SITE SENSITIVITY VERIFICATION REPORT

PROPOSED RESIDENTIAL DEVELOPMENT OF ERF 325, THEESCOMBE, GQEBERHA, EASTERN CAPE



Report Prepared by: Engineering Advice & Services (Pty) Ltd

EAS Project Number:

2211

Report Prepared for:

C.G.S Properties Trust

July 2025

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Prepared for:

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INTRODUCTION & BACKGROUND

Engineering Advice and Services (EAS) have been appointed by the applicant, CGS Property Trust, to apply for an environmental authorisation to develop Erf 325, Theescombe. The vacant land is located next to Pari Park, accessed via Blumberg and Merle Road within Ward 1, Gqeberha, Nelson Mandela Bay Municipality, Eastern Cape. The proposed Erf 325 Theescombe measures approximately 17,438 ha in extent. However, approximately 11,28 Ha will be used for the development, leaving 6,15 Ha as natural no-go areas. Following previous Town Planning Layouts, Erf 325 Theescombe currently has multiple zonings: Residential 1, Residential 2, Public Open Space, and Transportation 1.

The proposed site is situated on undeveloped land with Pari Park residential suburb to the west of the site, and Mount Pleasant and Providentia north of the site (*Figure* 1). The land use next to next to the entrance of the site is a public place. The land use on the east and north of the site is residential. The site is currently vacant and largely undeveloped. The majority of the vegetation on site can be considered to be intact or lightly degraded. Half the site's vegetation cover comprises Sardinia Forest Thicket, while Algoa Sandstone Fynbos covers the other half. There are no structures on the site, and disturbance is limited to vehicle track paths and footpaths, with some dumping observed. Surrounding land uses include residential, vacant land, public places, roads, and infrastructure.



Figure 1. Locality map of the proposed residential development of Erf 325, Theescombe

Site Overview

The proposed development comprises 331 residential units with additional provisions for a gatehouse and a community centre (refer to *Figure 3*). The total area of the site is approximately 17.43 Ha; however, approximately 11,28 Ha will be used for the development, which will constitute the unit area, gatehouse, community centre, and internal roads. The development site will constitute seven small villages (Village A—Village G), each consisting of between 12 and 69 units. A total of 4965,5 parking bays will be needed. The development will have internal roads leading from the access routes onto the site. Access to the subject site will be from Blumberg Road, opposite Merle Road and Chopin Road.

The proposed development will entail the following activities on the site:

- Construction activity related to access to the site via Blumberg Road and Chopin Road;
- Levelling and landscaping the site for roads, units, and on-site parking;
- Construction of internal roads to provide access to buildings and on-site parking areas, walkways, and pathways;
- Foundation work for residential units, gatehouse, and community centre;
- 32 double-storey housing units (Village A and G) = 4800 m²;
- 174 single-storey housing units (Village B, E, and F) = 17035 m²;
- 72 walk-up housing units (Village C) = 3960 m²;
- 69 retirement housing units (Village D) = 3450 m²;
- Open space for all housing units = 6896 m²;
- Gatehouse = 60 m²;
- Community Centre = 250 m²;
- Parking bays = 5382m2;
- Community open space = 6364 m²;
- Boundary / security wall = 1900 m;
- Connections to existing municipal services;
- The installation of utilities such as:
 - o Water Supply,
 - o Sewage,
 - o Electrical, and
 - o Communication Lines,
- Putting proper drainage systems and;
- Landscaping of the site to provide private open space between the buildings



Figure 2. Aerial map of the proposed residential development of Erf 325, Theescombe



Figure 3. Site development plan for the proposed residential development of Erf 325, Theescombe

NEED AND DESIRABILITY

The proposed residential development site is Erf 325, Theescombe, located within Ward 1, Gqeberha, Nelson Mandela Bay Municipality, Eastern Cape. The proposed project intends to develop a residential development in the western suburbs, which will be accessible through the connection of public transport facilities and linkage to the greater metropolitan area through major transportation routes. The proposed site is situated in a suburban area of Port Elizabeth with Pari Park residential suburb to the west of the site, and Mount Pleasant and Providentia north of the site. The area is known for its peaceful surroundings and proximity to essential amenities such as schools, shopping centres such as Moffett on Main Lifestyle Centre and Walmer Park Shopping Centre, healthcare facilities, and recreational areas. Access to major transport routes and proximity to the city centre are through the M9, M12, and M7.

