# SITE SENSITIVITY VERIFICATION REPORT

PROPOSED DEVELOPMENT OF ERF 2006, PARSONSVLEI, GQEBERHA, EASTERN CAPE

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

**Report Prepared for:**
Singi Properties (Pty) Ltd

June 2024

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## INTRODUCTION & BACKGROUND

Engineering Advice and Services (EAS) has been appointed by the applicant, Singi Properties (Pty) Ltd, to undertake a Basic Assessment application for the residential development of Erf 2006, Parsonsvlei located within the Gqeberha, Eastern Cape.

Erf 2006, Parsonsvlei measures approximately 3.1076ha in extent, is zoned Special Purposes No 232 (Warehouse/Workshop). An application to rezone the property to General Residential purposes will be submitted in due course. The development is situated on undeveloped land to the west and south of the Francis Evatt Park residential suburb in Parsonvlei, Port Elizabeth. The land use abutting the site across to the north across the narrow-gauge railway line is vacant. Land use to the east across Burchell Drive is residential in nature and to the south is industrial and commercial (the NMBM Burchell Road depot and other related uses). The Curro Westbrook school is situated to the northeast on the corner of Burchell Road and Salerno Road. In general, further residential areas are situated to the northeast (Westbrook) and the northwest (Bridgemead).

