LORNAY
ENVIRONMENTAL CONSULTING

PRE-APPLICATION / DRAFT BASIC ASSESSMENT REPORT

Proposed Spookdraai Residential Development
Remainder Portion 281, Struisbaai

31 January 2025

Consultant:
Michelle Naylor | Env. Consultant **|** M.Sc., Pr. Sci. Nat., EAPASA
cell: 083 245 6556**|** michelle@lornay.co.za **|** www.lornay.co.za
Unit 5/1F, Hemel & Aarde Wine Village, Hermanus
Lornay Environmental Consulting Pty Ltd**|** Reg 2015/445417/07

Western Cape Government

Department of Environmental Affairs and Development Planning

BASIC ASSESSMENT REPORT

THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS.

APRIL 2024

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APRIL 2024

(For official use only)	
Pre-application Reference Number (if applicable):	
EIA Application Reference Number:	
NEAS Reference Number:	
Exemption Reference Number (if applicable):	
Date BAR received by Department:	
Date BAR received by Directorate:	
Date BAR received by Case Officer:	

(This must Include an overview of the project including the Farm name/Portion/Erf number)

PROPOSED SUBDIVISION AND REZONING FOR THE CONSTRUCTION OF RESIDENTIAL ERVEN ON REMAINDER OF FARM 281, STRUISBAAI, BREDASDORP RD

GENERAL PROJECT DESCRIPTION

The development of the coastal Remainder Portion of Farm 281, Struisbaai, is proposed.

Overview of the project site

The proposed Spookdraai Residential Development is located on the Remainder of Farm Paapekuilsfontein 281, Struisbaai. The site spans approximately 0.71 hectares and lies adjacent to Marine Drive, within the urban edge of Struisbaai, a coastal village known for its scenic landscapes and natural beauty. The property is strategically positioned alongside the coastline, within 100 meters of the high-water mark.

The development proposal includes the construction of six single residential dwellings, each designed to fit with the surrounding natural landscape. In addition to the dwellings, the development will feature associated infrastructure, including utilities such as water and electrical connections, roads, and a stormwater management systems. Open spaces will also be incorporated into the design to provide residents with recreational areas and preserve the area's ecological integrity.

Given the site's location within the Coastal Protection Zone (CPZ), careful planning and consideration of environmental sensitivities are were at the forefront of the design of the development. Cognisance is taken of the Integrated Coastal Management Act (ICMA) and relevant environmental guidelines, to ensure minimal impact on the coastal ecosystem, while also meeting the demand for upmarket residential opportunities in the Struisbaai area.

Summary of specialist input

To assess the potential impacts of the proposed development, the following specialist assessments were included in the Environmental Application:

- Terrestrial Biodiversity Impact Assessment by Dave McDonald ***(Appendix G1)***

- Heritage Impact Assessment ***(Appendix G2)***

-Archaeological Impact Assessment ***(Appendix G3)***

*-Visual Impact Assessment (****Appendix G4****)*

-Palaeontological Impact Assessment ***(Appendix G5)***

-Landscape Guideline Report ***(Appendix G6)***

-Traffic Impact Assessment ***(Appendix G7)***

-Electrical Engineering Report ***(Appendix G8)***

-Civil, Roads and Services Report ***(Appendix G9)***

Alternatives

Three Layout alternatives and the No development alternative are assessed in this Basic Assessment process. After the impact assessment process, along with specialist input, Alternative 4 is currently considered the preferred development option for the proposal.

Process

This document is the Draft, out of process, Pre-Application Basic Assessment Report for the first round of Public Participation. Interested and Affected Parties (I&AP's) are requested to register as I&AP's and provide their comments and input. Response to the comments will become available during the second round of public participation. This report should be read in conjunction with the attached Appendices, including:

-Appendix A – Locality Plan

-Appendix B – Site Development Plan and alternatives

-Appendix C – Photo Report

-Appendix D – BGIS Sensitivity Mapping

-Appendix E – Heritage Documents

-Appendix F – Public Participation

-Appendix G – Specialist Reports

-Appendix H – Environmental Management Programme

-Appendix I – Screening Tool Report and SSVR

IMPORTANT INFORMATION TO BE READ PRIOR TO COMPLETING THIS BASIC ASSESSMENT REPORT

1. **The purpose** of this template is to provide a format for the Basic Assessment report as set out in Appendix 1 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended) in order to ultimately obtain Environmental Authorisation.

2. The Environmental Impact Assessment ("EIA") Regulations is defined in terms of Chapter 5 of the National Environmental Management Act, 19998 (Act No. 107 of 1998) ("NEMA") hereinafter referred to as the "NEMA EIA Regulations".

3. *Submission of documentation, reports and other correspondence:*

   The Department has adopted a digital format for corresponding with proponents/applicants or the general public. If there is a conflict between this approach and any provision in the legislation, then the provisions in the legislation prevail. If there is any uncertainty about the requirements or arrangements, the relevant Competent Authority must be consulted.

   The Directorate: Development Management has created generic e-mail addresses for the respective Regions, to centralise their administration. Please make use of the relevant general administration e-mail address below when submitting documents:

   DEADPEIAAdmin@westerncape.gov.za
   Directorate: Development Management (Region 1):
   City of Cape Town; West Coast District Municipal area;
   Cape Winelands District Municipal area and Overberg District Municipal area.

   DEADPEIAAdmin.George@westerncape.gov.za
   Directorate: Development Management (Region 3):
   Garden Route District Municipal area and Central Karoo District Municipal area

   General queries must be submitted via the general administration e-mail for EIA related queries. Where a case-officer of DEA&DP has been assigned, correspondence may be directed to such official and copied to the relevant general administration e-mail for record purposes.

   All correspondence, comments, requests and decisions in terms of applications, will be issued to either the applicant/requester in a digital format via email, with digital signatures, and copied to the Environmental Assessment Practitioner ("EAP") (where applicable).

4. The required information must be typed within the spaces provided in this Basic Assessment Report ("BAR"). The sizes of the spaces provided are not necessarily indicative of the amount of information to be provided.

5. All applicable sections of this BAR must be completed.

6. Unless protected by law, all information contained in, and attached to this BAR, will become public information on receipt by the Competent Authority. If information is not submitted with this BAR due to such information being protected by law, the applicant and/or Environmental Assessment Practitioner ("EAP") must declare such non-disclosure and provide the reasons for believing that the information is protected.

7. This BAR is current as of **April 2024**. It is the responsibility of the Applicant/ EAP to ascertain whether subsequent versions of the BAR have been released by the Department. Visit this Department's website at http://www.westerncape.gov.za to check for the latest version of this BAR.

8. This BAR is the standard format, which must be used in all instances when preparing a BAR for Basic Assessment applications for an environmental authorisation in terms of the NEMA EIA Regulations when the Western Cape Government Department of Environmental Affairs and Development Planning ("DEA&DP") is the Competent Authority.

9. Unless otherwise indicated by the Department, one hard copy and one electronic copy of this BAR must be submitted to the Department at the postal address given below or by delivery thereof to the Registry Office of the Department. Reasonable access to copies of this Report must be provided to the relevant Organs of State for consultation purposes, which may, if so indicated by the Department, include providing a printed copy to a specific Organ of State.

10. This BAR must be duly dated and originally signed by the Applicant, EAP (if applicable) and Specialist(s) and must be submitted to the Department at the details provided below.

11. The Department's latest Circulars pertaining to the "One Environmental Management System" and the EIA Regulations, any subsequent Circulars, and guidelines must be taken into account when completing this BAR.

12. Should a water use licence application be required in terms of the National Water Act, 1998 (Act No. 36 of 1998) ("NWA"), the "One Environmental System" is applicable, specifically in terms of the synchronisation of the consideration of the application in terms of the NEMA and the NWA. Refer to this Department's Circular EADP 0028/2014: One Environmental Management System.

13. Where Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA") is triggered, a copy of Heritage Western Cape's final comment must be attached to the BAR.

14. The Screening Tool developed by the National Department of Environmental Affairs must be used to generate a screening report. Please use the Screening Tool link https://screening.environment.gov.za/screeningtool to generate the Screening Tool Report. The screening tool report must be attached to this BAR.

15. Where this Department is also identified as the Licencing Authority to decide on applications under the National Environmental Management: Air Quality Act (Act No. 29 of 2004) ('NEM:AQA"), the submission of the Report must also be made as follows, for-
    Waste Management Licence Applications, this report must also (i.e., another hard copy and electronic copy) be submitted for the attention of the Department's Waste Management Directorate (Tel: 021-483-2728/2705 and Fax: 021-483-4425) at the same postal address as the Cape Town Office.

    Atmospheric Emissions Licence Applications, this report must also be (i.e., another hard copy and electronic copy) submitted for the attention of the Licensing Authority or this Department's Air Quality Management Directorate (Tel: 021 483 2888 and Fax: 021 483 4368) at the same postal address as the Cape Town Office.

DEPARTMENTAL DETAILS	
CAPE TOWN OFFICE: **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 1)** (City of Cape Town, West Coast District, Cape Winelands District & Overberg District)	**GEORGE REGIONAL OFFICE:** **DIRECTORATE: DEVELOPMENT MANAGEMENT (REGION 3)** (Central Karoo District & Garden Route District)
The completed Form must be sent via electronic mail to: DEADPEIAAdmin@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 1) at: E-mail: DEADPEIAAdmin@westerncape.gov.za Tel: (021) 483-5829 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 1) Private Bag X 9086 Cape Town, 8000	The completed Form must be sent via electronic mail to: DEADPEIAAdmin.George@westerncape.gov.za Queries should be directed to the Directorate: Development Management (Region 3) at: E-mail: DEADPEIAAdmin.George@westerncape.gov.za Tel: (044) 814-2006 Western Cape Government Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management (Region 3) Private Bag X 6509 George, 6530

MAPS

Provide a location map (see below) as Appendix A1 to this BAR that shows the location of the proposed development and associated structures and infrastructure on the property.	
Locality Map:	The scale of the locality map must be at least 1:50 000. For linear activities or development proposals of more than 25 kilometres, a smaller scale e.g., 1:250 000 can be used. The scale must be indicated on the map. The map must indicate the following: • an accurate indication of the project site position as well as the positions of the alternative sites, if any; • road names or numbers of all the major roads as well as the roads that provide access to the site(s) • a north arrow; • a legend; and • a linear scale. For ocean based or aquatic activity, the coordinates must be provided within which the activity is to be undertaken and a map at an appropriate scale clearly indicating the area within which the activity is to be undertaken. Where comment from the Western Cape Government: Transport and Public Works is required, a map illustrating the properties (owned by the Western Cape Government: Transport and Public Works) that will be affected by the proposed development must be included in the Report.
Provide a detailed site development plan / site map (see below) as Appendix B1 to this BAR; and if applicable, all alternative properties and locations.	
Site Plan:	Detailed site development plan(s) must be prepared for each alternative site or alternative activity. The site plans must contain or conform to the following: • The detailed site plan must preferably be at a scale of 1:500 or at an appropriate scale. The scale must be clearly indicated on the plan, preferably together with a linear scale. • The property boundaries and numbers of all the properties within 50m of the site must be indicated on the site plan. • On land where the property has not been defined, the co-ordinates of the area in which the proposed activity or development is proposed must be provided. • The current land use (not zoning) as well as the land use zoning of each of the adjoining properties must be clearly indicated on the site plan. • The position of each component of the proposed activity or development as well as any other structures on the site must be indicated on the site plan. • Services, including electricity supply cables (indicate aboveground or underground), water supply pipelines, boreholes, sewage pipelines, storm water infrastructure and access roads that will form part of the proposed development **must** be clearly indicated on the site plan. • Servitudes and an indication of the purpose of each servitude must be indicated on the site plan.

	• Sensitive environmental elements within 100m of the site must be included on the site plan, including (but not limited to): o Watercourses / Rivers / Wetlands o Flood lines (*i.e.,* 1:100 year, 1:50 year and 1:10 year where applicable); o Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"): o Ridges; o Cultural and historical features/landscapes; o Areas with indigenous vegetation (even if degraded or infested with alien species). • Whenever the slope of the site exceeds 1:10, a contour map of the site must be submitted. • North arrow A map/site plan must also be provided at an appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred and alternative sites indicating any areas that should be avoided, including buffer areas.
Site photographs	Colour photographs of the site that shows the overall condition of the site and its surroundings (taken on the site and taken from outside the site) with a description of each photograph. The vantage points from which the photographs were taken must be indicated on the site plan, or locality plan as applicable. If available, please also provide a recent aerial photograph. Photographs must be attached to this BAR as **Appendix C**. The aerial photograph(s) should be supplemented with additional photographs of relevant features on the site. Date of photographs must be included. Please note that the above requirements must be duplicated for all alternative sites.
Biodiversity Overlay Map:	A map of the relevant biodiversity information and conditions must be provided as an overlay map on the property/site plan. The Map must be attached to this BAR as **Appendix D**.
Linear activities or development and multiple properties	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek 94 WGS84 co-ordinate system. Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm Name(s)/Portion(s)/Erf number(s) to this BAR as an Appendix. For linear activities that are longer than 500m, please provide a map with the co-ordinates taken every 100m along the route to this BAR as **Appendix A3**.

ACRONYMS

DAFF:	Department of Forestry and Fisheries
DEA:	Department of Environmental Affairs
DEA& DP:	Department of Environmental Affairs and Development Planning
DHS:	Department of Human Settlement
DoA:	Department of Agriculture
DoH:	Department of Health
DWS:	Department of Water and Sanitation
EMPr:	Environmental Management Programme
HWC:	Heritage Western Cape
NFEPA:	National Freshwater Ecosystem Protection Assessment
NSBA:	National Spatial Biodiversity Assessment
TOR:	Terms of Reference
WCBSP:	Western Cape Biodiversity Spatial Plan
WCG:	Western Cape Government

ATTACHMENTS

Note: The Appendices must be attached to the BAR as per the list below. Please use a ✓ **(**tick) or a **x** (cross) to indicate whether the Appendix is attached to the BAR.

The following checklist of attachments must be completed.

APPENDIX			**✓ (Tick) or x (cross)**
Appendix A:	**Maps**		
	Appendix A1:	**Locality Map**	✓
	Appendix A2:	**Coastal Risk Zones as delineated in terms of ICMA for the Western Cape by the Department of Environmental Affairs and Development Planning**	
	Appendix A3:	**Map with the GPS co-ordinates for linear activities**	
Appendix B:	**Appendix B1:**	**Site development plan(s)**	✓
	Appendix B2	**A map of appropriate scale, which superimposes the proposed development and its associated structures and infrastructure on the environmental sensitivities of the preferred site, indicating any areas that should be avoided, including buffer areas;**	
Appendix C:	**Photographs**		✓
Appendix D:	**Biodiversity overlay map**		✓
Appendix E:	**Permit(s) / license(s) / exemption notice, agreements, comments from State Department/Organs of state and service letters from the municipality.**		
	Appendix E:	**Final comment/ROD from HWC**	✓
	Appendix E2:	**Copy of comment from Cape Nature**	Pending
	Appendix E3:	**Final Comment from the DWS**	N/A
	Appendix E4:	**Comment from the DEA: Oceans and Coast**	Pending
	Appendix E5:	**Comment from the DAFF**	N/A
	Appendix E6:	**Comment from WCG: Transport and Public Works**	N/A
	Appendix E7:	**Comment from WCG: DoA**	Pending
	Appendix E8:	**Comment from WCG: DHS**	N/A

	Appendix E9:	**Comment from WCG: DoH**	N/A
	Appendix E10:	**Comment from DEA&DP: Pollution Management**	N/A
	Appendix E11:	**Comment from DEA&DP: Waste Management**	N/A
	Appendix E12:	**Comment from DEA&DP: Biodiversity**	N/A
	Appendix E13:	**Comment from DEA&DP: Air Quality**	N/A
	Appendix E14:	**Comment from DEA&DP: Coastal Management**	Pending
	Appendix E15:	**Comment from the local authority**	Pending
	Appendix E16:	**Confirmation of all services (water, electricity, sewage, solid waste management)**	
	Appendix E17:	**Comment from the District Municipality**	Pending
	Appendix E18:	**Copy of an exemption notice**	N/A
	Appendix E19	**Pre-approval for the reclamation of land**	N/A
	Appendix E20:	**Proof of agreement/TOR of the specialist studies conducted.**	
	Appendix E21:	**Proof of land use rights**	
	Appendix E22:	**Proof of public participation agreement for linear activities**	N/A
Appendix F:	**Public participation information: including a copy of the register of I&APs, the comments and responses Report, proof of notices, advertisements and any other public participation information as is required.** **Notice of Public Participation is attached**		
Appendix G:	**Specialist Report(s)** **Appendix G1 Terrestrial Biodiversity Impact Assessment** **Appendix G2 Heritage Impact Assessment** **Appendix G3: Archaeological Impact Assessment** **Appendix G4: Visual Impact Assessment** **Appendix G5: Palaeontological Impact Assessment** **Appendix G6: Landscape Guidelines** **Appendix G7 Traffic Impact Assessment** **Appendix G8: Electrical Engineering Report** **Appendix G9: Civil Roads and Services Report**		✓
Appendix H:	**EMPr**		✓

Appendix I:	**Screening tool report**	✓
Appendix J:	**The impact and risk assessment for each alternative**	
Appendix K:	**Need and desirability for the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013)/DEA Integrated Environmental Management Guideline**	
Appendix…..	**Any other attachments must be included as subsequent appendices**	

SECTION A: ADMINISTRATIVE DETAILS

Highlight the Departmental Region in which the intended application will fall	CAPE TOWN OFFICE: REGION 1		GEORGE OFFICE: BEGION 3
	(City of Cape Town, West Coast District	(Cape Winelands District & Overberg District)	(Central Karoo District & Garden Route District)

Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	Helemika Number 1 (Pty) Ltd	
Name of contact person for Applicant/Proponent (if other):	Michael Wurbach	
Company/ Trading name/State Department/Organ of State:	Helemika Number 1 (Pty) Ltd	
Company Registration Number:	200402233607	
Postal address:	-	
	-	Postal code:-
Telephone:	( )	Cell: 082 413 2874
E-mail:	michaelw@opes.co.za	Fax: ( )
Company of EAP:	Lornay Environmental Consulting	
EAP name:	Michelle Naylor	
Postal address:	Unit 5/1 F, Hemel en Aarde Wine Village,	
	Hermanus	Postal code: 7200
Telephone:	( )	Cell: 083 245 6556
E-mail:	michelle@lornay.co.za	Fax: ( )
Qualifications:	Master of Science (Rhodes University)	
EAP registration no:	2019/698	
Duplicate this section where there is more than one landowner Name of landowner:	N/A	
Name of contact person for landowner (if other):		
Postal address:		
		Postal code:
Telephone:	( )	Cell:
E-mail:		Fax: ( )
Name of Person in control of the land:	N/A	
Name of contact person for person in control of the land:		
Postal address:		
		Postal code:
Telephone:	( )	Cell:
E-mail:		Fax: ( )

Duplicate this section where there is more than one Municipal Jurisdiction Municipality in whose area of jurisdiction the proposed activity will fall:	Cape Agulhas Municipality	
Contact person:	Environmental Manager	
Postal address:	1 Dirkie Uys Street	
	PO Box 51	Postal code: 7280
Telephone	028 425 5500	Cell:
E-mail:	info@capeagulhas.gov.za	Fax: ( )

SECTION B: CONFIRMATION OF SPECIFIC PROJECT DETAILS AS INCLUDED IN THE APPLICATION FORM

1.	Is the proposed development (please tick):	New	x	Expansion	
2.	Is the proposed site(s) a brownfield of greenfield site? Please explain.				

The proposed site is classified as a greenfield site because it is currently undeveloped and predominantly consists of natural features such as rocky outcrops and indigenous vegetation. The site has also been disturbed by adhoc footpaths, general use and stormwater erosion.

~~3.~~	**~~For Linear activities or developments~~**	
~~3.1.~~	~~Provide the Farm(s)/Farm Portion(s)/Erf number(s) for all routes:~~	
~~3.2.~~	~~Development footprint of the proposed development for all alternatives.~~	~~m²~~
~~3.3.~~	~~Provide a description of the proposed development (e.g. for roads the length, width and width of the road reserve in the case of pipelines indicate the length and diameter) for all alternatives.~~	
~~3.4.~~	~~Indicate how access to the proposed routes will be obtained for all alternatives.~~	
~~3.5.~~	~~SG Digit codes of the Farms/Farm Portions/Erf numbers for all alternatives~~	
~~3.6.~~	**~~Starting point co-ordinates for all alternatives~~**	
	~~Latitude (S)~~	~~º~~ ~~‘~~ ~~“~~
	~~Longitude (E)~~	~~º~~ ~~‘~~ ~~“~~
	~~Middle-point co-ordinates for all alternatives~~	
	~~Latitude (S)~~	~~º~~ ~~‘~~ ~~“~~
	~~Longitude (E)~~	~~º~~ ~~‘~~ ~~“~~
	~~End point co-ordinates for all alternatives~~	
	~~Latitude (S)~~	~~º~~ ~~‘~~ ~~“~~
	~~Longitude (E)~~	~~º~~ ~~‘~~ ~~“~~

Note: For Linear activities or developments longer than 500m, a map indicating the co-ordinates for every 100m along the route must be attached to this BAR as Appendix A3.

4.	**Other developments**	
4.1.	Property size(s) of all proposed site(s):	7100 m² 0.71 ha
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):	0 m²
4.3.	Development footprint of the proposed development and associated	

ERF	ZONING	SIZE	TOTAL (m²)
1	Single Residential	525	

	infrastructure size(s) for all alternatives:	2	Single Residential	527	
		3	Single Residential	513	
		4	Single Residential	522	
		5	Single Residential	522	
		6	Single Residential	523	3132
		7	Open Space (Public)	89	
		8	Open Space (Private)	3145	
		9	Open Space (Private)	59	3293
		10	Private street and refuse		688
				TOTAL	**7113**

4.4.	Provide a detailed description of the proposed development and its associated infrastructure (This must include details of e.g. buildings, structures, infrastructure, storage facilities, sewage/effluent treatment and holding facilities).

The applicant proposes the subdivision and rezoning of the Remainder of the Farm No. 281 to establish Spookdraai Residential Development - a residential housing complex comprising 10 erven with 6 single residential dwellings and associated infrastructure. The property is approximately 7100 m² and is located within the urban edge as confirmed by the Cape Agulhas Municipality (refer to Appendix B4). The following is proposed in the preferred alternative:

ERF	ZONING	SIZE	TOTAL (m^2)
1	Single Residential	525	
2	Single Residential	527	
3	Single Residential	513	
4	Single Residential	522	
5	Single Residential	522	
6	Single Residential	523	3132
7	Open Space (Public)	89	
8	Open Space (Private)	3145	
9	Open Space (Private)	59	3293
10	Private street and refuse		688
		TOTAL	**7113**

1. Residential Erven

The development allocates **3132 m²** for the construction of six single residential erven as follows:

- → Erf 1: 525 m^2
- → Erf 2: 527 m^2
- → Erf 3: 513 m^2
- → Erf 4: 522 m^2
- → Erf 5: 522 m^2
- → Erf 6: 523 m^2

2. Open Space Erven

Three open space erven will be set aside for public and private green spaces, with an overall footprint of **3293 m²**, as follows:

- → Open Space (Public): 89 m^2
- → Open Space (Private): 3145 m^2
- → Open Space (Private): 59 m^2

3. Road and Refuse Erven

A private road with a maximum width of **4 m** and a length of **688 m** will be constructed to provide internal access. Access to the site already exists off Marine Drive. A refuse room will be located near the entrance of the development.

4. Bulk Services

Water

→ There is an existing 100 mm municipal watermain located on the northern side of Marine Drive (MR261). The proposed development will be linked to this existing watermain.
→ The ground level heights of the proposed development will not provide any low water pressure problems, as it is situated directly below the Struisbaai municipal water reservoirs.
→ With the water shortages previously experienced in the Western Cape and the possibility of this shortages occurring again in the future, water saving and harvesting measures must be investigated and implemented for the proposed development.
→ The maximum water pipe size for the proposed development will be 110 mm diameter.
→ The internal water pipes will be sized to cater for the proposed development's peak water demand and fire requirements and will be constructed to the Cape Agulhas Municipalities minimum acceptable standards. The developer will provide the entire water network including all pipes, valves, hydrants and bends.
→ The water pipelines will be installed behind the road edge and will follow the existing roads as far as possible.

Sewer

→ The proposed development will make use of conservancy tanks that will be linked to a central system for the municipality to extract the sewerage with a tanker system. If and when, the municipality installs a gravity sewer system, the central conservancy tank could be converted to a sewer pump station and the sewerage could be pumped to the municipal gravity sewer system.
→ The maximum sewer pipe size will be 160 mm diameter.
→ The sewer pipes for the proposed development will be sized to cater for the proposed development's peak flow conditions. The sewer system will comprise of a waterborne gravity sewer system and a conservancy tank system, and all areas of the proposed development will be served with sewer connections.
→ The sewer pipelines will be installed under the surfaced road area and will follow the existing roads as far as possible. The main pipelines will be installed in trenches up to 2.5m deep and 800mm wide. The erf sewer connections will be 1.2 m deep.
→ The sewer reticulation will consist of 110 mmØ and 160 mmØ class 34 heavy duty uPVC solid wall pipes.
→ The sewer from the proposed development will connect to a conservancy tank system that will be serviced by the Cape Agulhas Municipality

Roads

→ The proposed development is adequately serviced by Marine Drive (Provincial Main Road MR261). The access to the proposed development will be taken from an access point off Marine Drive (Provincial Main Road MR261). The new internal road access will be designed to allow sufficient entry and exit lanes to the various areas of the proposed development. All roads and turning circles will be of a suitable width and radius to allow the comfortable movement of passenger, municipal, refuse and emergency vehicles and all roads will be designed to provide access to the proposed erven.

Stormwater

→ No municipal stormwater management system exists on Marine Drive (MR261) but an existing municipal stormwater outlet exists at the eastern boundary of the subject property. This municipal stormwater system is an outlet for the residential developments to the north of Marine Drive and exits between erven 1995 and 1003. It must be noted that this stormwater system drains onto the proposed development and would need to be redirected around the proposed development as it is currently causing erosion on site
→ The stormwater flow from the proposed development will be accommodated on the proposed development. The majority of the system will be accommodated within the road reserve area and will be based on the 100-year storm event and the piped underground stormwater system will be designed to accommodate the 2-year storm event. The attenuation volume

will be based on the post-development flow less the pre-development flow. In this manner, erosion and stormwater damage can be minimised. All erf and road levels within the proposed development will be shaped to create the necessary falls towards the proposed stormwater system.

→ The stormwater system from the proposed development will exit to the sea, but will be managed through a stormwater dissipation, silt and debris trap to prevent any contamination at the coast.

→ The maximum pipe size to be provided at the proposed development will be 375 mm diameter.

Solid Waste

→ The refuse from the development will be collected by the Cape Agulhas Municipality. There will be refuse bins provided at each proposed residential unit, which will be taken weekly to the proposed on site refuse room, which is situated close to the entrance of the proposed development. An adequate turning facility will be provided at the refuse room for the municipal refuse trucks.

Electricity

→ The property will be connected to Eskom electrical supply

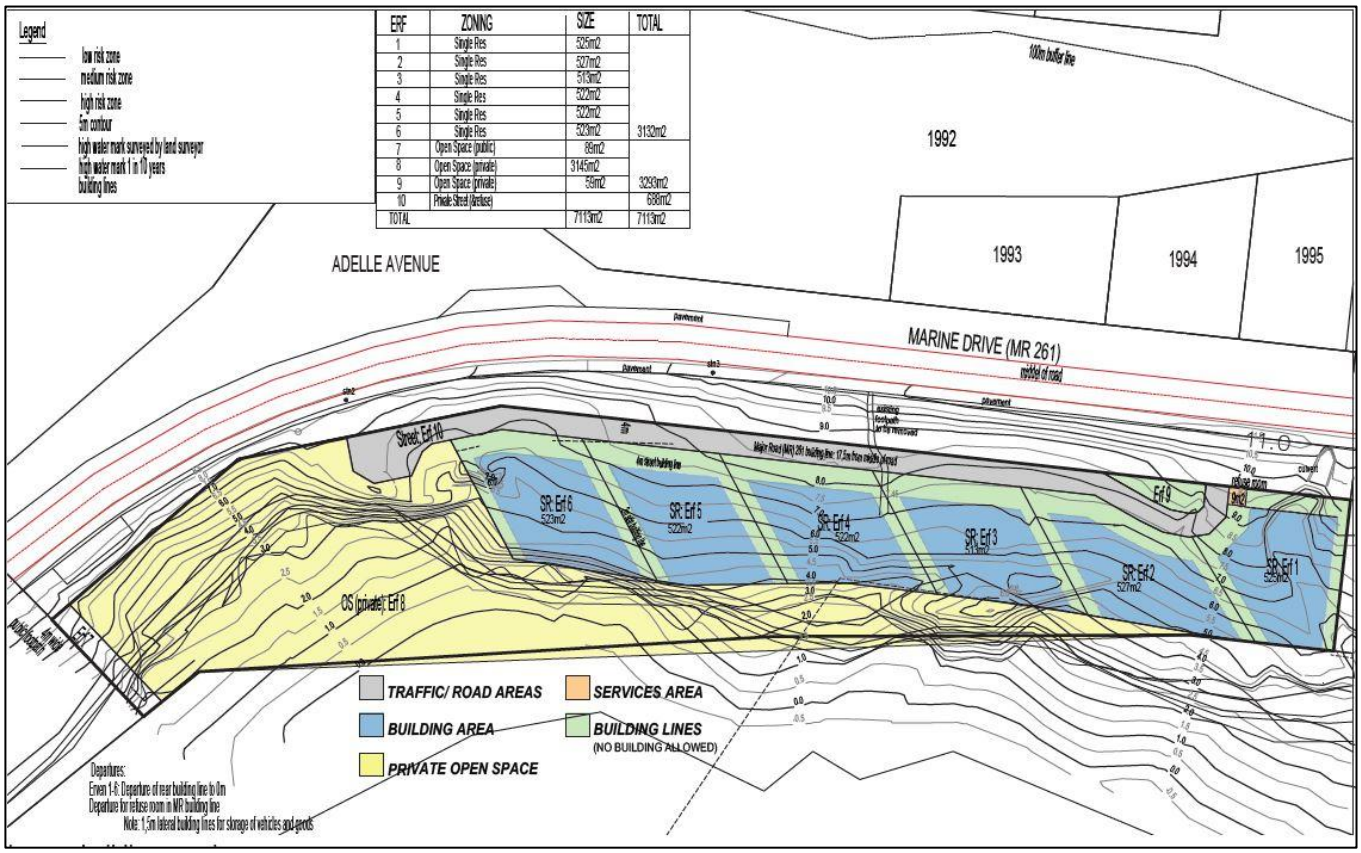

Figure 1: Proposed site development plan.

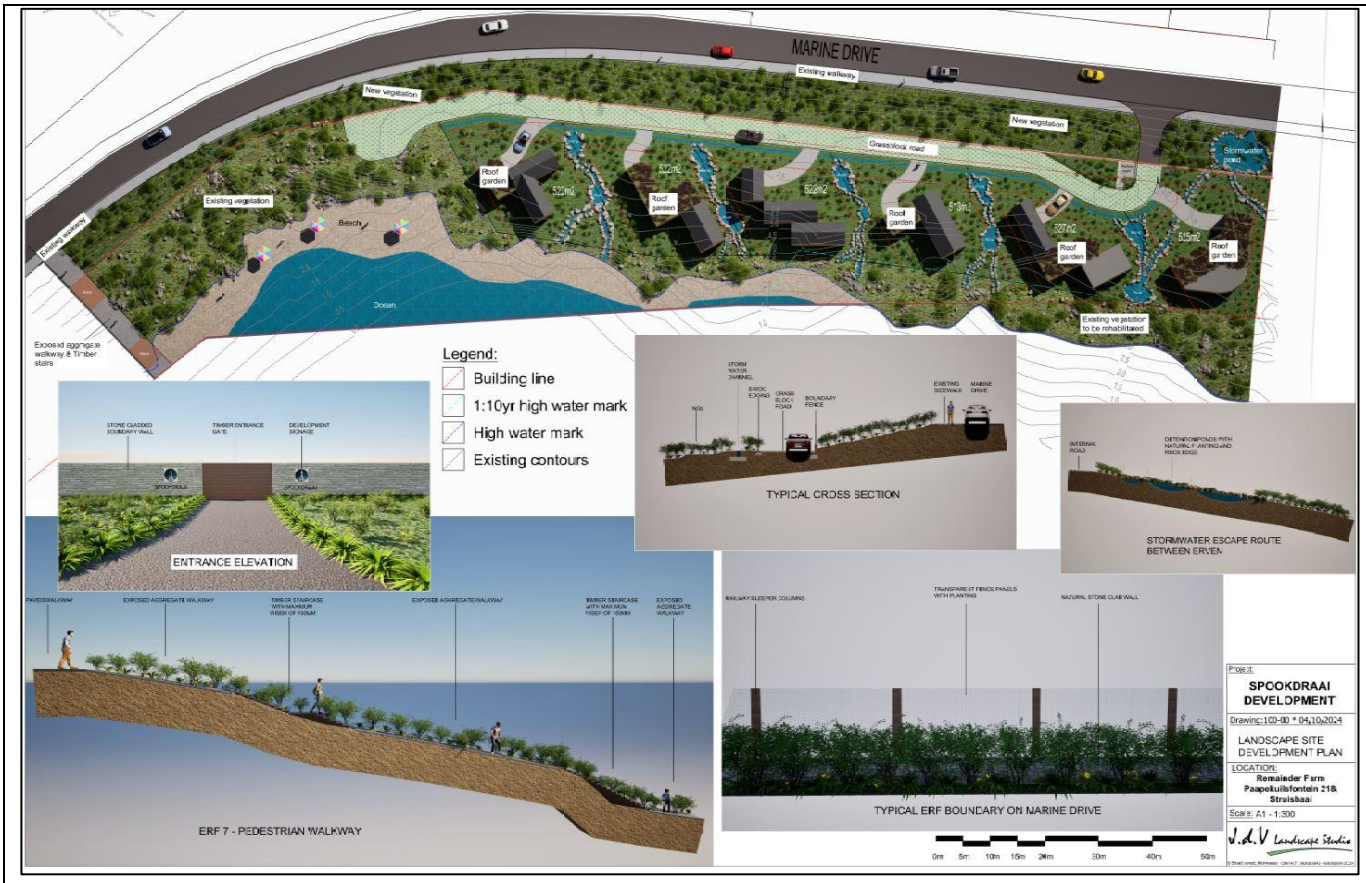

Figure 2: Visual presentation of the proposed Spookdraai Development

4.5.	Indicate how access to the proposed site(s) will be obtained for all alternatives.

Access is existing off Marine Drive.

4.6.	SG Digit code(s) of the proposed site(s) for all alternatives:	C	0	1	1	0	0	0	0	0	0	0	0	0	2	8	1	0	0	0	0	0

4.7.	Coordinates of the proposed site(s) for all alternatives:			
	Latitude (S)	34°	48‘	49.18“
	Longitude (E)	20°	1‘	52.39“

SECTION C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS

1. Exemption applied for in terms of the NEMA and the NEMA EIA Regulations

Has exemption been applied for in terms of the NEMA and the NEMA EIA Regulations. If yes, include a copy of the exemption notice in Appendix E18.	YES	NO X

2. Is the following legislation applicable to the proposed activity or development.

The National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) ("ICMA"). If yes, attach a copy of the comment from the relevant competent authority as Appendix E4 and the pre-approval for the reclamation of land as Appendix E19.	YES X	NO
The National Heritage Resources Act, 1999 (Act No. 25 of 1999) ("NHRA"). If yes, attach a copy of the comment from Heritage Western Cape as Appendix E1.	YES X	NO
The National Water Act, 1998 (Act No. 36 of 1998) ("NWA"). If yes, attach a copy of the comment from the DWS as Appendix E3.	YES	NO X
The National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) ("NEM:AQA"). If yes, attach a copy of the comment from the relevant authorities as Appendix E13.	YES	NO X
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	YES	NO X
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	YES	NO X
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	YES	NO X
The Conservation of Agricultural Resources Act, 1983 (Act No. 43 of 1983). If yes, attach comment from the relevant competent authority as Appendix E5.	YES	NO X

3. Other legislation

List any other legislation that is applicable to the proposed activity or development.
-

4. Policies

Explain which policies were considered and how the proposed activity or development complies and responds to these policies.

1. <u>Cape Agulhas Municipality Spatial Development Framework, (2022-2027)</u>

The proposed development complies with the Cape Agulhas Municipality SDF. The property is located within the demarcated urban edge, as outlined in the SDF, which encourages development that aligns with the strategic urban growth objectives of the municipality. The SDF promotes compact, efficient urban areas to optimize the use of existing infrastructure while limiting urban sprawl.

The proposed subdivision and rezoning align with these principles by utilizing land within the urban edge to create a low-impact, well-planned opportunities. The development adheres to the SDF's goals of enhancing sustainable urban development and maintaining a balance between agricultural activities and urban growth. Furthermore, the provision of infrastructure within the development footprint ensures minimal impact on surrounding agricultural land uses, reinforcing the SDF's objectives of protecting agricultural resources while accommodating growth where appropriate.

2. <u>Cape Agulhas Municipal Integrated Development Plan (2024-2025)</u>

The Cape Agulhas Municipal IDP emphasizes sustainable development, urban consolidation, and the efficient use of land within the urban edge. The proposed development aligns with these objectives by being situated within the municipality's designated urban edge. This reduces urban sprawl and promotes densification in a manner consistent

with the IDP's goals. Furthermore, the development will contribute to the local economy through construction activities and long-term property-related revenues, supporting the municipality's economic development objectives.

3. Western Cape Provincial Spatial Development Framework (PSDF) 2014

The PSDF promotes sustainable development through efficient land use, protection of agricultural and natural resources, and enhancement of socio-economic opportunities. By proposing the development within an built up urban edge and on a site that no longer serves as productive agricultural land, the project aligns with the PSDF's directive to focus growth in already established urban areas, thereby reducing pressure on natural and agricultural landscapes.

5. Guidelines

List the guidelines which have been considered relevant to the proposed activity or development and explain how they have influenced the development proposal.

1. National Environmental Management Act 107 of 1998, As amended (NEMA) & the EIA Regulations (2014) as amended.

The application is undertaken according to the NEMA EIA Regulations, 2014 (as amended). The development proposal incorporates measures to mitigate any identified negative environmental impacts, ensuring compliance with the legal framework set out by NEMA. This includes considerations for the protection of sensitive ecosystems, as well as the involvement of relevant stakeholders and specialists in the environmental review process.

2. Guideline on Alternatives (March 2013)

The application involves the consideration of alternatives for the proposed development. This has informed the proposal by requiring evaluation of environmentally sensitive alternatives, ensuring that the preferred option minimizes ecological disturbance and aligns with sustainability objectives.

3. Guidelines on Need and Desirability 2010

This has influenced the development proposal by ensuring that the project aligns with local socio-economic needs and contributes positively to the community. The proposed development has been evaluated in terms of its ability to create jobs, support tourism, and enhance the region’s economic viability while respecting the local character and environmental integrity.

4. Guidelines for involving Biodiversity Specialist in EIA Processes

The development proposal includes input from biodiversity specialists to ensure the protection and at times, the enhancement of, native flora and fauna. This includes the identification of sensitive species and habitats on-site, and the incorporation of mitigation strategies to avoid or minimize impacts on biodiversity, such as the establishment of ecological corridors and habitat restoration efforts by encouraging small footprints, natural gardens and limited seaside landscaping.

5. Guidelines on Environmental Management Plans (June 2005)

The proposal includes the development of an EMP, which outlines specific actions and responsibilities for minimizing and mitigating potential environmental impacts during construction and post-construction phase. This includes measures for botanical impacts, visual and heritage.

6. Protocols

Explain how the proposed activity or development complies with the requirements of the protocols referred to in the NOI and/or application form

Agriculture Theme (Low Sensitivity)

The proposed development site is situated within the demarcated urban edge, aligning with surrounding residential developments and no agricultural activities have been practiced on the site**.** Due to its small size, location along the coast and integration into the urban fabric, it is not suitable for farming. No further assessment is required for this theme.