The applicant intends to develop 331 residential units with additional provisions for a gatehouse and a community center. The development will consist of houses with different floor arrangements, such as double-story, walk-up, and single-floor houses. The development will have seven small villages, each consisting of between 12 to 69 homes. Having a community centre in the area will greatly enhance the appeal of the development by providing a space for social gatherings, events, and possibly amenities like fitness facilities or meeting rooms. The division of residential units into smaller villages can create a sense of community within each cluster, potentially fostering closer relationships among residents. The surrounding suburban areas are known for their community atmosphere, making this proposed development an attractive option for families and individuals seeking a quieter, more residential environment compared to the hustle and bustle of urban areas. The neighbourhood often fosters a sense of community spirit and safety. The development will have open space of approximately 4800 m², which is highly desirable as it allows for recreational activities, greenery, and a sense of openness within the community.

In conclusion, the combination of well-planned residential units, ample open space, necessary facilities like parking, a community centre, and the different villages concept contributes to the desirability and functionality of the development. These factors cater to both the practical needs and the quality-of-life aspects that residents would value.

THE ONLINE DFFE SCREENING TOOL

On 20 March 2020, the Minister of the Department of Forestry, Fisheries, and the Environment published the general requirements for undertaking site sensitivity verification for environmental themes for activities requiring environmental authorisation (Government Gazette No. 43110). In terms of these requirements, prior to commencing with a specialist assessment, the current land use and environmental sensitivity of the site under consideration by the screening tool must be confirmed by undertaking a site sensitivity verification (DEDEAT).

Per the Notice of the requirement to submit a report generated by the national web-based environmental screening tool in terms of section 24(5)(h) of the NEMA, 1998 (Act No 107 of 1998) and regulation 16(1)(b)(v) of the EIA regulations, 2014, as amended, a screening tool was generated and identified specific site sensitivities and themes to be assessed for this specific project. **Table 1** outlines the specialist themes that were identified:

Site Sensitivities Identified (Screening Tool)

 Table 1. Summary of the development site environmental sensitivities

Category	Screening Tool Sensitivity
Agriculture Theme	Very High
Animal Species Theme	High
Aquatic Biodiversity Theme	Very High
Archaeological and Cultural Heritage Theme	Low
Civil Aviation Theme	Very High
Defense Theme	Very High
Paleontology Theme	Very High
Plant Species Theme	Medium
Terrestrial Biodiversity Theme	Very High

Specialist Assessments Identified

Based on the above environmental sensitivities (**Table 1**), as well as initial site investigations for the proposed development footprint, the following list of specialist assessments has been identified for inclusion in the assessment report by the screening tool.

- 1. Landscape/Visual Impact Assessment
- 2. Archaeological and Cultural Heritage Impact Assessment
- 3. Paleontology Impact Assessment
- 4. Terrestrial Biodiversity Impact Assessment
- 5. Aquatic Biodiversity Impact Assessment
- 6. Socio-Economic Assessment
- 7. Plant species Assessment
- 8. Animal Species Assessment

Therefore, this site sensitivity verification report is compiled to determine whether Specialist Assessments or Compliance Statements for the abovementioned specialist studies are required for the proposed development.

Site Sensitivity Verification Methodology

The site sensitivity verification report compiled by Engineering Advice and Services (represented by Ms Lea Jacobs) is based on:

- A site investigation was undertaken on 26 October 2023.
- A desktop investigation using biodiversity and land-use mapping tools such as inter alia ArcGIS and;
- Information recorded in the Screening Report
- Information derived from available specialist assessment reports.

DESKTOP ANALYSIS OF SITE

The site is located in Theescombe in the western suburbs of Gqeberha/Nelson Mandela Bay. Nelson Mandela Bay receives an average annual rainfall of 453 mm, with rainfall occurring throughout the year, where the lowest rainfall occurs in January and the greatest in October (meteoblue.com). **Table 2** outlines the different natural features that might be affected by the proposed development.

Feature	Description	Implication
Vegetation Unit (NBA, 2018)	Algoa Sandstone Fynbos	Critically Endangered
Critically Endangered and	Algoa Sandstone Fynbos	Critically Endangered
Endangered ecosystems	Bushy Park Indian Ocean Forest	
(NEMBA, 2004)		
Vulnerable ecosystems	Sardinia Bay Forest Thicket	Vulnerable
Affected Vegetation Types	Bushy Park Indian Ocean Forest	Critically Endangered
(Regional)	Sardinia Bay Forest Thicket	Vulnerable
Water Features	None affected	None
Protected areas	None affected	None
Protected area buffers (5 km)	Sardinia Bay Nature Reserve	Erf 325 falls within the 5km buffer of the Sardinia Bay
		Nature Reserve.