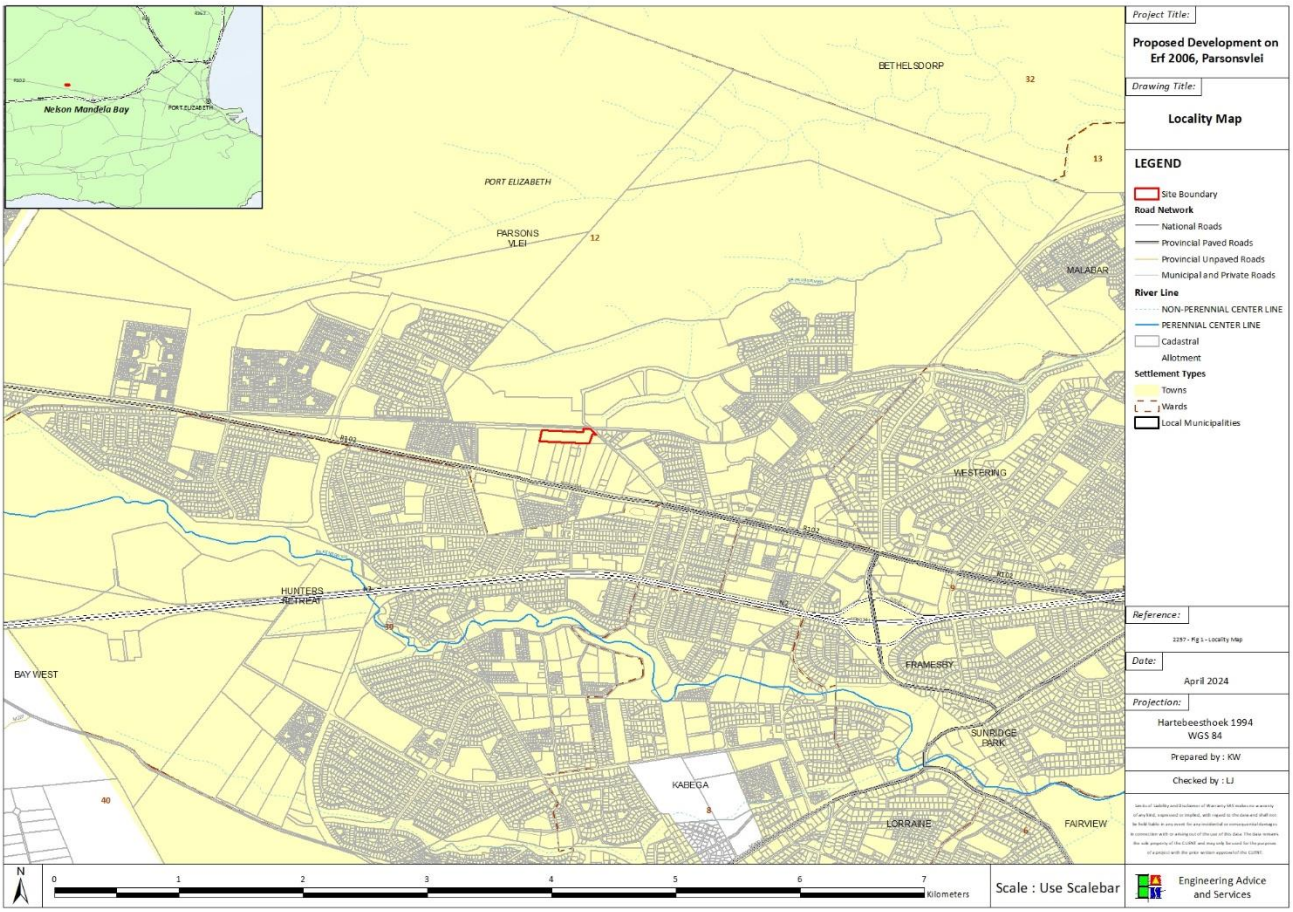


*Figure 1: Locality Map*

The site is currently vacant, unoccupied land with a flat topography, gradually sloping towards the northeast. Vegetation cover comprises a mixture of grasses not indicative of Algoa Sandstone Fynbos with the majority of the site infested with alien invasive vegetation (Port Jackson, Black Wattle and Blue Gums). There are no structures

on the site, and disturbance is limited to the edges of the site and the vehicle track paths and footpaths with some dumping observed. Surrounding land uses include residential, vacant land, commercial, roads and infrastructure.

There are no Nature Reserves within 5 km of the site and no National Parks or World Heritage Sites within 10 km of the site. The nearest non-perennial drainage line is located approximately 180m northeast of the site and no wetlands are located within 500m of the site.

The proposed development comprises of 155 Residential apartments aimed at the middle-income residential market. Access to the subject site is proposed on Burchell Road. The proposed development will entail the following activities on the site:

- Clearing of vegetation from the proposed site for the development.
- Levelling and landscaping the site for roads, units and on-site parking,
- The construction of a boundary fence/wall spanning the property boundary,
- Construction of internal roads to provide access to buildings and on-site parking.
- Construction of walkways and related pathways,
- Construction of residential units, gatehouse and related infrastructure,
- Installation of stormwater infrastructure,
- Installation of sewer reticulation,
- Connections to existing municipal services,
- Construction activity related to access to the site from Burchell Road, and
- Landscaping of the site to provide private open space between the buildings

**BIODIVERSITY**

The vegetation of the proposed development site is comprised of Algoa Sandstone Fynbos. In its natural state, this vegetation type is listed as Critically Endangered (National VegMap, 2018). The NMBM Bioregional Plan indicates that Rowallan Park Grassy Fynbos and Malabar Grassy Fynbos are present on the sites which have a conservation status of Vulnerable. The NMBM Bioregional Plan is aimed at conserving biodiversity at a regional level and is primarily concerned with guiding land use planning and decision-making through improving the legal standing and consideration of Biodiversity/Conservation areas by all organs of state (NMBM, 2015). The vegetation present within the site does not necessarily indicate any features characteristic of the fynbos which designated to the area. The high presence of alien and invasive plant species, frequent fires and human disturbances have all but destroyed the typical characterisation of the Fynbos vegetation which would typically be located on the site. Various species of special concern may still remain within the site.

**GEOLOGY & TOPOGRAPHY**

The site can be described as having acidic lithosol soils derived from Ordovician sandstones of the Table Mountain Group (Cape Supergroup). The topography of the project area is very flat with a sloping plain towards the northeast.

**CLIMATE**

The site is located in Parsonvlei 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).

The climate in this area is warm and temperate (meteoblue.com). Nelson Mandela Bay experiences rain even in the driest month. According to climate-and-weather.com, the warmest month is January with an average maximum temperature of 25°C, and the coldest month is July with an average maximum temperature of 19°C. This climate is considered to be Cfa according to the Köppen-Geiger climate classification. The temperate climate of the city means it is not prone to extreme climatic vulnerability.

**ACCESS**

The site has one potential access route, which will be via Burchell Road. Public roads, facilities and the development plan influence the location of access points. With approval from the local municipality, access to the erf will be via Burchell Road as the only viable access route. The zoning of Transportation 1 along Burchell Road and the portion on the west will allow for the upgrading of transportation infrastructure.

**SPECIALIST INPUT**

All specialist input to be facilitated:

- Archaeological Impact Assessment – The specialist has been appointed
- Palaeontological Impact Assessment - The specialist has been appointed
- Terrestrial Biodiversity Impact Assessment – The specialist has been appointed and assessments are ongoing.

## NEED AND DESIRABILITY

Enhancing Tourism and Economic Growth:

The development of Erf 2006 in Parsonsvlei has the potential to enhance tourism and economic growth in the Gqeberha area. By providing modern, middle-income residential apartments, the project can attract professionals and families, fostering a vibrant community. This influx of residents can stimulate local businesses, including retail, hospitality, and services, contributing to the overall economic growth of the region. The proximity to amenities such as the Curro Westbrook school and the development's connectivity to main roads can further increase the area's attractiveness, potentially drawing more visitors and investors to the region.