Animal Species Theme (Medium Sensitivity)

The Botanical Assessment conducted by David J. McDonald of Bergwind Botanical Surveys & Tours CC identified signs of prior and current disturbances on the site, including evidence of human activity, informal coastal access pathways, and stormwater discharge with associated erosion impacts. Observations further indicated the absence of significant animal species, such as birds and insect communities, within the Dune Strandveld habitat. This lack of fauna, combined with the disturbed condition of the habitat, as well as the property's location within a high traffic area, suggests that the property does not serve as critical habitat for any species of concern. Based on the site's condition, the specialist concluded that the Terrestrial Biodiversity sensitivity should not exceed medium sensitivity due to the combination of historical disturbances, no faunal presence, and the compromised ecological integrity of the habitat. The impact was then reduced in line with the evolution of the layout alternatives.

Aquatic Biodiversity Theme (Low Sensitivity)

The property is located along the coastal area of Struisbaai, and no freshwater watercourses or wetlands are present on or adjacent to the subject erf. The proposed development activities are also located above the 5 m contour of the sea and behind the various coastal risk zones. No further assessment is required for this theme.

Archaeological and Cultural Heritage Theme (Low Sensitivity)

A Notice of Intent to Develop (NID) has been submitted to Heritage Western Cape (HWC). The Heritage Impact Assessment which included the Archaeological Impact Assessment, Palaeontological Impact Assessment and Visual Impact Assessment studies were undertaken and are attached under **Appendix G2-G5**. The final decision relating to the Heritage theme is pending with Heritage Western Cape in line with their application protocols.

Civil Aviation Theme (High Sensitivity)

The proposed development is located within the adopted urban edge, as well as the built up urban edge and is in line with the existing residential development in the area. No further assessment required.

Defence Theme (Low Sensitivity)

The proposed development is in line with the existing residential development in the area. No further assessment required.

Palaeontology Theme (Very High Sensitivity)

The Heritage Impact Assessment included the Palaeontological Impact Assessment, Archaeological Impact Assessment and Visual Impact Assessment and has been conducted in line with the Heritage Western Cape requirements in response to the NID submitted to their Department. The assessment highlighted that the low-density development will not impact on palaeontological resources on site and offers opportunities for discovery. The specialist report is attached under **Appendix G5.**

Plant Species Theme (Medium Sensitivity)

A Terrestrial Plant Species Impact Assessment was conducted by Dave McDonald of Bergwind Consulting. According to the National Vegetation Map 2024, the property is situated within the Agulhas Limestone Fynbos and Southwestern Strandveld vegetation types. The area designated for development on the eastern portion of the site is classified as having low sensitivity vegetation. In contrast, the western portion of the property, where no development is proposed in the preferred alternative, contains vegetation of medium sensitivity. The botanical survey confirmed that no plant species of conservation concern were identified on the property.

Terrestrial Biodiversity Theme (Very High Sensitivity)

A Terrestrial Plant Species Impact Assessment was conducted by Dave McDonald of Bergwind Consulting. According to the National Vegetation Map 2024, the property is situated within the Agulhas Limestone Fynbos and Southwestern Strandveld vegetation types. The area designated for development on the eastern portion of the site is classified as having low sensitivity vegetation. In contrast, the western portion of the property, where no development is proposed in the preferred alternative, contains vegetation of medium sensitivity. The botanical survey confirmed that no plant species of conservation concern were identified on the property.

Summary of themes and site sensitivities as per online DFFE GIS Mapping Screening Tool:

Theme	Very High sensitivity	High sensitivity	Medium sensitivity	Low sensitivity
Agriculture Theme				X
Animal Species Theme			X	
Aquatic Biodiversity Theme				X
Archaeological and Cultural Heritage Theme				X
Civil Aviation Theme		X		
Defence Theme				X
Paleontology Theme	X			
Plant Species Theme			X	
Terrestrial Biodiversity Theme	X			

Specialist Assessments identified for inclusion in the assessment report:

Landscape /Visual Impact Assessment

A Visual Impact Assessment has been undertaken. The proposed development site is located along the Marine Road and within areas offering scenic views of the coast, which will have a moderate negative visual impact.

Archaeological and Cultural Heritage Impact Assessment

The Heritage Impact Assessment which consisted of the Archaeological Impact Assessment (AIA), Palaeontological Impact Assessment (PIA) and the Visual Impact Assessment (VIA) have been undertaken. The studies, which are attached to this report, indicate that the development will have a low impact on palaeontological and archaeological resources, provided mitigation measures are implemented. The visual intrusion from the development is expected to result in a medium negative impact with mitigation measures offers and refinement of the alternatives in response to this assessment.

Palaeontology Impact Assessment

The Palaeontological Impact Assessment was undertaken. The specialist assessment determined that the proposed development will not contribute to the loss of palaeontological resources.

Terrestrial Biodiversity Impact Assessment

A Botanical Assessment was undertaken, forming the basis of the Terrestrial Biodiversity Assessment.

Aquatic Biodiversity Impact Assessment

The site has no mapped watercourse or wetlands. As such no further specialist input required.

Socio-Economic Assessment

The proposed development will contribute to positive social and economic impacts for the community. The proposed activity is in line with surrounding existing developments and land use. As such no further specialist input is required. In addition a Traffic Impact Assessment has been undertaken. From the observations during the site visit it is evident that all the intersections in the vicinity of the site have sufficient capacity to accommodate the additional trips that will be generated by the proposed development. Based on the nature and extent of the proposed development and the current traffic conditions it is concluded that the transport impact of the proposed development will be insignificant. Therefore, no specific road improvements other than the access off Marine Drive will be required to accommodate the additional trips that will be generated by the proposed development (see **Appendix G7**).

Plant Species Assessment

The specialist assessment was covered under the Terrestrial Impact Assessment.

Animal Species Assessment

This specialist assessment was covered under the Terrestrial Impact Assessment. No faunal species were identified during site survey.

SECTION D: APPLICABLE LISTED ACTIVITIES

List the applicable activities in terms of the NEMA EIA Regulations

Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 1**	Describe the portion of the proposed development to which the applicable listed activity relates.
17	Development— (i) in the sea; (ii) in an estuary; (iii) within the littoral active zone; (iv) in front of a development setback; or (v) if no development setback exists, within a distance of 100 metres inland of the high-water mark of the sea or an estuary, whichever is the greater; in respect of— (a) fixed or floating jetties and slipways; (b) tidal pools; (c) embankments; (d) rock revetments or stabilising structures including stabilising walls; or (e) infrastructure or structures with a development footprint of 50 square metres or more	The proposed development is more than 50m^2 and part of the development falls within a distance of 100 m inland from the High-water Mark.
19A	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5 cubic metres from— (i) the seashore; (ii) the littoral active zone, an estuary or a distance of 100 metres inland of the highwater mark of the sea or an estuary, whichever distance is the greater; or (iii) the sea; — but excluding where such infilling, depositing , dredging, excavation, removal or moving— (f) will occur behind a development setback; (g) is for maintenance purposes undertaken in accordance with a maintenance management plan; (h) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (i) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or where such development is related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.	The infilling, excavation, removal and moving of soil will be required to accommodate the proposed development.
Activity No(s):	Provide the relevant **Basic Assessment Activity(ies)** as set out in **Listing Notice 3**	Describe the portion of the proposed development to which the applicable listed activity relates.
12	The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. i. Western Cape i. Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004;	The vegetation on site is classified as Southwestern Strandveld and will need to be removed to accommodate the development

Note:

- The listed activities specified above must reconcile with activities applied for in the application form. The onus is on the Applicant to ensure that all applicable listed activities are included in the application. If a specific listed activity is not included in an Environmental Authorisation, a new application for Environmental Authorisation will have to be submitted.
- Where additional listed activities have been identified, that have not been included in the application form, and amended application form must be submitted to the competent authority.

List the applicable waste management listed activities in terms of the NEM:WA

~~Activity No(s):~~	~~Provide the relevant **Basic Assessment Activity(ies)** as set out in **Category A**~~	~~Describe the portion of the proposed development to which the applicable listed activity relates.~~

~~List the applicable listed activities in terms of the NEM:AQA~~

~~Activity No(s):~~	~~Provide the relevant **Listed Activity(ies)**~~	~~Describe the portion of the proposed development to which the applicable listed activity relates.~~

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1.	Provide a description of the preferred alternative.

The preferred alternative for the proposed Spookdraai development is located on the Remainder of Farm 281, Struisbaai. The site is situated within a narrow coastal strip with a rocky sandstone shoreline. This option represents the only preferred site alternative.

The total development footprint for the proposed estate is approximately 7113 m² and includes provisions for 6 residential erven, 3 open spaces (public and private open spaces), a private road, and associated bulk services, as described below:

Residential Erven

A total development footprint of 3132 m² will be allocated for the construction of 6 single residential erven. The construction of the houses will utilize conventional foundations and adhere to modern building practice. To preserve as much natural vegetation as possible, the residential units will be constructed within a controlled building envelope. The intention is to limit excessive coverage on sites and to ensure a maximum area of natural fynbos between houses. The restriction of the footprint aims to reduce the overall visual impact of the development. With the property sizes being relatively small and the form and slope of the site being difficult to work with it is intended to limit the footprint and coverage to 50 % of each erf.

- → Erf 1: 525 m^2
- → Erf 2: 527 m^2
- → Erf 3: 513 m^2
- → Erf 4: 522 m^2
- → Erf 5: 522 m^2
- → Erf 6: 523 m^2

Open Space Erven

Three open space erven will be set aside for private green spaces and to facilitate continued public access to the coast, with an overall footprint of 3293 m²

- → Erf 7: Open Space Zone (Public): 89m^2
- → Erf 8: Open Space (Private): 3145m^2
- → Erf 9: Open Space (Private): 59m^2

Road and Refuse Erven

→ A private road (Erf 10) with a maximum width of 4 m and a length of 688 m will be constructed to provide access to the proposed estate.
→ A refuse room will be located near the entrance of the development to facilitate waste collection.

Figure 3: The proposed site development plan.

Bulk Services

Water

→ There is an existing 100 mm municipal watermain located on the northern side of Marine Drive (MR261). The proposed development would be required to link to this existing watermain and to provide a bulk water for the Cape Agulhas Municipalities metering process.
→ The ground level heights of the proposed development will not provide any low water pressure problems, as it is situated directly below the Struisbaai municipal water reservoirs, and the existing level difference is approximately 54 m.
→ With the water shortages previously experienced in the Western Cape and the possibility of this shortage occurring again in the future, water saving and harvesting measures must be investigated and implemented for the proposed development.
→ The maximum water pipe size for the proposed development will be 110 mm diameter.
→ The internal water pipes will be sized to cater for the proposed development's peak water demand and fire requirements and will be constructed to the Cape Agulhas Municipalities minimum acceptable standards. The developer will provide the entire water network including all pipes, valves, hydrants and bends.
→ The water pipelines will be installed behind the road edge and will follow the existing roads as far as possible. The water pipelines will be installed in trenches up to 1 m deep and 700 mm wide.

Sewer

→ The existing municipal sewer infrastructure along Marine Drive (MR261) currently comprises of septic tanks and conservancy tanks. No municipal gravity pipeline system currently exists.
→ The proposed development will be required to operate off conservancy tanks that are linked to a central system for the municipality to extract the sewerage with a tanker system. If the municipality installs a gravity sewer system, the central conservancy tank could be converted to a sewer pump station and the sewerage could be pumped to the municipal gravity sewer system.
→ The maximum sewer pipe size will be 160 mm diameter.
→ The sewer pipes for the proposed development will be sized to cater for the proposed development's peak flow conditions. The sewer system will comprise of a waterborne gravity sewer system and a conservancy tank system, and all areas of the proposed development will be served with sewer connections.
→ The sewer pipelines will be installed under the surfaced road area and will follow the existing roads as far as possible. The main pipelines will be installed in trenches up to 2.5 m deep and 800 mm wide. The erf sewer connections will be 1.2 m deep.
→ The sewer reticulation will consist of 110 mmØ and 160 mmØ class 34 heavy duty uPVC solid wall pipes.
→ The sewer from the proposed development will connect to a conservancy tank system that will be serviced by the Cape Agulhas Municipality

Roads

→ The proposed development is adequately serviced by Marine Drive (Provincial Main Road MR261). The access to the proposed development will be taken off Marine Drive (Provincial Main Road MR261). The new internal road access will be designed to allow sufficient entry and exit lanes to the various areas of the proposed development. All roads and turning circles will be of a suitable width and radius to allow the comfortable movement of passenger, municipal, refuse and emergency vehicles and all roads will be designed to provide access to the proposed erven.
→ The road widths will be a maximum of 4 m width.

Stormwater

→ No municipal stormwater management system exists on Marine Drive (MR261), but an existing municipal stormwater outlet exists at the eastern boundary of the proposed development. This municipal stormwater system is an outlet for the residential developments to the north of Marine Drive and exits between erven 1995 and 1003. It must be noted that this stormwater system drains onto the proposed development and would need to be redirected around the proposed development as it is currently causing erosion across the proposed SR Erf 1.

→ The stormwater flow from the proposed development will be accommodated in the proposed development. The major system will be accommodated within the road reserve area and will be based on the 100-year storm event and the piped underground stormwater system will be designed to accommodate the 2-year storm event. The attenuation volume will be based on the post-development flow less the pre-development flow. In this manner, erosion and stormwater damage can be minimised and the existing ground water system can be recharged. All erf and road levels within the proposed development will be shaped to create the necessary falls towards the proposed stormwater system.

→ The stormwater system from the proposed development will exit to the sea, but will be managed through a stormwater dissipation, silt and debris trap to prevent any contamination at the coast.

→ The maximum pipe size to be provided at the proposed development will be 375 mm diameter.

Solid Waste

→ The refuse from the development will be collected by the Cape Agulhas Municipality. There will be refuse bins provided at each proposed residential unit, which will be taken weekly to the proposed refuse room, which is situated close to the entrance of the proposed development. An adequate turning facility will be provided at the refuse room for the municipal refuse trucks.

Electricity

→ The evaluation of the developments electrical requirements has been undertaken by Converge Consulting.

2.	Explain how the proposed development is in line with the existing land use rights of the property as you have indicated in the NOI and application form? Include the proof of the existing land use rights granted in Appendix E21.

The property is located within the demarcated urban edge and is adjacent to a built-up residential area, supporting its suitability for the intended development. While the property is currently zoned for agriculture, the proposed development includes provisions for rezoning and subdivision, ensuring compliance with relevant planning and land use management requirements.

3.	Explain how potential conflict with respect to existing approvals for the proposed site (as indicated in the NOI/and or application form) and the proposed development have been resolved.

Refer to the above.

4.	Explain how the proposed development will be in line with the following?
4.1	The Provincial Spatial Development Framework.

Extract from the Western Cape Provincial Spatial Development Framework 2014:

Spatial Goals

To address the spatial challenges identified, the PSDF takes the Western Cape on a path towards:

I. More inclusivity, productivity, competitiveness and opportunities in urban and rural space-economies;

II. Better protection of spatial assets (e.g. cultural and scenic landscapes) and strengthened resilience of natural and built environments; and

III. Improved effectiveness in the governance of urban and rural areas.

The proposed development will allow for protection of spatial assessment through a carefully planned development which takes cognisance of environmental regulations and sensitivities presented on site. The property is also located within the built-up urban edge of Struisbaai preventing urban sprawl and ribbon development.

The Spatial Vision

The PSDF builds on OneCape 2040's vision of "a highly skilled, innovation driven, resource efficient, connected, high opportunity and collaborative society". For each of these societal attributes aspired to OneCape 2040 identifies thematic 'big step' changes that need to take place.

The PSDF envisages the spatial expression of these themes as follows:

I. Educating Cape: everyone has access to a good education, and the cities, towns and rural villages are places of innovation and learning.

II. Working Cape: there are livelihood prospects available to urban and rural residents, and opportunities for them to find employment and develop enterprises in these markets.

III. Green Cape: all households can access basic services that are delivered resource efficiently, residents use land and finite resources prudently and safeguard their ecosystems.

IV. Connecting Cape: urban and rural communities are inclusive, integrated, connected and collaborate.

V. Living Cape: living and working environments are healthy, safe, enabling and accessible, and all have access to the region's unique lifestyle offering.

VI. Leading Cape: urban and rural areas are effectively managed

The proposed development in question will provide investment in the area, job creation in both the construction and operational phase, as well as skills transfer to unskilled and semi-skilled employees. The development has been planned around environmental parameters on site and takes cognisance of coastal planning processes and restrictions. The development also makes specific provision for continued coastal access to the public. The development allows for improved use and management of the site and addresses concerns around erosion, litter, alien vegetation etc.

Spatial Implications

i. The Western Cape's biological diversity underpins livelihoods, the Province's economy and the provision of ecosystem services (e.g. water purification, crop pollination). Spatial continuity and connectivity of the biodiversity network strengthens its resilience. The Table Mountain Fund have sponsored the delineation of draft Priority Climate Change Adaption Corridors which link lowlands and uplands, focusing on climate refuges which are more resilient or provide linkages (e.g. along rivers, south-facing slopes, south-facing coastal areas and kloofs).
ii. Towards securing fragmented natural habitats, it is necessary to prevent further intrusion of agricultural activity or urban expansion into key Critical Biodiversity Areas and Ecological Support Areas.

The development proposal aligns with the above by ensuring that natural coastal connectivity is retained and ensuring natural buffers between infrastructure on the site itself. The development proposal is also located within the built-up urban edge and therefore prevents fragmentation of natural habitats.

Developing Integrated and Sustainable Settlements

The Provincial Settlement Agenda is holistic and covers five interrelated spatial themes, namely, settlement morphology and sense of place, access, land use and density, facilities and social services, and informality and housing As a Transversal Instrument the PSDF embraces the concept of sustainable and integrated human settlements.

The PSDF addresses the full spectrum of Western Cape Settlements, irrespective of their size (i.e. from Metropolitan Cape Town to the smallest hamlets), functional role (from diversified urban economies to subsistence rural villages), levels of service, or physical characteristics.

Settlement policy objectives

The Provincial Settlement Policy objectives are to:

1. Protect and enhance sense of place and settlement patterns

2. Improve accessibility at all scales

3. Promote an appropriate land use mix and density in settlements

4. Ensure effective and equitable social services and facilities

5. Support inclusive and sustainable housing

The protection and enhancement of heritage and cultural resources is a clear Provincial mandate with indirect but strong links to its economic development mandate, especially with respect to skills retention in the knowledge economy.

A strong sense of place and quality environments within settlements, at all scales, is increasingly recognized as an essential dimension of sustainable settlement. This relates to the economic potential associated with tourism, attracting skills into the service and knowledge economy, as well as the wellbeing and dignity of communities of all income groups.

Access to opportunities and services is a keystone to building a strong Regional economy and facilitating equitable access to opportunities and services in a financially sustainable manner.

The provision of sustainable and effective social services requires that these are rationalised, clustered and managed in an integrated manner. The vast distances between settlements in the Western Cape makes this goal challenging and an understanding of Regional and local movement dynamics is essential.

The provision and facilitation of an integrated and multi-modal transport system, as advocated by the NDP and Provincial Land Transport Framework, relies on the appropriate location of mixed-use areas and increased settlement densities to ensure adequate thresholds for sustainable public transport. A compact urban form and built environment also enables inclusivity and diversity of population, housing and social facilities, and acts as a precondition for the efficient and affordable delivery of basic services.

The PSDF promotes an integrated approach to housing delivery through deliberate settlement-level strategies, actions and collaborative arrangements that align housing with transport, land-use, economic and infrastructure decisions within a long-term vision of a more integrated urban future. The development of housing projects on poorly located land will be stopped. OneCape 2040 proposes "sustainably upgrade the built environment to directly respond to community needs through shifting from a focus on housing to one on accessible and integrated service delivery".

4.2	The Integrated Development Plan of the local municipality.

Extract from the Cape Agulhas Municipality Final Integrated Development Plan amendments 2022/23 -2026/27:

Population and households

Population and household growth

Bredasdorp, located in the Cape Agulhas area, serves as the Overberg District's Administrative Centre. Despite the District's considerable population of 9 446 in 2022, the Cape Agulhas area registers the lowest population within the region. Moreover, the average population growth in this area remains modest, with annual growth of merely 1.3 % expected between 2022 and 2027.

Gender, age and race dynamics

A closer look at the gender makeup of Cape Agulhas reveals marginally greater representation of females compared to males. At the same time, the age distribution reveals a higher proportion of people in the working-age category, along with slightly smaller groups of children and the elderly compared to the broader district. The relatively high and growing working age population also results in a decrease in the dependency ratio, dropping from 44 in 2023 to 43 in 2024. Examining the racial composition of the population provides valuable insights. It underscores the significance of inclusive policies and social unity in the pursuit of a more equitable society. Within Cape Agulhas, it is evident that the

population is primarily composed of coloured persons (60.9 %), followed by significant percentages of white (23.4 %) and Black African (12.6 %) populations.

Level of urbanisation

Urbanisation reflects a Country or Region's economic and social transformation, with people moving to cities in search of better opportunities. Between 2001 and 2021, Cape Agulhas witnessed a gradual increase in urbanisation, with the urban population rising from 79.6 % to 81.7 %. Bredasdorp emerged as the largest urban settlement, followed by Struisbaai, Napier, Elim, Aniston, and Agulhas. Notably, the most considerable urban growth in the region was experienced by Struisbaai, while Bredasdorp, despite maintaining its population level, saw a decline in its proportion of urban residents.

While urbanisation presents economic potential and improved living conditions for many, it also poses challenges related to inequality, infrastructure development, and governance that require careful attention and planning.

The proposed development allows for investment in the Struisbaai area and provision of both short and long term job opportunities for varied skills levels in the population.

Population density

In the context of the Overberg Region, the overarching population density is recorded at 26 individuals per square kilometre. However, there is a substantial variance in population densities among different local areas within the region. As a quantitative measure used to assess the concentration of residents within a specific geographical area, it plays a pivotal role in understanding the degree of population crowding or dispersion. Overstrand, characterised by rapid population growth, registers the highest population density at 66 people per square kilometre, while Theewaterskloof, the most populous region in the district, maintains a comparatively moderate population density of 39.

The Cape Agulhas and Swellendam areas exhibit notably lower densities of 10 individuals per square kilometre, which holds its own significant relevance in urban planning and resource allocation. It is worth noting that low population density areas are likely to have higher per-person cost for social and economic infrastructure. However, it also offers opportunities for a more relaxed lifestyle, which some individuals and families find appealing.

Given the population growth and trend to move to these areas, the proposal offers investment in the area and job creation, as well as infill development within the built-up urban area.

Basic services

Housing and household services

Among the 16 220 households residing in the Cape Agulhas area, a noteworthy 94.4 % enjoyed access to formal housing, surpassing the rate observed in the broader Overberg District, which stood at 87.5 %. Furthermore, the municipal area demonstrated a lower incidence of informal dwellings, accounting for only 5.2 % of the total, in contrast to the District's higher prevalence of 11.5 %.

Intriguingly, the Cape Agulhas area exhibited notably greater service access levels compared to formal housing access, with striking statistics such as access to piped water within the dwelling or yard, which reached an impressive 99.9 %. Access to flush or chemical toilets was prevalent among 98.8 per cent of households, access to electricity for lighting was accessible to 99.3 % of households, and the regular removal of refuse by local authorities occurred in 92.8 % of households. These service access levels clearly outperformed the corresponding figures for the district as a whole.

These findings suggest that the Cape Agulhas area demonstrates a better state of housing provision and service accessibility, indicating a more favourable living environment for its residents compared to the broader Overberg District. This could have positive repercussions on the overall quality of life, economic opportunities, and public well-being within the Cape Agulhas area.

A key driver of the above provision of services and overall performance of the region can be attributed to availability of employment and investment in these areas, without development, opportunities for improvement is not possible.

Free basic services

In the context of free basic services, municipalities offer a suite of essential services to households facing financial vulnerability and challenges in affording such services. In the Cape Agulhas area, the number of households receiving these free basic services, categorized as indigent households, experienced a notable upswing between the years 2019 and 2021. The prevailing adverse economic conditions exerted additional pressure on household incomes, thereby likely amplifying the demand for free basic services. The reduction in the count of indigent households to 3 568 in 2022 is indicative of a certain degree of economic easing.

Adverse economic conditions can only be improved with improved opportunities and access to investment and jobs.

Access to basic services

Basic services are a package of services necessary for human well-being and typically include water, sanitation, and electricity and refuse removal.

The municipality provides basic services at the prescribed level to all urban households within its area of jurisdiction.

For each of these services there is a range of service levels which can be provided with the following categories typically being applied:

- → Basic service level which is required to maintain basic health and safety.
- → Intermediate service level.
- → Full service, the highest level of service that is traditionally applied in South African municipalities.

Municipalities have the discretion to provide services at higher levels than those stated, and the municipality strives to do so through the ongoing provision, refurbishment and maintenance of its bulk and service infrastructure. This enables us to render quality services to our clients and create an environment that will attract development opportunities that will impact positively on the local economy.

(a) Water

The Municipality's primary water source is ground water, from various boreholes in the area. Bredasdorp has, in addition, access to the Uitvlucht Spring and the Sanddrift Dam for water.

All towns have sufficient water sources except for Struisbaai, which is under ever-increasing pressure owing to numerous residential developments. Various water purification works are operational throughout the Municipal area, have adequate capacity, and operate at a satisfactory level.

The provision of water for the project has been confirmed and will be supplemented by boreholes located offsite.

(b) Sanitation

Areas are serviced by communal toilets, generally exceeding the minimum norm of a communal toilet per five families. Excluding Bredasdorp and Napier, Wastewater Treatment Works (WWTW) in CAM have sufficient capacity and are

operating at a satisfactory level. An effluent quality control program is in place to reduce the risk of pollution of public streams or ground water sources.

Bredasdorp has a full waterborne sewerage system in place. The lower-income areas in Napier, Arniston and Struisbaai also have full waterborne sewerage systems, whilst the higher income areas of these towns are serviced with conservancy tanks. Conservancy tanks are not deemed a backlog, and the service is adequate except for the Struisbaai CBD, where the tanker services are under immense pressure during the summer tourist season and are limiting potential development. A full-service provision report has been conducted for the proposal and has confirmed sufficient capacity exists to service the proposed development.

(c) Electricity

Electricity distribution in the Municipal area is shared by CAM and Eskom, which services Struisbaai North, Elim, Kassiesbaai, Protem and Klipdale.

All formal households and households in informal settlements have access to electricity and street lighting. Informal settlements where some type of township development has taken place also have access to electricity.

Electricity capacity is adequate to cover the current demand for electricity in the area. All households within the Municipal Supply Area have access to minimum electricity standards, defined as an electricity connection at the dwelling.

Gross Domestic Product Regional (GDPR) Performance

The Cape Agulhas municipal area economy was valued at R3.8 billion in 2021. This economic influence translates into 144 employed people, accounting for 12 % of the Overberg District's employment, increasing to 15186 in 2022. While employment may still be recovering from the 2020 downturn, the estimated 2.4 % growth in GDPR during 2022 has ushered in a complete economic resurgence, with GDPR levels growing slightly beyond those registered in 2019. The finance sector (contributing 1.1 percentage points), transport sector (contributing 1.0 percentage points), and trade sector (contributing 0.5 percentage points) have emerged as the primary drivers behind the robust GDPR performance in 2022.

With a substantial contribution of R920.2 million (24.2 per cent of GDPR), the finance sector is the most significant local economic sector in terms of GDPR. This distinction predominantly arises from Bredasdorp's role as the epicenter of business services in the municipal area and the bustling property market in Struisbaai and L'Agulhas. Property sales in Struisbaai recorded the most sales in 2022 since the property market boom of 2017/18, with 200 properties sold at an average value of R2.2 million. While slightly fewer properties were sold in L'Agulhas in 2022 compared to 2021, the average property sale price increased from R580 000 to R1.3 million. Adding to this economic narrative is the Denel Overberg Test Group, stationed in Arniston, which offers distinctive business services through in-flight testing of advanced guided and aviation systems for the local and international aerospace industry.

The trade sector was boosted by a return of tourists to the area, with a steady uptick of visitors at local attractions such as Agulhas National Park, Cape Agulhas Lighthouse and the Shipwreck Museum. However, visitor numbers have not yet fully recovered, with the visitor recovery compared with 2019 being 67.2 per cent at the Agulhas National Park, 64.0 per cent at the Cape Agulhas Lighthouse and 48.3 per cent at the Shipwreck Museum. Further growth is likely to be slow amid South African households' economic challenges, such as rising fuel prices, high inflation and high interest rates, which affects their likelihood and ability to travel. Despite the strong growth from the transport (11.4 per cent) and trade (2.7 per cent) sectors estimated for 2022, these sectors are yet to fully recover from the impact of the COVID-19 pandemic. Other sectors lagging behind their 2019 performance include mining, manufacturing, utilities, construction, trade and government services. Planned developments such as the shopping centre in Struisbaai, Langevlei Village residential estate, and Sea Cottage Estate in Struisbaai, together with planned capital infrastructure spend of R59.9 million, R52.2 million and R63.3 million over the MTREF period by the Local Municipality, will be

essential in revitalizing the local construction industry. The proposed development at hand has potential to have a significant and positive impact in the development and construction sector.

GDPR Forecast

For 2023, the economy is poised for a muted expansion of merely 0.3 %, primarily propelled by lacklustre growth within the general government and agriculture sectors. In contrast, if energy security can be secured, the finance, trade, and manufacturing sectors loom as pivotal sources of robust growth. Looking forward to 2024, a more pronounced economic uptick of 1.0 per cent is forecasted. The construction sector is expected to rouse from dormancy in the wake of increased public sector spending and local property developments. In contrast, the trade and transport sectors are anticipated to perpetuate their upward trajectory, further accentuating the path of economic progression. The proposed development is in line with this forecast.

4.3.	The Spatial Development Framework of the local municipality.

In terms of the 2024 approved Cape Agulhas Municipality Spatial Development Framework (CAM SDF), the proposed site is situated in an area identified as a gateway area. However, the SDF does not provide further clarification regarding the implications or strategic intent of this designation. Whilst the erf is a coastal erf, and some development will occur within 100 m of the high-water mark, the development is located behind the 5m contour, the urban high, medium and high risk zones. Additionally, Marine Drive, which is in proximity to the site, is identified as a scenic route, specifically along its coastal edge. For properties located within the coastal risk area, the SDF recommends the following:

"*Discourage development within coastal setback lines and associated risk areas to protect and maintain the coastal corridors."*

Therefore the proposed development is in line with the above and is informed by Visual, Heritage and Landscape guidelines to eliminate the impact on the scenic drive.

The proposed development site is situated within urban edge as demarcated by Cape Agulhas Municipality SDF (2024-2025), see **Appendix B4 and the figure below**

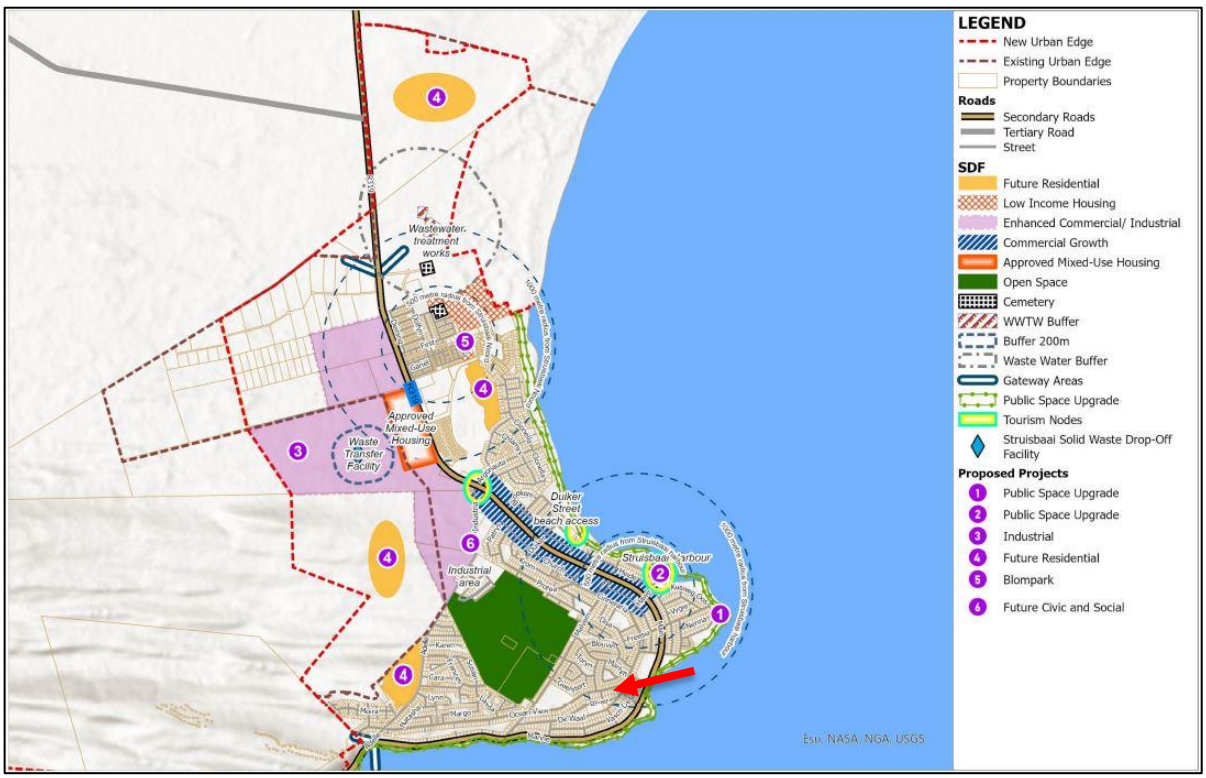

Figure 4: The red arrow indicates the location of the proposed site.

4.4.	The Environmental Management Framework applicable to the area.
No EMF in place.	
5.	Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.
Comments will be added after the first round of public participation process.	
6.	Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

The Western Cape Biodiversity Spatial Plan [WCBSP] (CapeNature, 2017; Pence, 2017, Poole-Stanvliet et al., 2017) describes the conservation standard developed by CapeNature, that includes the currently accepted critical biodiversity areas (CBAs) and ecological support areas (ESAs) at a provincial level but recognized nationally as well. The map of CBAs and ESAs for the Agulhas Municipality was overlaid on a Google Earth Pro™ image and the result of this exercise is given in **Figure 5** below. The classification shows that part of the site is classified as ESA1, whereas the remainder of the site is not recognized as sensitive.

The proposed development layout as outlined in the Preferred Alternative 4 will exclude development on the western side of the property thereby eliminating impacts on this sensitive zone and allowing for rehabilitation and management of the area.

Figure 5: Showing the western part of the property falls within ESA1.

7.	Explain how the proposed development is in line with the intention/purpose of the relevant zones as defined in the ICMA.

The proposed development of the property aligns with the intention and purpose of the zones defined in the Integrated Coastal Management Act (ICMA) and considers the principles outlined in the DEA's Coastal Protection Zone (CPZ) guidelines. The CPZ aims to manage, regulate, and restrict the use of land adjacent to coastal public property while preserving and enhancing the coastal ecosystem**.**

The subject property lies within the CPZ, as does the entire town of Struisbaai. However, the preferred development alternative ensures that the layout does not encroach upon identified coastal risk areas. As per the **Figure** below, the development footprints are located above the high, medium and low risk lines and the 5m contour. Development will

occur above the high-water mark but will be located within 100 m of this line, as with most houses along both sides of marine drive. The coastline is predominantly a rocky shore therefore erosion and storm surges are less likely compared to a sandy shore.

The planning process evaluated three layout alternatives, informed by specialist studies, to identify the most environmentally sensitive option. The preferred layout (Alternative 4) comprises the creation of 6 single residential erven and excludes development on the western end of the property. In addition, the provision of coastal access is included in the planning and therefore aligns with the ICMA's goal of maintaining public access servitudes to the coastline and the public coastal access audit goals.

In terms of managing coastal risks, recent storm surges and flooding events in 2023 provided valuable insights into the resilience of the property. Observations and photographic evidence demonstrate that water levels during these events did not significantly affect the site. There were no documented signs of coastal erosion or sand movement, indicating the stability of the rocky shoreline. The dynamic nature of the littoral active zone, characterized by the adjacent rocky coastline, has proven to be resilient to high seas and flooding events experienced on this site. The site does not include mobile sand or coastal dunes, further reducing potential risks associated with coastal dynamics.

The proposed development layout adheres to ICMA's objectives by ensuring that access to the coastal public property is preserved. Public access points along the seafront will remain unrestricted, and a homeowners' association will oversee development guidelines to prevent future encroachments into the CPZ or onto coastal public property. Additionally, built infrastructure is set back as far as possible within each erf to mitigate any potential impacts on the coastline.

The development is situated above the 5-meter contour line, which minimizes exposure to risks associated with storm surges and coastal flooding. Although the property falls within the CPZ, its location above the coastal risk lines ensures compliance with the Coastal Risk Information Layers.

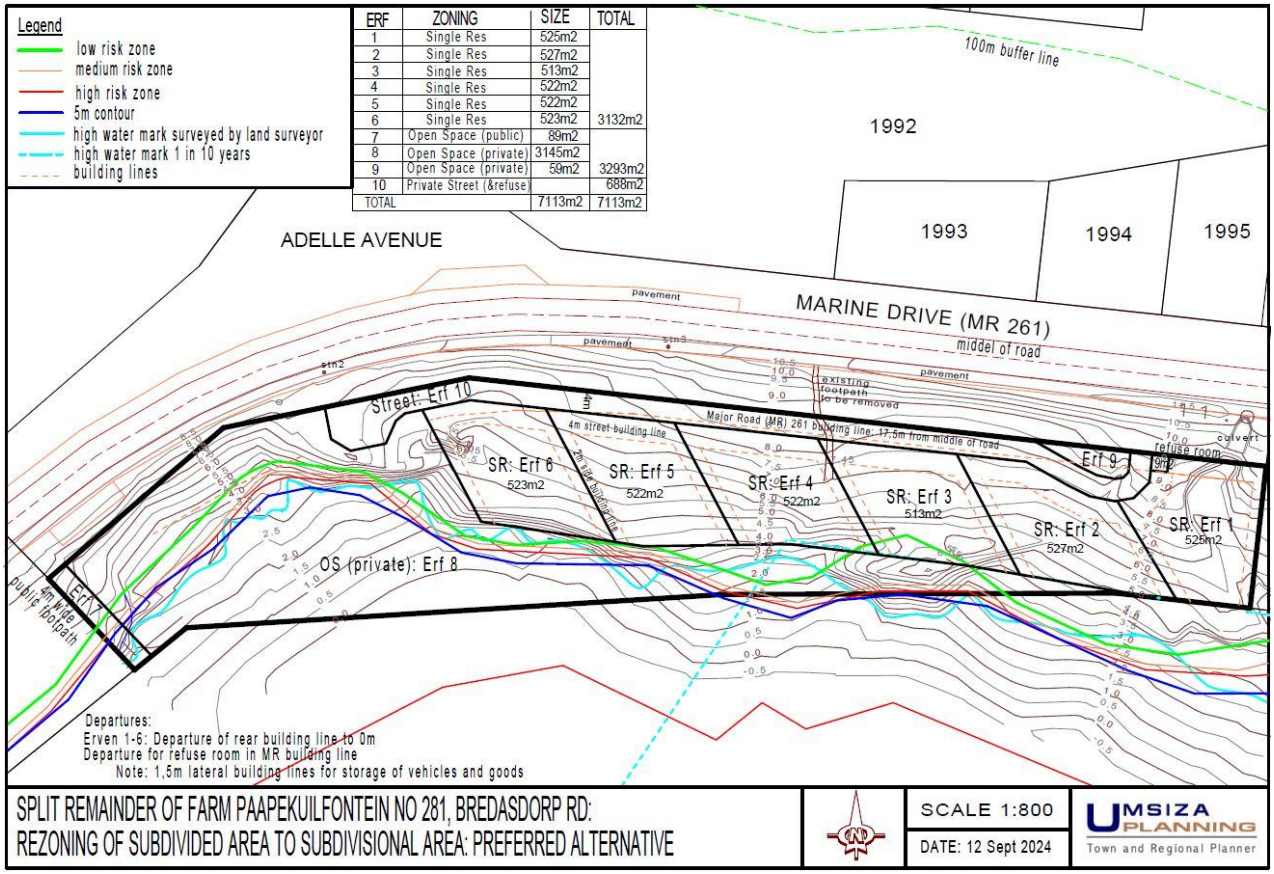

Figure 6: The proposed site development plan.

Figure 7: Coastal Management Mapping.