Table 2. Descriptions and implications of possible natural features

A screening of the Eastern Cape Biodiversity Conservation Plan and the Nelson Mandela Bay Bioregional Plan indicated the following Critical Biodiversity Areas as being present (**Table 3**):

Feature	Description	Implication
Critical Biodiversity Areas (ECBCP 2007)	CBA 2	CBA 2 - Critical biodiversity areas (CBAs) are terrestrial and aquatic features in the landscape that are critical for conserving biodiversity and maintaining ecosystem functioning (SANBI 2007). These form the key output of the conservation plan.
		Therefore, the development recommends maintaining the biodiversity areas in near natural state with minimal loss of ecosystem integrity. Hence, the maintenance of the subdivided open spaces and other mitigation measures.
Ecological Support Areas (Nelson Mandela Bay Bioregional Plan)	ESA 1	ESA 1- Ecological Support Areas (ESAs) are terrestrial and aquatic areas that are not essential for meeting biodiversity representation targets (thresholds), but which nevertheless play an important role in supporting the ecological functioning of critical biodiversity areas and/or in delivering ecosystem services that support socio-economic development, such as water provision, flood mitigation or carbon sequestration. The degree or extent of restriction on land use and resource use in these areas may be lower than that recommended for CBAs.
Critical Biodiversity Areas (Nelson Mandela Bay Bioregional Plan)	CBA1	All Critically Endangered habitats, ecological process areas, ecological corridors, habitats for Species of Special Concern, and some Endangered, Vulnerable or Least Threatened habitats.

Table 3. Critical Biodiversity Areas (ECBCP, 2007 and Nelson Mandela Bay Bioregional Plan, 2015)

DISCUSSION OF IDENTIFIED SPECIALIST ASSESSMENTS

The section below discusses the specialist assessments that have been identified for inclusion in the assessment report by the screening tool.

1. Landscape/Visual Impact Assessment

It is expected that the proposed development may have landscape/visual impacts in the construction and operation phases due to the fact that the site is currently vacant. However, less than 100m east, north, and west of the site are Pari Park, Mount Pleasant, and Providentia residential suburbs. The land use next to the entrance of the site is a public place. The operational phase of the site is suitable for the future plans of the neighbourhood.

It has been concluded that a residential development at the proposed location will not have a major visual impact and that the visual impact will be negligible. Impacts will be mitigated in order to implement sustainable development. The proposed project should not require a formal Landscape/visual Impact Assessment or the compilation of a compliance statement.

2. Archaeological and Cultural Heritage Impact Assessment

The site has been classified as having a low Archaeological and Cultural Heritage sensitivity theme by the DFFE online screening tool.

A phase 1 archaeological impact assessment was conducted by Mr. Kobus Reichert. The results showed that no archaeological sites/materials were observed within or in close proximity to the study area. In general, the area for the proposed development appeared to be of low archaeological sensitivity, and it is unlikely that any archaeological remains of significance will be found in situ or exposed during these activities. It must, however be taken into account that the proposed development is located close to areas where archaeological material has been recorded in the past and where Phase 2 mitigation was required. Archaeological sites/materials may therefore be covered by dune sand and vegetation and may only be exposed during the development. There are no known graves or historical buildings on the proposed site.

3. Paleontology Impact Assessment

The site has been classified as having a very high paleontological sensitivity theme by the DFFE online screening tool. Ryan Nel was appointed to conduct a Palaeontological Impact Assessment. The site has been exempted from a full Phase 1 Archaeological Impact Assessment as it has low palaeontological sensitivity and it is unlikely that any archaeological heritage remains will be found. The study area is primarily underlain by the Schem Hoek Formation, Algoa Group. The formation is characterized as having a High palaeontological sensitivity, however the site was assessed as having a Low palaeontological sensitivity. The potential impact of the proposed development on palaeontological resources is assessed as minimal. The risk of significant fossil discoveries that could be affected by the development activities is low.

4. Biodiversity Assessment

Dr Brian Colloty was appointed to undertake a Biodiversity Impact Assessment to establish the status of the present biodiversity (aquatic and terrestrial) consisting of flora and fauna species and assess the potential impact of the proposed development on the biophysical environment.