Promoting Sustainable Development:

The project is designed with sustainability in mind, incorporating open spaces to conserve natural areas and promote urban green spaces. These open spaces serve as vital green lungs for the community, providing ecological benefits and recreational areas for residents. By managing invasive species and promoting the use of indigenous vegetation, the development aligns with sustainable land use practices. Furthermore, the incorporation of stormwater management infrastructure and the rehabilitation of disturbed areas demonstrate a commitment to minimizing environmental impact and promoting ecological balance.

Socio-Economic Benefits for Local Communities:

Providing 155 residential apartments aimed at the middle-income market addresses a critical housing need, offering affordable and quality housing options for local residents. This development can help alleviate housing shortages and improve living standards, promoting social stability and community growth. Additionally, the construction phase will create job opportunities for local workers, boosting employment and contributing to the local economy. Enhanced infrastructure, such as internal roads and connections to municipal services, will benefit not only the new residents but also the surrounding community.

Safety and Convenience:

The development's design includes features aimed at enhancing safety and convenience for residents. The construction of a boundary fence/wall and a gatehouse will provide a secure living environment, while internal roads and walkways will ensure easy and safe access within the development. The planned connection to existing municipal services will ensure reliable access to essential utilities, enhancing the overall convenience and quality of life for residents. The strategic location of the development, with access via Burchell Road, ensures good connectivity to main roads and nearby amenities, further contributing to residents' convenience.

Alignment with Planning and Legislative Policies:

The project aligns with local planning and legislative policies, including the rezoning of the property to General Residential purposes. Compliance with the NMBM Bioregional Plan and other relevant environmental regulations ensures that the development is conducted responsibly and sustainably. The inclusion of specialist input, such as Archaeological and Biodiversity Impact Assessments, demonstrates a commitment to adhering to legislative requirements and mitigating potential impacts. This alignment with planning policies ensures that the project supports broader urban development goals and contributes positively to the region's growth.

Addressing Ecological and Environmental Considerations:

The development takes into account the ecological and environmental considerations of the site. The presence of Algoa Sandstone Fynbos, a critically endangered vegetation type, necessitates careful management to minimize impact. By identifying and incorporating highly sensitive areas into open spaces, the project aims to protect and enhance local biodiversity. The implementation of a comprehensive environmental management plan, including measures for erosion control, water management, and rehabilitation of disturbed areas, ensures that the development minimizes its ecological footprint and promotes environmental sustainability.

# THE ONLINE DEA SCREENING TOOL

On 20 March 2020 the Minister of Forestry, Fisheries and the Environmental 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).

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. The following specialist themes were identified:

## Site Sensitivities identified (Screening Tool)

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

## Specialist assessments identified

Based on the above environmental sensitivities, as well as initial site investigations for the proposed development footprint, the following list of specialist assessments have 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 undertaken on 26 February 2024.
- A desktop investigation using biodiversity and land-use mapping tools such as inter alia ArcGIS and;
- Information recorded in Screening Report
- Information derived from available specialist assessment reports.

## DESKTOP ANALYSIS OF SITE

The proposed development site is located on Erf 2006, Parsonsvlei in the western suburbs of Gqeberha. The area receives an average annual rainfall of 453 mm, where the lowest rainfall occurs in January and the greatest in October.

*Table 1 - Descriptions and implications of possible natural features.*

| Feature | Description | Implications/Notes |
|---|---|---|
| Vegetation Unit (NBA, 2018) | Algoa Sandstone Fynbos | Critically Endangered |
| Critically Endangered and Endangered ecosystems (NEMBA, 2004) | Algoa Sandstone Fynbos | Critically Endangered |
| Vulnerable ecosystems | None | None |
| River Features | A non-perennial tributary according to the GIS layers is located approximately 150m northeast of the site | The aquatic specialist confirmed that no aquatic features are located within 100m of the site and that no wetland areas are located within 500m of the site. |
| Wetland Features | A wetland according to the GIS layers is located approximately 150m northeast of the site | |
| Protected areas | None | None |
| Protected area buffers (5 km) | None | None |

The Nelson Mandela Bay Municipality Bioregional Plan (2015) does not indicate that the site is located within any sensitive areas. The latest Eastern Cape Biodiversity Conservation Plan (2019) screening does not cover the Nelson Mandela Bay Metropolitan Municipality; however, the Eastern Cape Biodiversity Conservation Plan (2007) screening indicated the following Critical Biodiversity Areas as being present:

*Table 2 - Critical Biodiversity Areas (ECBCP, 2007)*

| 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. |

## DISCUSSION OF IDENTIFIED SPECIALIST ASSESSMENTS

### 1. Landscape/Visual Impact Assessment

A Landscape/Visual Impact Assessment may not be required for the residential development of Erf 2006 in Parsonsvlei due to several key factors. The site is situated in an area characterized by a mix of residential, industrial, and commercial land uses, which means that the introduction of residential apartments is consistent with the existing landscape context. Additionally, the site is currently vacant and heavily infested with alien invasive vegetation, indicating minimal existing visual or landscape value. The proposed development includes landscaping plans to create open spaces and enhance the visual appeal of the area, thus integrating seamlessly with the surrounding environment without significant adverse visual impacts. Lastly, there are no nearby Nature Reserves, National Parks, or World Heritage Sites within close proximity that might require stringent visual impact considerations. As such, the visual and landscape impacts are expected to be negligible, and 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 is undeveloped and has not been occupied for more than 10 years. Therefore, it was beneficial to undertake a full phase 1 archaeological impact assessment from a specialist. The specialist was appointed in order to ensure findings of the current material on site.

### 3. Paleontology Impact Assessment

The site is undeveloped and has not been occupied for more than 10 years. Therefore, it was beneficial to undertake a full phase 1 paleontology impact assessment from a specialist. The specialist was appointed in order to ensure findings of the current material on site.

### 4. Terrestrial Biodiversity Assessment

A terrestrial biodiversity specialist was appointed to undertake a Terrestrial Biodiversity Assessment to establish the status of the present terrestrial biodiversity and to assess the potential impact of the proposed development on the biophysical environment. The site is indicated to be located within the Algoa Sandstone Fynbos vegetation type which has a Critically Endangered conservation status. The Erf is also described to be located within the Rowallan Park Grassy Fynbos and Malabar Grassy Fynbos according to the Nelson Mandela Bay Bioregional Plan, 2015. The site visit confirmed the presence of alien invasive species and other anthropogenic impacts on site. Therefore, it was deemed beneficial to undertake a terrestrial assessment by appointing the specialist to investigate the present terrestrial environment (including flora and fauna) on site.

### 5. Aquatic Biodiversity Assessment

The site has a very high aquatic biodiversity sensitivity according to the Screening Tool Report due to it being located in an aquatic ESA 1 area. No aquatic features are located on the site. The nearest non-perennial drainage line is located approximately 180m northeast of the site and no wetlands are located within 500m

of the site. It is highly unlikely that the development of this property will have any impacts on any sensitive aquatic features. This was confirmed by a Specialist. Consequently, it was deemed unnecessary to appoint an aquatic specialist to conduct an aquatic biodiversity impact assessment to investigate the present aquatic environment on the site.

## 6. Socio-Economic Assessment

A Socio-economic Impact Assessment may not be required for the residential development of Erf 2006 in Parsonsvlei due to the project's alignment with the existing socio-economic context and its expected benefits. The development will provide much-needed middle-income housing, addressing a critical demand in the local community and contributing positively to social stability. It will create temporary construction jobs, boosting local employment, and improve infrastructure, which benefits both new and existing residents. Since the project enhances the socio-economic landscape without significant adverse effects or displacement of existing communities, a detailed Socio-economic Impact Assessment might be deemed unnecessary.

## 7. Plant Species Assessment

Plant Species Assessment will be covered in the Terrestrial Biodiversity Assessment.

## 8. Animal Species Assessment

Animal Species Assessment will be covered in the Terrestrial Biodiversity Assessment.

## CONCLUSION OF SITE SENSITIVITY VERIFICATION REPORT

Engineering Advice and Services (EAS) has been appointed by the applicant, Singi Properties (Pty) Ltd, to undertake a Basic Assessment application for the residential development of Erf 2006, Parsonsvlei located within the Gqeberha, Eastern Cape.

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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 Environmental 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 assessment which were indicated by the screening tool as required specialist assessments.

In conclusion, the various specialist assessments and verification reports indicate that the proposed development is environmentally and socio-economically sound, with appropriate mitigation measures in place to manage any potential impacts. The development aligns with conservation objectives and local development strategies, ensuring a balance between ecological integrity and socio-economic benefits.

As mentioned under *Discussion of identified Specialist Assessments* above, it can be summarized that the following specialist assessments are necessary and will be facilitated, if not already done:

- Terrestrial Biodiversity Impact Assessment
- Archaeological Impact Assessment
- Paleontological 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

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

- Landscape/Visual Assessment
- Socio-Economic Assessment
- Aquatic Impact Assessment

# PHOTOGRAPHIC EVIDENCE

| Site Photographs | |
|---|---|
|  |  |
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|  |  |