8.	Explain whether the screening report has changed from the one submitted together with the application form. The screening report must be attached as Appendix I.
The screening report remains the same as the one submitted with the NOI.	
9.	Explain how the proposed development will optimise vacant land available within an urban area.
The proposed development will utilise the vacant coastal erf for the establishment of the Spookdraai residential development. This vacant property is located within the demarcated and built-up urban edge of Struisbaai and contributes to infill development rather than urban sprawl.	
10.	Explain how the proposed development will optimise the use of existing resources and infrastructure.
The proposed development is located within the built-up urban area of Struisbaai and therefore services and infrastructure for the site are available for the proposed development. No major infrastructure extensions are required.	
11.	Explain whether the necessary services are available and whether the local authority has confirmed sufficient, spare, unallocated service capacity. (Confirmation of all services must be included in Appendix E16).
Erf 281 is bound by Marine Drive (Provincial Main Road MR261) and a residential development to the north. The proposed development therefore will require connection of service infrastructure. Bulk service investigations have been undertaken with the Cape Agulhas Municipality (refer to **Appendix G9**). The following services are available for the proposed development:	

Bulk Services

Water

→ There is an existing 100 mm municipal watermain located on the northern side of Marine Drive (MR261). The proposed development will be linked to link to this existing watermain.
→ The ground level heights of the proposed development will not provide any low water pressure problems, as it is situated directly below the Struisbaai municipal water reservoirs, and the existing level difference is approximately 54m.
→ With the water shortages previously experienced in the Western Cape and the possibility of this shortage occurring again in the future, water saving and harvesting measures must be investigated and implemented for the proposed development.
→ The maximum water pipe size for the proposed development will be 110 mm diameter.
→ The internal water pipes will be sized to cater for the proposed development's peak water demand and fire requirements and will be constructed to the Cape Agulhas Municipalities minimum acceptable standards. The developer will provide the entire water network including all pipes, valves, hydrants and bends.
→ The water pipelines will be installed behind the road edge and will follow the existing roads as far as possible.

Sewer

→ The proposed development will make use of conservancy tanks that will be linked to a central system for the municipality to extract the sewerage with a tanker system. If the municipality installs a gravity sewer system, the central conservancy tank could be converted to a sewer pump station and the sewerage could be pumped to the municipal gravity sewer system.
→ The maximum sewer pipe size wi**ll be 160 mm** diameter.
→ The sewer pipes for the proposed development will be sized to cater for the proposed development's peak flow conditions. The sewer system will comprise of a waterborne gravity sewer system and a conservancy tank system, and all areas of the proposed development will be served with sewer connections.
→ The sewer pipelines will be installed under the surfaced road area and will follow the existing roads as far as possible. The main pipelines will be installed in trenches up to 2.5m deep and 800mm wide. The erf sewer connections will be 1.2m deep.
→ The sewer reticulation will consist of 110mmØ and 160mmØ class 34 heavy duty uPVC solid wall pipes.

The sewer from the proposed development will connect to a conservancy tank system that will be serviced by the Cape Agulhas Municipality

Roads

→ The proposed development is adequately serviced by Marine Drive (Provincial Main Road MR261). The access to the proposed development will be taken from an access point off Marine Drive (Provincial Main Road MR261). The new road access will be designed to allow sufficient entry and exit lanes to the various areas of the proposed development. All roads and turning circles will be of a suitable width and radius to allow the comfortable movement of passenger, municipal, refuse and emergency vehicles and all roads will be designed to provide access to the proposed erven.

Stormwater

→ No municipal stormwater management system exists on Marine Drive (MR261) but an existing municipal stormwater outlet exists at the eastern boundary of the proposed development. This municipal stormwater system is an outlet for the residential developments to the north of Marine Drive and exits between erven 1995 and 1003. It must be noted that this stormwater system drains onto the proposed development and would need to be redirected around the proposed development as it is currently causing erosion on site

→ The stormwater flow from the proposed development will be accommodated on the proposed development. The majority of the system will be accommodated within the road reserve area and will be based on the 100-year storm event and the piped underground stormwater system will be designed to accommodate the 2-year storm event. The attenuation volume will be based on the post-development flow less the pre-development flow. In this manner, erosion and stormwater damage can be minimised. All erf and road levels within the proposed development will be shaped to create the necessary falls towards the proposed stormwater system.

→ The stormwater system from the proposed development will exit to the sea, but will be managed through a stormwater dissipation, silt and debris trap to prevent any contamination at the coast.

→ The maximum pipe size to be provided at the proposed development will be 375 mm diameter.

Solid Waste

→ The refuse from the development will be collected by the Cape Agulhas Municipality. There will be refuse bins provided at each proposed residential unit, which will be taken weekly to the proposed on-site refuse room, which is situated close to the entrance of the proposed development. An adequate turning facility will be provided at the refuse room for the municipal refuse trucks.

12.	In addition to the above, explain the need and desirability of the proposed activity or development in terms of this Department's guideline on Need and Desirability (March 2013) or the DEA's Integrated Environmental Management Guideline on Need and Desirability. This may be attached to this BAR as Appendix K.

In accordance with the Department of Environmental Affairs' Integrated Environmental Management Guideline on Need and Desirability, as articulated in the EIA Regulation, 2014 (as amended), the proposed Spookdraai Residential Development on Farm 281 meets the criteria for Need and Desirability in several critical aspects:

Need for the development

→ The site is located within the built-up urban edge of Struisbaai and conforms to local and regional spatial development frameworks, promoting densification and efficient land use within designated growth areas.

→ The development contributes to addressing housing demand in Struisbaai, providing opportunities for residential growth in a controlled and sustainable manner.

→ The project will support local economic development through job creation during the construction and operational phases and contribute to the economic growth of the region by attracting residents and potential tourists.

→ The development includes plans to rehabilitate portions of the site that are currently degraded, enhancing the ecological integrity of the area.

→ The development will allow for significant investment in the area through employment, local spending etc

Desirability of the development

→ The proposed development has been designed with sustainability in mind, incorporating measures to minimise impacts on sensitive ecosystems

→ The development provides an opportunity for managing invasive species and conserving remnant indigenous vegetation in designated open spaces.

→ The development allows for continued access to the coast for the public

→ By creating residential opportunities, the estate will support the growing population and enhance social cohesion within Struisbaai, while ensuring access to high-quality living environments.

→ The location is ideally situated near existing infrastructure and essential services, reducing the need for significant extensions to public utilities and minimizing environmental impacts associated with urban sprawl.

→ The development will allow for investment in the area

Consistency with the Principles of Sustainable development

- → The estate balances economic growth with environmental stewardship, adhering to National and Provincial sustainability goals.
- → The development incorporates modern technologies to promote energy efficiency, reduce resource consumption, and minimize waste.
- → The design considers climate change adaptation measures, such as stormwater management and erosion control, to ensure long-term sustainability.
- → The development considers municipal and provincial environmental risk zones to guard against impacts associated with climate change and sea level rise
- → The development promotes continued coastal access for the public

SECTION F: PUBLIC PARTICIPATION

The Public Participation Process ("PPP") must fulfil the requirements as outlined in the NEMA EIA Regulations and must be attached as Appendix F. Please note that If the NEM: WA and/or the NEM: AQA is applicable to the proposed development, an advertisement must be placed in at least two newspapers.

1. Exclusively for linear activities: Indicate what PPP was agreed to by the competent authority. Include proof of this agreement in Appendix E22.

N/A

2. Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.

Pending

3. Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.

DEADP: Land Use Management DEADP: Coastal Management Unit Cape Nature Cape Agulhas Municipality Overberg District Municipality Department of Agriculture

4. If any of the State Departments and Organs of State were not consulted, indicate which and why.

N/A

5. if any of the State Departments and Organs of State did not respond, indicate which.

This will be included after the first round of public participation

6. Provide a summary of the issues raised by I&Aps and an indication of the manner in which the issues were incorporated into the development proposal.

As above

Note:

A register of all the I&AP's notified, including the Organs of State, and all the registered I&Aps must be included in Appendix F. The register must be maintained and made available to any person requesting access to the register in writing.

The EAP must notify I&AP's that all information submitted by I&AP's becomes public information.

Your attention is drawn to Regulation 40 (3) of the NEMA EIA Regulations which states that *"Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but **must** be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority."*

All the comments received from I&Aps on the pre -application BAR (if applicable and the draft BAR must be recorded, responded to and included in the Comments and Responses Report and must be included in Appendix F.

All information obtained during the PPP (the minutes of any meetings held by the EAP with I&Aps and other role players wherein the views of the participants are recorded) and must be included in Appendix F.

Please note that proof of the PPP conducted must be included in Appendix F. In terms of the required "proof" the following is required:

- a site map showing where the site notice was displayed, dated photographs showing the notice displayed on site and a copy of the text displayed on the notice;
- in terms of the written notices given, a copy of the written notice sent, as well as:
    - if registered mail was sent, a list of the registered mail sent (showing the registered mail number, the name of the person the mail was sent to, the address of the person and the date the registered mail was sent);
    - if normal mail was sent, a list of the mail sent (showing the name of the person the mail was sent to, the address of the person, the date the mail was sent, and the signature of the post office worker or the post office stamp indicating that the letter was sent);
    - if a facsimile was sent, a copy of the facsimile Report;
    - if an electronic mail was sent, a copy of the electronic mail sent; and
    - if a "mail drop" was done, a signed register of "mail drops" received (showing the name of the person the notice was handed to, the address of the person, the date, and the signature of the person); and
- a copy of the newspaper advertisement ("newspaper clipping") that was placed, indicating the name of the newspaper and date of publication (of such quality that the wording in the advertisement is legible).

SECTION G: DESCRIPTION OF THE RECEIVING ENVIRONMENT

All specialist studies must be attached as Appendix G.

1. Groundwater – not required

1.1.	Was a specialist study conducted?	YES	NO x
1.2.	Provide the name and or company who conducted the specialist study.		
N/A			
1.3.	Indicate above which aquifer your proposed development will be located and explain how this has influenced your proposed development.		
N/A			
1.4.	Indicate the depth of groundwater and explain how the depth of groundwater and type of aquifer (if present) has influenced your proposed development.		
N/A			

2. Surface water– not required

2.1.	Was a specialist study conducted?	YES	NO x
2.2.	Provide the name and/or company who conducted the specialist study.		
N/A			
2.3.	Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.		
N/A			

3. Coastal Environment – not required, the development is located above the 5m contour and outside the low, medium and high-risk zones.

3.1.	Was a specialist study conducted?	YES	NO x
3.2.	Provide the name and/or company who conducted the specialist study.		
N/A			
3.3.	Explain how the relevant considerations of Section 63 of the ICMA were taken into account and explain how this influenced your proposed development.		

The proposed development has been carefully planned to align with the provisions of Section 63 of the ICMA, which brings emphasis to sustainable coastal development while safeguarding public access and ecological integrity of the surrounding coastal environment.

Conflict with the Coastal Protection Zone

It is important to note that the majority of the town of Struisbaai lies within the Coastal Protection Zone (CPZ). The proposed development does not conflict with the purpose of the CPZ as defined in Section 63(1) of the ICMA. The CPZ aims to safeguard natural coastal processes, biodiversity, and public access to the coast. The nature and location of the proposed estate has been evaluated in terms of appropriateness, and steps have been taken to ensure that the project supports these objectives.

Public Access to the Coastal Public Property

Access to the Coastal Public Property has been a primary consideration during the inception of this project. The development layout includes public pathway (Erf 7) and open spaces to ensure that community members and visitors can continue to enjoy uninterrupted access to the coastline. Specifically, public access to the beach on Subdivision 8 will be maintained via a dedicated walkway on Subdivision 7, preserving the public's ability to utilize and enjoy the coastline in compliance with Section 63(2)(e).

Location Relative to the Coastal Management Line

As the site is located seaward of the Coastal Management Line (CML), the project has been reviewed against coastal risk zones, including erosion, storm surge, and sea-level rise projections. Following recommendations from the pre-application meeting with DEADP: Coastal Management Unit, all risk zones have been carefully evaluated, and the development has been designed to remain landward of these zones where feasible. This approach ensures long-term sustainability and resilience of the development to coastal hazards.

Alignment with the Overberg: Coastal Processes and Risk Modelling Report

The DEA&DP Circular and the Overberg Coastal Processes and Risk Modelling Report have been referenced during the planning process. The development considers dynamic coastal processes such as accretion and erosion, as well as stormwater and drainage impacts, to prevent any adverse effects on adjacent properties or public coastal areas. The implementation of permeable surfaces, green roofs, and stormwater management systems will mitigate risks associated with runoff and flooding.

Consideration of Sections 14 and 15 of the NEM: ICMA

Under Section 14, measures to avoid adverse impacts on the seashore or prevent erosion/accretion outside the applicant's boundaries have been incorporated. The development footprint has been set back from high-risk areas, and construction techniques will avoid hard stabilization structures that could alter natural processes. Section 15 requires that measures to enhance coastal public access are implemented; the development supports this by creating green corridors and walkways, reinforcing the principle of sustainable use.

Alignment with the Western Cape Provincial Coastal Management Programme

The development aligns with the goals of the WCP CMP by promoting integrated coastal management and protecting coastal resources. The inclusion of indigenous landscaping, biodiversity conservation measures, and public access pathways reflects the principles of sustainable coastal development. The project also prioritizes climate-resilient infrastructure design to support the CMP's objectives.

3.4.	Explain how estuary management plans (if applicable) has influenced the proposed development.

N/A.

3.5.	Explain how the modelled coastal risk zones, the coastal protection zone, littoral active zone and estuarine functional zones, have influenced the proposed development.

The subject property is situated within the Coastal Protection Zone, an area characterized by rocky seashores and sandy terrain. Specialist assessments conducted on-site have played a pivotal role in shaping the proposed site development plan. These assessments identified key coastal risk zones, including areas prone to erosion, flooding, and other dynamic coastal processes. Based on these findings, the development layout has been refined to avoid construction within these high-risk areas. The updated layout, referred to as Alternative 4, ensures that all development is located landward, outside of the modelled coastal risk zones, thereby significantly reducing potential environmental and infrastructural risks. This layout adjustment demonstrates a proactive approach to safeguarding both the natural environment and the proposed infrastructure.

Furthermore, the importance of the Coastal Protection Zone as a critical buffer against coastal hazards and as an area of high ecological value has been a guiding principle throughout the planning process. While the entire town of Struisbaai falls within the Coastal Protection Zone, the proposed development has been designed to avoid adverse impacts on this sensitive area. By situating the development outside the identified coastal risk zones and integrating sustainable design practices, the project not only complies with regulatory requirements but also upholds the ecological integrity of the area.

In addition, the proposed development incorporates measures to address the Littoral Active Zone and Estuarine Functional Zones, where applicable. Although the subject property primarily features rocky shores and sandy terrain, the design ensures minimal interference with these functional zones by maintaining appropriate buffers and prioritizing land use practices that support coastal resilience.

4. Biodiversity

4.1.	Were specialist studies conducted?	YES x	NO
4.2.	Provide the name and/or company who conducted the specialist studies.		

Dr David J. McDonald – Bergwind Botanical Surveys and Tours CC

4.3.	Explain which systematic conservation planning and other biodiversity informants such as vegetation maps, NFEPA, NSBA etc. have been used and how has this influenced your proposed development.

The photographs obtained in the field as well as available literature and Google Earth Pro™ were used for description of the vegetation presented in this report. The National Vegetation Map (Mucina et al. 2005; SANBI, 2012; 2018) (referred to as VEGMAP) was used to determine the vegetation type. The National Web-based Environmental Screening Tool was applied as required in the protocols for specialist assessments.

Site Vegetation

The botanical assessment argues that the property falls with the Southern Coastal Bioregion with only one major vegetation type occurring at the site, namely Southwestern Strandveld (SANBI, 2024), with Cape Seashore Vegetation, an azonal vegetation type, playing a subordinate role. The latter occurs at the seashore, usually on beaches but less so on waves-swept rocky coastlines as at the site. The terrain is partly a moderately sloping windswept slope consisting of deep aeolian sand above a rocky shoreline consisting of Table Mountain Group sandstone. The western part of the site has a sandy beach with the toe of the slope having a margin of Cape Seashore Vegetation with the steeper slope inland and above the beach being vegetated by Strandveld and limestone fynbos.

The relevant part of the VEGMAP overlaid on a Google Earth Pro ™ satellite image of the site does not depict Cape Seashore Vegetation. In reality, at the site, the vegetation mapped as Overberg Dune Strandveld is not a pure type. It contains some plant species that are in most circumstances more likely to be found on the seashore. The latter plant species are mostly halophytes i.e. plant species able to tolerate a saline to hyper-saline environment. Agulhas Limestone Fynbos is not found at the site at all, but further inland.

The vegetation and terrain is shown as below, also refer to the table in page 14-26 of the Botanical Assessment.

Plant species of conservation concern

Based on the specialist findings, the vegetation associated with the vegetation type found on site is a poor representative of the Overberg Dune Strandveld. No species of conservation concern have been identified during the on-site survey.

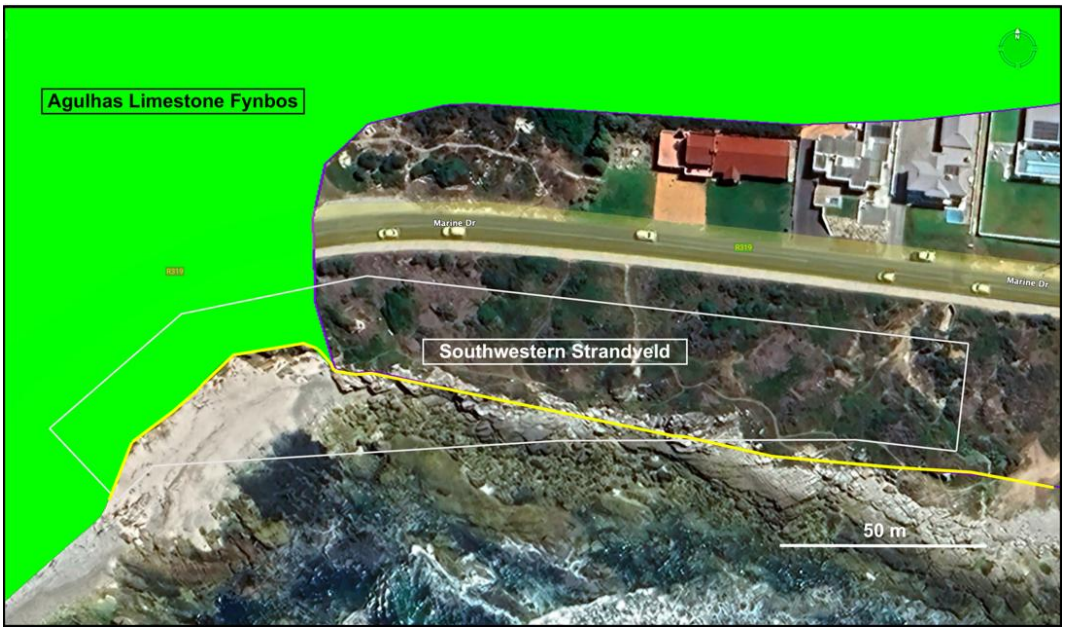

Figure 8: Portion of the vegetation map (VEGMAP) (SANBI, 2024) indicating that the site is mostly within Southwestern Strandveld (northwards of the yellow line). Cape Seashore Vegetation is not shown, with Agulhas Limestone Fynbos occurring at the western end of the site. (*source*: McDonald, 2023).

Photo 1. The east boundary of the site runs from Marine Drive to the shoreline, roughly in a straight line through the habitat seen in this image (McDonald, 2023)

Photo 2. This image shows erosion of the accumulated aeolian sand. Note the thickness (depth) of the sand. The cause of the erosion is the egress of stormwater from a culvert at the edge of Marine Drive. (***source***: McDonald, 2023)

Photo 3. The view westwards from the eastern boundary of the site showing the rocky promontory above the rocky coastline. The vegetation is all Strandveld (***source***; McDonald, 2023).

Exotic and Invasive Plant Species

With the site being in close proximity to the gardens of houses at Struisbaai, some exotic plant species found in coastal gardens around the world but more specifically in the sub-tropics and tropics, have become established. Notable species of plants observed by the specialist includes *Plantago maritima*, *Reseda lutea* and *Lagunaria patersoniae*, as illustrated in the Botanical Scoping Assessment. *Acacia cyclops* has previously been more prominent on the site but the large shrubs have been removed leaving only the less conspicuous specimens that blend in with the wind- and salt-pruned low vegetation. Such specimens could become larger with time if they are not eradicated.

Red list Ecosystem (RLE)

The most recent National Biodiversity Assessment has been used as the basis for the mapping of threatened ecosystems, more specifically the remnants of these ecosystems that, for convenience, are referred to as 'Red List Ecosystems' (SANBI, 2022; Skowno & Monyeki, 2021). The shapefile applicable to the site was also overlaid on a Google Earth Pro™ image with the result given in Figure 13. The classification recognises only the western end of the site, where the small beach is located, as Endangered [EN B1 (iii)]. The latter area is now classified as Agulhas Limestone Fynbos (see also Figure 11).

Figure 9: The RLE classification overlain on a Google Earth Pro ™ image, showing that only a small part of the site, at the western end, is recognized as endangered habitat. (*source*: McDonald, 2023)

4.4.	Explain how the objectives and management guidelines of the Biodiversity Spatial Plan have been used and how has this influenced your proposed development.

The Western Cape Biodiversity Spatial Plan [WCBSP] (CapeNature, 2017; Pence, 2017, Poole-Stanvliet et al., 2017) is the conservation standard developed by CapeNature, that includes the currently accepted Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) at a provincial level but recognized nationally as well. The map of CBAs and ESAs for the Agulhas Municipality was overlaid on a Google Earth Pro™ image. The classification shows that part of the site is classified as ESA1, whereas the remainder of the site is not recognized as sensitive. The preferred layout alternative takes this classification into careful consideration. To align with the objectives and management guidelines of the WCBSP, the proposed development has been designed to avoid encroachment on the ESA1 area as far as practicable, by maintain public access (Erf 7) on this boundary. Bulk infrastructure, including roads, utilities, and services, is planned for the eastern portion of the property, which lies outside the ESA1 classification. This ensures minimal disturbance to sensitive ecological areas.

Furthermore, mitigation measures such as maintaining ecological corridors and implementing low-impact construction practices have been incorporated into the design to support the ecological function of the ESA1 area. The layout also includes permeable fencing and the use of indigenous vegetation in landscaping to enhance connectivity for flora and minimising the visual intrusion of the development to adjacent properties.

Figure 10: The WCBSP map overlaid on a Google Earth Pro ™ image, indicating that the western part of the site is classified as ESA1. (*source*; McDonald, 2023).

4.5.	Explain what impact the proposed development will have on the site-specific features and/or function of the Biodiversity Spatial Plan category and how has this influenced the proposed development.

Plant Species Sensitivity

Plant species sensitivity is Low for most of the site and Medium for the western end of the site. This agrees with both the WCBSP classification and map and the Red List Ecosystem classification and map, where in all cases the western end of the site, where the beach is located, is more sensitive than the remainder.

No plant species of conservation concern (SCC), also known as Red List species (Raimondo et al. 2009) were encountered on the site.

Ecological Processes

Ecological processes on the site are closely linked to the proximity of the sea. In addition, release of stormwater onto the site has caused some disruption of the soil. Revegetation is occurring naturally but is very slow.

Unlike in fynbos, Strandveld does not rely on fire as one of the important ecological drivers. The Strandveld plant communities stay relatively stable without fire and most of the plants do not rejuvenate by resprouting but rather by seed should a fire occur.

The site at Struisbaai is not typical 'Dune Strandveld' due to its topography so its structure and plant species composition is somewhat less complex than in the typical form of Dune Strandveld. In addition, there is very little activity of animal biota on the site, probably due to the limited cover and food resources offered by the vegetation. This is another reason for saying that the terrestrial biodiversity sensitivity should be Medium at the most.

Terrestrial Biodiversity Sensitivity

According to the botanical specialist findings, the screening tool identifies the site as High to Very High sensitivity, however, the specialist disputes this and alludes that the terrestrial biodiversity of the site should not be classified more than medium sensitivity and that the ESA1 classification as well as the other sensitivity features do not warrant application of a High to Very High classification.

No bird species were observed during the site visit. In addition no insect communities were evident in the dune Strandveld habitat either.

Direct impact

There would be almost total loss of the Strandveld vegetation on the site, whereas the Agulhas Limestone Fynbos at the western end of the site with the beach and a limited area of Cape Seashore Vegetation would remain intact. The impact at the local level of the site is thus Low Negative since the development footprint would only affect the Strandveld from the boundary with the Agulhas Limestone Fynbos eastwards to the eastern boundary of the site. The latter area is classified as being of least concern by both the Western Cape Biodiversity Spatial Plan (see Figure 12 of the botanical specialist) and the Red Listed Ecosystem analysis (see Figure 13 of the Botanical Report).

The main concern in terms of cumulative impacts would be the loss of Southwestern Strandveld as a vegetation type. However, the site is 0.71 ha, at least a third of which is exposed bedrock and beach, leaving less than 0.5 ha that is true Strandveld or Agulhas Limestone Fynbos. Therefore, although there would be total loss of the vegetation on the eastern part of the site, this loss would not be great over the extent of the vegetation type as a whole, so cumulative impacts would be Low Negative.

4.6.	If your proposed development is located in a protected area, explain how the proposed development is in line with the protected area management plan.

N/A. The subject property is not located in a protected area.

4.7.	Explain how the presence of fauna on and adjacent to the proposed development has influenced your proposed development.

The Botanical specialist highlights that no bird species were observed using the habitat for feeding or nesting. In addition, no insect communities were evident in the dune Strandveld habitat either.

5. Geographical Aspects

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.
The impact of the proposed development relates to the transformation of the land that is currently covered with indigenous vegetation to the landscape which will be transformed and built. The desirability from a development perspective relates to the proximity of the erf to the coast and as such the relevant coastal legislation has been consulted and the design has been shaped around these factors.

6. Heritage Resources

6.1.	Was a specialist study conducted?	YES x	NO
6.2.	Provide the name and/or company who conducted the specialist study.		

Cindy Postlethwayt –Heritage Impact Assessment

John Pether – Palaeontological Impact Assessment

Jonathan Kaplin – Agency for Cultural Resource Management (ACRM) – Archaeological Impact Assessment

Terra + Landscape Architects – Visual Impact Assessment

6.3.	Explain how areas that contain sensitive heritage resources have influenced the proposed development.

Heritage Impact Assessment

Palaeontology

Affected Formations

The wave-eroded bedrock quartzites of the Peninsula Fm. underlie the proposed development. The overlying deposits are not very thick and are expected to include raised beach deposits of the Klein Brak Fm. and windblown sands of the Strandveld Fm.

Accepting that the aeolianite exposed along the Spookdraai is of MIS 6 age (~180-160 ka) and post-dates the older MIS 11 high sea level (Figure 6), the LIG high sea level (5-6 m asl.) might have occupied the bedrock beneath the Project Area, with shoreline cliffs of aeolianite. However, it is also possible that the area remained covered by the Waenhuiskrans Fm. aeolianite during LIG times, with the cliffed shoreline situated to the seaward of the Project Area, as seen at other coastal localities where the LIG raised beach deposits are absent and pre-LIG aeolianites are cliffed along the modern shoreline.

Archaeology

Studies have shown that people have occupied the Agulhas region for well over a million years. Middle Stone Age (MSA) and Early Stone Age (ESA) tools occur locally, while large numbers of Later Stone Age (LSA) shell middens have been recorded in Cape Agulhas, Suiderstrand and Agulhas National Park (Hall 1984; Kaplan 1993, 1997a, b, 1998a, b, 1999a, b, 2001, 2003a, 2006, 2007; Nilssen 2004).

A search of SAHRIS5 has shown that a handful of commercial CRM surveys have been conducted in Struisbaai. The rocky shoreline between Struisbaai and Cape Agulhas is rich in archaeological resources such as shell middens (Kaplan 2008, 1993), while few remains have been recorded north of the village, where the shoreline forms a long sandy beach. Traces of shellfish have been recorded in the back dune area near Die Plaat, and on some limestone bedrock north of the Langezandt housing development (Hart & Halkett 1995; Kaplan 2003b).

A few isolated flakes have also been recorded in Struisbaai North, and near the Caravan Park (Kaplan 2020, 2016a, b), while isolated stone flakes and some pottery was recorded inland of the coast at Andrews Airfield (Kaplan 2021). Colonial period middens associated with the historic settlement at Hotagterklip alongside as one enters Struisbaai have also been recorded (Hart & Halkett 1995).

Cape Agulhas is, probably best known for the large number of well-preserved tidal fish traps/visvywers that occur in the intertidal zone, which are visible at low tide, and on Google Earth satellite imagery. For many years archaeologists have assumed that these stone walled`dams' built in gullies or low energy bays originated among LSA hunter-gatherers who lived on the coast after 3000 years ago (Avery 1975; Goodwin 1946; Gribble 2005). But research conducted by the archaeologist Philip Hine (2008), has shown that most, if not all of these stone-built fish traps, were constructed by bywoners in the late 1800s and early 1900s, who rented properties from absent farmers at the time.

Cultural landscape Context

At the western-most coastal edge of the rural holiday town of Struis Baai, the site is located on the seaward side (south) of Marine Drive at the point that the village of Struisbaai merges into that of L' Agulhas. It is within a semi-rural cultural landscape of high visual significance and aesthetic value, (given the degree of intactness, integrity, and legibility) with a coastal character, outside the urban periphery, with important components of distinctive character, valued for tangible as well as intangible attributes. As such, it is potentially susceptible to changes of the types proposed

It incorporates all of the high-water mark, the 5m contour, and the low, medium and high risk coastal risk zone lines within a large area of the site. It is inside the urban edge.

Marine Drive is the main road of Struisbaai that connects it to Suiderstrand to the west and Bredasdorp inland to the north-east. It forms part of a long uninterrupted open coastal strip on the seaward side of Marine Drive, from the harbour towards L'Agulhas. It is in its natural state, with public vehicular, fishing and pedestrian access along its length, punctuated by picnicking and viewing facilities.

Heritage Resources and Significance

The process of privatisation of sections of the coastline immediately above the High-Water Mark has not been tracked, but it does appear that considerable sections, perhaps the majority, of the coastline of Struis Baai and L'Agulhas remain in public ownership and are publicly accessible. Whilst this site is in private ownership, it has for all practical purposes been publicly accessible.

Access to the coast in this region is a critical public resource and contributes significantly to the "sense of place". It is indeed the historical raison d'etre of these two coastal villages. The coastline should, as far as possible, remain an external space (preferably open-to-the-sky), and publicly accessible.

The site currently forms part of a coastal cultural landscape which includes areas, views and component resources of high scenic, cultural or historical significance. Visual quality is enhanced by the intactness of the direct landscape, and lack of visual intrusions along the coastal portion of the site. Although the adjacent area of the site is highly altered from its natural state, it is still part of a coastal landscape which has a high degree of integrity, particularly the portion below Marine Drive designating this a very good quality landscape. Due to its position on the coast and relation to the higher elevation of the surrounding areas the site is particularly visible from the surroundings areas and along the scenic route of Marine Drive and the properties along the adjacent town of Agulhas.

The view catchment area is relatively small with views limited to the direct surroundings and a portion of the scenic route of Marine Drive and Agulhas; however, these views are significant due to the particular quality and intact nature of the coastal landscape.

In the opinion of this author, the cultural landscape aspects warrant a Grade IIIA significance.

Palaeontological and Archaeological Resources:

The palaeontological sensitivity of the Peninsula Fm. bedrock is rated High, but the proposed small development is not expected to significantly impact the trace fossil content which might be preserved in the folded and deformed strata beneath the surficial sands.

The Klein Brak Fm. raised beach deposits typically consist of shelly sands and rounded gravels. In open-coast settings these Quaternary "raised beach" deposits include a fossil shell fauna which is mainly comprised of extant (living) species which are common today and which are not paleontologically sensitive. In addition to fossil shells, scattered fossil bones such as from whales, dolphins, seals and seabirds may occur in the deposits but are generally very rare. These are not likely to be extinct species, but species beyond their modern-day ranges may occur. A Low sensitivity may be assigned to the raised beach deposits. The thin traces of shellfish, very few artefactual remains, and no visible cultural items such as pottery means that the archaeological remains have been graded as having Low (IIIC) local significance.

Sites of significance relating to the history of slavery:

Although there are historical associations with an early colonial farm which would undoubtedly have utilised slave labour, this property is part of the last remaining extent of the farm post the last 2013 subdivisions. It is thus not regarded as being likely to have any direct or easily traceable associations with slavery.

Assessment of alternatives

In principle, it is accepted that development can be considered provided it is finely tuned and responsive to the range of sensitivities of the site. It is acknowledged that the property is, in legal and technical terms, privately owned, while

simultaneously has historically provided for unrestricted public access to the beach, waters' edge and coastal terrace, as well as uninterrupted visual continuity of the coastline from the scenic Marine Drive. In so far as is possible and reasonable, the preservation and enhancement of this quality in its context are seen as key to maintaining the accessibility and character of the coastline.

Palaeontology (all alternatives)

The possible presence of fossils in the subsurface does not have an a priori influence on the decision to proceed with the proposed development. The potential impact has a moderate influence upon the proposed project, consisting of implemented mitigation measures recommended in Section 16, to be followed during the Construction Phases.

Archaeology (all alternatives)

The results of the study indicate that, a small housing development on this property will likely not impact on important Stone Age archaeological heritage resources.

Impact Alternative 1: No Go

Alternative 1 presumes the status quo remains, no changes or management interventions are implemented.

Impact Alternative 2 (not preferred)

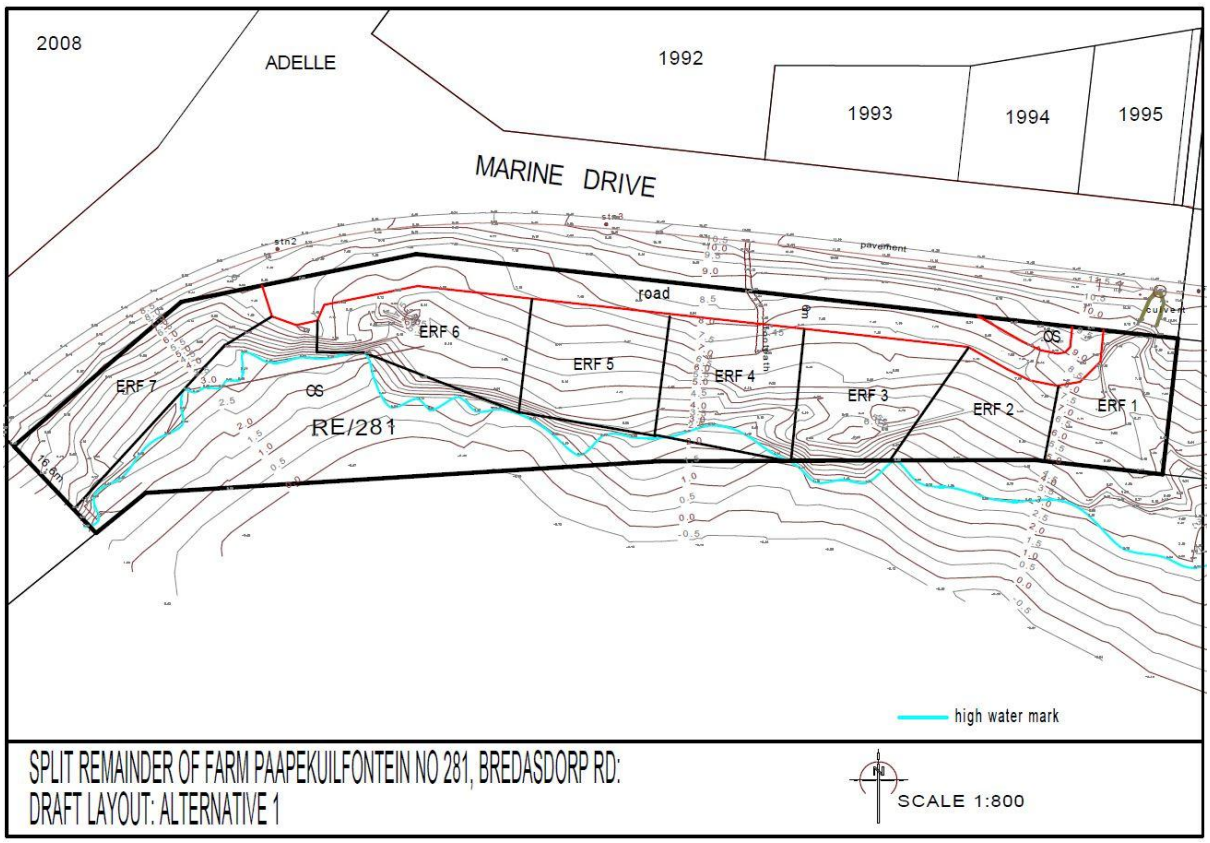

Figure 11a: Alternative two layout plan.

Impact Alternative 3 (Not preferred)

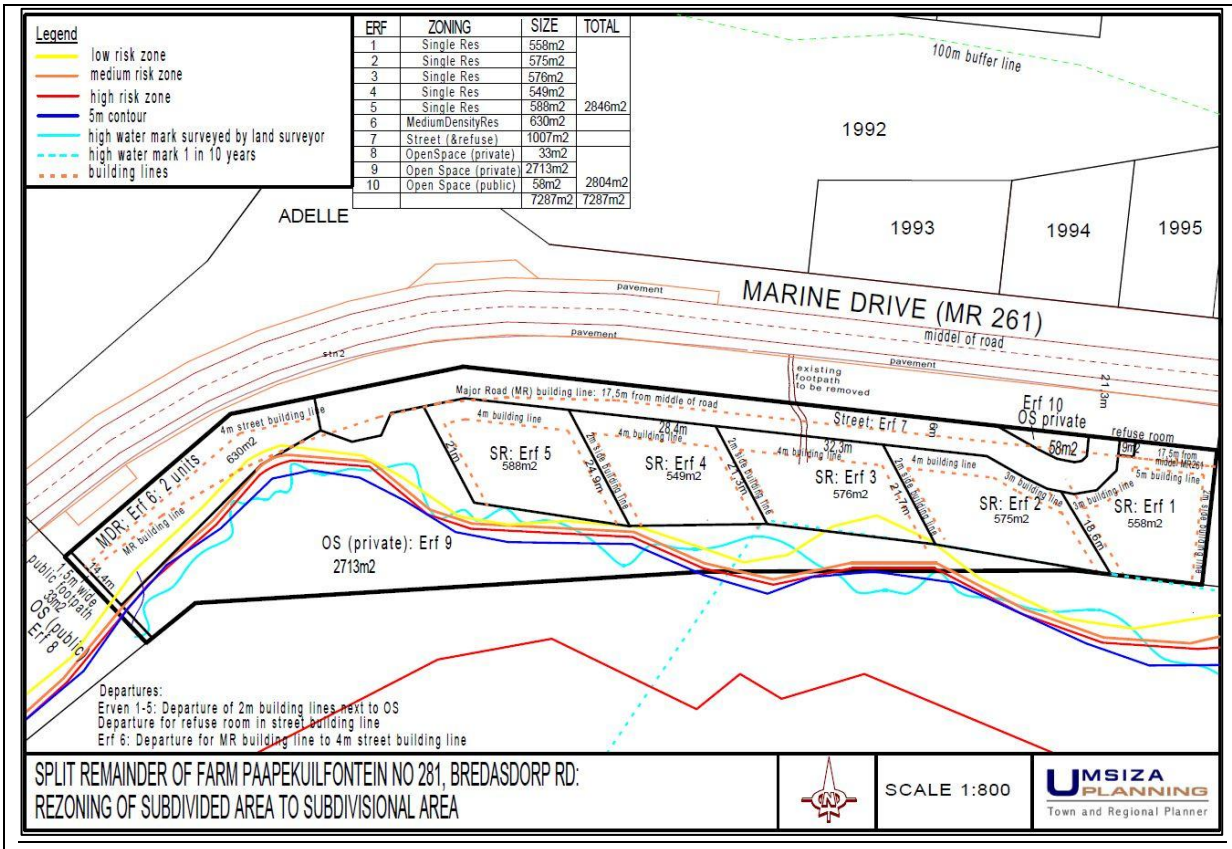

Figure 11b: Alternative 3 layout plan.

Public access

The proposed development incorporates a 1.5m wide public footpath along the western boundary, providing access to the beach below the High Water Mark. It is however unclear whether the majority of the beach, which falls into subdivision 9 (Private Open Space) will be public (the zoning would suggest otherwise).

The indicator suggesting the maintenance of a number of physical, publicly accessible links across the site and along the coastline has been given minimal acknowledgment.

Visual Corridors and Green Connections

The planning parameters provided for only 2m lateral building lines for residences; and for garages and storage buildings, 1.5m from lateral and rear boundaries. This provides no appreciable opportunity to ensure continuous corridors between units to ensure substantive and generous visual connection with the ocean from Marine Drive

In overall terms, the heritage (and related visual) impacts are expected to be High, negative. There is limited information available to assess the significance of the impact of the preferred alternative, however, should the landscape and visual indicators be followed and applied then the significance of the impact may be lowered.