The site has been classified as having a very high terrestrial biodiversity sensitivity theme by the DFFE online screening tool. The study area spans two vegetation types defined by Mucina and Rutherford (2007), as amended in the National Vegetation Map 2012 and 2017/18 spatial information. This vegetation unit, known as Algoa Sandstone Fynbos, a form of Algoa Grassy Fynbos, is listed as Critically Endangered and is therefore considered a Threatened Ecosystem, as per the National Environmental Management: Biodiversity Act. However, no evidence of this Fynbos vegetation unit remains, and the site is thus either transformed due to the activities mentioned above or due to past clearing of the site based on previous development approvals that then lapsed. The site is mostly covered by the dune and or alien vegetation above. The second habitat/vegetation unit identified within the site, namely, Sardinia Forest Thicket. This vegetation unit was previously considered Algoa Dune Strandveld and or Southern Coastal Forest, but recent work by Grobler *et al.*, (2018) has seen the revision of the vegetation unit and have it aligned with the NMBM Vegetation Map.

5. Aquatic Assessment

The site has a very high aquatic biodiversity sensitivity theme according to the DFFE Screening Tool Report. According to the DFFE screening tool report, the site is within the Tsitsikamma Strategic Water Source Area of South Africa (SWSA-sw) and the Albany Thicket (Depression) and the Eastern Fynbos-Renosterveld Bioregion (Depression). According to Dr Colloty, the site is located within the upper catchment areas of the Baakens River (M20A), but due to the nature of the portion of the catchment (coastal dunes), no direct connection with any watercourses, wetlands, or aquatic bodies are known to occur. Further, the study site is excluded from any National Freshwater Ecosystems Priority Atlas areas (NFEPA - Nel *et al.*, 2011, Strategic Water Resources Areas and Wetland Clusters. The site is however considered part of an Ecological Support Areas identified in the Eastern Cape Biodiversity Conservation Plan (2019), but no Aquatic Critical Biodiversity Areas would be affected. The watercourse identified in the ECBCP (2019) does not exist and is a contour modelling artefact. Further none of the potential wetlands as shown in the Wetland Inventory were observed. The remaining features near the site are man-made stormwater features such as the detention pond and the watering hole, but none of these although well outside the site would trigger any water use license requirements and or impacts.

6. Socio-Economic Assessment

A Socio-Economic Impact Assessment was conducted by a specialist to identify and assess the socio-economic impacts associated with the proposed housing development. The assessment stated the economic impacts of the project in that, the construction phase of the proposed Housing Development will see the creation of temporary

(short-term) employment opportunities. This will culminate in positive (direct/indirect) impacts in the form of increased economic activity, poverty alleviation, and favourable socio-economic implications (such as improved access to and consumption of goods and services, greater freedom of choice, better quality of life, and so on) for the affected individuals and their dependants. The construction phase of the proposed housing development will also have a positive (indirect) impact on the GDP of the NMB Metro. An increased demand for local goods and services during the construction phase of the proposed Housing Development will in addition have a positive (indirect) impact on the governt socio-economic benefits are likely to emanate from this impact, such as employment creation and poverty reduction. The operational phase of the proposed Housing Development will make a positive (indirect) contribution to the revenue of the NMB Municipality, through rates and taxes that will be generated by the relatively large number of residential units.

The geographical impacts would include a higher density, walkable / more sustainable land-use mix. The proposed housing development will make a positive (cumulative) contribution to a more sustainable urban form in the city of Gqeberha. Additional impacts include the development and transfer of skills taking place in order to meet the necessary labour requirements. This will have an (indirect) impact that extends well beyond the period of the proposed development's construction phase. From a public health and safety perspective, the development is however likely to generate an increased amount of traffic as far as the daily movement of its workforce and other construction-related traffic is concerned. This could culminate in (indirect) health and safety impacts through the potential increase in motor vehicle and pedestrian-related accidents. Relevant mitigation in this case however would decrease the impact significance.

7. Plant Species Assessment

The site has been classified as having a medium plant species sensitivity theme by the DFFE online screening tool. The species highlighted by the DFFE Screening tool rated a Medium Sensitivity within the site were actively searched for, with none of the species being observed with the exception of the one tree *Rapanea gilliana*, located in the forested areas.

