase represents the period of greatest visual modification, as all existing vegetation on the site will be removed and replaced by construction activity, earthworks, and building materials. The following measures must be implemented during construction to minimise the visual impact on adjacent residential properties and road corridor receptors.

The construction site must be enclosed on its southern and western perimeter with solid hoarding of a minimum height of 2 m, painted in neutral, non-reflective tones. This hoarding will provide immediate screening of construction activity from adjacent residential properties and reduce the visual intrusion of construction equipment and materials. Construction material storage, equipment parking, and site office facilities must be located on the northern portion of the site, away from the residential boundary, so as to minimise the visual intrusion of construction activity on adjacent residential receptors.

On completion of each phase of construction, disturbed ground surfaces not immediately built upon must be covered with temporary seeding or erosion control matting to prevent bare soil exposure and the associated visual scarring and dust generation.

9.1.6 Glint and Glare

Glint and glare from reflective surfaces on the proposed apartment blocks represent a potential visual impact on both the adjacent residential receptors to the south and west and on road corridor receptors using the N2 and Knysna Road. Glint refers to a momentary, bright flash of reflected light caused by a moving light source or observer angle, while glare refers to a sustained bright reflection that causes visual discomfort or impairs vision. Both effects increase the visual prominence of a development and can cause significant irritation to both stationary and moving viewers.

The primary sources of glint and glare on a multi-storey residential development of this type are large, glazed window surfaces on upper floor elevations, polished metal cladding, aluminium fascia boards and flashings, glass balustrades and balcony panels, and any glazed or polished roof elements. Given that the upper floors of the apartment blocks will be the most visible portions of the development from the N2, Knysna Road, and from within adjacent residential properties, the management of reflective surfaces at upper floor level is of particular importance.

All glazing on the upper floor elevations of the apartment blocks, and in particular on the northern elevations facing the N2 and Knysna Road and the southern and western elevations facing the residential boundary, must be specified with a low-reflectance coating or tinted glass with a visible light reflectance value not exceeding 20%. Standard clear float glass, which can have a visible light reflectance of 8 to 15%, is acceptable provided it is set within deep reveals, overhangs, or louvred screens that prevent direct solar reflection toward road users or adjacent properties during peak sun angles. Mirror glass and high-reflectance solar control glass must not be used on any elevation visible from a public road or from adjacent residential properties.

Metal cladding, aluminium window frames, fascia boards, gutters, and roof flashings must be specified in powder-coated or anodised matte finishes in dark or mid-tone colours. Bright mill-finish aluminium and polished stainless-steel elements must not be used on any external surface. Where metal balustrades are specified for balconies on the upper floors, these must be of a vertical blade or mesh profile in powder-coated matte steel rather than glass panel balustrades, which create large reflective surfaces visible from distance viewpoints.

Glass balustrades, where used on balconies facing the residential boundary or the road corridors, must be of a frosted or acid-etched finish rather than clear glass, to diffuse rather than reflect incident light. Frameless clear glass balustrades at height, when viewed from below or at an oblique angle from road level, create both glint and glare effects that increase the visual prominence of upper floor elevations and must therefore be avoided on all boundary-facing and road-facing elevations.

No polished, glazed, or metallic roof finishes are permitted. Roof surfaces must be finished in matte, low-reflectance materials such as dark-toned concrete roof tiles, matte fibre cement sheeting, or a membrane roof finish in a non-reflective dark colour. Where photovoltaic panels are installed on roof surfaces, they must be oriented and tilted to minimise glare toward adjacent residential properties and road corridors, and anti-reflective coated panels must be specified.

9.1.7 Fencing

Perimeter fencing on the southern and western boundary must be of a visually permeable design such as palisade or tubular steel, painted in dark, non-reflective tones (charcoal or dark grey) that recede visually rather than drawing attention to the boundary edge. Solid masonry or brick boundary walls are not recommended at the residential interface, as they create a harsh visual edge and prevent the growth of boundary planting through the fence line. Where masonry retaining structures are required, they must be finished in natural stone cladding or textured render in tones matching the boundary landscape palette.

9.2 Monitoring program

A monitoring program A monitoring programme must be implemented to ensure that the visual mitigation measures described in this section are properly implemented and maintained throughout the construction and operational phases of the development.

During the construction phase, monitoring must confirm that construction hoarding is in place and maintained along the southern and western boundary, that topsoil is being retained and stockpiled correctly, that construction waste and materials are not stored within the view of adjacent residential properties, and

that the construction programme is progressing in a manner consistent with minimising the duration of visual disruption.

Prior to occupancy, a visual inspection must be conducted by the visual specialist to confirm that the boundary planting has been installed in accordance with the approved landscaping plan, that all exterior colours and materials are consistent with the approved palette, that all lighting fixtures are of the specified full cut-off type and correctly aimed, and that the building facades at the residential interface incorporate the required stepped massing and horizontal articulation.

During the operational phase, the landscape management plan must be implemented over a minimum five-year period, with annual inspections to assess the establishment and health of the boundary planting. Failed or unhealthy planting must be replaced within one growing season of identification. Visual impact assessments should be conducted from the key receptor locations identified in this report. The southern and western boundary residential properties and the N2 and Knysna Road corridors at year one and year five post-construction, to verify that mitigation measures are performing as intended and to identify any areas where additional screening or design refinements may be required.

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