VISUAL SENSITIVITY OF AREA (LANDSCAPE SENSITIVITY)

The portion of the field-of-view dominated by the proposal decreases substantially at distances beyond 1km from the site, as the proposal becomes screened by existing landforms and vegetation. However, the typical landscape quality and the intrusion into this unique setting creates a visual sensitivity that is deemed to have a Medium to High Visual Sensitivity.

VISUAL SENSITIVITY OF RECEPTORS

The Receptors of the anticipated visual impact include residential areas which are considered to have High Visual Sensitivity. The site falls within proposed (as yet approved) urban edge, but interfaces with a coastal cultural landscape with high visual / scenic amenity value.

SIGNIFICANCE OF SENSITIVITY TO VISUAL CHANGE

As a function of landscape sensitivity and anticipated magnitude of change as a result of the development, above, the sensitivity to visual change is deemed to be of High Significance.

VISUAL INTRUSION OF DEVELOPMENT (MAGNITUDE OF VISUAL CHANGE)

The development is proposed to occupy a portion of the coastline which is pristine and with no adjacent development to form a continuous pattern. This urban intrusion will result in a High Visual Intrusion

VISUAL ABSORPTION CAPACITY OF SITE

The particular landscape quality of the site and the fact that there is no adjacent development along this portion of the coast results in a Low Visual Absorption Capacity.

SIGNIFICANCE OF ANTICIPATED VISUAL IMPACTS

Determined through a synthesis of the aspects of nature, duration, intensity, extent and probability, the Construction Phase Visual Impact is of Medium adverse significance; however, this may be ameliorated through the implementation of an environmental management plan as mitigation.

Determined through a synthesis of the aspects of the nature, duration, intensity, extent and probability, the Operational Phase Visual Impact is of High Negative Significance, having a significant influence on the environment, and requiring mitigation.

As a function of receptor sensitivity and anticipated magnitude of change as a result of the development, above, the sensitivity to visual change is deemed to be of Major Significance, negative.

Due to the lack of architectural and landscape parameters and the lack of a landscape plan and mitigation measures, the proposed development will have a Significantly High Negative Visual Impact and cannot be supported.

Impact Alternative 4 (preferred)

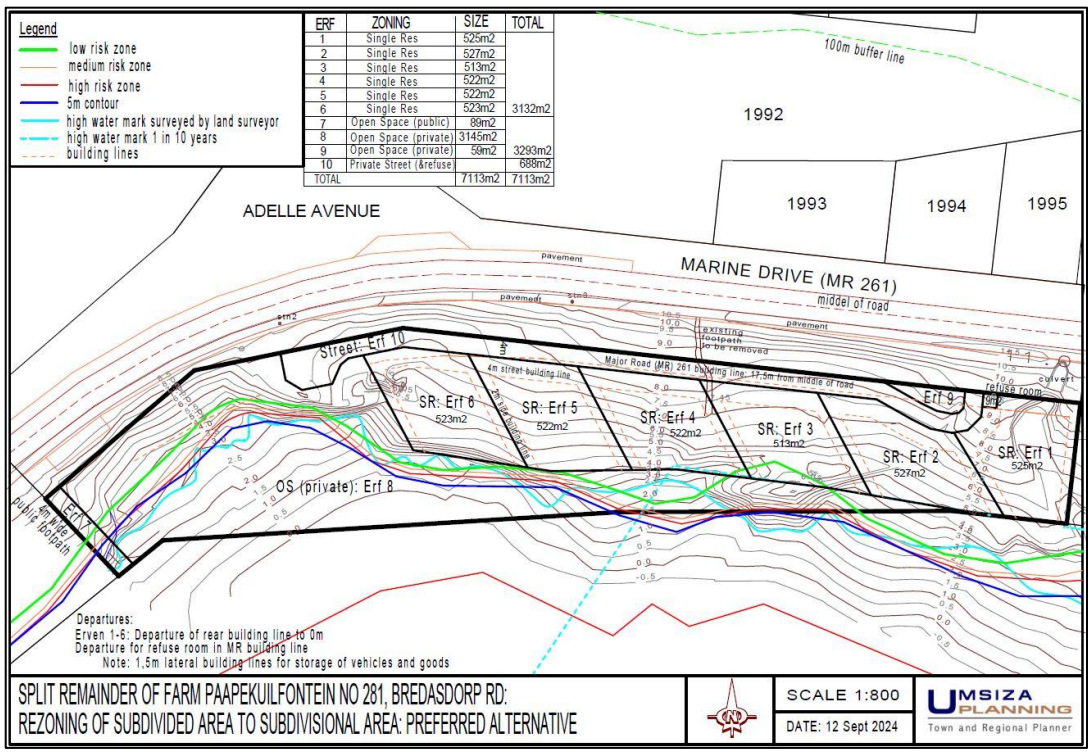

Figure 11c: Alternative 4 (preferred)

Public access

The proposed development incorporates a 1.5m wide public footpath (Subdivision 7) along the western boundary, providing access to the beach below the High Water Mark. It is assumed access to the beach (Subdivision 8) will be unimpeded despite the zoning of Private Open Space. This will need to be included as a mitigation condition.

There are no other physical, publicly accessible links across the site and along the coastline. It is accepted however this a privately owned site, despite the history of public use.

Visual Corridors and Green Connections:

The architectural guidelines and landscape development plans illustrate setbacks and stormwater escape routes which create visual and green corridors between all residential units. The reduction in density at Spookdraai corner has considerably improved the visual and green corridors.

Maintenance of a green buffer:

The architectural guidelines and landscape development plans illustrate a vegetated buffer between the existing pedestrian walkway and the access service road. The latter along with the entrance gate and refuse room is located at a lower elevation (some 2m below road level), at which point the boundary wall is to be located, for which appropriate guidelines are established.

Suitable Architectural Typology:

The provision of architectural guidelines establishes more appropriate parameters, roof-scape, massing and heights.

Visual Sensitivity of Area (Landscape Sensitivity)

The portion of the field-of-view dominated by the proposal decreases substantially at distances beyond 1km from the site, as the proposal becomes screened by existing landforms and vegetation. However, the typical landscape quality and the intrusion into this unique setting creates a visual sensitivity that is deemed to have a Medium to High Visual Sensitivity.

Visual Sensitivity of Receptors

The Receptors of the anticipated visual impact include residential areas which are considered to have High Visual Sensitivity. The site falls within proposed (as yet approved) urban edge, but interfaces with a coastal cultural landscape with high visual / scenic amenity value.

Significance of Sensitivity to Visual Change

As a function of landscape sensitivity and anticipated magnitude of change as a result of the development, above, the sensitivity to visual change is deemed to be of High Significance.

Visual Intrusion of development (Magnitude of Visual Change)

The development is proposed to occupy a portion of the coastline which is pristine and with no adjacent development to form a continuous pattern. This urban intrusion will result in a High Visual Intrusion.

Visual Absorption Capacity of Site

The particular landscape quality of the site and the fact that there is no adjacent development along this portion of the coast results in a Low Visual Absorption Capacity.

Significance of anticipated Visual Impacts

Determined through a synthesis of the aspects of nature, duration, intensity, extent and probability, the Construction Phase Visual Impact is deemed to be of Medium-high intensity – where visual and scenic resources are affected to a limited extent only.

Determined through a synthesis of the aspects of the nature, duration, intensity, extent and probability, the Operational Phase Visual Impact is of High Negative Significance a Negative Visual Impact may be expected – resulting directly from the intrusion of new dwellings in a portion of the coastline otherwise undeveloped

Extent of Visual Impacts The geographic 'area of influence' or spatial scale of the visual impact is of a Local extent – i.e. limited to the site as the visual impact decreases over time should the landscape and visual indicators be followed and implemented.

Duration of Visual Impacts

The predicted lifespan of the Visual impact is of Long-term Duration (e.g. 15+ years) – unless the landscape and visual indicators are followed and mitigation measures implemented.

Intensity of Visual Impacts

The magnitude of the Visual Impact is of High intensity where visual and scenic resources are affected to any significant extent.

Determined through a synthesis of the aspects of the nature, duration, intensity, extent and probability, the Operational Phase Visual Impact is of High Negative Significance, having a significant influence on the environment, and requiring mitigation.

Taking the design evolution into account and the provision of a comprehensive architectural guideline document and a landscape plan and landscape guideline document the visual impacts may be mitigated should these be implemented. The management and long-term application of these measures are critical to ensure the development is properly visually mitigated and fit in the landscape.

In overall terms, the heritage (and related visual) impacts are expected to be medium, negative. The mitigation measures proposed in particular the landscape plan, Architectural guidelines and Landscape guidelines which responded to the indicators supplied, will assist in mitigating the overall impact and the visual impact will improve with time as the vegetation grows and the landscape matures.

Palaeontological Impact Assessment

Affected Formations

According to Pether, (2023) the proposed development site consists of the wave eroded bedrock quartzites of the Peninsula Formation. The specialist then highlights that the overlying deposits are not very thick and are expected to include raised beach deposits of the Klein Brak Fm. and windblown sands of the Strandveld Fm.

Accepting that the aeolianite exposed along the Spookdraai is of MIS 6 age (~180-160 ka) and post-dates the older MIS 11 high sea level (Figure 6), the LIG high sea level (5-6 m asl.) might have occupied the bedrock beneath the Project Area, with shoreline cliffs of aeolianite. However, it is also possible that the area remained covered by the Waenhuiskrans Fm. aeolianite during LIG times, with the cliffed shoreline situated to the seaward of the Project Area, as seen at other coastal localities where the LIG raised beach deposits are absent and pre-LIG aeolianites are cliffed along the modern shoreline.

The Holocene High (~3 m asl., about 7 ka) would have impinged on the Project Area strip which very likely was inundated during storm surges, with deposition of "stormbeach" deposits above the highwater mark. Reworked marine sands of the aeolian Strandveld Fm. occupy the surface.

Anticipated impacts on Palaeontological Resources

The palaeontological sensitivity of the Peninsula Fm. bedrock is rated HIGH (Figure 8), but the proposed small development is not expected to significantly impact the trace fossil content which might be preserved in the folded and deformed strata beneath the surficial sands. The Peninsula Fm. occurs extensively throughout the Cape Fold Belt.

The Klein Brak Fm. raised beach deposits typically consist of shelly sands and rounded gravels. In open-coast settings these Quaternary "raised beach" deposits include a fossil shell fauna which is mainly comprised of extant (living) species which are common today. In sheltered bay, estuarine and lagoonal settings, where warm-water conditions pertained locally, the deposits may also include a few tropical species of both West African and Indo-Pacific origin that no longer occur along the coast today, as well as a small number of extinct species. The shells present in the sheltered, warmer setting are known as the "Swartkops Fauna", from that estuary near Port Elizabeth. In addition to fossil shells, scattered fossil bones such as from whales, dolphins, seals and seabirds may occur in the deposits, but are generally very rare. These are not likely to be extinct species, but species beyond their modern-day ranges may occur.

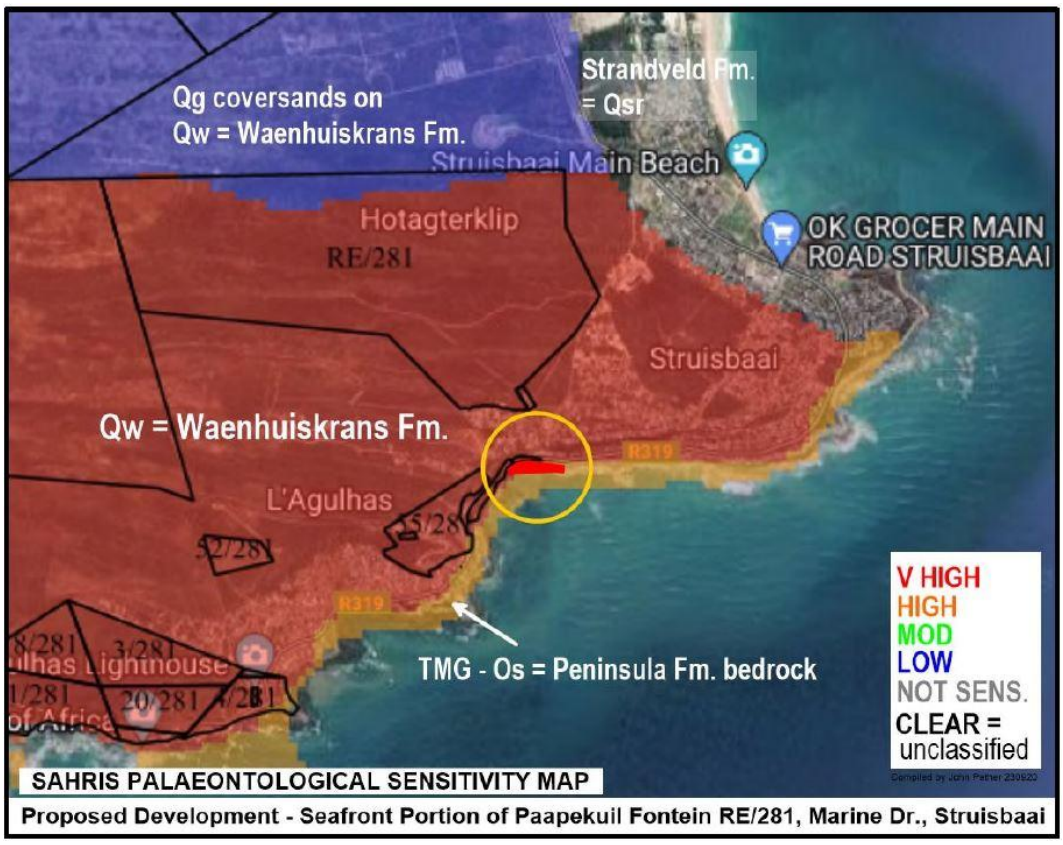

Figure 12: Palaeontological sensitivities of formations in the Struisbaai area.

The Klein Brak Fm. is not rated on the SAHRIS palaeontological sensitivity map, but is assigned CLEAR/Unclassified. It is suspected that beach deposits beneath the site are likely to be of Holocene age. Due to the open-coast setting of the Project Area a LOW sensitivity may be assigned to the raised beach deposits. The marine sands have been eroded and wind-reworked to form a thin coversand equivalent to the Strandveld Fm. (also unclassified, Figure 8) Fossil material such as marine shells and bones in these sands are likely to be in an archaeological context. Any "subfossil" bones are expected to be of the extant fauna and a LOW sensitivity may be assigned to the aeolian coversands.

In summary, both the beach deposits and aeolian coversands of the Project Area are accorded LOW palaeontological sensitivity and in the impact assessment below are considered together. The intensity or magnitude of impact relates to

the palaeontological sensitivities of the affected formations (Appendix 1 of the Palaeontological Impact Assessment) and the volume of disturbance by excavations. A typical conventional housing development entails trenches for foundations (~0.6 m depth) and services infrastructure (up to ~1.2 m depth) and will primarily affect the coversands and will probably intersect the beach deposits in places. In view of the vulnerability of the proposed seashore development to infrequent, but damaging storm surges it is possible that alternative structures may be built, such as plinth and girder construction which may involve less subsurface impact.

Note that the prime concern is for land and marine animal bones and archaeological material. The shell content in the Holocene raised beach deposits is not paleontologically sensitive.

Archaeological Impact Assessment

According to Kaplin, (2023) studies have shown that people have occupied the Agulhas region for well over a million years. Middle Stone Age (MSA) and Early Stone Age (ESA) tools occur locally, while large numbers of Later Stone Age (LSA) shell middens have been recorded in Cape Agulhas, Suiderstrand and Agulhas National Park (Hall 1984; Kaplan 1993, 1997a, b, 1998a, b, 1999a, b, 2001, 2003a, 2006, 2007; Nilssen 2004).

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Site Visit Results

Specialist findings indicates that there are a few traces of archaeological heritage resources recorded during the field survey.

Fragments of weathered marine shellfish (mostly *Turbo sarmaticus /* alikreukel & some limpet / *Scutellastra longicosta*), a flaked quartz chunk, and a limestone flake were recorded in the coastal footpath that runs alongside the rocky shoreline .

Traces of shellfish (*Turbo sarmaticus*) were also recorded in a few open patches of windblown sand on the vegetated slopes above the coastal track).

A few fragments of weathered shellfish and several broken beach cobbles were recorded on the elevated rocky shelf at the end of the small sandy beach.

A few isolated fragments of shellfish were noted in the side wall of the sandy donga (refer to Figure 6), but no anthropogenic remains were noted.

No organic remains such as pottery, bone or ostrich eggshell were found.

Figure 13: Waypoints of archaeological remains and Track paths in blue. (***source***: Kaplin, 2023)

Table 1: Spreadsheet of waypoints and description of archaeological resources

GPS Point	Name of Farm	Lat/long	Description of finds	Grading	Mitigation
	Farm 281 – Re seafront				
142		S34° 48.819' E20° 01.841'	A few weathered fragments of shellfish & several broken cobbles and chunks on rock ledge	IIIC	None required
152		S34° 48.823' E20° 01.869'	Traces of weathered shellfish alongside coastal foot path	IIIC	None required
162		S34° 48.823' E20° 01.875'	Traces of weathered shellfish, + flaked quartz chunk alongside coastal footpath	IIIC	None required
172		S34° 48.824' E20° 01.881'	Traces of weathered shellfish on sandy slope	IIIC	None required
182		S34° 48.826' E20° 01.883'	A few fragments of shellfish + limestone flake alongside coastal footpath	IIIC	None required
192		S34° 48.820' E20° 01.909'	A few fragments of weathered shellfish on sandy slope	IIIC	None required
222		S34° 48.823' E20° 01.938'	A few fragments of weathered shellfish on eroded sandy slope	IIIC	None required
212		S34° 48.830' E20° 01.958'	Fragments of shellfish on patch of sand outside footprint area	IIIC	None required

Photo 4: Site 152 view facing east. Kaplin, (2023)

Photo 5: Site 162. View facing east.

Photo 6: Site 182. View facing east. *Source*: Kaplin, (2023)

Photo 7: Site 222. *Source*: Kaplin, (2023).

Photo 8: Site 212. *Source*: Kaplin, (2023)

Photo 9: Site 212. *Source:* Kaplin, (2023)

Impact Statement

The results of the study indicate that, a small housing development on the subject property in Struisbaai, will likely not impact on important Stone Age archaeological heritage resources.

Visual Impact Assessment

At the regional scale: Struisbaai is situated on relatively low-lying land. Mountainous regions are located far North to the town, and 2 small peaks on the far West above Agulhas. Thus, the landscape vegetation in this area mainly consists of the Overberg sandstone fynbos, which consists of 7 different Fynbos species, of which 4 of these are endangered. The entire area falls under SANBI protected areas.

The towns are surrounded by National Parks including Agulhas National Park, and the Freshwater Sands Private Nature Reserve. The town lies in a relatively flat area, with no mountains surrounding it. The landscape can be described as an expansive landscape with vistas and views across the windswept coast.

Visual Resources identified

It is critical to note that the resource of this particular site is not only visual, but the rural cultural landscape with all the nuances, is of importance as a resource, both visually and as a character resource. The primary visual resource is the coastal edge and scenic drive. The character of this landscape is a coastal landscape shaped and defined by the natural processes. The urban patterns are adhoc and mostly intrusive in this landscape.

Visual resources across the scales are summarised as follows:

Site Attributes:

- → Coastal landscape with intact and indigenous vegetation. Small footpaths that lead to areas of recreation and amenities.
- → Subject site is located in the Overberg region of the Western Cape, in the small coastal town of Struisbaai. Its neighbouring town, the southernmost tip of Africa, Cape Agulhas, is located south-west of the site.
- → At the site scale: Site is located in between Marine Drive - the main access road that connects Struisbaai, Agulhas and Suiderstrand with one another - and the ocean. Above Marine Drive are a number of single residential buildings, loosely scattered across the landscape. The subject site is significant as the position is below Marine drive where few developments take place and on a gateway position (on a scenic bend in the road) between Struisbaai and Agulhas.

Photo 10. Photograph of site (*Source*: Terra+)

Regional Context:

Bucolic rural landscape of rolling hills with typical agricultural patterns and small settlements and farmsteads. At the regional scale, Struisbaai is situated on relatively low lying land. Mountainous regions are located far North to the town, and 2 small peaks on the far West above Agulhas. At a Regional scale there is a distinct transition from a bucolic landscape with rolling hills to the flat plains as one enters the rural areas leading to Struisbaai.

Local context:

- → Coastal landscape with rural interface,

→ Small low-density towns and villages with views across the ocean and rural landscape.

→ Direct transition from small town to coastal or rural setting. Important scenic route and gateway to the two adjoining towns.

→ At the local scale: The area is a popular tourist destination, due to the attraction to the Cape Agulhas, southernmost tip of Africa, and the town has developed in the past few decades. The area is home to 3 small rural coastal towns: Struisbaai (in which subject site is located), Agulhas, and Suiderstrand.

Nature of the receiving Environment

The broader context of the Overberg and surrounding areas is one of agricultural landscape patterns and small towns and farmsteads. Notably this landscape changes dramatically as one passes Bredasdorp and enters the flat plains stretching to the sea with minor hills to the south. This approach to Struisbaai is unusual and denotes a particular sense of place. The entrance to the town is marked with historic houses which lends a particular character to the town. The main access road takes you right to the coast and along the rugged coastal edge of the scenic drive to Agulhas. The site for the proposed development lies at this bend in the road as one approaches (Spook se Draai) Agulhas and is a pivotal point in the landscape marked with a small inlet and beach opposite a green vegetated open space on the opposite side.

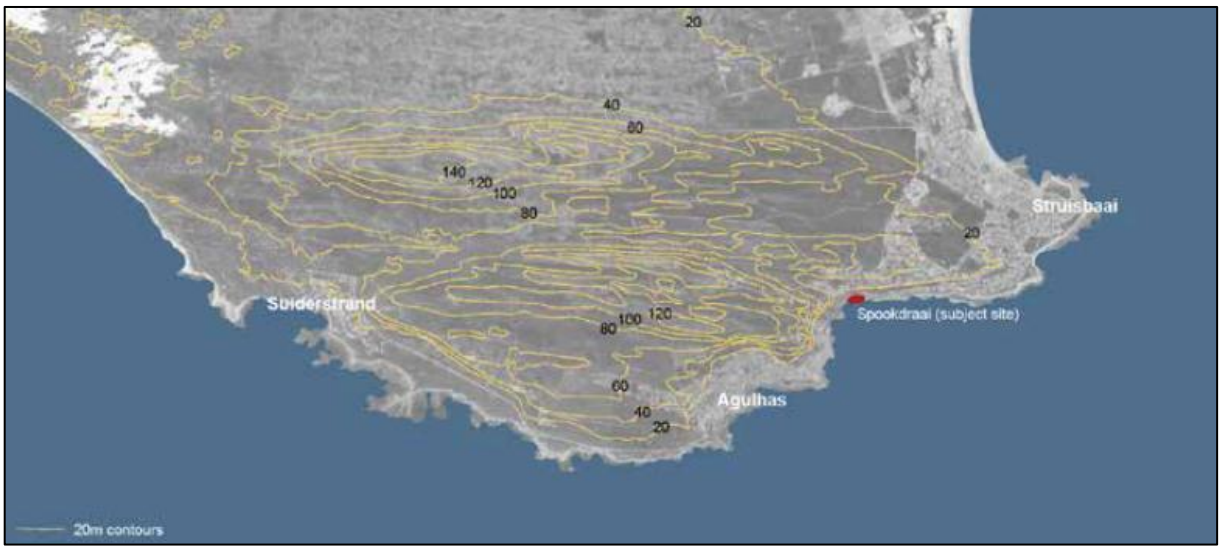

Figure 14: The site (outlined in red) in its broader con text (*Source*: GE Pro)

Figure 15: The site (outlined in red) in its broader context

Photo 11: Photo depicting the character of the harbour (*Source*: Terra+).

Photo 12: Photo depicting the coastline and residential strip looking towards subject site (Source: Terra+).

Photo 13: Photo depicting the character of the built landscape close to site (*Source*: Terra+).

Photo 14: Photo depicting the coastline and residential strip looking towards subject site. A clear green buffer is left open between Marine Drive and the ocean, built fabric only located on the other side of the road. (*Source*: Terra+).

Landscape Character Analysis

The site lies along the coastal edge of Struisbaai, at the foot of a collection of small hills present in an otherwise flat expansive landscape. The coastline is rugged and has a sense of wilderness with intact indigenous vegetation and rough eroded rocks. This a typical coastal landscape and although there is residential development, the sense of place is rugged and exposed to the elements.

Figure 16: The site and surrounding contours (contours at 5m in tervals) (*Source*: Terra+).

Topography and the landform

The site is nestled, as can be observed from the topography and contours, on the foothills of the minor hills and landforms in the landscape. This provides some protection from prevailing winter winds but exposes the site to strong wind that buffets the coastline in summertime. There is a sense of being tucked against the slope with views to the sea and beyond. This is further emphasised by the bend in the road (Spookdraai) that leads to Agulhas. The coastline is a series of rocky outcrops, indigenous vegetation and footpaths leading to accessible spaces for angling and recreation. There are one or two small sandy beaches along this portion of the coast, which intimates a sense of secluded-ness.

Figure 17: Images of the site and surroundings indicating the rocky nature of the coastline and recreational footpaths (Source: Terra+).

Figure 18: Vegetation patterns and landscape cover (Source: Terra+)

Figure 19: Coastal vegetation.

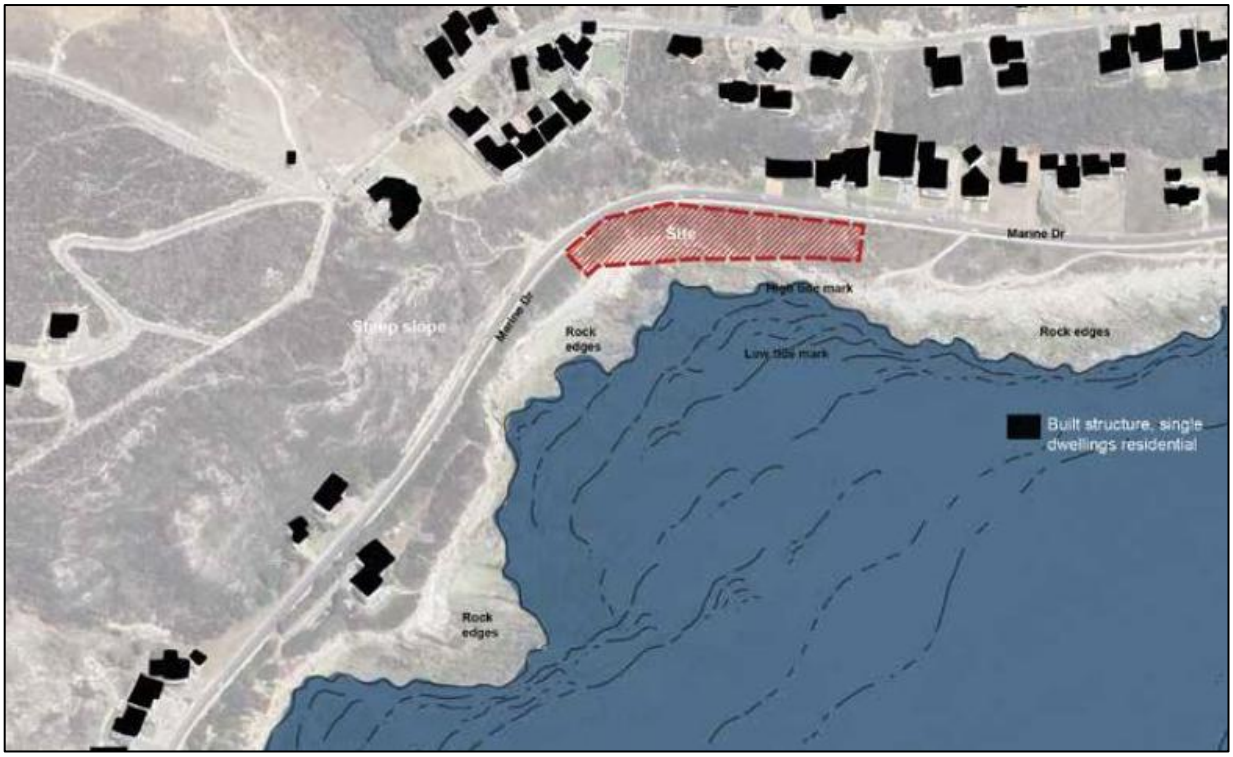

Figure 20: Settlement Patterns surrounding site: clear pattern of residential developments placed on the side of Marine Drive, far side from ocean . Leaving a green buffer between ocean and road. (Source: Terra+).

Settlement Patterns & Built Form

The development pattern of the town of Struisbaai is largely residential with a business core and harbour developments along the coast. The urban patterns surrounding the site is residential with 2 to 3 storey dwellings all predominantly facing the sea.

Photo 15. Settlement Patterns surrounding site: clear pattern of residential developments placed on the side of Marine Drive, far side from ocean . Leaving a green buffer between ocean and road. (Source: Terra+).

Photo 16. Settlement Patterns: large green buffer between building and ocean (*Source:* Terra+).

Accessibility

Main Road, Marine Drive, is the primary access route linking Struisbaai, Agulhas and Suiderstrand. Smaller access roads serve the residential areas with potential road extensions linking upper roads with Marine Drive. Smaller footpaths extend along the coastal edge, and connect to a network of footpaths in the green open space to other spaces and public amenities.

Photo 17 &18. Views of access routes (*Source*: Terra+).

Figure 21: Composite (Source: Terra+)

Composite analysis

The composite map and diagrams clearly indicate a landscape of contrasts between urban development and rugged coastal elements. The position of the site and proposed development lies within this crucial interface or cusp in the landscape, both in the cross-section from coast to top reaches of the landform and along the stretch of the scenic route along the coast. In both aspects of the landscape and the experience of the landscape the site and proposed development will have an impact.

Visual Scenic Resources

Visual quality is enhanced by the intactness of the direct landscape, and lack of visual intrusions along the coastal portion of the site.

Although the adjacent areas of the site is highly altered from its natural state, it is still part of a coastal landscape which has a high degree of integrity, particularly the portion below Marine Drive designating this a very good quality landscape.

Views and View Corridors

Due to its position on the coast and relation to the higher elevation of the surrounding areas the site is particularly visible from the surroundings areas and along the scenic route of Marine Drive and the properties along the adjacent town of Agulhas.

View Catchment and Viewshed

Theoretically, areas shaded green in the following figures have direct views towards the site.

The 'View Catchment' diagrams calculate visibility with respect to topography (i.e. landform) only; whereas the viewshed diagrams would include LIDAR data (i.e. surface texture – buildings and trees) – if available, giving a more precise view. However, visibility decreases as distance increases, as individual elements occupy smaller and smaller percentages of the overall field-of-view. This is reflected as zones of visual influence.

Both the view catchment area is relatively small with views limited to the direct surroundings and a portion of the scenic route of Marine Drive and Agulhas, however these views are significant due to the particular quality and intact nature of the coastal landscape.

Figure 22: Site viewshed (Source: GEP).

The diagram above indicates all areas that are visible (shaded in green) relative to the site. A series of viewpoints will illustrate the visibility of the site from distinct significant viewpoints and will illustrate the particular characteristics that will potentially be affected by the proposed development.

Figure 23: Viewpoint 1 (Source: Terra+; Google Earth pro).

Photo 19: Viewpoint 1 onto site (Source: Terra+)

Viewpoint 1 - this viewpoint is from the approach road from Agulhas and the site is visible (indicated in red) with particular visibility to the slope down to the coastal edge. Particular attention to the edge condition of the development will be critical to views along this route.

Figure 24: Viewpoint 2 (Source: Terra+; Google Earth Pro)

Photo 20. Viewpoint 2 onto site (Source: Terra+)

Viewpoint 2 - Views from this vantage point is from the open space adjacent to the site and the full extent of the site is visible. Although these views will be limited to people walking up the footpath to the crest of the hill, the treatment of roofscapes and boundary conditions will be critical to ameliorate the visual impact.

Figure 25: Viewpoint 3 (Source: Terra+; Google Earth Pro)

Photo 21: Viewpoint 3 onto site, views are obscured by den se shrubbery. (Source: TERRA+)

Viewpoint 3 - Views from the vantage point is obscured by vegetation. The views of the site will be limited to the particular houses and the residents within these houses.

Figure 26: Viewpoint 4 (Source: Terra+; Google Earth Pro)

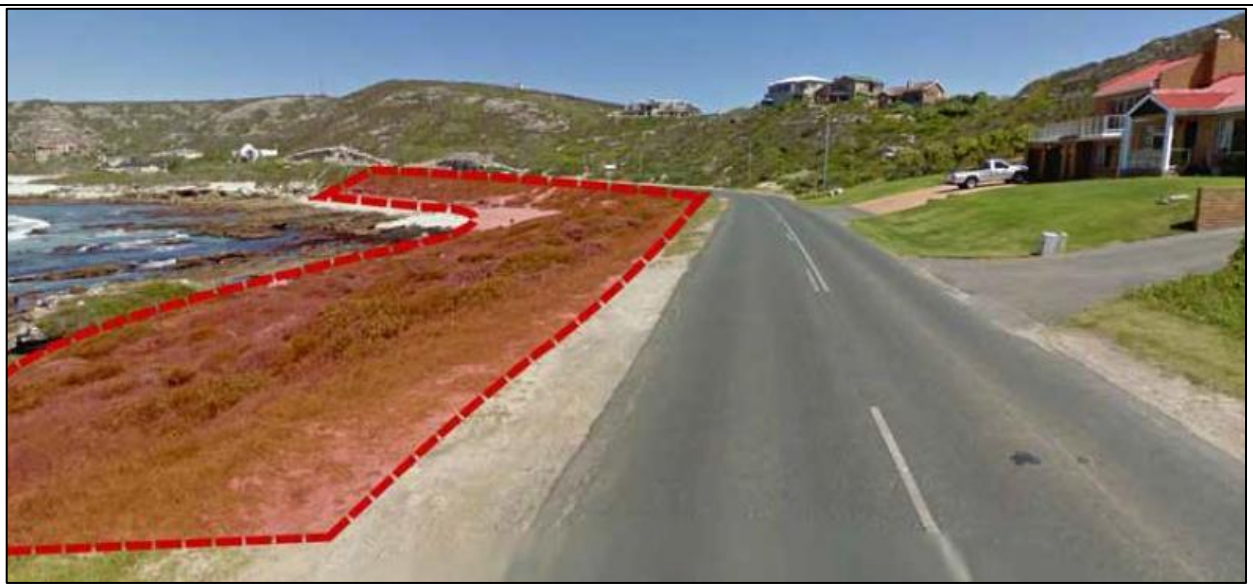

Photo 22. Viewpoint 4 onto site (Source: GE Pro)

Viewpoint 4 - this viewpoint is from the approach road from Struisbaai driving towards Agulhas. The site is visible along the route and particular attention to architectural form, roofscape and edge conditions must be given to ensure the visual impact is mitigated.

Figure 27: Viewpoint 5 (Source: Terra+; Google Earth Pro)

Photo 23. Viewpoint 5 onto site (Source: Terra+)

Viewpoint 5 - this viewpoint is from the recreational pathways and access roads to the coast. A portion of the site will be visible and the edge to the site must be landscaped and softened to ensure mitigation of the visual impact.

Figure 28: Viewpoint 6 (Source: Terra+; Google Earth Pro)

Photo 24. Viewpoint 6 - View of the site from residential are in Agulhas

Viewpoint 6 - this viewpoint is from the residential area along the coastal road of Agulhas. The site will be visible in its entirety and the application of the architectural and landscape parameters will be essential to mitigate visual impact.

Zones of Visual Influence

Visibility is dependent on factors such as: (a) the nature of the proposal; (b) its placement within the landscape; (c) the scale of the proposal relative to its context; (d) the detailed design (form, scale, massing, aggregation, etc.), as well as (e) the position and distance from which it is viewed. The net effect of these factors is that the visual impact of an object will begin to fall away rapidly with increasing distance. Visibility will reduce substantially from 1 km distance, and beyond 5 km, visibility is negligible.

Figure 29: Zones of visual in fluence (Source: CFM).

Visual Sensitivity

Visual Sensitivity of Area (Landscape Sensitivity)

The portion of the field-of-view dominated by the proposal decreases substantially at distances beyond 1km from the site, as the proposal becomes screened by existing landforms and vegetation. However the typical landscape quality and the intrusion into the foreground of this unique setting creates a visual sensitivity that is deemed to have a Medium to High Visual Sensitivity.

Visual Sensitivity of Receptors

The Receptors of the anticipated visual impact include residential areas which are considered to have High Visual Sensitivity. The site falls within proposed urban edge, but interfaces with a coastal cultural landscape with high visual / scenic amenity value.

Significance of Sensitivity to Visual Change

As a function of landscape sensitivity and anticipated magnitude of change as a result of the development, above, the sensitivity to visual change is deemed to be of High Significance.

Visual Exposure

Visual Intrusion of Development (Magnitude Of Visual Change)

The development is proposed to occupy a portion of the coastline which is pristine and with no adjacent development to form a continuous pattern. This urban intrusion will result in a High Visual Intrusion.

Visual Absorption Capacity of Site

The particular landscape quality of the site and the fact that there is no adjacent development along this portion of the coast results in a Low Visual Absorption Capacity. This may be improved with mitigation measures.

Significance of Anticipated Visual Impacts

As a function of receptor sensitivity and anticipated magnitude of change as a result of the development, above, the sensitivity to visual change is deemed to be of Major Significance should no mitigation measures be implemented.

Impact Assessment

Construction phase

Negative Visual Impact may be expected – resulting directly from site clearance, bulk earthworks and removal of existing vegetation; with construction vehicles / building activity causing noise / dust.

Post-construction phase

Negative Visual Impact may be expected – resulting directly from the intrusion of new dwellings in a portion of the coastline otherwise undeveloped.

7. Historical and Cultural Aspects

Explain whether there are any culturally or historically significant elements as defined in Section 2 of the NHRA that will be affected and how has this influenced the proposed development.

The proposed development on the unsubdivided portion of the Remainder portion of Farm 281, Struisbaai, has been assessed for potential impacts on culturally or historically significant elements as defined under Section 2 of the National Heritage Resources Act (NHRA).

Historical and Social Significance

The subject property, which is 0.71 hectares in extent, has been separated from the parent farm (Paapekuilfontein Farm)) through past subdivisions, the most recent of which occurred in 2013. As such, the site no longer retains direct associations with the historical or social context of the parent farm, which had early colonial origins and likely utilized slave labour. Consequently, the property is not regarded as having significant traceable associations with the history of slavery or its legacy.

Contextual Significance

The site holds high contextual significance due to its position within the Coastal Protection Zone (CPZ) and its location on the coastal shelf. It forms part of a larger coastal cultural landscape characterized by areas and resources of scenic, cultural, and historical value. The landscape integrity is particularly notable below Marine Drive, where the absence of visual intrusions enhances the site's visual and cultural quality. This portion of the site contributes to the scenic quality of the Marine Drive route and the adjacent areas of Agulhas, making it visible and influential within its surroundings. The site's contribution to the coastal cultural landscape warrants a Grade IIIA significance designation, highlighting its local importance in maintaining the cultural and aesthetic qualities of the region.

Archaeology Significance

Limited traces of archaeological heritage were identified during the field study, including weathered fragments of marine shellfish (primarily *Turbo sarmaticus* and *Scutellastra longicosta*), a flaked quartz chunk, a limestone flake, and weathered shellfish traces recorded across various sites. These findings, , include:

- → Fragments of shellfish along the coastal footpath and vegetated slopes above the coastal track.
- → Isolated fragments and broken beach cobbles on the elevated rocky shelf and sandy dongas.

→ No evidence of anthropogenic remains such as pottery, bone, or ostrich eggshell was recorded. While these findings reflect traces of historical human activity, they are of low archaeological.

Influence on the proposed development

The high visual sensitivity and cultural landscape value of the site have necessitated careful consideration in the development planning. The contextual importance of the property, particularly its intact coastal character, scenic visibility, and its designation as a Grade IIIA landscape, influences the proposed development by emphasizing the need for:

→ Preservation of key visual and contextual attributes.
→ Minimal intrusion on the cultural landscape.
→ Alignment with guidelines to maintain the scenic and historical integrity of the area.

The limited archaeological significance on the proposed site reduces the need for extensive mitigation measures in this regard. However, mitigations measures recommended by the specialist must be taken up during development activities to ensure any additional heritage findings are documented and managed appropriately in consultation with heritage authorities.