The Biodiversity Impact Assessment conducted by the specialist pointed out a number of species observed within the development site (refer to page 15 of the Biodiversity Impact Assessment report). Of importance was the presence of several Southern Milkwood tree (*Sideroxylon inerme*) and *Rapanea gilliana* (Dwarf Cape Beech), which are considered Endangered B1ab(ii,iii,iv,v). A higher prevalence of *Vachellia karroo* (Sweet Thorn) was observed, however this portion of the site was mostly dominated by alien thickets, or previous disturbance/early forest successional areas.

8. Animal Species Assessment

The site has been classified as having a high animal species sensitivity theme by the DFFE online screening tool. The Biodiversity Impact Assessment included the faunal species observed during the assessment, most of which are considered sensitive or conservation needy and for this reason are protected (refer to page 21 and 22 of the Biodiveristy Impact Assessment report). These records were also compared to anecdotal sitings reported by residents, and those recorded in iNaturalist (<u>https://www.inaturalist.org/search%2015%20September%202024</u>.). Bird, invertebrate, and arachnid species dominated the various observations, as well as several mammal records confirmed in the assessment (scat, spoor, and previous sitings). Species 8. (Mammal), and *Chlorotalpa duthieae* (Mammal) listed by the DFFE Screening Tool, are likely to occur within the site but would disperse to the remainder of the site once construction starts.

The invertebrate, *Aneuryphymus montanus* occurrence is unknown due to past and present disturbances within the site, but is a highly mobile species and could also disperse easily as it is typically migratory. Similarly, any of the birds listed as having high sensitivity could frequent the site, with the DFFE screening tool having listed these species; *Circus ranivorus, Bradypterus sylvaticus, Stephanoaetus coronatus, Neotis denhami.* Both the raptors are regular visitors (African Marsh Harrier & Crown Eagle), while the Warbler (*Bradypterus sylvaticus*) may occur, although highly mobile, while Denham's Bustards are unlikely to occur due to the lack of available habitat / high level of disturbance, and human movement in the area.

Notably, no amphibia were observed or heard calling within the site, but several Bronze cacos (*Cacosternum namum*) were heard calling in the artificial pond just beyond the site on Blumberg Rd.

CONCLUSION OF SITE SENSITIVITY VERIFICATION REPORT

Engineering Advice and Services (EAS) has been appointed by the applicant, CGS Property Trust, to undertake a Basic Assessment application for the development of Erf 325, Theescombe, within Ward 1, Gqeberha. The proposed development will comprise 331 residential units with additional provisions for a gatehouse and a community centre. The proposed Erf measures approximately 17,438 ha in extent, which will be accessible from Blumberg Road opposite Merle Road and Chopin Road, connecting the development to public transport facilities and a link to the greater metropolitan area through major transportation routes. However, approximately 11,28 Ha will be used for the development, leaving 6,15 Ha as natural no-go areas. A total of 4965,5 parking bays will be needed. Inside the site will be seven small villages (Village A – Village G), each consisting of between 12 to 69 units.

In accordance with the Notice of the requirement to submit a report generated by the national web-based environmental screening tool in terms of section 24(5)(h) of the NEMA, 1998 (Act No 107 of 1998) and regulation 16(1)(b)(v) of the EIA regulations, 2014, as amended, a screening tool was generated and identified specific site sensitivities and themes to be assessed for this specific project. On 20 March 2020, the Minister of Forestry, Fisheries, and the Environment published the general requirements for undertaking site sensitivity verification for environmental themes for activities requiring environmental authorisation (Government Gazette No. 43110). In terms of these requirements, prior to commencing with a specialist assessment, the current land use and environmental sensitivity of the site under consideration by the screening tool must be confirmed by undertaking a site sensitivity verification. This report is regarded as the Site Sensitivity Verification Report and should guide and motivate the reasons for not including certain specialist assessments, which were indicated by the screening tool as required specialist assessments.

As mentioned under DISCUSSION OF IDENTIFIED SPECIALIST ASSESSMENTS above, it can be summarized that the following specialist assessments are necessary and have been facilitated:

- Paleontology Impact Assessment
- Socio-Economic Impact Assessment
- Engineering Services Impact Assessment
- Biodiversity Impact Assessment
- Archaeological and Cultural Heritage Impact Assessment
- Paleontology Impact Assessment

The following specialist assessments (in the opinion of the EAP) have been covered by the above assessments:

- Animal species Assessment
- Plant species Assessment
- Aquatic Impact Assessment

The following specialist assessments have been deemed not necessary (either by motivation or as confirmed by the responsible authority):

• Landscape/Visual Assessment

PHOTOGRAPHIC EVIDENCE