Figure 30: Overall landholding Farm 281-RE outlined red dash, the split portion, being the site, outlined solid red, in the local context of Struisbaai and L'Agulhas (CFM) (*source*: Postlethwayt, 2024).

8. Socio/Economic Aspects

8.1.	Describe the existing social and economic characteristics of the community in the vicinity of the proposed site.

Residential Character

The area is predominantly residential, with a mix of permanent residents and holiday homeowners. The permanent residents are primarily local families and individuals who are engaged in occupations related to tourism, fishing, and service industries. Seasonal fluctuations in population occur due to the influx of tourists and part-time residents during holiday periods.

Tourism and Economic Activity

Tourism forms a significant component of the local economy, with Struisbaai being a popular coastal destination renowned for its scenic beaches, historical sites, and proximity to Cape Agulhas, the southernmost point of Africa. The town hosts a variety of accommodations, ranging from guesthouses to self-catering units, catering to both domestic and international visitors. Local businesses, such as restaurants, cafes, and souvenir shops, also benefit from tourism activities.

Fishing

Struisbaai has a long-standing fishing heritage, and the fishing industry continues to play an important role in the local economy. The community includes both commercial and subsistence fishers. The local harbour serves as a hub for fishing activities and supports associated industries such as seafood processing and boat maintenance.

Social Infrastructure

The area features basic social infrastructure, including schools, places of worship, and recreational facilities. These amenities support the daily needs of the local population and contribute to the sense of community. However, access to specialized services and facilities may require travel to larger towns in the region.

Environmental and Scenic Value

The proximity of the community to the coastline underscores its reliance on the surrounding natural environment, not only for economic activities such as tourism and fishing but also for the residents' quality of life. The area's natural beauty, including its beaches, and coastal vegetation, is integral to the community's identity and its economic viability.

Existing Traffic Conditions (refer to **Appendix G7**).

Existing Roadways in Site Vicinity

Marine Drive R319 (Provincial Main Road MR00261): One lane per direction, 60 km/h posted speed limit with a gravel shoulder on the northern side of the road and a walkway along the southern side of the road. The road surface is in a fair condition in the site vicinity.

Existing Conditions

The existing traffic volumes and traffic demand on the surrounding road system as observed during the site visit are relatively low, not only on the side streets, but also along MR00261. The Annual Average Daily Traffic (AADT) along MR00261 is approximately 3 900 with approximately 330 two-way peak hour trips. The directional split is close to 50/50 meaning the peak hour traffic volume in the peak direction is in the order of 165 vehicles per hour. The existing low traffic demand along the surrounding roads results in many gaps in the traffic stream, which enables side road traffic to enter these roads with minimal delay. No significant conflict situations were observed during the site visit.

8.2.	Explain the socio-economic value/contribution of the proposed development.

Job creation and investment in the area

The final socio-economic value is not yet been determined, however it is expected that job creation both during construction and operational phases, will take place. In addition, the development will encourage local spendings and further investment in the Struisbaai area.

8.3.	Explain what social initiatives will be implemented by applicant to address the needs of the community and to uplift the area.

The applicant will aim to employ local service providers and labourers as far as practically feasible, to enhance the local benefits as far as possible.

8.4.	Explain whether the proposed development will impact on people's health and well-being (e.g. in terms of noise, odours, visual character and sense of place etc) and how has this influenced the proposed development.

The proposal is in line with residential land use of the area and continued public access has been designed into the site plan.

SECTION H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT OF ALTERNATIVES

1. Details of the alternatives identified and considered

1.1.	Property and site alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.
Provide a description of the preferred property and site alternative.	

The property concerned, an unsubdivided (split) portion of the Remainder of Farm 281, Struisbaai is situated on the seaside of Marine Drive, opposite its intersection with Adelle Street (although this section of the street is yet to be constructed). It forms part of a narrow 'strip' along the coast that has a rocky shoreline consisting of sandstone of the Table Mountain Group. The location is known as Spookdraai. The proposed site is owned by the applicant; therefore, no site alternatives are available for consideration.

The site is nestled on the foothills of the minor hills and landforms in the landscape. This provides some protection from prevailing winter winds but exposes the site to strong wind that buffets the coastline in summertime. There is a sense of being tucked against the slope with views to the sea and beyond. This is further emphasised by the bend in the road that leads to Agulhas. The coastline is a series of rocky outcrops, indigenous vegetation and footpath leading to accessible spaces for angling and recreation. There are one or two small sandy beaches along this portion of the coast, which intimates a sense of seclusion.

The coastal town of Struisbaai is located in the Bredasdorp District and essentially continuous with the coastal settlement of L'Agulhas. The site is undeveloped, not farmed and in its natural state as part of the coastline. A stormwater outlet is located in the northeastern corner alongside the main road, which has created visible erosion on the proposed development area.

Figure 31: View of the preferred site

The preferred alternative (Alternative 4) proposes a rezoning from Agriculture to Sub-divisional Area that will include six Single Residential Zone erven (subdivisions 1-6), one Public Open Space Zone erf, a public access route to the beach (subdivision 7), a street zone erf (subdivision 10) and two Private Open Space erven (Subdivisions 8 and 9).

The revisions on the initial proposed site layouts are based on responses to the specialist assessments.

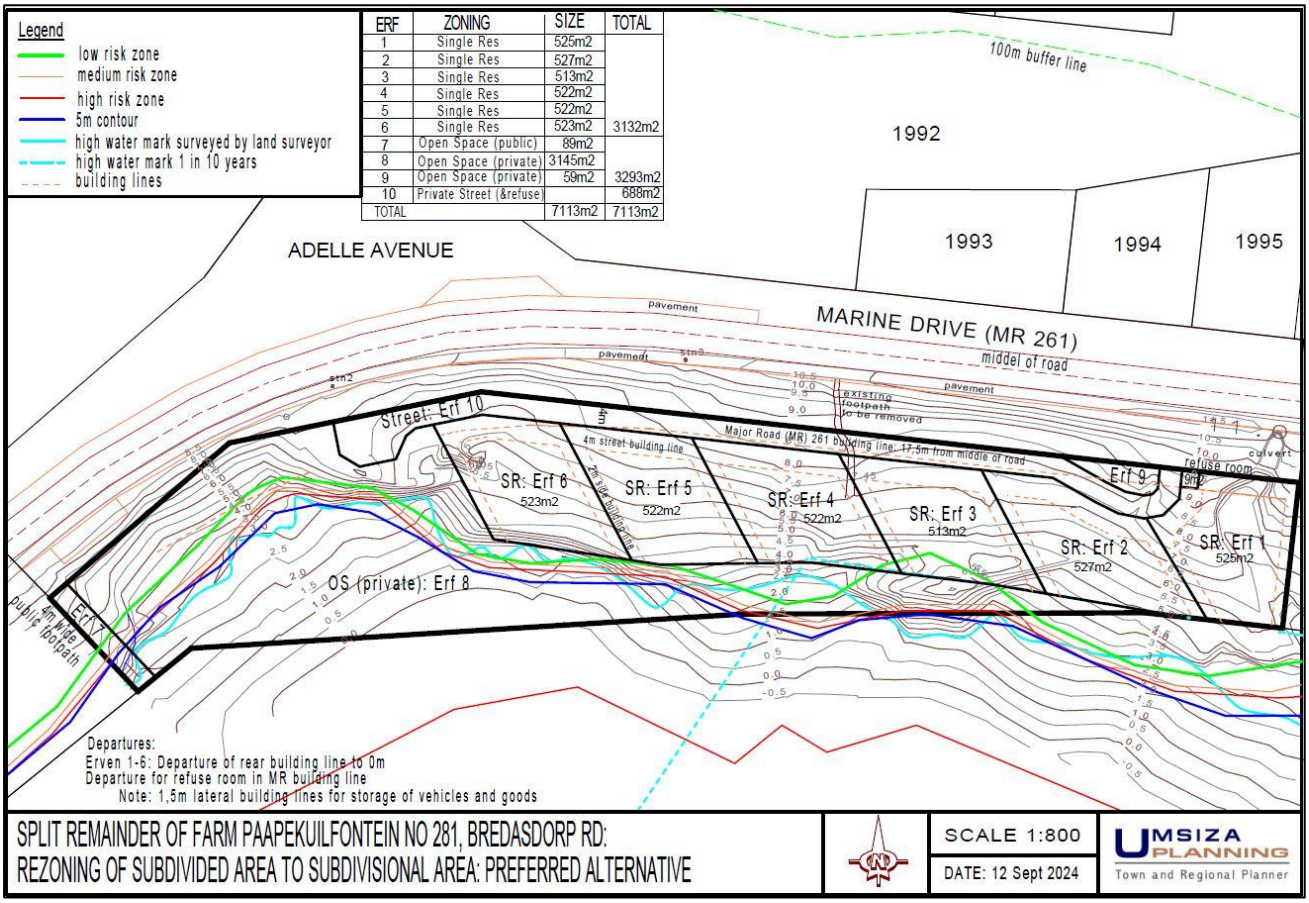

Figure 32: View of the preferred site development plan (Alternative 4).

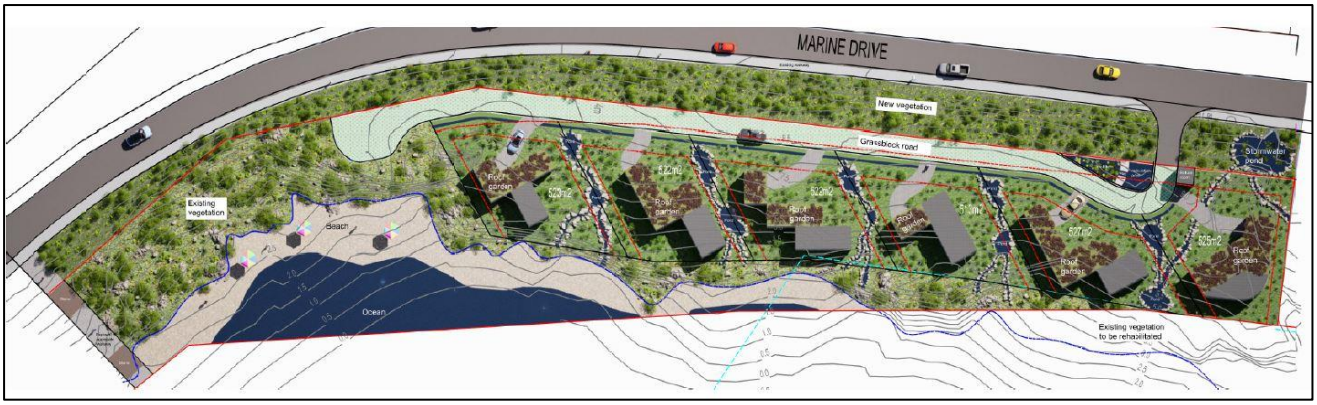

Figure 33: Visual representation of the proposed site development plan (Alternative 4).

Figure 34: Deep erosion ditch in the foreground created by the stormwater outlet on site.

Provide a description of any other property and site alternatives investigated.

The investigation is only limited to the subject property. No other sites were considered or investigated for this project.

Provide a motivation for the preferred property and site alternative including the outcome of the site selectin matrix.

- → The subject property is the sole asset available to the developer, making it the only viable option for the proposed development.
- → The property does not fall within the protected areas or Critical Biodiversity Areas as per Western Cape Biodiversity Spatial Plan which would otherwise have an impact on highly sensitive vegetation.
- → The property falls within urban edge as demarcated by the Cape Agulhas Municipality and is within the built-up urban edge.
- → No other alternative properties were considered and therefore, no site selection matrix was utilised.

Provide a full description of the process followed to reach the preferred alternative within the site.

The process to reach the proposed alternative site did not involve the evaluation of other site alternatives, as the subject site is the only property available to the developer. No other property or site alternatives were investigated for this project.

Provide a detailed motivation if no property and site alternatives were considered.

As above.

List the positive and negative impacts that the property and site alternatives will have on the environment.

Positive impacts

- → The development will facilitate the restoration of portions of the site currently experiencing degradation due to erosion, human activity, or invasive species.
- → Construction and long-term management of the estate will generate job opportunities for the local community, contributing to socio-economic upliftment.

- → The estate will improve the value of adjacent properties, promoting further investment in the area.
- → Incorporating sustainable design principles, such as eco-friendly infrastructure and landscaping with indigenous vegetation, could enhance local biodiversity and promote environmental awareness.
- → The estate may attract tourists or new residents, providing a boost to the local economy as well as encourage local spending.

Negative impacts

- → The development may disrupt natural ecological corridors critical for species movement, particularly in sensitive coastal ecosystems, although provision has been made to maintain and enhance coastal corridors.
- → Construction activities may lead to increased soil erosion and sedimentation, negatively affecting the surrounding environment.
- → The development may alter the visual character of the area, particularly if it is in contrast to the natural coastal environment.
- → Improper management of construction runoff, waste, or stormwater may pollute nearby environments, including coastal zones.

1.2.	Activity alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred activity alternative.

The preferred activity Alternative includes the establishment of a residential development consisting of 6 single residential erven, 3 open spaces (private and public), a private road and associated infrastructure.

Provide a description of any other activity alternatives investigated.

N/A

Provide a motivation for the preferred activity alternative.

The subject property is the sole asset available to the developer, making it the only viable option for the proposed development. The property does not fall within the protected areas or Critical Biodiversity Areas as per Western Cape Biodiversity Spatial Plan which would otherwise have an impact on highly sensitive vegetation. It is within urban edge as demarcated by the Cape Agulhas Municipality and is adjacent to the built-up urban edge.

Provide a detailed motivation if no activity alternatives exist.

Refer to the above.

List the positive and negative impacts that the activity alternatives will have on the environment.

No activity alternatives exist. The property is within the urban edge and adjacent to the built-up urban edge.

1.3.	Design or layout alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts

Provide a description of the preferred design or layout alternative.

The preferred design or layout alternative for the proposed development has been selected after thorough consideration of various factors on site, including the high-water mark, indigenous vegetation, sensitive cultural heritage areas. All development alternatives include the subdivision of the site into residential opportunities with access provision. Four alternative layout options were explored, with Alternative 4 emerging as the preferred solution based on its balance between development objectives and the minimization of negative impacts.

Alternative 4 (Preferred)

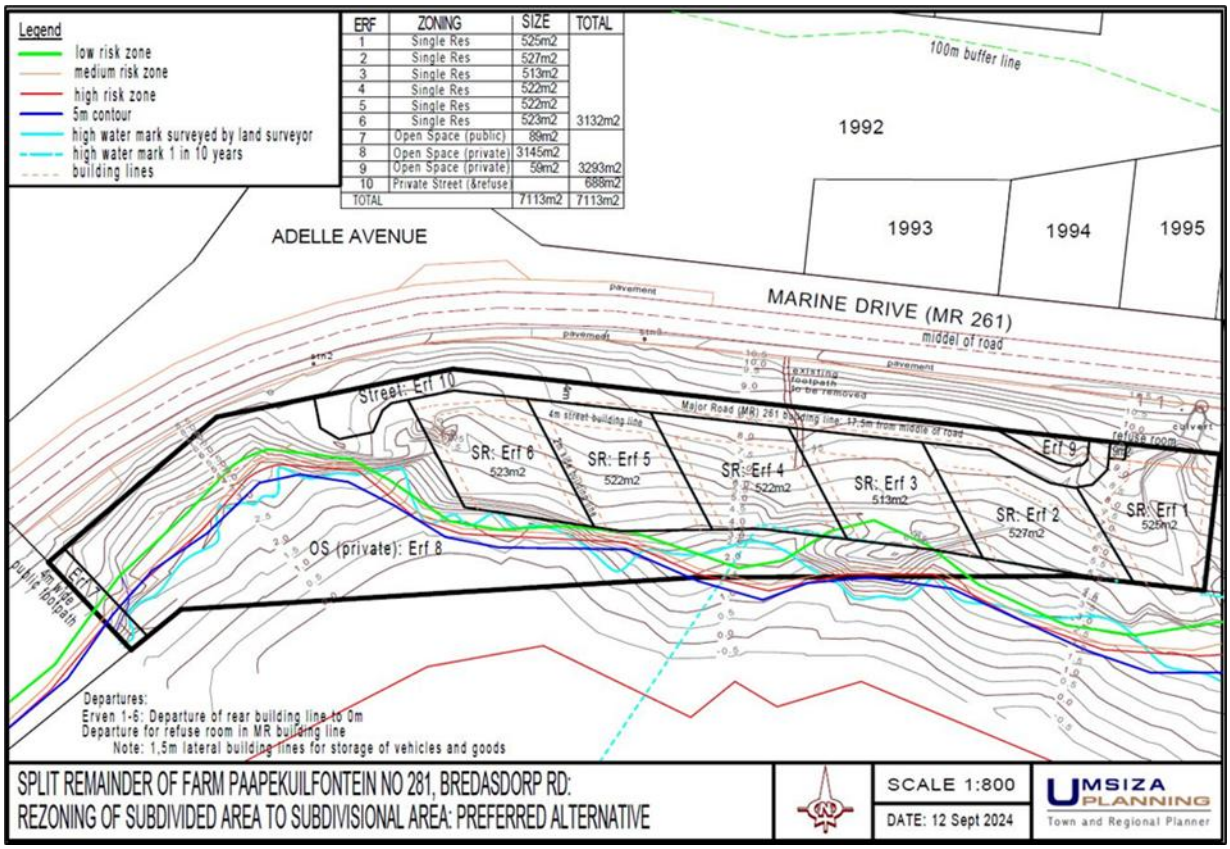

Figure 35: View of the preferred alternative (Alternative 4)

The preferred alternative proposes a rezoning from Agriculture to Sub-divisional Area that will include six Single Residential Zone subdivisions (1-6), one Public Open Space Zone subdivision (7) providing public access to the beach, a street zone subdivision (10) and two Private Open Space subdivisions (8 and 9).

Revisions in layout alternatives are based on response to the specialist team and reduction of the overall density across the property, whilst also permitting the property boundary to be treated differently and in a manner which enhances sight lines and visual corridors as the "corner" is no longer a built environment in terms of dwelling structures, as was contemplated previously. Additionally, this revision further enhances and expands the retention of natural areas within the overall development.

Provide a description of any other design or layout alternatives investigated.

Alternative 1 (No-Go)

Alternative 1 assumes that the current conditions on the site remain unchanged, and no development takes place. This option, while preserving the natural environment in its entirety, also presents risks associated with future development which is inappropriate and also results in continued degradation of the site through insufficient management and uncontrolled access.

Alternative 2

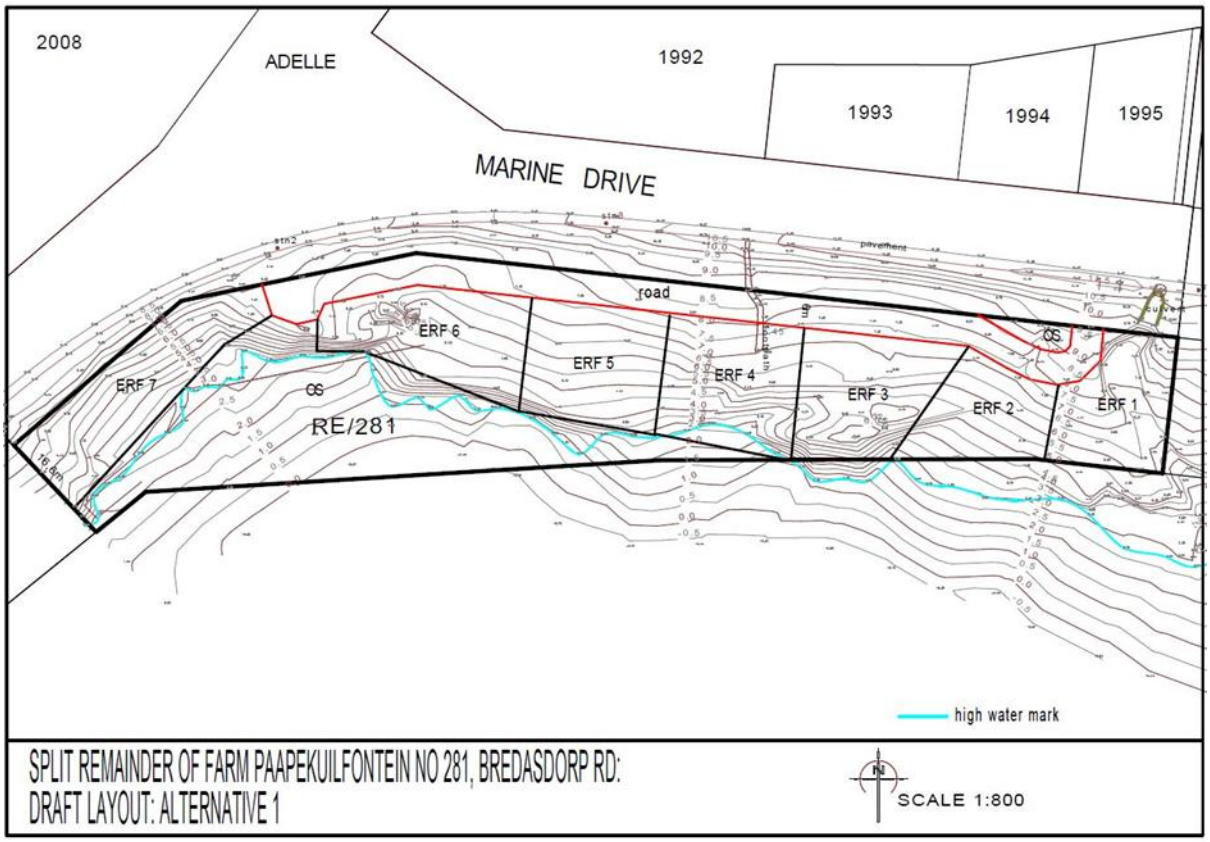

Figure 36: Alternative 2 layout plan.

This alternative includes the construction of 7 residential erven, with a parallel private road access alongside Marine Drive and an open space erf below the High-Water Mark. While this layout aimed to provide a potential solution for the site, it was ultimately discarded for several key reasons:

- → The proposed density of seven erven was deemed too high for the site and would have resulted in significant negative impacts on the surrounding environment and visual amenity.
- → This alternative did not include any provision for public coastal access, which was a crucial aspect of the development's objectives.
- → The option only considered the high-water mark in its planning, and did not take specific cognisance of the other coastal management lines, as well as overlooking other significant environmental factors, such as the need to preserve indigenous vegetation and sensitive habitats.
- → The amount of open space allocated in this layout was insufficient to support the ecological and recreational needs of the development, limiting its long-term sustainability.
- → The proposed erven 1 to 3, located along the southern boundary of the property, were positioned too close to seaside erf boundary and provided no opportunity to retain a natural buffer between development and the coast. This not only posed risks related to coastal erosion but also compromised the privacy and safety of the residential units.
- → The orientation of the erven did not allow for optimal views or shelter from prevailing winds, which would have negatively impacted the comfort and desirability of the homes and long-term use value i.e creating a development which is not desirable or practical

Alternative 3

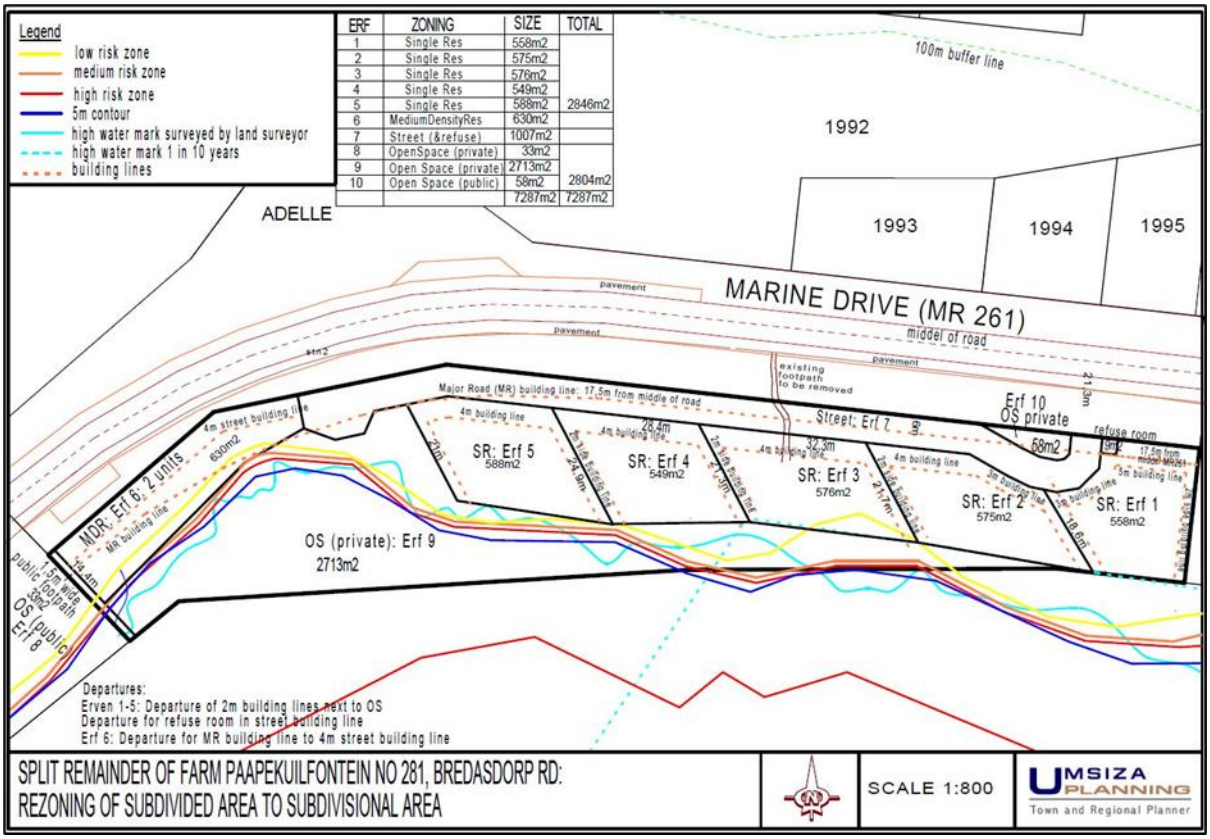

Figure 37: Alternative 3 layout plan.

Alternative 3, while similar to Alternative 2, incorporated additional planning considerations such as the 5 m contour line, the High-Water Mark, and the High, Medium, and Low Risk Coastal Zones in line with the ICMA requirements. This layout included five single residential erven on the eastern end, ranging in size from 549 to 588m², and one medium-density residential erf of 630m², which was intended for two dwellings on the western extent of the site. It also proposed a private road access parallel to Marine Drive and a 1.5m wide public footpath along the western boundary, providing beach access below the High-Water Mark. A private open space of 2713m² was included, consisting of the beach and some of the rocky shoreline within the property boundary, as well as a refuse room.

Alternative 3 is not considered to be the preferred alternative. The primary reasons for this were that the layout was not supported by the Heritage Impact Assessment (HIA) and Visual Impact Assessment (VIA), which identified potential negative impacts on the surrounding environment and visual aesthetics. This alternative was also not preferred from a botanical perspective due to development proposed for the more sensitive western section. Additionally, the proposed development included several zoning departures, such as reducing building lines to zero for the five residential erven along the seaward boundary and departures from the street building line. These deviations raised concerns about the overall integration of the development with the landscape and its long-term sustainability.

Provide a motivation for the preferred design or layout alternative.

The preferred design or layout alternative has been chosen as the most balanced and sustainable option for the proposed development, based on careful consideration of environmental, social, and functional factors. This alternative aligns with the development's objectives to create residential opportunities while preserving the ecological integrity of the site and enhancing public access to coastal areas.

One of the key motivations for selecting this layout is its ability to reduce the overall density of development across the site. By limiting the number of residential erven and carefully positioning them, the design minimizes the environmental

footprint and reduces potential impacts on sensitive ecosystems and the visual character of the area. This approach directly addresses concerns raised during specialist assessments and ensures that development remains compatible with the surrounding natural and cultural landscape.

The layout further demonstrates responsiveness to site-specific challenges, such as coastal risk zones and proximity to the high-water mark. By excluding high-risk areas from intensive development and orienting the erven to optimize views while providing protection from prevailing winds, the design enhances the liveability and functionality of the proposed residential erven. Moreover, the decision to treat the property boundary in a manner that enhances sightlines and visual corridors ensures that the development integrates harmoniously with its coastal setting.

Provide a detailed motivation if no design or layout alternatives exist.

As above

List the positive and negative impacts that the design alternatives will have on the environment.

Alternative 1 (No-Go)

Positive Impacts

- → Preservation of the existing natural environment, including indigenous vegetation and fauna.
- → No disturbance to sensitive areas such as ecological corridors, coastal zones, or cultural heritage sites.
- → No contribution to visual or noise pollution in the area.

Negative Impacts

- → Missed opportunity to provide public coastal access.
- → No contribution to local economic development or housing needs.
- → Potential for site degradation over time due to lack of active management or conservation efforts.

Alternative 2

Positive Impacts

- → Provides new residential opportunities with proximity to the coast.
- → Development could support local economic growth through construction and tourism.

Negative Impacts

- → High density increases the environmental footprint, resulting in significant vegetation clearance and habitat loss, especially on the more sensitive western end of the property.
- → Lack of adequate open space and no provision for public coastal access, reducing social benefits.
- → Proximity of erven to the ocean creates potential risks related to coastal erosion and flooding.
- → Poor orientation for views and wind shielding reduces liveability for future residents.
- → Limited consideration of ecological sensitivity and cultural heritage features.

Alternative 3

Positive Impacts

- → Incorporates measures to address some coastal risks, such as aligning development with the 5 m contour line and risk zones.
- → Includes a public footpath providing access to the beach, enhancing social value.
- → Allocates private open space for conservation of the rocky shoreline and adjacent beach areas.

Negative Impacts

- → Increased density compared to the preferred alternative, leading to moderate vegetation clearance and habitat disturbance.
- → Departures from zoning guidelines could result in visual and aesthetic impacts.
- → Development footprint remains too close to sensitive coastal areas, increasing vulnerability to erosion and flooding.
- → Poor alignment with Heritage and Visual Impact Assessments due to the proximity of structures to the coastline and inadequate integration into the natural landscape.

Alternative 4 (Preferred Alternative)

Positive Impacts

- → Reduced density minimizes environmental disturbance, ensuring better conservation of indigenous vegetation and habitat.
- → Substantial allocation of open space supports ecological corridors and enhances biodiversity.
- → Includes a Public Open Space Zone, improving public coastal access and recreational opportunities.
- → Design integrates with the natural landscape, reducing visual and aesthetic impacts.
- → Coastal risk areas are avoided, enhancing long-term sustainability and safety.
- → Thoughtful orientation of erven optimizes views and provides better protection from prevailing winds, increasing liveability.

Negative Impacts

- → Some disturbance to the natural environment due to construction activities.
- → Limited encroachment on ecological areas, though minimized compared to other alternatives.
- → Potential for localized noise and air pollution during construction.

1.4.	Technology alternatives (e.g., to reduce resource demand and increase resource use efficiency) to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred technology alternative:

N/A, as there are no technology alternatives proposed.

Provide a description of any other technology alternatives investigated.

No other alternatives have been investigated.

Provide a motivation for the preferred technology alternative.

N/A

Provide a detailed motivation if no alternatives exist.

N/A

List the positive and negative impacts that the technology alternatives will have on the environment.

N/A

1.5.	Operational alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts.

Provide a description of the preferred operational alternative.

N/A

Provide a description of any other operational alternatives investigated.

N/A

Provide a motivation for the preferred operational alternative.

N/A

Provide a detailed motivation if no alternatives exist.

N/A

List the positive and negative impacts that the operational alternatives will have on the environment.

N/A

1.6.	The option of not implementing the activity (the 'No-Go' Option).

Provide an explanation as to why the 'No-Go' Option is not preferred.

The 'No-Go' alternative, which involves not implementing the proposed development, is not preferred as it would result in the loss of significant socioeconomic opportunities. These include the creation of employment during the construction and operational phases, as well as economic stimulation through increased tourism or residential activity in the area. Additionally, the demand for accommodation to support the growing population and tourism in the region would remain unmet, potentially hindering regional development objectives.

1.7.	Provide and explanation as to whether any other alternatives to avoid negative impacts, mitigate unavoidable negative impacts and maximise positive impacts, or detailed motivation if no reasonable or feasible alternatives exist.

During the planning phase of the proposed development, four layout alternatives were thoroughly evaluated to ensure alignment with the surrounding coastal environment, indigenous vegetation, and aesthetic value of the area. The intent was to avoid or mitigate negative impacts while maximizing positive outcomes. After careful consideration, Alternative 4 emerged as the preferred option, offering a viable and balanced approach to development.

Alternative 1 (No-Go):

This alternative retains the status quo and avoids any development. While it eliminates potential negative environmental impacts, it is not preferred as it would result in no development, no creation of accommodation units, and no socioeconomic benefits to the area. This would hinder efforts to address regional growth demands and economic development opportunities.

Alternative 2

Alternative 2 proposed the construction of seven residential erven with private road access running parallel to Marine Drive and an open space erf located below the High-Water Mark. While this design aimed to optimize the site's residential potential, it was ultimately dismissed due to several critical shortcomings. The proposed density of seven erven was too high, leading to potential significant negative impacts on the surrounding environment and visual aesthetics. Moreover, this layout failed to provide public coastal access, a key development objective, and considered only the high-water mark, neglecting other environmental priorities like indigenous vegetation and sensitive habitats. Additionally, the allocation of open space was insufficient to address ecological and recreational needs, limiting the sustainability of the design. The positioning of the southern erven near the ocean heightened risks from coastal erosion and compromised privacy and

safety. Finally, the orientation of the erven did not optimize views or provide shelter from prevailing winds, undermining the overall desirability of the development.

Alternative 3

The layout of Alternative 3 mirrors the approach presented in Alternative 2 by integrating key environmental planning considerations, such as the 5m contour line, the High-Water Mark, and Coastal Risk Zones. This alternative proposed a total of six residential erven, consisting of five single residential erven, ranging in size from 549m² to 588m², and one medium-density residential erf of 630m², which would accommodate two dwellings. The plan also included the construction of a private road running parallel to Marine Drive, a 1.5 m wide public footpath to provide beach access, and a 2 713 m² private open space incorporating the beach and rocky shoreline within the property boundary, in addition to a refuse room.

Despite these thoughtful planning considerations, Alternative 3 was not ultimately preferred due to significant concerns raised in the Heritage Impact Assessment (HIA) and Visual Impact Assessment (VIA). Both assessments highlighted the potential visual intrusion of the development on nearby or adjacent erven, particularly regarding the obstruction of sea views for the surrounding community. These assessments identified possible negative impacts on the receiving environment and the area's visual character. Furthermore, the proposal included zoning departures, such as reduced building lines along the seaward boundary (down to zero) and deviations from the street building line. These inconsistencies raised concerns about the development's integration into the natural landscape and its long-term sustainability.

Alternative 4 (preferred)

The preferred alternative proposes a rezoning from Agriculture to Sub-divisional Area, which includes six Single Residential Zone subdivisions (1-6), one Public Open Space Zone subdivision (7) providing public access to the beach, a Street Zone subdivision (10), and two Private Open Space subdivisions (8 and 9). This design addresses the concerns raised in the specialist assessments of Alternative 3 by reducing the overall development density and enhancing visual corridors and sightlines. Furthermore, the revised layout increases the retention of indigenous flora, particularly in the western portion of the property, which is designated as ESA1, thereby aligning more closely with environmental priorities. The layout also takes into account the coastal risk zones, with these areas being fully avoided in the proposed design.

1.8.	Provide a concluding statement indicating the preferred alternatives, including the preferred location of the activity.

The preferred site for the proposed development is Farm RE/281, located in Struisbaai. This property is situated along the coastline, within the delineated Coastal Protection Zone and Coastal Management Line, which highlights its sensitive environmental and geographical context. It is important to note that the entire town of Struisbaai lies within these zones, primarily due to its coastal location. The property itself is characterized by indigenous vegetation, sandy areas, and a rocky seashore, all of which contribute to its ecological and aesthetic value.

The botanical scoping reveals that while the vegetation on the property remains present, some areas have been degraded by human activities. This is evident in the form of pathways and the release of stormwater from culverts below the coastal road, which has disrupted the sandy soil. Where water erosion has occurred, natural revegetation is slowly taking place. At the time of the survey, the specialist concluded that the habitat is generally in poor condition.

The preferred design alternative is Alternative 4, selected for its strategic approach to minimizing environmental risks while maximizing sustainable development opportunities. This alternative avoids construction in high-risk coastal zones, aligning with environmental management objectives, despite the site’s proximity to the high-water mark (within 100 meters). By integrating well-considered zoning, including open spaces and public access areas, this alternative strikes a balance between development needs and the preservation of the site’s natural and cultural heritage.

This combination of location and design ensures that the proposed development complies with regulatory requirements, respects environmental considerations, and contributes to socio-economic goals.

2. "No-Go" areas

Explain what "no-go" area(s) have been identified during identification of the alternatives and provide the co-ordinates of the "no-go" area(s).
There are no No-Go areas that have been identified by the specialists.

3. Methodology to determine the significance ratings of the potential environmental impacts and risks associated with the alternatives.

Describe the methodology to be used in determining and ranking the nature, significance, consequences, extent, duration of the potential environmental impacts and risks associated with the proposed activity or development and alternatives, the degree to which the impact or risk can be reversed and the degree to which the impact and risk may cause irreplaceable loss of resources.

An impact is any change to a resource or receptor brought about by a project component or through the execution of a project related activity. The evaluation of baseline data provides information for the process of evaluating and describing how the project could affect the biophysical and socio-economic environment.

Impact is described according to their nature or type, as follows:

Nature/ Type

Nature/ Type of impact	Definition
Positive	An impact that is considered to represent an improvement on the baseline or introduces a positive change.
Negative	An impact that is considered to represent an adverse change from the baseline, or introduces a new undesirable factor.
Direct	Impacts that result from a direct interaction between a planned project activity and the receiving environment/receptors (e.g. between occupation of a site and the pre-existing habitats or between an effluent discharge and receiving water quality).
Indirect	Impacts that result from other activities that are encouraged to happen as a consequence of the Project (e.g. in-migration for employment placing a demand on resources).
Cumulative	Impacts that act together with other impacts (including those from concurrent or planned future third-party activities) to affect the same resources and/or receptors as the Project.

Significance

Impacts are described in terms of significance. Significance is a function of the magnitude of the impact and the likelihood of the impact occurring:

Impact Magnitude	
Extent	**On site** – impacts that are limited to the boundaries of the development site.

	Local – impacts that affect an area in a radius of 20 km around the Development site.
	Regional – impacts that affect regionally important environmental resources or are experienced at a regional scale as determined by administrative boundaries, habitat type/ecosystem.
	National – impacts that affect nationally important environmental resources or affect an area that is nationally important/ or have macro-economic consequences
Duration	**Temporary** – impacts are predicted to be of short duration and intermittent/occasional.
	Short-term – impacts that are predicted to last only for the duration of the construction period.
	Long-term – impacts that will continue for the life of the Project but ceases when the project stops operating
	Permanent – impacts that cause a permanent change in the affected receptor or resource (e.g. removal or destruction of ecological habitat) that endures substantially beyond the project lifetime
	BIOPHYSICAL ENVIRONMENT
	Negligible – the impact on the environment is not detectable.
	Low – the impact affects the environment in such a way that natural functions and processes are not affected.
	Medium – where the affected environment is altered but natural functions and processes continue, albeit in a modified way.
Intensity	**High** – where natural functions or processes are altered to the extent that they will temporarily or permanently cease
	SOCIO-ECONOMIC
	Negligible – there is no perceptible change to people's livelihood
	Low - people/communities are able to adapt with relative ease and maintain pre-impact livelihoods
	Medium – people/communities are able to adapt with some difficulty and maintain pre-impact livelihoods but only with a degree of support
	High - affected people/communities will not be able to adapt to changes or continue to maintain pre-impact livelihoods.

Likelihood- the likelihood that an impact will occur

Likelihood	
Unlikely	The impact is unlikely to occur
Likely	The impact is likely to occur under the most conditions.
Definite	The impact will occur

Once an assessment is made of the magnitude and the likelihood, the impact significance is rated through a matrix process:

Significance				
Magnitude		Unlikely	Likely	Definite
	Negligence	Negligible	Negligible	Minor
	Low	Negligible	Minor	Minor
	Medium	Minor	Moderate	Moderate
	High	Moderate	Major	Major

Definition of significance:

Negligible	An impact of negligible significance (or an insignificant impact) is where a resource or receptor (including people) will not be affected in any way by a particular activity, or the predicted effect is deemed to be 'negligible'.
Minor	

	An impact of minor significance is one where an effect will be experienced, but the impact magnitude is small (with and without mitigation) and within accepted standards, and/or the receptor is of low sensitivity/value.
Moderate	An impact of moderate significance is one within accepted limits and standards. The emphasis for moderate impacts is on demonstrating that the impact has been reduced to a level that is as low as reasonably practicable. This does not necessarily mean that 'moderate' impacts have to be reduced to 'minor' impacts, but that moderate impacts are managed effectively and efficiently.
Major	An impact of major significance is one where an accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued / sensitive resource / receptors. A goal of the EIA process is to get to a position where the Project does not have any major residual impacts.

Significance of an impact is then qualified through a statement of the degree of confidence. Degree of confidence is expressed as low, medium or high.

Significance colour scale (if applicable):

Negative	Positive
Negligible	Negligible
Minor	Minor
Moderate	Moderate
Major	Major

Impact rating colour scale:

Negative	Positive
Negligible	Negligible
Low	Low
Medium	Medium
High	High

4. Assessment of each impact and risk identified for each alternative

Note: The following table serves as a guide for summarising each alternative. The table should be repeated for each alternative to ensure a comparative assessment. The EAP may decide to include this section as Appendix J to this BAR.

Summary of the Impact Assessment Process

Alternative 1 (No-Go)

Positive Impacts

- → Preservation of the existing natural environment, including indigenous vegetation and fauna.
- → No disturbance to sensitive areas, such as ecological corridors, coastal zones, or cultural heritage sites.
- → No contribution to visual or noise pollution in the area.
- → No job opportunities and therefore no economic growth.

Negative Impacts

- → Without the development, no jobs will be created during either the construction or operational phases, limiting socio-economic benefits for the local community.
- → The lack of development means no new housing will be provided to address the needs of the growing population in the area, potentially exacerbating existing housing shortages.

Alternative 2

Positive Impacts

- → Provides new residential opportunities with proximity to the coast.
- → Development could support local economic growth through construction, investments and tourism.
- → More housing development to support the growing population in the area.

Negative Impacts

- → High density increases the environmental footprint, resulting in significant vegetation clearance and habitat loss.
- → Lack of adequate open space and no provision for public coastal access, reducing social benefits.
- → Proximity of erven to the ocean creates potential risks related to coastal erosion and flooding.
- → Poor orientation for views and wind shielding reduces liveability for future residents.
- → Limited consideration of ecological sensitivity and cultural heritage features.

Alternative 3

Positive impacts

- → Incorporates measures to address some coastal risks, such as aligning development with the 5m contour line and risk zones.
- → Includes a public footpath providing access to the beach, enhancing social value.
- → Allocates private open space for the conservation of the rocky shoreline and adjacent beach areas.

Negative impacts

- → Increased density compared to the preferred alternative, leading to moderate vegetation clearance and habitat disturbance.
- → Departures from zoning guidelines could result in visual and aesthetic impacts.
- → Development footprint remains too close to sensitive coastal areas, increasing vulnerability to erosion and flooding.
- → Poor alignment with Heritage and Visual Impact Assessments due to the proximity of structures to the coastline and inadequate integration into the natural landscape.

Alternative 4 (Preferred)

Positive impacts

- → Reduced density minimizes environmental disturbance, ensuring better conservation of indigenous vegetation and habitat.
- → Substantial allocation of open space supports ecological corridors and enhances biodiversity.
- → Includes a Public Open Space Zone, improving public coastal access and recreational opportunities.
- → Design integrates with the natural landscape, reducing visual and aesthetic impacts.
- → Coastal risk areas are avoided, enhancing long-term sustainability and safety.
- → Thoughtful orientation of erven optimizes views and provides better protection from prevailing winds, increasing liveability.

Negative impacts

- → Some disturbance to the natural environment due to construction activities.
- → Limited encroachment on ecological areas, though minimized compared to other alternatives.
- → Potential for localized noise and air pollution during construction.

ALTERNATIVE 1 (NO-GO)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** No Job creation (-)
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term (construction phase)
Consequence of impact or risk:	Negative consequences include risks of unemployment, no investment opportunities and no economic growth potential
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	N/A
Indirect impacts:	Unemployment for unskilled labour.
Cumulative impact prior to mitigation:	Unemployment for unskilled labour.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (-)
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	→ Prioritize local hiring to maximize job creation for the community. → Ensure construction vehicles are adequately maintained, with proper scheduling and designated routes to minimize disruptions. → Ensure loads are securely fastened to prevent accidents or loss during transportation, which could impact public roads and road users.
Residual impacts:	Continued unemployment opportunities during the construction phase.
Cumulative impact post mitigation:	No job opportunities during construction, with no significant lasting effects post-mitigation.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**2. Transport impact** Increase in traffic volumes due to background traffic growth**.**
Nature of impact:	
Extent and duration of impact:	Regional, medium to long-term

Consequence of impact or risk:	Very-low
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Routine road maintenance by the Roads Authority.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**2. Visual impacts** **The site remains unchanged, and no development occurs.**
Nature of impact:	Neutral to positive – no new structures are introduced that could alter the landscape or visual character.
Extent and duration of impact:	Local: Permanent – The site's visual character remains unchanged indefinitely.
Consequence of impact or risk:	The status quo remains.
Probability of occurrence:	Definite – No development means the current visual landscape remains unchanged.
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	Not applicable – Since there is no change
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Neutral or slightly positive – The absence of development means no additional visual disturbance to the landscape.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	N/A
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A - No mitigation required as there is no development.
Residual impacts:	Neutral - Sense of place of the coastal landscape is maintained.

Cumulative impact post mitigation:	Neutral- Character of the coastal cultural landscape (context) is maintained. However, there is risk of informal footpaths being formed.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**3. Paleontological Heritage** No development takes place; therefore, no potential discovery of fossil bones and archaeological material.
Nature of impact:	Neutral – No disturbance or excavation, meaning no impact on paleontological resources.
Extent and duration of impact:	Local; Regional and National: The absence of excavation means no potential for new fossil discoveries that could contribute to scientific knowledge.
Consequence of impact or risk:	No disturbance to paleontological heritage, but also no potential for new scientific discoveries.
Probability of occurrence:	Definite – Since no development occurs, no fossils will be discovered or studied.
Degree to which the impact may cause irreplaceable loss of resources:	N/A - No excavation means no fossils are lost, but also no new information is gained.
Degree to which the impact can be reversed:	Not applicable – The status quo is maintained.
Indirect impacts:	Loss of opportunity for scientific discovery and contribution to paleontological knowledge
Cumulative impact prior to mitigation:	Neutral – No excavation means no destruction, but also no scientific gain.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	N/A - No impact on existing paleontological resources.
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Residual impacts:	No loss of fossils and the associated scientific implications
Cumulative impact post mitigation:	Positive – No fossil material is lost due to excavation.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**4. Archaeological Impact** No development means no ground disturbance, thus no potential discovery of archaeological material.
Nature of impact:	Neutral – No impact on archaeological resources due to the absence of excavation or construction activities.
Extent and duration of impact:	Local; Regional and National – The status quo remains unchanged over the long term.
Consequence of impact or risk:	No consequence as no archaeological resources will be disturbed or discovered.
Probability of occurrence:	None – No excavation means no chance of disturbing or uncovering archaeological resources.

Degree to which the impact may cause irreplaceable loss of resources:	None – No development means no loss of potential archaeological or paleontological material.
Degree to which the impact can be reversed:	Not applicable – No impact occurs, so no need for reversal.
Indirect impacts:	No indirect impacts, as the site remains undisturbed.
Cumulative impact prior to mitigation:	No cumulative impact – the site retains its existing archaeological integrity.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral – Since no development occurs, no archaeological risk exists.
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Residual impacts:	No loss of archaeological resources and no potential discovery of Archaeological sites.
Cumulative impact post mitigation:	Negative – No discovery of new archaeological materials, ensuring preservation of any unknown resources.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**5. Heritage Impact** *Palaeontology* No development means no ground disturbance, thus no potential discovery of fossil bones *Archaeology* No development means no ground disturbance, thus no potential discovery of archaeological material. *Visual Impacts* The site remains unchanged, and no development occurs.
Nature of impact:	*Palaeontology* – Positive *Archaeology* – Neutral *Visual* – Neutral
Extent and duration of impact:	Local; Permanent; Regional- No impact on archaeological resources due to the absence of excavation or construction activities. No potential discovery of fossils and uncovering significant heritage resource.
Consequence of impact or risk:	*Palaeontology* – Loss of material palaeontological heritage. *Archaeology* - No consequence as no archaeological resources will be disturbed or discovered. *Visual/Heritage Resources* - No consequence as no visual impacts
Probability of occurrence:	*Palaeontology* – Definite *Archaeology* – None *Visual/ Heritage Resource* – Definite
Degree to which the impact may cause irreplaceable loss of resources:	*Palaeontology* – N/A *Archaeology* – N/A *Visual/ Heritage Resources* - N/A
Degree to which the impact can be reversed:	*Palaeontology* – N/A *Archaeology* – N/A.

		Visual/ Heritage – N/A
Indirect impacts:		*Palaeontology* – Loss of opportunity for scientific discovery and contribution to paleontological knowledge. *Archaeology* – No indirect impacts, as the site remains undisturbed. Significant threat to local Stone Age archaeological resources. *Visual* – N/A
Cumulative impact prior to mitigation:		*Palaeontology* - Neutral – No excavation means no destruction, but also no scientific gain. *Archaeology* – No cumulative impact – the site retains its existing archaeological integrity. *Visual/ Heritage* – Neutral or slightly positive – The absence of development means no additional visual disturbance to the landscape.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)		*Palaeontology* – N/A - No impact on existing paleontological resources. *Archaeology* – Low- Since no development occurs, no archaeological risk exists. *Visual* – N/A
Degree to which the impact can be avoided:		*Palaeontology* – N/A *Archaeology* – N/A *Visual* – N/A
Degree to which the impact can be managed:		*Palaeontology* – N/A *Archaeology* – N/A *Visual* – N/A
Degree to which the impact can be mitigated:		***Palaeontology*** – No management required ***Archaeology*** – No management required. ***Visual*** – No management required.
Proposed mitigation:		N/A
Residual impacts:		*Palaeontology* – No loss of archaeological resources and no potential discovery of Archaeological sites. *Archaeology* – No significant residual impacts, as the archaeological resources are not significantly threatened by the development. No potential discovering of archaeological resources. *Visual* – Sense of place of the coastal landscape is maintained.
Cumulative impact post mitigation:		*Palaeontology* – Negative – No discovery of new archaeological materials, ensuring preservation of any unknown resources. *Archaeology* – No discovery of new archaeological materials, ensuring preservation of any unknown resources. *Visual* – Neutral - Character of the coastal cultural landscape (context) is maintained. However, there is risk of informal footpaths being formed.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	*Palaeontology*	Low (-)
	Archaeology	Low (-)
	Visual	Neutral

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**6. Botanical/ Terrestrial Biodiversity impacts** No alteration of existing botanical/terrestrial biodiversity.
Nature of impact:	Positive; No impact, as the status quo remains unchanged.
Extent and duration of impact:	Local, Regional, and National – the natural environment remains intact over the long term
Consequence of impact or risk:	No change in the existing biodiversity conditions on site.
Probability of occurrence:	No impact, as there is no development.
Degree to which the impact may cause irreplaceable loss of resources:	No loss of biodiversity resources, as they remain undisturbed. However, current conditions still persist on site.
Degree to which the impact can be reversed:	No impact, as there is no alteration to the environment.
Indirect impacts:	None
Cumulative impact prior to mitigation:	The natural environment remains unchanged.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (as no new impacts arise).
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Residual impacts:	No loss of biodiversity as a result of no development. However, the existing development
Cumulative impact post mitigation:	No disturbance of existing environmental resources. However, there are risks of informal settlements and informal paths
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**7. Coastal environment** No disturbance to the natural coastal environment, ecosystems, and biodiversity. No change in land use.
Nature of impact:	Neutral
Extent and duration of impact:	Local; Regional and National – The site remains unchanged, preserving existing ecological functions and processes.
Consequence of impact or risk:	No potential loss or alteration of natural habitats, biodiversity, or ecosystem services.
Probability of occurrence:	No development means no impact on the coastal environment.
Degree to which the impact may cause irreplaceable loss of resources:	No irreplaceable loss, as the natural state is maintained.
Degree to which the impact can be reversed:	No impact to reverse, as no disturbance occurs.
Indirect impacts:	Ecosystem integrity and coastal processes remains. No disruption of coastal habitat connectivity.
Cumulative impact prior to mitigation:	No negative cumulative impacts. Maintains ecological stability and natural coastal dynamics.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low – No impact on the coastal environment due to lack of development.
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A

Proposed mitigation:	No mitigations required. However, the site has been disturbed in some areas by informal footpaths and stormwater outlets, if these still persist, there is potential for future disturbances and degradation on site. Restoration efforts could be considered to prevent ongoing degradation.
Residual impacts:	No vegetation loss will take place. However, if the site is not developed, it will miss out on opportunities for vegetation restoration within the ESA area and could further degrade due to unmanaged disturbances.
Cumulative impact post mitigation:	Minimal ecological change, but potential for unmanaged degradation in disturbed areas.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** → Loss of potential economic investment and job creation opportunities. → No improvement in infrastructure and services that could have benefited the local community. → No contribution to local tourism or economic growth. → Potential for continued degradation of the site due to unmanaged human activities (e.g., informal footpaths, stormwater runoff). → Missed opportunity for ecological restoration, particularly within Ecological Support Areas (ESAs). → Lack of formal control over land use, possibly leading to unauthorized activities or illegal dumping. → Socioeconomic impacts due to the loss of potential benefits from the proposed development.
Nature of impact:	Negative
Extent and duration of impact:	Local (limited to the site and surrounding area); Long-term – as long as the site remains undeveloped.
Consequence of impact or risk:	No direct environmental harm, but potential negative social and economic consequences due to lost opportunities for investment and employment. Existing site disturbances (e.g., informal pathways, stormwater erosion) may persist.
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low – No irreplaceable ecological loss, as the site remains in its current state. However, lost economic and social opportunities may not be recoverable.
Degree to which the impact can be reversed:	N/A
Indirect impacts:	No contribution to local economic growth, job creation, or improved services.
Cumulative impact prior to mitigation:	No contribution to local economic growth, job creation, or improved services.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low - Negative implications for socioeconomic development.

Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	No mitigation required
Residual impacts:	No investments in the area, no job opportunities.
Cumulative impact post mitigation:	Negative, as potential benefits from development (e.g., employment, infrastructure, tourism) will not be realized.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (-)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**3. Transport impact** Increase in traffic volumes due to background traffic growth**.**
Nature of impact:	Negative
Extent and duration of impact:	Regional, medium to long-term
Consequence of impact or risk:	Very-low
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Routine road maintenance by the Roads Authority.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**2. Visual impacts** No change in visual character; the site remains in its natural state.
Nature of impact:	Neutral.
Extent and duration of impact:	Localized, long-term—natural landscape remains undisturbed.
Consequence of impact or risk:	No adverse visual impact. The site's natural aesthetics and scenic value are preserved.
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	No irreplaceable loss, as the natural state is maintained.
Degree to which the impact can be reversed:	N/A
Indirect impacts:	N/A

Cumulative impact prior to mitigation:	visual character of the broader coastal region is maintained.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	N/A
Residual impacts:	No change—natural conditions are maintained
Cumulative impact post mitigation:	No change—natural conditions are maintained
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (+)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**8. Coastal environment** No change in land use.
Nature of impact:	Neutral
Extent and duration of impact:	Local; Regional and National – The site remains unchanged, preserving existing ecological functions and processes.
Consequence of impact or risk:	No potential loss or alteration of natural habitats, or ecosystem services.
Probability of occurrence:	No development means no impact on the coastal environment.
Degree to which the impact may cause irreplaceable loss of resources:	No irreplaceable loss, as the natural state is maintained.
Degree to which the impact can be reversed:	No impact to reverse, as no disturbance occurs.
Indirect impacts:	Ecosystem integrity and coastal processes remains. No disruption of coastal habitat connectivity.
Cumulative impact prior to mitigation:	No negative cumulative impacts. Maintains ecological stability and natural coastal dynamics.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low – No impact on the coastal environment due to lack of development.
Degree to which the impact can be avoided:	N/A
Degree to which the impact can be managed:	N/A
Degree to which the impact can be mitigated:	N/A
Proposed mitigation:	→ No mitigations required. However, the site has been disturbed in some areas by informal footpaths and stormwater outlets, if these still persist, there is potential for future disturbances and degradation on site. Restoration efforts could be considered to prevent ongoing degradation.
Residual impacts:	No vegetation loss will take place. However, if the site is not developed, it will miss out on opportunities for vegetation restoration within the ESA area and could further degrade due to unmanaged disturbances.
Cumulative impact post mitigation:	Minimal ecological change, but potential for unmanaged degradation in disturbed areas.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Neutral

DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	N/A
Nature of impact:	-
Extent and duration of impact:	-
Consequence of impact or risk:	-
Probability of occurrence:	-
Degree to which the impact may cause irreplaceable loss of resources:	-
Degree to which the impact can be reversed:	-
Indirect impacts:	-
Cumulative impact prior to mitigation:	-
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-
Degree to which the impact can be avoided:	-
Degree to which the impact can be managed:	-
Degree to which the impact can be mitigated:	-
Proposed mitigation:	-
Residual impacts:	-
Cumulative impact post mitigation:	-
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-

ALTERNATIVE 2

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** Job creation (+)
Nature of impact:	**Job creation;** Positive
Extent and duration of impact:	Local; short-term (construction phase)
Consequence of impact or risk:	**Job Creation:** Positive consequences as it brings economic benefits to local residents, reducing unemployment rates temporarily.
Probability of occurrence:	**Job creation:** Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Low
Indirect impacts:	Impact on public roads users
Cumulative impact prior to mitigation:	Cumulative impacts on roads and public users
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (+)
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Prioritize local hiring to maximize job creation for the community. → Ensure construction vehicles are adequately maintained, with proper scheduling and designated routes to minimize disruptions. → Ensure loads are securely fastened to prevent accidents or loss during transportation, which could impact public roads and road users.
Residual impacts:	**Job Creation:** Continued employment during the construction phase, contributing positively to the local economy.
Cumulative impact post mitigation:	**Job Creation:** Positive long-term economic benefits due to employment during construction.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High +ve

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**2. Transport impact** Traffic delay and congestion at intersections and road networks during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local, short-term
Consequence of impact or risk:	Very-low
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Heavy construction traffic should not be allowed on the public road network during the typical a.m. and p.m. peak hours.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**3. Dust** The dust could be generated during the site preparation.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Visual impacts Nuisance for residents adjacent to the site as well as road users.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	High
Indirect impacts:	Potential for reduced visibility, temporary visual impacts to the general area.
Cumulative impact prior to mitigation:	Dust may be generated as a result of earthmoving machinery required for construction.

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Maintain ground cover for as long as possible to reduce the total surface area exposed to wind. Do not clear entire plots and rather clear building sites only → Ensure vehicle speed limits on site are kept to a minimum. → Delivery vehicles to keep loads covered. → Cover fine material stockpiles. → Wet dry and dusty surfaces using non-potable water. → Staff to wear correct PPE if dust is generated for long periods. → Road surfaces to be swept and kept clean of sand and fine materials.
Residual impacts:	None
Cumulative impact post mitigation:	Dust generated during construction; mitigation successful
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**4. Noise** Noise generated from vehicles and machinery during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Noise disturbance to transient receptors, i.e motorists, and pedestrians.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	No resources will be impacted.
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Noise generated from construction works
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Low-Medium
Degree to which the impact can be managed:	Low-medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Limit noise levels (e.g. install and maintain silencers on machinery). → Provide protective wear for workers i.e. ear plugs. → Ensure that construction vehicles and machinery are maintained regularly to reduce noise generation. → Restrict construction to normal working hours
Residual impacts:	None
Cumulative impact post mitigation:	Typical noise impacts associated with a construction site
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low (-)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**5. Visual impacts** Visual Impact may be expected – resulting directly from site clearance, bulk earthworks and removal of existing vegetation; with construction vehicles / building activity causing noise / dust.
Nature of impact:	Negative (visual disturbance to status quo), foreground construction activity.
Extent and duration of impact:	Local: Mid-term
Consequence of impact or risk:	Visual disturbance of status quo, foreground construction activity
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High – Where visual and scenic resources are affected to a limited extent only.
Degree to which the impact can be reversed:	Medium
Indirect impacts:	Increased activities associated with construction (later in time, elsewhere in space)
Cumulative impact prior to mitigation:	Development activity on adjacent properties.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High – Very High (-)
Degree to which the impact can be avoided:	Low-Medium
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low- Medium
Proposed mitigation:	→ Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact. → Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space. → Limiting construction to within hoarding areas. → Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public → Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views. → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to

	be a minimum of 2m to allow the natural occurring shrubs to grow. → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property. → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".	
Residual impacts:	Change in sense of place of the coastal landscape	
Cumulative impact post mitigation:	Change in character of the coastal cultural landscape (context)	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (-)	High (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE		
Potential impact and risk:	**6. Paleontological Heritage** Loss of fossil bones and archaeological material from excavations in the coversands and beach deposits.	
Nature of impact:	Positive	
Extent and duration of impact:	Local; Regional and National: Permanent	
Consequence of impact or risk:	Loss of material palaeontological heritage.	
Probability of occurrence:	Possible	
Degree to which the impact may cause irreplaceable loss of resources:	Significant Loss may still occur.	
Degree to which the impact can be reversed:	Irreversible	
Indirect impacts:	Enriched landscape geohistory.	
Cumulative impact prior to mitigation:	Some fossils are rescued for posterity and available for scientific study.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low – Medium Positive	
Degree to which the impact can be avoided:	Low. The locations of fossil bones in the deposits cannot be predicted.	
Degree to which the impact can be managed:	Low. There is a high risk of valuable fossils being lost despite management actions to mitigate such loss.	
Degree to which the impact can be mitigated:	Moderate	
Proposed mitigation:	→ For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made. → It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the proposed development. → The Fossil Finds Procedure provides guidelines to be followed in the event of fossil bone finds in the excavations. The works supervisor/foreman and workers involved in excavating the building foundations, infrastructure trenches and	

	stormwater drainage must be informed of the need to watch for fossils and archaeological material. Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find. → If a significant occurrence of fossil bones in a palaeontological context is discovered a professional palaeontologist must be appointed to collect them and to record their contexts. Said palaeontologist must also undertake the recording of the stratigraphic context and sedimentary geometry of the exposure, the sampling of ambient small fossil content and the compilation of the report for distribution to Heritage Western Cape, SAHRA, the approved curatorial institution and local heritage interest groups. → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.	
Residual impacts:	Permanent loss of fossils and the associated scientific implications	
Cumulative impact post mitigation:	Positive – Discovery of new fossil evidence	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (+)	Medium (+)
PLANNING, DESIGN AND DEVELOPMENT PHASE		
Potential impact and risk:	**7. Archaeological Impact** Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations.	
Nature of impact:	Negative	
Extent and duration of impact:	Local: short-term	
Consequence of impact or risk:	Excavations for building foundations and services may uncover buried archaeological deposits.	
Probability of occurrence:	Probable	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	High	
Indirect impacts:	Archaeological resources being discovered.	
Cumulative impact prior to mitigation:	Archaeological resources being discovered.	

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ No archaeological mitigation is needed prior to construction excavations commencing. → Archaeological monitoring of building foundations a services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist. → The above recommendations must be incorporated into the Environmental Management Plan (EMP) for the proposed development.
Residual impacts:	Potential discovery of Archaeological sites.
Cumulative impact post mitigation:	Potential discovery of Archaeological sites.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**8. Heritage Impact** *Palaeontology* The possible presence of fossils in the subsurface does not have an a priori influence on the decision to proceed with the proposed development. *Archaeology* Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations and services but the probability of this occurring, is considered to be Low. *Visual Impacts* The development is proposed to occupy a portion of the coastline which is pristine and with no adjacent development to form a continuous pattern.
Nature of impact:	*Palaeontology* – Positive *Archaeology* – Negative *Visual* – Negative
Extent and duration of impact:	Local; Permanent
Consequence of impact or risk:	*Palaeontology* – Loss of material palaeontological heritage. *Archaeology* – The proposed development on the property will likely impact the on important Stone Age archaeological resources.

	Visual/Heritage Resources – Impact on visual heritage due to development in a pristine, undeveloped coastal area.
Probability of occurrence:	*Palaeontology* – Likely *Archaeology* – Unlikely *Visual/ Heritage Resource* – Likely
Degree to which the impact may cause irreplaceable loss of resources:	*Palaeontology* – Significant loss may still occur. *Archaeology* – Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations and services but the probability of this occurring, is considered to be Low. *Visual/ Heritage Resources* - Irreplaceable loss of pristine, undeveloped coastal aesthetic due to development.
Degree to which the impact can be reversed:	*Palaeontology* – Irreversible *Archaeology* – Reversible, provided excavation protocols are followed and materials are conserved appropriately. *Visual/ Heritage* – Irreversible, as once the development occurs, the pristine coastline cannot be restored.
Indirect impacts:	*Palaeontology* – Enriched landscape geo-history *Archaeology* – Indications are that a proposed housing development on re Farm 218 – RE (seafront) does not pose a significant threat to local Stone Age archaeological resources. *Visual* – Loss of coastal aesthetic affects community access to a natural setting, which may lead to social impacts on visitors and residents.
Cumulative impact prior to mitigation:	*Palaeontology* – Permanent loss of fossils and the associated scientific implications. *Archaeology* – Indications are that a proposed housing development on re Farm 218 – Re (seafront) does not pose a significant threat to local Stone Age archaeological resources. *Visual/ Heritage* – Cumulative impacts on visual intrusion due to loss of pristine, undeveloped coastal aesthetics.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	*Palaeontology* – Low *Archaeology* – Low *Visual* – Medium
Degree to which the impact can be avoided:	*Palaeontology* – Low. The locations of fossil bones in the deposits cannot be predicted. *Archaeology* – Low. The probability of uncovering significant archaeological remains is low. *Visual* – Low. The impact on visual heritage cannot be entirely avoided due to the coastal location of the development.
Degree to which the impact can be managed:	*Palaeontology* – Low. There is a high risk of valuable fossils being lost despite management actions to mitigate such loss. *Archaeology* – Low. The development does not pose a significant threat to local Stone Age archaeological resources, but monitoring during construction is necessary. *Visual* – Moderate. Management through landscaping, architectural guidelines, and adherence to visual planning can reduce visual intrusion.

Degree to which the impact can be mitigated:	*Palaeontology* – Moderate. Mitigation efforts can reduce the likelihood of irreversible loss of fossils, but the impact cannot be fully mitigated. *Archaeology* – Low. No significant mitigation is required, but archaeological monitoring is recommended during construction. *Visual* – Moderate. Effective design and planning (including appropriate landscaping, visual screening, and construction controls) can reduce visual impacts.
Proposed mitigation:	*Palaeontology* → For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made. It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP) is included in the Environmental Management Plan (EMP) for the proposed development. → The field supervisor/foreman and workers involved in excavations must be informed of the need to watch for fossil bones and archaeological material. Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby archaeologist or palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find. → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense *Archaeology* → No archaeological mitigation is needed prior to construction excavations commencing. → Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist. → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.

	Visual → Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented, and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact. → Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space. → Limiting construction to within hoarding areas. → Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public → Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views. → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow. → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property. → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".
Residual impacts:	*Palaeontology* – Positive, as the development could lead to the discovery of new fossil records. *Archaeology* – No significant residual impacts, as the archaeological resources are not significantly threatened by the development. *Visual* – Ongoing visual impact on the coastal landscape due to the development but mitigated by design.
Cumulative impact post mitigation:	*Palaeontology* – Potential discovery of new fossil records.

		Archaeology – No significant cumulative impact, as mitigation measures ensure the conservation of archaeological resources. *Visual* – Cumulative impacts on visual aesthetics but mitigated through the careful planning and implementation of design guidelines.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	***Palaeontology***	Low (+)	Medium (+)
	Archaeology	Low (-)	
	Visual intrusion	Medium (-)	High (-)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**9. Botanical/ Terrestrial Biodiversity impacts** Impact on botanical and biodiversity aspects of the site.
Nature of impact:	Negative: Loss of natural vegetation i.e. Southwestern Strandveld
Extent and duration of impact:	Local; Long-term
Consequence of impact or risk:	Loss of Southwestern Strandveld
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Irreversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Contribution to loss of Southwestern Strandveld
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Very Low
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	On-site mitigation would not be possible since virtually the entire site would be developed.
Residual impacts:	High negative
Cumulative impact post mitigation:	Low negative
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**10. Coastal environment** The proposed development may result in disturbance to the coastal environment, impacting the delicate coastal ecosystem, including marine habitats, and adjacent shoreline areas.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term

Consequence of impact or risk:	Medium: The consequences include potential degradation of coastal habitats, disruption to coastal ecosystems, disturbance to flora and fauna, and possible loss of beach area due to coastal erosion. These consequences may result in loss of biodiversity and the aesthetic value of the area.	
Probability of occurrence:	Medium- High: Given the proximity of the site to sensitive coastal areas and the nature of the proposed development, there is a high probability of impact.	
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High	
Degree to which the impact can be reversed:	Medium	
Indirect impacts:	Potential pollution and increased human activity may impact the coastal environment including marine life.	
Cumulative impact prior to mitigation:	High: habitat disturbance, increased foot traffic, pollution, and additional stress on coastal ecosystems.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High	
Degree to which the impact can be avoided:	Medium	
Degree to which the impact can be managed:	High: Effective management practices, such as coastal setback regulations, pollution control, and erosion prevention measures, can greatly reduce the negative impact on the coastal environment.	
Degree to which the impact can be mitigated:	Medium-High	
Proposed mitigation:	→ Avoidance of sensitive coastal areas, such as high-water mark, coastal risk areas and critical habitats. → Establishment of restricted zones for public access and careful planning of the public footpath to minimize disturbance. → Regular monitoring of the coastal environment for signs of habitat degradation, pollution, and erosion.	
Residual impacts:	Even after mitigation, some residual impacts may remain, particularly in terms of slight disturbances to the coastal environment during construction and possible slow recovery of ecosystems.	
Cumulative impact post mitigation:	Low- Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (-)	High (-)
POST-CONSTRUCTION PHASE		
Potential impact and risk:	**1. Socioeconomic impacts** The post-construction phase of the development is expected to have several socioeconomic impacts, including the creation of job opportunities, stimulation of local businesses, and potential changes in property values and community dynamics. The presence of a new development can affect local employment, access to services, and the cost of living for both current and new residents.	

Nature of impact:	Positive
Extent and duration of impact:	Local; Long-term
Consequence of impact or risk:	The consequences could include positive effects, such as economic growth, increased property values, and improved infrastructure.
Probability of occurrence:	High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Irreversible
Indirect impacts:	Changes in the local labour market, with increased demand for both skilled and unskilled workers, potentially raising wage levels but also increasing the cost of living.
Cumulative impact prior to mitigation:	Job creation and improved infrastructure for the local community.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium – High Positive
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Engagement with local stakeholders to understand their needs and ensure the development benefits the local community. → Provision of affordable housing and support for local businesses to prevent displacement and encourage inclusive economic growth
Residual impacts:	Residual impacts may include ongoing changes to the local economy, such as higher property values and increased demand for goods and services, which could lead to higher living costs.
Cumulative impact post mitigation:	Job creation and improved infrastructure will provide long-term benefits to the local community.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (+)
POST-CONSTRUCTION	
Potential impact and risk:	**2. Transport impact** Traffic delay and Increase in traffic volumes due to background traffic growth.
Nature of impact:	Negative
Extent and duration of impact:	Local, short-term
Consequence of impact or risk:	Very-low
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Routine road maintenance by the Roads Authority.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low (-)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**3. Botanical/ Terrestrial Biodiversity impacts** Limited further loss of plant species found in Overberg Dune Strandveld.
Nature of impact:	No further impact after completion of construction
Extent and duration of impact:	Local; long- term.
Consequence of impact or risk:	The degradation or destruction of remaining indigenous vegetation may lead to a loss of biodiversity, disruption of ecological functions, and reduced aesthetic and recreational value.
Probability of occurrence:	Medium. There is a reasonable likelihood that post-construction activities or passive impacts (e.g., invasive species, human activity) could affect the indigenous vegetation if left unmanaged.
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High While some indigenous vegetation may be restored, the loss of specific species or ecological functions may be irreversible if not actively managed or protected.
Degree to which the impact can be reversed:	Medium
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Medium-High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	N/A
Residual impacts:	Medium
Cumulative impact post mitigation:	Medium
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (-)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**4. Visual impacts** Contemporary layer added to the cultural landscape.

	Change in character of the coastal cultural landscape.
Nature of impact:	Negative: Intrusion of buildings in the foreground of a sensitive coastal landscape. Disturbance of an intact coastal landscape.
Extent and duration of impact:	Local; Long term
Consequence of impact or risk:	→ Alteration of the natural coastal aesthetic. → Potential visual intrusion for surrounding properties and public areas. → Loss of the original character and sense of place for the area.
Probability of occurrence:	High
Degree to which the impact may cause irreplaceable loss of resources:	Medium- High: The visual quality of the natural environment is altered, but no irreplaceable physical resources are directly impacted.
Degree to which the impact can be reversed:	Low: Mitigation measures such as landscaping, architectural design, and strategic placement of buildings and infrastructure can reduce visual impacts but cannot fully restore the original coastal landscape.
Indirect impacts:	Altered community perception of the area's character and desirability.
Cumulative impact prior to mitigation:	Medium-High: Combined with other developments in the area, the cumulative effect could significantly alter the visual character of the broader coastal region.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High
Degree to which the impact can be avoided:	Medium- High: Avoidance is possible through careful planning and design, such as limiting development to less visually intrusive areas.
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	→ Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact. → Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space. → Limiting construction to within hoarding areas.

	→ Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public → Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views. → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow. → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property. → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".	
Residual impacts:	Some alteration of the visual landscape will remain, but it can be minimized with effective mitigation. Reduced impact on the sense of place compared to unmitigated scenarios.	
Cumulative impact post mitigation:	There will be some cumulative impact but should mitigation measures be applied this will in time be minimised - Low to Very-low negative.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (-)	High (-)
POST-CONSTRUCTION PHASE		
Potential impact and risk:	**5. Coastal environment** Alteration of the coastal landscape and potential degradation of coastal habitats due to increased human activity, infrastructure maintenance, and waste generation.	
Nature of impact:	Negative	
Extent and duration of impact:	Local; long-term	
Consequence of impact or risk:		
Probability of occurrence:	Moderate to high, depending on the level of ongoing management and adherence to mitigation measures.	
Degree to which the impact may cause irreplaceable loss of resources:	Medium	
Degree to which the impact can be reversed:	Moderate; some impacts, such as vegetation loss, can be reversed with active restoration, but others, such as habitat degradation, may require significant effort or remain irreversible.	
Indirect impacts:	Changes to the aesthetic and recreational value of the coastline.	

Cumulative impact prior to mitigation:	High: The coastal environmental may already be under pressure from other developments and stormwater outlets.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High	
Degree to which the impact can be avoided:	Moderate; impacts can be minimized through careful planning and adherence to coastal management guidelines.	
Degree to which the impact can be managed:	High	
Degree to which the impact can be mitigated:	High	
Proposed mitigation:	→ Establish buffer zones to protect sensitive coastal areas. → Implement long-term monitoring of coastal processes and habitats. → Restrict access to ecologically sensitive areas using signage or fencing. → Restore disturbed vegetation with indigenous coastal plant species. → Regularly remove waste and debris from the site to prevent pollution.	
Residual impacts:	Minor disturbance to natural processes due to human presence and infrastructure maintenance. Reduced habitat quality in some areas if restoration is not fully effective.	
Cumulative impact post mitigation:	Low- Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (-)	High (-)
DECOMMISSIONING AND CLOSURE PHASE		
Potential impact and risk:	N/A	
Nature of impact:	-	
Extent and duration of impact:	-	
Consequence of impact or risk:	-	
Probability of occurrence:	-	
Degree to which the impact may cause irreplaceable loss of resources:	-	
Degree to which the impact can be reversed:	-	
Indirect impacts:	-	
Cumulative impact prior to mitigation:	-	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-	
Degree to which the impact can be avoided:	-	
Degree to which the impact can be managed:	-	
Degree to which the impact can be mitigated:	-	
Proposed mitigation:	-	
Residual impacts:	-	
Cumulative impact post mitigation:	-	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-	

ALTERNATIVE 3

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** Job creation (+)
Nature of impact:	**Job creation;** Positive
Extent and duration of impact:	Local; short-term (construction phase)
Consequence of impact or risk:	**Job Creation:** Positive consequences as it brings economic benefits to local residents, reducing unemployment rates temporarily.
Probability of occurrence:	**Job creation:** Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Low
Indirect impacts:	Impact on public roads users
Cumulative impact prior to mitigation:	Cumulative impacts on roads and public users
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (+)
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Prioritize local hiring to maximize job creation for the community. → Ensure construction vehicles are adequately maintained, with proper scheduling and designated routes to minimize disruptions. → Ensure loads are securely fastened to prevent accidents or loss during transportation, which could impact public roads and road users.
Residual impacts:	**Job Creation:** Continued employment during the construction phase, contributing positively to the local economy.
Cumulative impact post mitigation:	**Job Creation:** Positive long-term economic benefits due to employment during construction.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High positive for job creation

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**2. Transport impact** Traffic delay and congestion at intersections and road networks during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local, short-term
Consequence of impact or risk:	Very-low
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Routine road maintenance by the Roads Authority.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**3. Dust** The dust could be generated during the site preparation.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Visual impacts Nuisance for residents adjacent to the site as well as road users.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	High
Indirect impacts:	Potential for reduced visibility, temporary visual impacts to the general area.
Cumulative impact prior to mitigation:	Dust may be generated as a result of earthmoving machinery required for construction.

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Maintain ground cover for as long as possible to reduce the total surface area exposed to wind. Do not clear entire plots and rather clear building sites only → Ensure vehicle speed limits on site are kept to a minimum. → Delivery vehicles to keep loads covered. → Cover fine material stockpiles. → Wet dry and dusty surfaces using non-potable water. → Staff to wear correct PPE if dust is generated for long periods. → Road surfaces to be swept and kept clean of sand and fine materials.
Residual impacts:	None
Cumulative impact post mitigation:	Dust generated during construction; mitigation successful
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low Negative
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**4. Noise** Noise generated from vehicles and machinery during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Noise disturbance to transient receptors, i.e motorists, and pedestrians.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	No resources will be impacted.
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Noise generated from construction works
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Low-Medium
Degree to which the impact can be managed:	Low-medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Limit noise levels (e.g. install and maintain silencers on machinery). → Provide protective wear for workers i.e. ear plugs. → Ensure that construction vehicles and machinery are maintained regularly to reduce noise generation. → Restrict construction to normal working hours
Residual impacts:	None

Cumulative impact post mitigation:	Typical noise impacts associated with a construction site
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low Negative
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**5. Visual impacts** Visual Impact may be expected – resulting directly from site clearance, bulk earthworks and removal of existing vegetation; with construction vehicles / building activity causing noise / dust.
Nature of impact:	Negative (visual disturbance to status quo), foreground construction activity.
Extent and duration of impact:	Local: Mid-term
Consequence of impact or risk:	Visual disturbance of status quo, foreground construction activity
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High – Where visual and scenic resources are affected to a limited extent only.
Degree to which the impact can be reversed:	Medium
Indirect impacts:	Increased activities associated with construction (later in time, elsewhere in space)
Cumulative impact prior to mitigation:	Development activity on adjacent properties.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High - Very High (-)
Degree to which the impact can be avoided:	Low-Medium
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low- Medium
Proposed mitigation:	→ Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact. → Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space. → Limiting construction to within hoarding areas. → Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public

	→ Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views. → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow. → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property. → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".	
Residual impacts:	Change in sense of place of the coastal landscape	
Cumulative impact post mitigation:	Change in character of the coastal cultural landscape (context)	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (-)	High (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE		
Potential impact and risk:	**6. Paleontological Heritage** Loss of fossil bones and archaeological material from excavations in the coversands and beach deposits.	
Nature of impact:	Positive	
Extent and duration of impact:	Local; Regional and National: Permanent	
Consequence of impact or risk:	Loss of material palaeontological heritage.	
Probability of occurrence:	Possible	
Degree to which the impact may cause irreplaceable loss of resources:	Significant Loss may still occur.	
Degree to which the impact can be reversed:	Irreversible	
Indirect impacts:	Enriched landscape geohistory.	
Cumulative impact prior to mitigation:	Some fossils are rescued for posterity and available for scientific study.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low – Medium Positive	
Degree to which the impact can be avoided:	Low. The locations of fossil bones in the deposits cannot be predicted.	
Degree to which the impact can be managed:	Low. There is a high risk of valuable fossils being lost despite management actions to mitigate such loss.	
Degree to which the impact can be mitigated:	Moderate	

Proposed mitigation:	→ For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made. → It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the proposed development. → The Fossil Finds Procedure provides guidelines to be followed in the event of fossil bone finds in the excavations. The works supervisor/foreman and workers involved in excavating the building foundations, infrastructure trenches and stormwater drainage must be informed of the need to watch for fossils and archaeological material. Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find. → If a significant occurrence of fossil bones in a palaeontological context is discovered a professional palaeontologist must be appointed to collect them and to record their contexts. Said palaeontologist must also undertake the recording of the stratigraphic context and sedimentary geometry of the exposure, the sampling of ambient small fossil content and the compilation of the report for distribution to Heritage Western Cape, SAHRA, the approved curatorial institution and local heritage interest groups. → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.	
Residual impacts:	Permanent loss of fossils and the associated scientific implications	
Cumulative impact post mitigation:	Positive – Discovery of new fossil evidence	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (+)	Medium (+)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**7. Archaeological Impact** Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations.
Nature of impact:	Negative
Extent and duration of impact:	Local: short-term
Consequence of impact or risk:	Excavations for building foundations and services may uncover buried archaeological deposits.
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	High
Indirect impacts:	Archaeological resources being discovered.
Cumulative impact prior to mitigation:	Archaeological resources being discovered.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ No archaeological mitigation is needed prior to construction excavations commencing. → Archaeological monitoring of building foundations a services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist. → The above recommendations must be incorporated into the Environmental Management Plan (EMP) for the proposed development.
Residual impacts:	Potential discovery of Archaeological sites.
Cumulative impact post mitigation:	Potential discovery of Archaeological sites.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low (-)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**8. Heritage Impact** *Palaeontology* The possible presence of fossils in the subsurface does not have an a priori influence on the decision to proceed with the proposed development. *Archaeology* Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations and services but the probability of this occurring, is considered to be Low. *Visual Impacts* The development is proposed to occupy a portion of the coastline which is pristine and with no adjacent development to form a continuous pattern.
Nature of impact:	*Palaeontology* – Positive *Archaeology* – Negative *Visual* – Negative
Extent and duration of impact:	Local; Permanent
Consequence of impact or risk:	*Palaeontology* – Loss of material palaeontological heritage. *Archaeology* - The proposed development on the property will likely impact the on important Stone Age archaeological resources. *Visual/Heritage Resources* - Impact on visual heritage due to development in a pristine, undeveloped coastal area.
Probability of occurrence:	*Palaeontology* – Likely *Archaeology* – Unlikely *Visual/ Heritage Resource* – Likely
Degree to which the impact may cause irreplaceable loss of resources:	*Palaeontology* – Significant loss may still occur. *Archaeology* – Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations and services but the probability of this occurring, is considered to be Low. *Visual/ Heritage Resources* - Irreplaceable loss of pristine, undeveloped coastal aesthetic due to development.
Degree to which the impact can be reversed:	***Palaeontology*** – Irreversible ***Archaeology*** – Reversible, provided excavation protocols are followed and materials are conserved appropriately. ***Visual/ Heritage*** – Irreversible, as once the development occurs, the pristine coastline cannot be restored.
Indirect impacts:	***Palaeontology*** – Enriched landscape geo-history

	Archaeology – Indications are that a proposed housing development on re Farm 218 – RE (seafront) does not pose a significant threat to local Stone Age archaeological resources. ***Visual*** – Loss of coastal aesthetic affects community access to a natural setting, which may lead to social impacts on visitors and residents.
Cumulative impact prior to mitigation:	***Palaeontology*** - Permanent loss of fossils and the associated scientific implications. ***Archaeology*** – Indications are that a proposed housing development on re Farm 218 – Re (seafront) does not pose a significant threat to local Stone Age archaeological resources. ***Visual/ Heritage*** – Cumulative impacts on visual intrusion due to loss of pristine, undeveloped coastal aesthetics.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	***Palaeontology*** – Low ***Archaeology*** – Low ***Visual*** – Medium
Degree to which the impact can be avoided:	***Palaeontology*** – Low. The locations of fossil bones in the deposits cannot be predicted. ***Archaeology*** – Low. The probability of uncovering significant archaeological remains is low. ***Visual*** – Low. The impact on visual heritage cannot be entirely avoided due to the coastal location of the development.
Degree to which the impact can be managed:	***Palaeontology*** – Low. There is a high risk of valuable fossils being lost despite management actions to mitigate such loss. ***Archaeology*** – Low. The development does not pose a significant threat to local Stone Age archaeological resources, but monitoring during construction is necessary. ***Visual*** – Moderate. Management through landscaping, architectural guidelines, and adherence to visual planning can reduce visual intrusion.
Degree to which the impact can be mitigated:	***Palaeontology*** – Moderate. Mitigation efforts can reduce the likelihood of irreversible loss of fossils, but the impact cannot be fully mitigated. ***Archaeology*** – Low. No significant mitigation is required, but archaeological monitoring is recommended during construction. ***Visual*** – Moderate. Effective design and planning (including appropriate landscaping, visual screening, and construction controls) can reduce visual impacts.
Proposed mitigation:	***Palaeontology*** → For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made. It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP) (Appendix 2), is included in the Environmental Management Plan (EMP) for the proposed development. → The field supervisor/foreman and workers involved in excavations must be informed of the need to watch for fossil bones and archaeological material. Workers seeing potential

	objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby archaeologist or palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find. → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense ***Archaeology*** → No archaeological mitigation is needed prior to construction excavations commencing. → Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist. → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist. ***Visual*** → Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact. → Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space.

		→ Limiting construction to within hoarding areas. → Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public → Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views. → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow. → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property. → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".
Residual impacts:		*Palaeontology* – Positive, as the development could lead to the discovery of new fossil records. *Archaeology* – No significant residual impacts, as the archaeological resources are not significantly threatened by the development. *Visual* – Ongoing visual impact on the coastal landscape due to the development but mitigated by design.	
Cumulative impact post mitigation:		*Palaeontology* – Potential discovery of new fossil records. *Archaeology* – No significant cumulative impact, as mitigation measures ensure the conservation of archaeological resources. *Visual* – Cumulative impacts on visual aesthetics but mitigated through the careful planning and implementation of design guidelines.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	***Palaeontology***	Low (+)	Medium (+)
	Archaeology	Low (-)	
	Visual intrusion	Medium (-)	High (-)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**9. Botanical/ Terrestrial Biodiversity impacts** Impact on botanical and biodiversity aspects of the site contributing to loss of vegetation on site.
Nature of impact:	Negative: Loss of natural vegetation i.e. Southwestern Strandveld
Extent and duration of impact:	Local; Long-term
Consequence of impact or risk:	Loss of Southwestern Strandveld
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Irreversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Contribution to loss of Southwestern Strandveld
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High negative
Degree to which the impact can be avoided:	Very Low
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	On-site mitigation would not be possible since virtually the entire site would be developed.
Residual impacts:	High negative
Cumulative impact post mitigation:	Low negative
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**10. Coastal environment** The proposed development may result in disturbance to the coastal environment, impacting the delicate coastal ecosystem, including marine habitats, and adjacent shoreline areas.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Medium: The consequences include potential degradation of coastal habitats, disruption to coastal ecosystems, disturbance to flora and fauna, and possible loss of beach area due to coastal erosion. These consequences may result in loss of biodiversity and the aesthetic value of the area.

Probability of occurrence:	Medium- High: Given the proximity of the site to sensitive coastal areas and the nature of the proposed development, there is a high probability of impact.
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High
Degree to which the impact can be reversed:	Medium
Indirect impacts:	Potential pollution and increased human activity may impact the coastal environment including marine life.
Cumulative impact prior to mitigation:	High: habitat disturbance, increased foot traffic, pollution, and additional stress on coastal ecosystems.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High: Effective management practices, such as coastal setback regulations, pollution control, and erosion prevention measures, can greatly reduce the negative impact on the coastal environment.
Degree to which the impact can be mitigated:	Medium-High
Proposed mitigation:	→ Avoidance of sensitive coastal areas, such as high-water mark, coastal risk areas and critical habitats. → Establishment of restricted zones for public access and careful planning of the public footpath to minimize disturbance. → Regular monitoring of the coastal environment for signs of habitat degradation, pollution, and erosion.
Residual impacts:	Even after mitigation, some residual impacts may remain, particularly in terms of slight disturbances to the coastal environment during construction and possible slow recovery of ecosystems.
Cumulative impact post mitigation:	Low- Medium
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (-)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** The post-construction phase of the development is expected to have several socioeconomic impacts, including the creation of job opportunities, stimulation of local businesses, and potential changes in property values and community dynamics. The presence of a new development can affect local employment, access to services, and the cost of living for both current and new residents.
Nature of impact:	Positive
Extent and duration of impact:	Local; Long-term

Consequence of impact or risk:	The consequences could include positive effects, such as economic growth, increased property values, and improved infrastructure.
Probability of occurrence:	High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Irreversible
Indirect impacts:	Changes in the local labour market, with increased demand for both skilled and unskilled workers, potentially raising wage levels but also increasing the cost of living.
Cumulative impact prior to mitigation:	Job creation and improved infrastructure for the local community.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium – High Positive
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Engagement with local stakeholders to understand their needs and ensure the development benefits the local community. → Provision of affordable housing and support for local businesses to prevent displacement and encourage inclusive economic growth
Residual impacts:	Residual impacts may include ongoing changes to the local economy, such as higher property values and increased demand for goods and services, which could lead to higher living costs.
Cumulative impact post mitigation:	Job creation and improved infrastructure will provide long-term benefits to the local community.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (+)
POST-CONSTRUCTION	
Potential impact and risk:	**6. Transport impact** Traffic delay and congestion at intersections and road networks during the operational phase.
Nature of impact:	Negative
Extent and duration of impact:	Local, short-term
Consequence of impact or risk:	Very-low
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low

Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Routine road maintenance by the Roads Authority.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low (-)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**2. Botanical/ Terrestrial Biodiversity impacts** Limited further loss of plant species found in Overberg Dune Strandveld associated with the operational phase
Nature of impact:	No further impact after completion of construction
Extent and duration of impact:	Local; long- term.
Consequence of impact or risk:	The degradation or destruction of remaining indigenous vegetation may lead to a loss of biodiversity, disruption of ecological functions, and reduced aesthetic and recreational value.
Probability of occurrence:	Medium. There is a reasonable likelihood that post-construction activities or passive impacts (e.g., invasive species, human activity) could affect the indigenous vegetation if left unmanaged.
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High While some indigenous vegetation may be restored, the loss of specific species or ecological functions may be irreversible if not actively managed or protected.
Degree to which the impact can be reversed:	Medium
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Medium-High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	N/A
Residual impacts:	Medium
Cumulative impact post mitigation:	Medium
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (-)

POST-CONSTRUCTION PHASE	
Potential impact and risk:	**3. Visual impacts** Contemporary layer added to the cultural landscape. Change in character of the coastal cultural landscape.
Nature of impact:	Negative: Intrusion of buildings in the foreground of a sensitive coastal landscape. Disturbance of an intact coastal landscape.
Extent and duration of impact:	Local; Long term
Consequence of impact or risk:	→ Alteration of the natural coastal aesthetic. → Potential visual intrusion for surrounding properties and public areas. → Loss of the original character and sense of place for the area.
Probability of occurrence:	High
Degree to which the impact may cause irreplaceable loss of resources:	Medium- High: The visual quality of the natural environment is altered, but no irreplaceable physical resources are directly impacted.
Degree to which the impact can be reversed:	Low: Mitigation measures such as landscaping, architectural design, and strategic placement of buildings and infrastructure can reduce visual impacts but cannot fully restore the original coastal landscape.
Indirect impacts:	Altered community perception of the area's character and desirability.
Cumulative impact prior to mitigation:	Medium-High: Combined with other developments in the area, the cumulative effect could significantly alter the visual character of the broader coastal region.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High
Degree to which the impact can be avoided:	Medium- High: Avoidance is possible through careful planning and design, such as limiting development to less visually intrusive areas.
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	→ Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact.

	→ Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space. → Limiting construction to within hoarding areas. → Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public → Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views. → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow. → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property. → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".	
Residual impacts:	Some alteration of the visual landscape will remain, but it can be minimized with effective mitigation. Reduced impact on the sense of place compared to unmitigated scenarios.	
Cumulative impact post mitigation:	There will be some cumulative impact but should mitigation measures be applied this will in time be minimised - Low to Very-low negative.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (-)	High (-)
POST-CONSTRUCTION PHASE		
Potential impact and risk:	**4. Coastal environment** Alteration of the coastal landscape and potential degradation of coastal habitats due to increased human activity, infrastructure maintenance, and waste generation.	
Nature of impact:	Negative	
Extent and duration of impact:	Local; long-term	
Consequence of impact or risk:		
Probability of occurrence:	Moderate to high, depending on the level of ongoing management and adherence to mitigation measures.	

Degree to which the impact may cause irreplaceable loss of resources:	Medium	
Degree to which the impact can be reversed:	Moderate; some impacts, such as vegetation loss, can be reversed with active restoration, but others, such as habitat degradation, may require significant effort or remain irreversible.	
Indirect impacts:	Changes to the aesthetic and recreational value of the coastline.	
Cumulative impact prior to mitigation:	High: The coastal environmental may already be under pressure from other developments and stormwater outlets.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High	
Degree to which the impact can be avoided:	Moderate; impacts can be minimized through careful planning and adherence to coastal management guidelines.	
Degree to which the impact can be managed:	High	
Degree to which the impact can be mitigated:	High	
Proposed mitigation:	→ Establish buffer zones to protect sensitive coastal areas. → Implement long-term monitoring of coastal processes and habitats. → Restrict access to ecologically sensitive areas using signage or fencing. → Restore disturbed vegetation with indigenous coastal plant species. → Regularly remove waste and debris from the site to prevent pollution.	
Residual impacts:	Minor disturbance to natural processes due to human presence and infrastructure maintenance. Reduced habitat quality in some areas if restoration is not fully effective.	
Cumulative impact post mitigation:	Low- Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (-)	High (-)
DECOMMISSIONING AND CLOSURE PHASE		
Potential impact and risk:	N/A	
Nature of impact:	-	
Extent and duration of impact:	-	
Consequence of impact or risk:	-	
Probability of occurrence:	-	
Degree to which the impact may cause irreplaceable loss of resources:	-	
Degree to which the impact can be reversed:	-	
Indirect impacts:	-	
Cumulative impact prior to mitigation:	-	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-	
Degree to which the impact can be avoided:	-	
Degree to which the impact can be managed:	-	
Degree to which the impact can be mitigated:	-	
Proposed mitigation:	-	

Residual impacts:	-
Cumulative impact post mitigation:	-
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-

ALTERNATIVE 4 (PREFERRED)

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**1. Socioeconomic impacts** Job creation (+)
Nature of impact:	Job creation; Positive
Extent and duration of impact:	Local; short-term (construction phase)
Consequence of impact or risk:	**Job Creation**: Positive consequences as it brings economic benefits to local residents, reducing unemployment rates temporarily.
Probability of occurrence:	Job creation: Definite
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Low
Indirect impacts:	Impact on public roads users
Cumulative impact prior to mitigation:	Cumulative impacts on roads and public users
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High (+)
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Prioritize local hiring to maximize job creation for the community. → Ensure construction vehicles are adequately maintained, with proper scheduling and designated routes to minimize disruptions. → Ensure loads are securely fastened to prevent accidents or loss during transportation, which could impact public roads and road users.
Residual impacts:	**Job Creation**: Continued employment during the construction phase, contributing positively to the local economy.
Cumulative impact post mitigation:	**Job Creation**: Positive long-term economic benefits due to employment during construction.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**High positive**

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**2. Transport impact** Increase in traffic volumes due to background traffic growth.
Nature of impact:	Neutral
Extent and duration of impact:	Regional, medium to long-term
Consequence of impact or risk:	Very low:
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Heavy construction traffic should not be allowed on the public road network during the typical a.m. and p.m. peak hours.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**3. Dust** Dust will be generated during the site preparation**.**
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Visual impacts Nuisance for residents adjacent to the site as well as road users.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	N/A
Degree to which the impact can be reversed:	High
Indirect impacts:	Potential for reduced visibility, temporary visual impacts to the general area.

Cumulative impact prior to mitigation:	Dust may be generated as a result of earthmoving machinery required for construction.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low
Degree to which the impact can be avoided:	High
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Maintain ground cover for as long as possible to reduce the total surface area exposed to wind. Do not clear entire plots and rather clear building sites only → Ensure vehicle speed limits on site are kept to a minimum. → Delivery vehicles to keep loads covered. → Cover fine material stockpiles. → Wet dry and dusty surfaces using non-potable water. → Staff to wear correct PPE if dust is generated for long periods. → Road surfaces to be swept and kept clean of sand and fine materials.
Residual impacts:	None
Cumulative impact post mitigation:	Dust generated during construction; mitigation successful
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low Negative
Potential impact and risk:	**4. Noise** Noise generated from vehicles and machinery during the construction phase.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Noise disturbance to transient receptors, i.e motorists, and pedestrians.
Probability of occurrence:	Likely
Degree to which the impact may cause irreplaceable loss of resources:	No resources will be impacted.
Degree to which the impact can be reversed:	High
Indirect impacts:	None
Cumulative impact prior to mitigation:	Noise generated from construction works
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low negative
Degree to which the impact can be avoided:	Low-Medium
Degree to which the impact can be managed:	Low-medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Limit noise levels (e.g. install and maintain silencers on machinery). → Provide protective wear for workers i.e. ear plugs.

	→ Ensure that construction vehicles and machinery are maintained regularly to reduce noise generation. → Restrict construction to normal working hours
Residual impacts:	None
Cumulative impact post mitigation:	Typical noise impacts associated with a construction site
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low Negative
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**5. Visual impacts** Visual Impact may be expected – resulting directly from site clearance, bulk earthworks and removal of existing vegetation; with construction vehicles / building activity causing noise / dust.
Nature of impact:	Negative (visual disturbance to status quo), foreground construction activity.
Extent and duration of impact:	Local: Mid-term
Consequence of impact or risk:	Visual disturbance of status quo, foreground construction activity
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High – Where visual and scenic resources are affected to a limited extent only.
Degree to which the impact can be reversed:	Medium
Indirect impacts:	Increased activities associated with construction (later in time, elsewhere in space)
Cumulative impact prior to mitigation:	Development activity on adjacent properties.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High - Very High (-)
Degree to which the impact can be avoided:	Low-Medium
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low- Medium
Proposed mitigation:	→ Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact.

	→ Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space. → Limiting construction to within hoarding areas. → Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public → Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views. → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow. → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property. → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".
Residual impacts:	Change in sense of place of the coastal landscape
Cumulative impact post mitigation:	Change in character of the coastal cultural landscape (context)
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very- Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**6. Paleontological Heritage** Loss of fossil bones and archaeological material from excavations in the coversands and beach deposits.
Nature of impact:	Positive
Extent and duration of impact:	Local; Regional and National: Permanent
Consequence of impact or risk:	Loss of material palaeontological heritage.
Probability of occurrence:	Possible
Degree to which the impact may cause irreplaceable loss of resources:	Significant Loss may still occur.
Degree to which the impact can be reversed:	Irreversible
Indirect impacts:	Enriched landscape geohistory.
Cumulative impact prior to mitigation:	Some fossils are rescued for posterity and available for scientific study.

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low – Medium Positive
Degree to which the impact can be avoided:	Low. The locations of fossil bones in the deposits cannot be predicted.
Degree to which the impact can be managed:	Low. There is a high risk of valuable fossils being lost despite management actions to mitigate such loss.
Degree to which the impact can be mitigated:	Moderate
Proposed mitigation:	→ For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made. → It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the proposed development. → The Fossil Finds Procedure provides guidelines to be followed in the event of fossil bone finds in the excavations. The works supervisor/foreman and workers involved in excavating the building foundations, infrastructure trenches and stormwater drainage must be informed of the need to watch for fossils and archaeological material. Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find. → If a significant occurrence of fossil bones in a palaeontological context is discovered a professional palaeontologist must be appointed to collect them and to record their contexts. Said palaeontologist must also undertake the recording of the stratigraphic context and sedimentary geometry of the exposure, the sampling of ambient small fossil content and the compilation of the report for distribution to Heritage Western Cape, SAHRA, the approved curatorial institution and local heritage interest groups. → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.

Residual impacts:	Permanent loss of fossils and the associated scientific implications	
Cumulative impact post mitigation:	Positive – Discovery of new fossil evidence	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (+)	Medium (+)
PLANNING, DESIGN AND DEVELOPMENT PHASE		
Potential impact and risk:	**7. Archaeological Impact** Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations.	
Nature of impact:	Negative	
Extent and duration of impact:	Local: short-term	
Consequence of impact or risk:	Excavations for building foundations and services may uncover buried archaeological deposits.	
Probability of occurrence:	Probable	
Degree to which the impact may cause irreplaceable loss of resources:	Low	
Degree to which the impact can be reversed:	High	
Indirect impacts:	Archaeological resources being discovered.	
Cumulative impact prior to mitigation:	Archaeological resources being discovered.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low	
Degree to which the impact can be avoided:	High	
Degree to which the impact can be managed:	High	
Degree to which the impact can be mitigated:	High	
Proposed mitigation:	→ No archaeological mitigation is needed prior to construction excavations commencing. → Archaeological monitoring of building foundations a services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist. → The above recommendations must be incorporated into the Environmental Management Plan (EMP) for the proposed development.	
Residual impacts:	Potential discovery of Archaeological sites.	
Cumulative impact post mitigation:	Potential discovery of Archaeological sites.	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	**Low (-)**	

PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**8. Heritage Impact** ***Palaeontology*** The possible presence of fossils in the subsurface does not have a priori influence on the decision to proceed with the proposed development. ***Archaeology*** Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations and services but the probability of this occurring, is considered to be Low. ***Visual Impacts*** The development is proposed to occupy a portion of the coastline which is pristine and with no adjacent development to form a continuous pattern.
Nature of impact:	***Palaeontology*** – Positive ***Archaeology*** – Negative ***Visual*** – Negative
Extent and duration of impact:	Local; Permanent
Consequence of impact or risk:	***Palaeontology*** – Loss of material palaeontological heritage. ***Archaeology*** - The proposed development on the property will likely impact the on important Stone Age archaeological resources. ***Visual/Heritage Resources*** - Impact on visual heritage due to development in a pristine, undeveloped coastal area.
Probability of occurrence:	***Palaeontology*** – Likely ***Archaeology*** – Unlikely ***Visual/ Heritage Resource*** – Likely
Degree to which the impact may cause irreplaceable loss of resources:	***Palaeontology*** – Significant loss may still occur. ***Archaeology*** – Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations and services but the probability of this occurring, is considered to be Low. ***Visual/ Heritage Resources*** - Irreplaceable loss of pristine, undeveloped coastal aesthetic due to development.
Degree to which the impact can be reversed:	***Palaeontology*** – Irreversible ***Archaeology*** – Reversible, provided excavation protocols are followed and materials are conserved appropriately. ***Visual/ Heritage*** – Irreversible, as once the development occurs, the pristine coastline cannot be restored.
Indirect impacts:	***Palaeontology*** – Enriched landscape geo-history

	Archaeology – Indications are that a proposed housing development on re Farm 218 – RE (seafront) does not pose a significant threat to local Stone Age archaeological resources. ***Visual*** – Loss of coastal aesthetic affects community access to a natural setting, which may lead to social impacts on visitors and residents.
Cumulative impact prior to mitigation:	***Palaeontology*** - Permanent loss of fossils and the associated scientific implications. ***Archaeology*** – Indications are that a proposed housing development on re Farm 218 – Re (seafront) does not pose a significant threat to local Stone Age archaeological resources. ***Visual/ Heritage*** – Cumulative impacts on visual intrusion due to loss of pristine, undeveloped coastal aesthetics.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	***Palaeontology*** – Low ***Archaeology*** – Low ***Visual*** – Medium
Degree to which the impact can be avoided:	***Palaeontology*** – Low. The locations of fossil bones in the deposits cannot be predicted. ***Archaeology*** – Low. The probability of uncovering significant archaeological remains is low. ***Visual*** – Low. The impact on visual heritage cannot be entirely avoided due to the coastal location of the development.
Degree to which the impact can be managed:	***Palaeontology*** – Low. There is a high risk of valuable fossils being lost despite management actions to mitigate such loss. ***Archaeology*** – Low. The development does not pose a significant threat to local Stone Age archaeological resources, but monitoring during construction is necessary. ***Visual*** – Moderate. Management through landscaping, architectural guidelines, and adherence to visual planning can reduce visual intrusion.
Degree to which the impact can be mitigated:	***Palaeontology*** – Moderate. Mitigation efforts can reduce the likelihood of irreversible loss of fossils, but the impact cannot be fully mitigated. ***Archaeology*** – Low. No significant mitigation is required, but archaeological monitoring is recommended during construction. ***Visual*** – Moderate. Effective design and planning (including appropriate landscaping, visual screening, and construction controls) can reduce visual impacts.
Proposed mitigation:	***Palaeontology*** → For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made. It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP) is included in the Environmental Management Plan (EMP) for the proposed development. → The field supervisor/foreman and workers involved in excavations must be informed of the need to watch for fossil bones and archaeological material. Workers seeing potential

	objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby archaeologist or palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find. → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense ***Archaeology*** → No archaeological mitigation is needed prior to construction excavations commencing. → Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist. → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist. ***Visual*** → Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact. → Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing

<table>
<tr><td colspan="2"></td><td colspan="2">green buffers. Keeping the significant portion along Spookdraai as an open space.
→ Limiting construction to within hoarding areas.
→ Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public
→ Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views.
→ Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow.
→ The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a “solid” wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property.
→ The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated “green roofs”.</td></tr>
<tr><td colspan="2">Residual impacts:</td><td colspan="2">Palaeontology – Positive, as the development could lead to the discovery of new fossil records.
Archaeology – No significant residual impacts, as the archaeological resources are not significantly threatened by the development.
Visual – Ongoing visual impact on the coastal landscape due to the development but mitigated by design.</td></tr>
<tr><td colspan="2">Cumulative impact post mitigation:</td><td colspan="2">Palaeontology – Potential discovery of new fossil records.
Archaeology – No significant cumulative impact, as mitigation measures ensure the conservation of archaeological resources.
Visual – Cumulative impacts on visual aesthetics but mitigated through the careful planning and implementation of design guidelines.</td></tr>
<tr><td rowspan="3">Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)</td><td>Palaeontology</td><td>Low (+)</td><td>Medium (+)</td></tr>
<tr><td>Archaeology</td><td colspan="2">Low (-)</td></tr>
<tr><td>Visual</td><td colspan="2">Very-Low (-)</td></tr>
<tr><td colspan="2"></td><td colspan="2"></td></tr>
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PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**9. Botanical** Impact on botanical and biodiversity aspects of the site.
Nature of impact:	Negative: Loss of natural vegetation i.e. Southwestern Strandveld
Extent and duration of impact:	Local; Long-term
Consequence of impact or risk:	Loss of Southwestern Strandveld
Probability of occurrence:	Probable
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Irreversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Contribution to loss of Southwestern Strandveld
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium negative
Degree to which the impact can be avoided:	Very Low
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	Since the western end of the site supporting Agulhas Limestone Fynbos would remain intact, Alternative 4 mitigates the effect of both Alternative 2 and Alternative 3 since the western end of the site would not be developed.
Residual impacts:	Medium negative
Cumulative impact post mitigation:	Low negative
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
PLANNING, DESIGN AND DEVELOPMENT PHASE	
Potential impact and risk:	**10. Coastal environment** The proposed development may result in disturbance to the coastal environment, impacting the delicate coastal ecosystem, including marine habitats, and adjacent shoreline areas.
Nature of impact:	Negative
Extent and duration of impact:	Local; short-term
Consequence of impact or risk:	Low-Medium: The consequences include potential degradation of coastal habitats, disruption to coastal ecosystems, disturbance to flora and fauna, and possible loss of beach area due to coastal erosion. These consequences may result in loss of biodiversity and the aesthetic value of the area.

Probability of occurrence:	Medium- High: Given the proximity of the site to sensitive coastal areas and the nature of the proposed development, there is a high probability of impact.	
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High	
Degree to which the impact can be reversed:	Medium	
Indirect impacts:	Potential pollution and increased human activity may impact the coastal environment including marine life.	
Cumulative impact prior to mitigation:	High: habitat disturbance, increased foot traffic, pollution, and additional stress on coastal ecosystems.	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	High	
Degree to which the impact can be avoided:	Medium	
Degree to which the impact can be managed:	High: Effective management practices, such as coastal setback regulations, pollution control, and erosion prevention measures, can greatly reduce the negative impact on the coastal environment.	
Degree to which the impact can be mitigated:	Medium-High	
Proposed mitigation:	→ Avoidance of sensitive coastal areas, such as high-water mark, coastal risk areas and critical habitats. → Establishment of restricted zones for public access and careful planning of the public footpath to minimize disturbance. → Regular monitoring of the coastal environment for signs of habitat degradation, pollution, and erosion.	
Residual impacts:	Even after mitigation, some residual impacts may remain, particularly in terms of slight disturbances to the coastal environment during construction and possible slow recovery of ecosystems.	
Cumulative impact post mitigation:	Low- Medium	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)	Medium (-)
POST-CONSTRUCTION PHASE		
Potential impact and risk:	**1. Socioeconomic impacts** The post-construction phase of the development is expected to have several positive socioeconomic impacts, including the creation of job opportunities, stimulation of local businesses, and potential changes in property values and community dynamics. The presence of a new development can affect local employment, access to services, and the cost of living for both current and new residents.	
Nature of impact:	Positive	
Extent and duration of impact:	Local; Long-term	

Consequence of impact or risk:	The consequences could include positive effects, such as economic growth, increased property values, and improved infrastructure.
Probability of occurrence:	High
Degree to which the impact may cause irreplaceable loss of resources:	Low
Degree to which the impact can be reversed:	Irreversible
Indirect impacts:	Changes in the local labour market, with increased demand for both skilled and unskilled workers, potentially raising wage levels but also increasing the cost of living.
Cumulative impact prior to mitigation:	Job creation and improved infrastructure for the local community.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium – High Positive
Degree to which the impact can be avoided:	Medium
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	→ Engagement with local stakeholders to understand their needs and ensure the development benefits the local community. → Provision of affordable housing and support for local businesses to prevent displacement and encourage inclusive economic growth
Residual impacts:	Residual impacts may include ongoing changes to the local economy, such as higher property values and increased demand for goods and services, which could lead to higher living costs.
Cumulative impact post mitigation:	Job creation and improved infrastructure will provide long-term benefits to the local community.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium (+)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**2. Transport impact** Increase in traffic volumes due to background traffic growth.
Nature of impact:	Neutral
Extent and duration of impact:	Regional, medium to long-term
Consequence of impact or risk:	Very low:
Probability of occurrence:	Definite
Degree to which the impact may cause irreplaceable loss of resources:	None
Degree to which the impact can be reversed:	Reversible
Indirect impacts:	None
Cumulative impact prior to mitigation:	Low

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	Medium
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	Routine road maintenance by the Roads Authority.
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-low (-)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**3. Botanical/ Terrestrial Biodiversity impacts** The post-construction phase may result in the disturbance or destruction of remaining indigenous vegetation, especially due to ongoing human activity, site management, or potential degradation through invasive species.
Nature of impact:	No further impact after completion of construction
Extent and duration of impact:	Eastern portion of the site; long-term
Consequence of impact or risk:	The degradation or destruction of remaining indigenous vegetation may lead to a loss of biodiversity, disruption of ecological functions, and reduced aesthetic and recreational value.
Probability of occurrence:	Medium. There is a reasonable likelihood that post-construction activities or passive impacts (e.g., invasive species, human activity) could affect the indigenous vegetation if left unmanaged.
Degree to which the impact may cause irreplaceable loss of resources:	Medium-High While some indigenous vegetation may be restored, the loss of specific species or ecological functions may be irreversible if not actively managed or protected.
Degree to which the impact can be reversed:	Medium
Indirect impacts:	N/A
Cumulative impact prior to mitigation:	Medium-High
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High
Degree to which the impact can be avoided:	Low
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	Medium
Proposed mitigation:	N/A
Residual impacts:	Low
Cumulative impact post mitigation:	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)

POST-CONSTRUCTION PHASE	
Potential impact and risk:	**4. Visual impacts** → Transformation of the site from a coastal landscape to residential (change in 'sense of place') o Change in character of the coastal cultural landscape o Visual intrusion of new buildings o Change in sense of place of the coastal landscape.
Nature of impact:	Negative: Intrusion of buildings in the foreground of a sensitive coastal landscape. Disturbance of an intact coastal landscape.
Extent and duration of impact:	Local; Long term
Consequence of impact or risk:	→ Alteration of the natural coastal aesthetic. → Potential visual intrusion for surrounding properties and public areas. → Loss of the original character and sense of place for the area.
Probability of occurrence:	**High**
Degree to which the impact may cause irreplaceable loss of resources:	**Medium- High**: The visual quality of the natural environment is altered, but no irreplaceable physical resources are directly impacted.
Degree to which the impact can be reversed:	**Low**: Mitigation measures such as landscaping, architectural design, and strategic placement of buildings and infrastructure can reduce visual impacts but cannot fully restore the original coastal landscape.
Indirect impacts:	Altered community perception of the area's character and desirability.
Cumulative impact prior to mitigation:	**Medium-High:** Combined with other developments in the area, the cumulative effect could significantly alter the visual character of the broader coastal region.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High
Degree to which the impact can be avoided:	**Medium- High:** Avoidance is possible through careful planning and design, such as limiting development to less visually intrusive areas.
Degree to which the impact can be managed:	Low
Degree to which the impact can be mitigated:	Low
Proposed mitigation:	→ Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced. → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of

	the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact. → Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space. → Limiting construction to within hoarding areas. → Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public → Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views. → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow. → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property. → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".
Residual impacts:	Some alteration of the visual landscape will remain, but it can be minimized with effective mitigation. Reduced impact on the sense of place compared to unmitigated scenarios.
Cumulative impact post mitigation:	There will be some cumulative impact but should mitigation measures be applied this will in time be minimised - Low to Very-low negative.
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very-Low (-)
POST-CONSTRUCTION PHASE	
Potential impact and risk:	**5. Coastal environment** Alteration of the coastal landscape and potential degradation of coastal habitats due to increased human activity, infrastructure maintenance, and waste generation.
Nature of impact:	Negative

Extent and duration of impact:	Local; long-term
Consequence of impact or risk:	
Probability of occurrence:	Moderate to high, depending on the level of ongoing management and adherence to mitigation measures.
Degree to which the impact may cause irreplaceable loss of resources:	Medium
Degree to which the impact can be reversed:	Moderate; some impacts, such as vegetation loss, can be reversed with active restoration, but others, such as habitat degradation, may require significant effort or remain irreversible.
Indirect impacts:	Changes to the aesthetic and recreational value of the coastline.
Cumulative impact prior to mitigation:	High: The coastal environmental may already be under pressure from other developments and stormwater outlets.
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Medium-High
Degree to which the impact can be avoided:	Moderate; impacts can be minimized through careful planning and adherence to coastal management guidelines.
Degree to which the impact can be managed:	High
Degree to which the impact can be mitigated:	High
Proposed mitigation:	→ Establish buffer zones to protect sensitive coastal areas. → Implement long-term monitoring of coastal processes and habitats. → Restrict access to ecologically sensitive areas using signage or fencing. → Restore disturbed vegetation with indigenous coastal plant species. → Regularly remove waste and debris from the site to prevent pollution.
Residual impacts:	Minor disturbance to natural processes due to human presence and infrastructure maintenance. Reduced habitat quality in some areas if restoration is not fully effective.
Cumulative impact post mitigation:	Low- Medium
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Low (-)
DECOMMISSIONING AND CLOSURE PHASE	
Potential impact and risk:	N/A
Nature of impact:	-
Extent and duration of impact:	-
Consequence of impact or risk:	-
Probability of occurrence:	-
Degree to which the impact may cause irreplaceable loss of resources:	-
Degree to which the impact can be reversed:	-
Indirect impacts:	-
Cumulative impact prior to mitigation:	-

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-
Degree to which the impact can be avoided:	-
Degree to which the impact can be managed:	-
Degree to which the impact can be mitigated:	-
Proposed mitigation:	-
Residual impacts:	-
Cumulative impact post mitigation:	-
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	-

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

1.	Provide a summary of the findings and impact management measures identified by all Specialist and an indication of how these findings and recommendations have influenced the proposed development.

Terrestrial Biodiversity and Botanical Assessment

Vegetation

→ The site falls within the Southern Coastal Bioregion, with the dominant vegetation type identified as Overberg Dune Strandveld
→ A subordinate role is played by Cape Seashore Vegetation, typically found on beaches but less prevalent at this site due to its rocky coastline.
→ No Agulhas Limestone Fynbos occurs on-site; this vegetation type is located further inland.
→ The vegetation includes *halophytes* (salt-tolerant plants), consistent with the saline coastal environment.
→ No plant species of conservation concern identified.

Site Terrain and Vegetation characteristics

→ The terrain consists of moderately sloping windswept aeolian sand above a rocky shoreline of Table Mountain Group sandstone.
→ The western portion of the site includes a sandy beach transitioning to Strandveld vegetation on steeper inland slopes.
→ Erosion of aeolian sand was noted, caused by stormwater outflow from a culvert at Marine Drive.

Invasive Species

→ Invasive Alien species such as *Plantago maritima, Reseda lutea,* and *Lagunaria patersoniae* were observed, likely introduced from nearby gardens.
→ Acacia cyclops, previously prominent on-site, has been partially removed, though smaller specimens remain and require further management to prevent regrowth.

Conclusions and Recommendations

→ Two vegetation types are found in the designated study area on Rem Paapekuilsfontein 218, Bredasdorp, namely Overberg Dune Strandveld and Cape Seashore Vegetation. On a regional and national scale Overberg Dune Strandveld is considered Endangered and Cape Seashore Vegetation as Least Threatened.
→ There is agreement between the findings of this study and the WCBSP, RLE classification and the screening tool sensitivity rating for plant species. However, the terrestrial biodiversity rating of High to Very High by the screening tool is not supported by this study. The use by the screening tool of the Agulhas National Park buffer and the ESA1 conservation results in an overemphasis of the terrestrial biodiversity sensitivity. This sensitivity should be no more than Medium.
→ Alien invasive plant species are no longer a problem on the site, since they have been removed. Should the development of the site not proceed the re-infestation of the site by *Acacia cyclops* should be monitored and the plants removed as necessary.

Influence on Proposed Development

→ The findings have shaped the development layout to avoid critical areas, including those with significant Strandveld vegetation and eroded slopes.
→ Recommendations for erosion control and invasive species management have been incorporated into the impact mitigation plan.
→ Ecological corridors have been included to maintain the integrity of the vegetation and facilitate connectivity.
→ *The Terrestrial Biodiversity and Botanical impact post mitigation, for the preferred Alternative 4, is* ***low negative.***

Heritage Impact Assessment

The Heritage Impact Report included Paleontological, Archaeological and Visual Impact Assessment.

Palaeontology

→ The site primarily comprises the Peninsula Formation with potential underlying deposits of Klein Brak and Strandveld Formations.
→ The Peninsula Formation is considered high sensitivity due to potential trace fossils. Klein Brak and Strandveld Formations are considered low sensitivity due to their general composition and the likelihood of modern species.
→ The proposed development is not expected to significantly impact the palaeontological resources.

Impact Management Measures

→ For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made.
→ It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the proposed development.
→ The Fossil Finds Procedure provides guidelines to be followed in the event of fossil bone finds in the excavations. The works supervisor/foreman and workers involved in excavating the building foundations, infrastructure trenches and stormwater drainage must be informed of the need to watch for fossils and archaeological material. Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find.
→ If a significant occurrence of fossil bones in a palaeontological context is discovered a professional palaeontologist must be appointed to collect them and to record their contexts. Said palaeontologist must also undertake the recording of the stratigraphic context and sedimentary geometry of the exposure, the sampling of ambient small fossil content and the compilation of the report for distribution to Heritage Western Cape, SAHRA, the approved curatorial institution and local heritage interest groups.
→ A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.
→ The impact on Palaeontology for preferred Alternative 4 is low / medium positive

Archaeology

→ The area has a rich archaeological history, particularly in terms of Later Stone Age shell middens and colonial-era remains.
→ A field survey identified minimal archaeological remains, primarily shellfish fragments and a few lithic artifacts.

→ The proposed development is not expected to have a significant impact on archaeological resources.

Impact Management Measures

→ No archaeological mitigation is needed prior to construction excavations commencing.
→ Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist
→ If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.
→ The impact on Archaeology for preferred Alternative 4 is low negative

Cultural landscape and Visual Impact

→ The site is situated within a semi-rural cultural landscape of high visual significance and aesthetic value.
→ The site has a high visual sensitivity due to its coastal location and scenic qualities.
→ The proposed development, if not carefully designed, could negatively impact the visual character and public access to the coastal landscape.

Impact Management Measures

→ Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced.
→ In addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines must be strictly adhered to to ensure long-term mitigation of the visual intrusion and impact
→ The residential visual impact for preferred alternative 4 is very low negative

Visual Impact Assessment

Visual Resources

→ The site boasts a scenic coastal landscape with intact indigenous vegetation.
→ The broader Overberg region features rolling hills and agricultural patterns.
→ The area transitions from rural landscapes to flat plains with minor hills as you approach Struisbaai.
→ The site lies at a bend in the main access road (Marine Drive) connecting Struisbaai and Agulhas, offering scenic views.
→ The surrounding area is a popular tourist destination due to its proximity to Cape Agulhas.
→ The vegetation is classified as Overberg sandstone fynbos, with four endangered species present.

Landscape Character Analysis

The site sits along the Struisbaai coast, nestled at the foot of small hills.

The coastline is rugged with a sense of wilderness and untouched vegetation.

Residential development exists, but the overall feel is exposed and natural.

The site offers views towards the sea and surrounding areas, further emphasized by the bend in the road.

Key Findings

→ The intactness of the coastal landscape and lack of visual intrusions enhance the scenic quality.
→ Although partially altered, the adjacent area remains part of a high-quality coastal landscape.
→ The site's position makes it highly visible from surrounding areas and Marine Drive.
→ The view catchment area is relatively small, but views are significant due to the unique coastal setting.

Impact Assessment

The development is likely to cause negative visual impacts during construction due to:

→ Site clearance and earthworks.
→ Removal of existing vegetation.
→ Noise and dust from construction activities.
→ Disruption of the existing visual character.

Mitigation Measures

→ The findings from the Visual Impact Assessment have significantly influenced the proposed development:
→ Previous iterations with increased erven and reduced open space were rejected due to limited visual access and pedestrian access.
→ The design prioritizes maintaining the visual character of the landscape.
→ Strict architectural guidelines and landscape plans will ensure compatibility with the surroundings.
→ Public access to the coastal area and amenities will be maintained.
→ Building height, massing, and materials will be carefully considered to minimize visual intrusion.
→ Effective landscaping measures will be implemented to soften the development's impact.

Palaeontological Impact Assessment

Key Findings

→ The proposed development site is primarily composed of the Peninsula Formation, with potential underlying deposits of Klein Brak and Strandveld Formations.
→ The Peninsula Formation is considered highly sensitive due to potential trace fossils.
→ The Klein Brak and Strandveld Formations are considered low sensitivity due to their general composition and the prevalence of modern species.
→ The site's coastal location and potential for storm surges could impact subsurface deposits.

Impact Assessment

→ The proposed development, while not expected to significantly impact palaeontological resources, has the potential to disturb the subsurface deposits.
→ The primary concern is the potential impact on land and marine animal bones and archaeological material.

Management and Mitigation measures

→ Although the inspection of construction excavations may be specified in the Archaeological Impact Assessment, it is not feasible for a specialist monitor to be continuously present during the Construction Phases, when fossils may be unearthed at any time. The rescue of fossil bones during earth works critically depends on spotting this material as it is uncovered during digging.
→ For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made.
→ It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the proposed development.

→ The Fossil Finds Procedure provides guidelines to be followed in the event of fossil bone finds in the excavations. The works supervisor/foreman and workers involved in excavating the building foundations, infrastructure trenches and stormwater drainage must be informed of the need to watch for fossils and archaeological material. Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find.

→ If a significant occurrence of fossil bones in a palaeontological context is discovered a professional palaeontologist must be appointed to collect them and to record their contexts. Said palaeontologist must also undertake the recording of the stratigraphic context and sedimentary geometry of the exposure, the sampling of ambient small fossil content and the compilation of the report for distribution to Heritage Western Cape, SAHRA, the approved curatorial institution and local heritage interest groups.

→ A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.

Archaeological Impact Assessment

Key findings

→ The Agulhas region has a rich archaeological history dating back over a million years, with significant Later Stone Age (LSA) sites.

→ A field survey identified minimal archaeological remains, primarily shellfish fragments and a few lithic artifacts.

→ The site's location and the nature of the proposed development pose a low risk to significant archaeological resources.

Impact Assessment

→ The proposed development is unlikely to have a significant impact on important Stone Age archaeological resources.

Impact Management measures

→ No archaeological mitigation is needed prior to construction excavations commencing.

→ Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist.

→ If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.

2.	List the impact management measures that were identified by all Specialist that will be included in the EMPr

Botanical impacts

→ Erect weatherproof fencing around the construction area and mark all areas outside of this as no-go

→ Fencing off the western portion of the site as a no-go during the development to prevent extensive vegetation loss.

→ Restoration of the western portion of the site to maintain revegetation growth.

→ Extensive landscaping and exotic gardens are not permitted

Heritage Impact Assessment

Palaeontology

- → Although the inspection of construction excavations may be specified in the Archaeological Impact Assessment, it is not feasible for a specialist monitor to be continuously present during the Construction Phases, when fossil bones may be unearthed at any time. The rescue of fossil bones during earth works critically depends on spotting this material as it is uncovered during digging. For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made. It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP) is included in the Environmental Management Plan (EMP) for the proposed development.
- → The field supervisor/foreman and workers involved in excavations must be informed of the need to watch for fossil bones and archaeological material. Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby archaeologist or palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find.
- → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.

Archaeology

- → No archaeological mitigation is needed prior to construction excavations commencing.
- → Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist.
- → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.

Visual

- → Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced.
- → In addition, it is recommended that the heritage, landscape and visual indicators are implemented, and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact.
- → Public access to the beach on subdivision 8 must be provided via the public walkway on subdivision 7.

Visual Impact Assessment

- → Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced.
- → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the

limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact.

→ Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space.

→ Limiting construction to within hoarding areas.

→ Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public

→ Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views.

→ Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow.

→ The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture (fig. 61). All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property.

→ The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".

Palaeontological Impact Assessment

→ The possible presence of fossils in the subsurface does not have an *a priori* influence on the decision to proceed with the proposed development. However, mitigation measures are essential. The potential impact has a moderate influence upon the proposed project, consisting of implemented mitigation measures recommended below, to be followed during the Construction Phase.

→ Although the inspection of construction excavations may be specified in the Archaeological Impact Assessment, it is not feasible for a specialist monitor to be continuously present during the Construction Phases, when fossils may be unearthed at any time. The rescue of fossil bones during earth works critically depends on spotting this material as it is uncovered during digging.

→ For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made.

→ It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the proposed development.

→ The Fossil Finds Procedure provides guidelines to be followed in the event of fossil bone finds in the excavations. The works supervisor/foreman and workers involved in excavating the building foundations, infrastructure trenches and stormwater drainage must be informed of the need to watch for fossils and archaeological material.

→ Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find.

→ If a significant occurrence of fossil bones in a palaeontological context is discovered a professional palaeontologist must be appointed to collect them and to record their contexts. Said palaeontologist must also undertake the recording of the stratigraphic context and sedimentary geometry of the exposure, the sampling of ambient small fossil content and the compilation of the report for distribution to Heritage Western Cape, SAHRA, the approved curatorial institution and local heritage interest groups.

→ A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their

contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.

Archaeological Impact Assessment

→ No archaeological mitigation is needed prior to construction excavations commencing.
→ Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist.
→ If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.

3.	List the specialist investigations and the impact management measures that will **not** be implemented and provide an explanation as to why these measures will not be implemented.

None that the EAP is aware of.

4.	Explain how the proposed development will impact the surrounding communities.

Positive Impacts

→ The proposed development will generate employment opportunities during the construction phase, benefiting the local workforce and supporting economic activity in the region.

→ The development will contribute to the economic growth of the area, as new residents increase income spending on local goods, services, and amenities, further stimulating the local economy.

Negative Impacts

→ The transformation of the site from a vacant coastal landscape to a residential development may alter the individual sense of place for community members who value the undeveloped character of the land.

→ The introduction of housing and associated infrastructure will result in visual changes to the coastal landscape, potentially affecting the aesthetic quality of the area and its scenic appeal.

5.	Explain how the risk of climate change may influence the proposed activity or development and how has the potential impacts of climate change been considered and addressed.

N/A

6.	Explain whether there are any conflicting recommendations between the specialists. If so, explain how these have been addressed and resolved.

None that the EAP is aware of.

7.	Explain how the findings and recommendations of the different specialist studies have been integrated to inform the most appropriate mitigation measures that should be implemented to manage the potential impacts of the proposed activity or development.

The integration of the findings and recommendations from the different specialist studies has been crucial in informing the mitigation measures to manage the potential impacts of the proposed development. The comprehensive approach ensures that the development minimizes negative environmental, cultural, and visual impacts while maximizing positive outcomes for the community and surrounding ecosystem.

Terrestrial Biodiversity Assessment

The Terrestrial Biodiversity Assessment identified the presence of indigenous vegetation and sensitive ecological areas on the site. This information was critical in guiding the development's layout to avoid senstive ecological areas, thereby

minimizing the disturbance to these sensitive habitats. To further mitigate potential impacts, the layout includes ecological corridors, which help preserve biodiversity by maintaining habitat connectivity. Additionally, phased vegetation clearing has been proposed to reduce the extent of disturbance, and an invasive species management plan will be implemented to prevent the spread of non-native plant species. The replanting of indigenous flora is another important mitigation measure that will aid in restoring natural vegetation and enhancing ecological integrity on the site.

Heritage Impact Assessment

The Heritage Impact Assessment highlighted the site's location within a coastal cultural landscape of Grade IIIA significance, emphasizing its visual and contextual importance. In response to this, the development design has been carefully planned to preserve key landscape features and ensure that public access to culturally significant areas is maintained. To address the visual impact of the development, mitigation measures such as the inclusion of visual buffers have been incorporated. These buffers, along with the use of appropriate architectural styles and materials, will help reduce the visual intrusion of the development and ensure that it complements the surrounding environment. This approach respects the heritage value of the area and aims to minimize any disruption to the sense of place for both residents and visitors.

Visual Impact Assessment

The Visual Impact Assessment recognized the site's visual sensitivity, particularly due to its coastal location and high visibility from both public and private areas. To mitigate these visual impacts, the development incorporates landscaping plans that focus on using natural vegetation to screen the structures from view. This approach helps to integrate the development into the surrounding landscape, reducing its prominence. Additionally, the design of the buildings takes into account the height and materials used, ensuring that they blend with the natural environment. These measures are aimed at reducing the visual intrusion of the development while preserving the aesthetic value of the coastal landscape.

8.	Explain how the mitigation hierarchy has been applied to arrive at the best practicable environmental option.

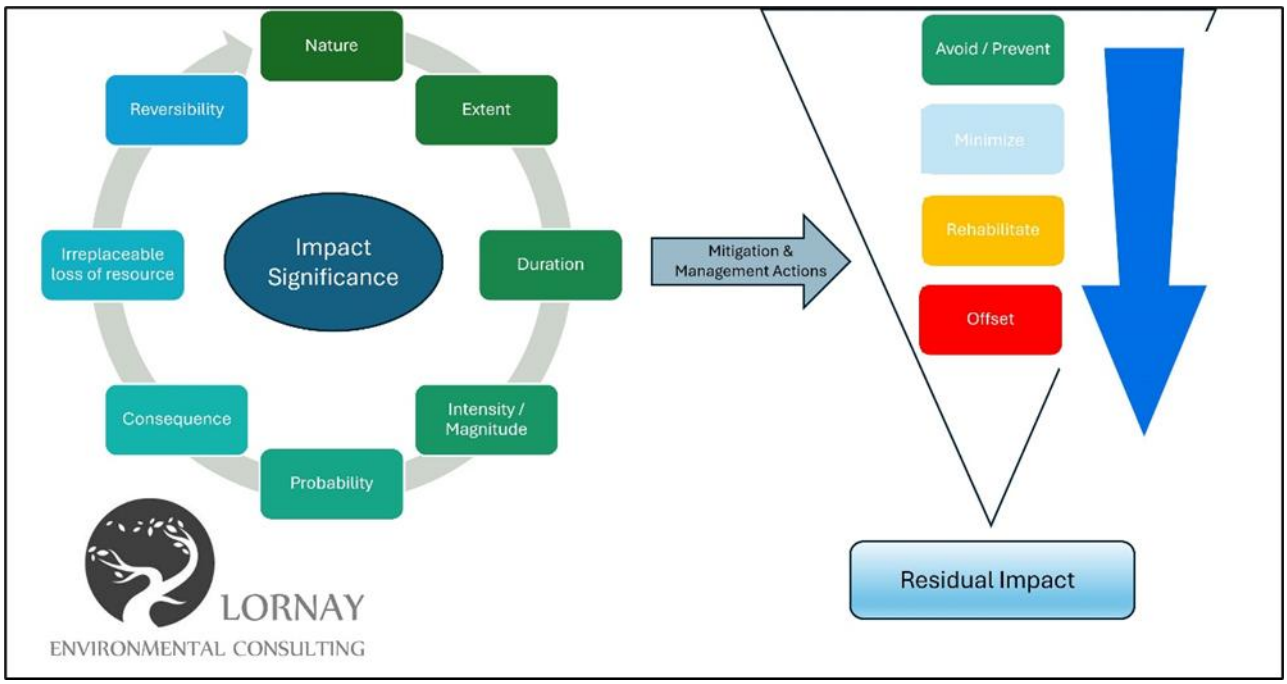

Figure 38: Mitigation hierarchy

The mitigation hierarchy, as stipulated by the National Environmental Management Act (NEMA), has been rigorously applied to ensure the best practicable environmental option for the proposed Spookdraai Residential development in Struisbaai. Three core stages, including avoidance, minimization, and rehabilitation have been applied as far as practically

possible, resulting in the adoption of Alternative 4 as the preferred development layout. This alternative reflects a strategic balance between achieving project objectives and preserving the sensitive coastal environment.

Avoidance

The initial step in the mitigation hierarchy involves avoiding impacts on environmentally sensitive areas. Given the site's location along the Struisbaai coastal strip, this was critical in preserving its ecological and visual integrity. . The three initial alternatives (Alternatives 1–3) were assessed but deemed unsuitable for several reasons, including inadequate provision for coastal access, lack of inclusion and consideration of coastal risk zones and increased exposure to coastal risks such as storm surges and erosion. Additionally, these layouts failed to account for sensitive vegetation within the western boundary of the property and cultural heritage resources on the site.

Alternative 4 was developed in response to these shortcomings, incorporating recommendations from the specialist team. The revised layout ensures that all residential erven are situated above the 5 m contour line, thereby avoiding coastal risk zones. Furthermore, it minimizes the loss of medium sensitive vegetation on the western portion of the site and preserves significant cultural heritage resources. By proactively addressing these constraints, the avoidance measures embedded in Alternative 4 safeguard the ecological and cultural integrity of the site while mitigating potential future risks that might be posed to the proposed development and the receiving environment at large.

Minimization

Following avoidance, minimization measures were implemented to address residual impacts. This was achieved by refining building lines and incorporating buffer zones to protect sensitive coastal features. The now preferred layout, Alternative 4 strategically integrates larger open spaces to retain natural ecosystems, enhance ecological connectivity, and reduce habitat fragmentation. In particular, the western portion of the site has been designated as open space, with a designated public walkway providing public coastal access.

Visual impacts were another key consideration due to the site's high visibility along the coastal strip. Design modifications, such as low-profile buildings and naturalistic layouts, ensure that the development harmonizes with the surrounding landscape. These adjustments not only mitigate visual intrusion but also maintain the aesthetic value of the area, aligning with the broader goal of sustainable land use.

Rehabilitation

In cases where impacts are unavoidable or cannot be minimised, the next step in the mitigation hierarchy is rehabilitation or restoration of impacted and remaining areas. The proposed development involves the clearance of indigenous vegetation on the development footprint, which in this case is not avoidable, therefore, where disturbances are inevitable, undeveloped areas must be rehabilitated. Vegetation restoration along the edge of the main road will be prioritized to screen the development and reduce visual intrusion of the development, the same rehabilitation will be applied to the Western open space erf. This process will involve strict adherence to landscape architectural guidelines, ensuring that indigenous vegetation is re-established to blend seamlessly with the natural surroundings of the area. Such efforts are integral to preserving the scenic and cultural heritage of the area and maintain a generous green edge of indigenous vegetation with no exotic trees or manicured gardens.

Offset

Where impacts could not be fully avoided, minimised or rehabilitated the Offset requirements in terms of the Biodiversity Offset regulations are appliable. For this small-scale type of development, the Biodiversity Offset requirements are not applicable. In addition, the Terrestrial Impact after mitigation for Alternative 4 is low, therefore the Biodiversity Offset Regulations are not triggered and require no further investigation.

SECTION J: GENERAL

1. Environmental Impact Statement

1.1.	Provide a summary of the key findings of the EIA.

Botanical Assessment Findings

→ The assessment highlights that the eastern portion of the site is Southwestern Strandveld vegetation type, whereas the western portion is Agulhas Limestone fynbos vegetation.
→ The terrain is moderately sloping consisting of deep aeolian sand above a rocky shoreline consisting of Table Mountain Group sandstone. The western part of the site has a sandy beach with the toe of the slope having a margin of Cape Seashore Vegetation with the steeper slope inland and above the beach being vegetated by Strandveld and limestone fynbos.
→ There is ongoing disturbance effects on the coastal environment.
→ Western Cape Biodiversity Spatial Mapping shows that the western part of the site is classified as ESA1, whereas the larger remainder of the site is that will be developed is not recognised as sensitive.
→ The vegetation on the erf is a poor representative of Southwestern Strandveld, with a low species-richness
→ The Botanical Assessment identifies that plant species sensitivity for the most site is low, whereas the western portion of the site plant species sensitivity should not be considered more than medium sensitivity.
→ Ecological processes on the site are closely linked to the proximity of the sea, with most of the plants being adapted to the salty, windy coastal environment.
→ The release of stormwater onto the site from culverts below the coastal road has caused some disruption of the sandy soil and, where the water erosion has occurred, revegetation is occurring naturally but is very slow.
→ No bird species were obviously using the habitat for feeding or nesting. In addition, no insect communities were evident in the Dune Strandveld habitat either.
→ The area of impact of the proposed development would be very small it would not contribute significantly to the loss of this Southwestern Strandveld ecosystem.
→ Although there would be total loss of the vegetation on the eastern part of the site, this loss would not be great over the extent of the vegetation type as a whole

Palaeontological Impact Assessment Findings

→ The wave-eroded bedrock quartzites of the Peninsula Fm. underlie the proposed development site.
→ The palaeontological sensitivity of the Peninsula Fm. bedrock is rated HIGH by the screening tool, but the proposed small development is not expected to significantly impact the trace fossil content which might be preserved in the folded and deformed strata beneath the surficial sands.
→ Fossil shells, scattered fossil bones such as from whales, dolphins, seals and seabirds may occur in the deposits but are generally very rare. These are not likely to be extinct species, but species beyond their modern-day ranges may occur.
→ In summary, both the beach deposits and aeolian coversands of the Project Area are accorded LOW palaeontological sensitivity and in the impact assessment below are considered together.
→ A typical housing development entails trenches for foundations (~0.6 m depth) and services infrastructure (up to ~1.2 m depth) and will primarily affect the coversands and will probably intersect the beach deposits in places.

Visual Impact Assessment findings

- → The Site currently forms part of a coastal cultural landscape which includes areas, views and component resources of high scenic, cultural or historical significance.
- → Due to its position on the coast and relation to the higher elevation of the surrounding areas the site is particularly visible from the surroundings areas and along the scenic route of Marine Drive and the properties along the adjacent town of Agulhas.
- → The portion of the field-of-view dominated by the proposal decreases substantially at distances beyond 1km from the site, as the proposal becomes screened by existing landforms and vegetation.
- → The Receptors of the anticipated visual impact include residential areas which are considered to have High Visual Sensitivity. The site falls within proposed urban edge, but interfaces with a coastal cultural landscape with high visual / scenic amenity value.
- → Although the area of visual influence is relatively contained and local in nature the significance of the coastal landscape setting, the unique position of the site in relation to the rest of development in Struisbaai and the scenic route of Marine Drive, results in the proposed development to have a significantly high visual impact on the scenic, heritage and visual resources.
- → Negative Visual Impact may be expected – resulting directly from site clearance, bulk earthworks and removal of existing vegetation; with construction vehicles / building activity causing noise / dust
- → The mitigation measures proposed in particular the landscape plan, Architectural guidelines and Landscape guidelines which responded to the indicators supplied, will assist in mitigating the overall impact and the visual impact will improve with time as the vegetation grows and the landscape matures.

Archaeological Impact Assessment findings

- → A few traces of archaeological heritage resources were recorded during the field study.
- → Fragments of weathered marine shellfish (mostly *Turbo sarmaticus*/ alikreukel & some limpet/ *Scutellastra longicosta*), a flaked quartz chunk, and a limestone flake (Sites 152-182) were recorded in the coastal footpath that runs alongside the rocky shoreline.
- → Traces of shellfish (*Turbo sarmaticus*) were also recorded in a few open patches of windblown sand on the vegetated slopes above the coastal track (Sites 192, 222 & 212).
- → A few fragments of weathered shellfish and several broken beach cobbles were recorded on the elevated rocky shelf at the end of the small sandy beach.
- → A few isolated fragments of shellfish were noted in the side wall of the sandy depression, but no anthropogenic remains were noted.
- → No organic remains such as pottery, bone or ostrich eggshell were found.
- → The thin traces of shellfish, very few artefactual remains, and no visible cultural items such as pottery means that the archaeological remains have been graded as having Low (IIIC) local significance.
- → The results of the study indicate that, a small housing development on Farm - Re 281 (seafront) in Struisbaai, will likely not impact on important Stone Age archaeological heritage resources.

Coastal Environment

- → The property is situated within Coastal Protection Zone and the high-water mark of the sea as with the majority of Struisbaai and their coastal developed properties
- → The preferred alternative will be situated above the 5 m contour line of the sea.
- → The site development plan in the preferred alternative avoids encroachment or development within coastal risk zones

1.2.	Provide a map that that superimposes the preferred activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers. (Attach map to this BAR as Appendix B2)

See **Appendix B** and specialist reports

1.3.	Provide a summary of the positive and negative impacts and risks that the proposed activity or development and alternatives will have on the environment and community.

Alternative 1 (No-Go)

Positive Impacts

- → Preservation of the existing natural environment, including indigenous vegetation and fauna.
- → No disturbance to sensitive areas such as ecological corridors, coastal zones, or cultural heritage sites.
- → No contribution to visual or noise pollution in the area.

Negative Impacts

- → Missed opportunity to provide public coastal access.
- → No contribution to local economic development or housing needs.
- → Potential for site degradation over time due to lack of active management or conservation efforts.

Alternative 2

Positive Impacts

- → Provides new residential opportunities with proximity to the coast.
- → Development could support local economic growth through construction and tourism.

Negative Impacts

- → High density increases the environmental footprint, resulting in significant vegetation clearance and habitat loss.
- → Lack of adequate open space and no provision for public coastal access, reducing social benefits.
- → Proximity of erven to the ocean creates potential risks related to coastal erosion and flooding.
- → Poor orientation for views and wind shielding reduces liveability for future residents.
- → Limited consideration of ecological sensitivity and cultural heritage features.

Alternative 3

Positive Impacts

- → Incorporates measures to address some coastal risks, such as aligning development with the 5m contour line and risk zones.
- → Includes a public footpath providing access to the beach, enhancing social value.
- → Allocates private open space for conservation of the rocky shoreline and adjacent beach areas.

Negative Impacts

- → Increased density compared to the preferred alternative, leading to moderate vegetation clearance and habitat disturbance.
- → Departures from zoning guidelines could result in visual and aesthetic impacts.
- → Development footprint remains too close to sensitive coastal areas, increasing vulnerability to erosion and flooding.

→ Poor alignment with Heritage and Visual Impact Assessments due to the proximity of structures to the coastline and inadequate integration into the natural landscape.

Alternative 4 (Preferred Alternative)

Positive Impacts

→ Reduced density minimizes environmental disturbance, ensuring better conservation of indigenous vegetation and habitat.
→ Substantial allocation of open space supports ecological corridors and enhances biodiversity.
→ Includes a Public Open Space Zone, improving public coastal access and recreational opportunities.
→ The alternative integrates with the natural landscape, reducing visual and aesthetic impacts.
→ Coastal risk areas are avoided, enhancing long-term sustainability and safety of the property.
→ Thoughtful orientation of erven optimizes views and provides better protection from prevailing winds, increasing liveability.

Negative Impacts

→ Some disturbance to the natural environment due to construction activities.
→ Limited encroachment on ecological areas, though minimized compared to other alternatives.
→ Potential for localized noise and air pollution during construction.

2. Recommendation of the Environmental Assessment Practitioner ("EAP")

2.1.	Provide Impact management outcomes (based on the assessment and where applicable, specialist assessments) for the proposed activity or development for inclusion in the EMPr

Based on the findings of the specialist studies and the assessment process, the following impact management outcomes are recommended:

Botanical Scoping Assessment

The main concern relates to loss of Southwestern Strandveld and/or Agulhas Limestone Fynbos vegetation type.

Mitigation measures recommended by the specialist:

→ Alien invasive plant species are no longer a problem on the site, since they have been removed. Should the development of the site not proceed the re-infestation of the site by Acacia cyclops should be monitored and the plants removed as necessary.
→ The western portion of the site as well as the development footprint should be fenced off during the construction phase to prevent further vegetation loss, all areas outside these zones must be no go areas
→ The areas that will not be developed should be restored to prevent erosion.

Heritage Impact Assessment

Palaeontology

→ Although the inspection of construction excavations may be specified in the Archaeological Impact Assessment, it is not feasible for a specialist monitor to be continuously present during the Construction Phases, when fossil bones may be unearthed at any time. The rescue of fossil bones during earth works critically depends on spotting this material as it is uncovered during digging. For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made. It is

recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP),is included in the Environmental Management Plan (EMP) for the proposed development.

→ The field supervisor/foreman and workers involved in excavations must be informed of the need to watch for fossil bones and archaeological material. Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby archaeologist or palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find.

→ A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.

Archaeology

→ No archaeological mitigation is needed prior to construction excavations commencing.

→ Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist.

→ If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.

Visual

→ Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced.

→ In addition, it is recommended that the heritage, landscape and visual indicators are implemented, and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact.

→ Public access to the beach on subdivision 8 must be provided via the public walkway on subdivision 7.

Palaeontological Impact Assessment

Management outcome:

A typical conventional housing development entails trenches for foundations ((~0.6 m depth) and services infrastructure (up to ~1.2 m depth) and will primarily affect the coversands and will probably intersect the beach deposits in places. In view of the vulnerability of the proposed seashore development to infrequent, but damaging storm surges it is possible that alternative structures may be built, such as plinth and girder construction which may involve less subsurface impact. Note that the prime concern is for land and marine animal bones and archaeological material. The shell content in the Holocene raised beach deposits is not paleontologically sensitive.

According to the specialist report, the proposed small development is not expected to significantly impact the trace fossil content which might be preserved in the folded and deformed strata beneath the surficial sands. In addition to fossil shells, scattered fossil bones such as from whales, dolphins, seals and seabirds may occur in the deposits but are generally very rare. These are not likely to be extinct species, but species beyond their modern-day ranges may occur. However, the mitigation measures will be implemented as follows:

Mitigation measures recommended by the specialist:

- → The possible presence of fossils in the subsurface does not have an *a priori* influence on the decision to proceed with the proposed development. However, mitigation measures are essential. The potential impact has a moderate influence upon the proposed project, consisting of implemented mitigation measures recommended below, to be followed during the Construction Phase.
- → Although the inspection of construction excavations may be specified in the Archaeological Impact Assessment, it is not feasible for a specialist monitor to be continuously present during the Construction Phases, when fossils may be unearthed at any time. The rescue of fossil bones during earth works critically depends on spotting this material as it is uncovered during digging.
- → For successful mitigation, it is therefore crucial that earth works personnel must be involved in mitigation by watching for fossil bones as excavations are being made.
- → It is recommended that a protocol for finds of buried fossil bones, the Fossil Finds Procedure (FFP), is included in the Environmental Management Plan (EMP) for the proposed development.
- → The Fossil Finds Procedure provides guidelines to be followed in the event of fossil bone finds in the excavations. The works supervisor/foreman and workers involved in excavating the building foundations, infrastructure trenches and stormwater drainage must be informed of the need to watch for fossils and archaeological material.
- → Workers seeing potential objects are to cease work at that spot and to report to the works supervisor who, in turn, will report to the Environmental Control Officer (ECO) and/or the Developer. The ECO/Developer will contact and liaise with Heritage Western Cape and the standby palaeontologist on the nature of the find and suitable consequent actions such as immediate site inspection, application for a palaeontological collection permit and drafting of a work plan for the collection of the find.
- → If a significant occurrence of fossil bones in a palaeontological context is discovered a professional palaeontologist must be appointed to collect them and to record their contexts. Said palaeontologist must also undertake the recording of the stratigraphic context and sedimentary geometry of the exposure, the sampling of ambient small fossil content and the compilation of the report for distribution to Heritage Western Cape, SAHRA, the approved curatorial institution and local heritage interest groups.
- → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.

Archaeological Impact Assessment

Management outcome:

Buried shell middens, and unmarked Khoisan remains may be uncovered or intercepted during excavations for building foundations and services but the probability of this occurring, is considered to be Low.

Mitigation Measures recommended by the specialist:

- → No archaeological mitigation is needed prior to construction excavations commencing.
- → Archaeological monitoring of building foundations and services (e. g. water, electricity, sewerage, stormwater) must be conducted by a professional archaeologist
- → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.

Visual Impact Assessment

Management outcome

Minimize visual intrusion and maintain the aesthetic integrity of the site and surroundings.

Mitigation measures recommended by the specialist

- → Strict adherence to heritage and environmental conservation and management controls, especially during the construction phases of the development (including sufficient hoarding, lighting and signage, as well as noise and dust control for occupational health and safety), should be enforced.
- → Addition it is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact.
- → Use of greening and permeable fencing along the significant edges. Provide clear sightline and view corridors by providing green buffers. Keeping the significant portion along Spookdraai as an open space.
- → Limiting construction to within hoarding areas.
- → Maintain the access to the beach and footpath which are currently along the coastline and an amenity to the public
- → Create green continuous corridors between units to ensure ample visual connection with the ocean from Marine Drive and the existing development adjacent to the site. These must be generous and allow for unobstructed views.
- → Maintain a generous green edge of indigenous vegetation with no trees or exotic and manicured gardens. The buffer to be a minimum of 2m to allow the natural occurring shrubs to grow.
- → The roof-scape must be interrupted to avoid continuous heights perceived from Marine Drive and surrounding areas. Avoid continuous structures that may have a cumulative effect of a "solid" wall architecture. All boundary walls must be permeable to allow vegetation and greenery to continue through the fencing. There should be no fencing along the sea edge of the property.
- → The alternative (which is expressed in the renders supplied) is a modern rendition of a dwelling. Should this be the route then the roof-scape and heights must be restricted as is illustrated in the sketch over the render supplied. Where possible the roofs must be vegetated "green roofs".
- → Public access to the beach on subdivision 8 must be provided via the public walkway on subdivision 7.

2.2.	Provide a description of any aspects that were conditional to the findings of the assessment either by the EAP or specialist that must be included as conditions of the authorisation.

- → It is recommended that the landscape and visual indicators are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site.
- → The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact.
- → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.
- → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.

- → The construction areas must be fenced prior to the commencement of construction. The fencing must be weatherproof. All areas outside the construction fence are strict no-go areas for the duration of development
- → Public coastal access must be maintained
- → Landscaping on the seaside of the erf should be minimal with natural gardens which blend into the naturally occurring habitats

2.3.	Provide a reasoned opinion as to whether the proposed activity or development should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be included in the authorisation.

The proposed development as presented in Alternative 4 should be authorised. The site currently experiances high levels of traffic, creation of adhoc pathways, and the stormwater discharge which has resulted in erosion. The plant species identified during the botanical survey are not of conservation concern.

Alternative 4 development footprint is smaller than those of Alternative 2 and 3. This alternative was refined to incorporate Costal Risk Zones and the 5 m contour and thereby prevent the development from encroaching on the costal risk areas. Coastal public access has also been included in the forefront of the evolution of Alternative 4.

The western portion of the site mapped as ESA1 is excluded from the development in Alternative 4, and this area will be restored after construction. The EAP supports the conditions outlined above:

- → It is recommended that the landscape and visual indicator are implemented and these parameters are incorporated in the planning application to ensure any new development is sensitive and cognisant of the limitations of the site. The proposed Landscape and Architectural Guidelines on page 52 of the Visual Impact Assessment must be strictly adhered to, to ensure long-term mitigation of the visual intrusion and impact.
- → If any unmarked human remains are uncovered or exposed during excavations, work must stop, and the finds reported to the Environmental Control Officer and the contracted archaeologist (Jonathan Kaplan 082 321 0172). Human remains must not be removed or disturbed until inspected by the archaeologist.
- → A permit from HWC is required to excavate fossil bone finds. The applicant should be the qualified specialist responsible for assessment, collection and reporting (palaeontologist). Should fossils be found that require rapid collecting, application for a palaeontological permit with supporting work plan will immediately be made to HWC. The application requires the details and permission of the registered owner of the site. The fossils and their contextual information must be deposited at a SAHRA/HWC-approved institution. The rescue of discovered palaeontological remains by a contracted specialist shall be at the Developer's expense.
- → The construction areas must be fenced prior to the commencement of construction. The fencing must be weatherproof. All areas outside the construction fence are strict no-go areas for the duration of development
- → Public coastal access must be maintained
- → Landscaping on the seaside of the erf should be minimal with natural gardens which blend into the naturally occurring habitats

2.4.	Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

None that the EAP is aware of.

2.5.	The period for which the EA is required, the date the activity will be concluded and when the post construction monitoring requirements should be finalised.

This Environmental Authorisation is grated for:

- → A period of five years from the date of issue, during which the holder must commence with the authorised listed activities.
- → A period of ten (10) years, from the date the holder commenced with the authorised listed activities, during this period the authorised listed activities must be concluded.

3. Water

Since the Western Cape is a water scarce area explain what measures will be implemented to avoid the use of potable water during the development and operational phase and what measures will be implemented to reduce your water demand, save water and measures to reuse or recycle water.
Water will be reused and recycled where possible.

4. Waste

Explain what measures have been taken to reduce, reuse or recycle waste.
Waste is collected weekly by the municipality and it is recycled on the dumping site.

5. Energy Efficiency

8.1.	Explain what design measures have been taken to ensure that the development proposal will be energy efficient.
It is recommended that the Landscape Architectural Guidelines be followed.	

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

Note: Duplicate this section where there is more than one Applicant.

I……, ID number ……in my personal capacity or duly authorised thereto hereby declare/affirm that all the information submitted or to be submitted as part of this application form is true and correct, and that:

- I am fully aware of my responsibilities in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA"), the Environmental Impact Assessment ("EIA") Regulations, and any relevant Specific Environmental Management Act and that failure to comply with these requirements may constitute an offence in terms of relevant environmental legislation;
- I am aware of my general duty of care in terms of Section 28 of the NEMA;

- I am aware that it is an offence in terms of Section 24F of the NEMA should I commence with a listed activity prior to obtaining an Environmental Authorisation;

- I appointed the Environmental Assessment Practitioner ("EAP") (if not exempted from this requirement) which:
  - meets all the requirements in terms of Regulation 13 of the NEMA EIA Regulations; or
  - meets all the requirements other than the requirement to be independent in terms of Regulation 13 of the NEMA EIA Regulations, but a review EAP has been appointed who does meet all the requirements of Regulation 13 of the NEMA EIA Regulations;

- I will provide the EAP and any specialist, where applicable, and the Competent Authority with access to all information at my disposal that is relevant to the application;

- I will be responsible for the costs incurred in complying with the NEMA EIA Regulations and other environmental legislation including but not limited to –
  - costs incurred for the appointment of the EAP or any legitimately person contracted by the EAP;
  - costs in respect of any fee prescribed by the Minister or MEC in respect of the NEMA EIA Regulations;
  - Legitimate costs in respect of specialist(s) reviews; and
  - the provision of security to ensure compliance with applicable management and mitigation measures;

- I am responsible for complying with conditions that may be attached to any decision(s) issued by the Competent Authority, hereby indemnify, the government of the Republic, the Competent Authority and all its officers, agents and employees, from any liability arising out of the content of any report, any procedure or any action for which I or the EAP is responsible in terms of the NEMA EIA Regulations and any Specific Environmental Management Act.

Note: If acting in a representative capacity, a certified copy of the resolution or power of attorney must be attached.

Signature of the Applicant: Date:

Name of company (if applicable):

DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I **MICHELLE NAYLOR** EAP Registration number **698/2019** as the appointed EAP hereby declare/affirm the correctness of the:

- Information provided in this BAR and any other documents/reports submitted in support of this BAR;
- The inclusion of comments and inputs from stakeholders and I&APs;
- The inclusion of inputs and recommendations from the specialist reports where relevant; and
- Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties, and that:
- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the activity or application and that there are no circumstances that may compromise my objectivity; or
  - am not independent, but another EAP that meets the general requirements set out in Regulation 13 of NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review EAP must be submitted);
- In terms of the remainder of the general requirements for an EAP, am fully aware of and meet all of the requirements and that failure to comply with any the requirements may result in disqualification;
- I have disclosed, to the Applicant, the specialist (if any), the Competent Authority and registered interested and affected parties, all material information that have or may have the potential to influence the decision of the Competent Authority or the objectivity of any report, plan or document prepared or to be prepared as part of this application;
- I have ensured that information containing all relevant facts in respect of the application was distributed or was made available to registered interested and affected parties and that participation will be facilitated in such a manner that all interested and affected parties were provided with a reasonable opportunity to participate and to provide comments;
- I have ensured that the comments of all interested and affected parties were considered, recorded, responded to and submitted to the Competent Authority in respect of this application;
- I have ensured the inclusion of inputs and recommendations from the specialist reports in respect of the application, where relevant;
- I have kept a register of all interested and affected parties that participated in the public participation process; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations;

31/01/2025

Signature of the EAP: Date:

Lornay Environmental Consulting Pty Ltd

Name of company (if applicable):

DECLARATION OF THE REVIEW EAP

NOT APPLICABLE

I ……, EAP Registration number …….. as the appointed Review EAP hereby declare/affirm that:

- I have reviewed all the work produced by the EAP;
- I have reviewed the correctness of the information provided as part of this Report;
- I meet all of the general requirements of EAPs as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the specialist (if any), the review specialist (if any), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE SPECIALIST

TO BE ADDED

Note: Duplicate this section where there is more than one specialist.

I ……, as the appointed Specialist hereby declare/affirm the correctness of the information provided or to be provided as part of the application, and that:

- In terms of the general requirement to be independent:
  - other than fair remuneration for work performed in terms of this application, have no business, financial, personal or other interest in the development proposal or application and that there are no circumstances that may compromise my objectivity; or

  - am not independent, but another specialist (the "Review Specialist") that meets the general requirements set out in Regulation 13 of the NEMA EIA Regulations has been appointed to review my work (Note: a declaration by the review specialist must be submitted);

- In terms of the remainder of the general requirements for a specialist, have throughout this EIA process met all of the requirements;

- I have disclosed to the applicant, the EAP, the Review EAP (if applicable), the Department and I&APs all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared or to be prepared as part of the application; and

- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):

DECLARATION OF THE REVIEW SPECIALIST

I ……., as the appointed Review Specialist hereby declare/affirm that:

- I have reviewed all the work produced by the Specialist(s):
- I have reviewed the correctness of the specialist information provided as part of this Report;
- I meet all of the general requirements of specialists as set out in Regulation 13 of the NEMA EIA Regulations;
- I have disclosed to the applicant, the EAP, the review EAP (if applicable), the Specialist(s), the Department and I&APs, all material information that has or may have the potential to influence the decision of the Department or the objectivity of any Report, plan or document prepared as part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA Regulations.

Signature of the EAP: Date:

Name of company (if applicable):