

<u>Author of Report:</u> Ms Melissa Mackay <u>Author Email:</u> mel@cape-eaprac.co.za

Report Reference: BIT667/06

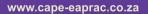
Department Reference: 16/3/3/1/D1/6/0011/21

Case Officer: Ms Jessica Christie

Cape \mathcal{EAP} rac

Cape Environmental Assessment Practitioners

Tel: +27 44 874 0365 PO Box 2070, George 6530 Fax: +27 44 874 0432 17 Progress Street, George





APPOINTED ENVIRONMENTAL ASSESSMENT PRACTITIONER:

Cape EAPrac Environmental Assessment Practitioners

PO Box 2070

George

6530

Tel: 044-874 0365

Fax: 044-874 0432

Report written & compiled by: Ms Melissa Mackay (BTech & ND Nature Conservation), who has fifteen years' experience as an environmental practitioner. Registered Environmental Assessment Practitioner with the Environmental Assessment Practitioners of South Africa, EAPSA, Registration Number 2019/1446.

Registration: Director Louise-Mari van Zyl (MA Geography & Environmental Science [US]; Registered Environmental Assessment Practitioner with the Environmental Assessment Practitioners of South Africa, EAPSA, Registration Number 2019/1444. Ms van Zyl has over nineteen years' experience as an environmental practitioner.

PURPOSE OF THIS REPORT:

Public Review & Comment

APPLICANT:

Cava Mola Mining (Pty) Ltd

CAPE EAPRAC REFERENCE NO:

BIT667/06

SUBMISSION DATE

10 February 2022

PUBLIC PARTICIPATION

By participating in this environmental process, whether it be through written submissions, telephonic enquiries, registrations or attendance of meetings, you are automatically giving consent for your full contact details and/or any submissions/inputs to be used and published in all matters pertaining to this application i.e. reports/notifications/communication for review or decision-making.

DOCUMENT TRACKING

DOCUMENT HISTORY

DOC REF	REVISION	DATE	AUTHOR
BIT667/06	Draft Basic Assessment Report	2022-02-10	Ms Melissa Mackay
		Click here to enter a date.	Choose an item.
		Click here to enter a date.	Choose an item.
		Click here to enter a date.	Choose an item.

APPROVAL FOR RELEASE

NAME	TITLE	SIGNATURE
Ms Melissa Mackay	Snr Consultant	Julia

DISTRIBUTION

DESIGNATION	NAME	EMAIL / FAX
DEA&DP: Case officer	Ms Jessica Christie	Jessica.Christie@westerncape.gov.za
Applicant	Cava Mola Mining (Pty) Ltd	gmz@agrilime.com
Registered I&APs	Multiple	

DRAFT BASIC ASSESSMENT REPORT

in terms of the

National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended & Environmental Impact Regulations 2014

House Maritz

Erf 390 & Remainder 141, Keurboomstrand

Submitted for:

Stakeholder Review & Comment

- This report is the property of the Author/Company, who may publish it, in whole, provided that:
- Written approval is obtained from the Author and that Cape EAPrac is acknowledged in the publication;
- Cape EAPrac is indemnified against any claim for damages that may result from any publication of specifications, recommendations or statements that is not administered or controlled by Cape EAPrac;
- The contents of this report, including specialist/consultant reports, may not be used for purposes of sale or publicity or advertisement without the prior written approval of Cape EAPrac;
- Cape EAPrac accepts no responsibility by the Applicant/Client for failure to follow or comply with the recommended programme, specifications or recommendations contained in this report;
- Cape EAPrac accepts no responsibility for deviation or non-compliance of any specifications or recommendations made by specialists or consultants whose input/reports are used to inform this report; and
- All figures, plates and diagrams are copyrighted and may not be reproduced by any means, in any form, in part or whole without prior written approved from *Cape EAPrac*.

Report Issued by:

Cape Environmental Assessment Practitioners

 Tel:
 044 874 0365
 PO Box 2070

 Fax:
 044 874 0432
 17 Progress Street

 Web:
 www.cape-eaprac.co.za
 George 6530

Cape EAPrac Basic Assessment Report

ORDER OF REPORT

Basic Assessment Report

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 Site Plans

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 E1 : Final comment/ROD from HWC

Appendix E2 : Copy of comment from Cape Nature (Pending)

Appendix E3 : Final Comment from the DWS

Appendix E4 : Comment from the DEA: Oceans and Coast (Pending)

Appendix E5 : Comment from the DAFF

Appendix E6 : Comment from WCG: Transport and Public Works

Appendix E7 : Comment from WCG: DoA (Pending)

Appendix E8 : Comment from WCG: DHS

Appendix E9 : Comment from WCG: DoH (Pending)

Appendix E10 : Comment from DEA&DP: Pollution Management

Appendix E11 : Comment from DEA&DP: Waste Management

Appendix E12 : Comment from DEA&DP: Biodiversity

Appendix E13 : Comment from DEA&DP: Air Quality

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) (Pending)

Appendix E17 : Comment from the District Municipality (Pending)

Appendix E18 : Copy of an exemption notice (Not Applicable)

Appendix E19 : Pre-approval for the reclamation of land

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

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.

Appendix F1 : Registered I&AP List & Updated PP Plan

Appendix F2 : Adverts & Site Notices

Appendix F3 : Stakeholder Notification

Appendix F4 : Stakeholder Comment (Pending)

Appendix F5 : Comments & Responses Report (Pending)

Appendix G : Specialist & Technical Report(s)

Appendix G1 : Botanical & Terrestrial Biodiversity Compliance Statement

Appendix G2 : Coastal Engineering Report

Appendix G3 : Heritage Statement

Appendix G4 : Planning Report

Appendix G5 : Services Report

Appendix G6 : Architects Visual Presentation

Appendix H : EMPr

Appendix I : Screening tool report

Appendix I1 : Screening Tool Report

Appendix I2 : Site Sensitivity Verification Report

Appendix J : The impact and risk assessment for each alternative (See in report)

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 (See in report)

Appendix L : Any other attachments must be included as subsequent appendices

Appendix L1 : Authority Correspondence

Appendix L2 : Windeed Property Report

Appendix L3 : EAP Company Profile

TABLE OF CONTENTS

1.	CONTENT OF BASIC ASSESSMENT REPORTS	I
SECTIO	ON A: ADMINISTRATIVE DETAILS	13
SECTION INLCUE	ON B: CONFIRMATION OF SPECIFIC PROJECT DETAILS ADED IN THE APPLICATION FORM	
SECTIO	ON C: LEGISLATION/POLICIES AND/OR GUIDELINES/PROTOCOLS.	20
1.	EXEMPTION APPLIED FOR IN TERMS OF THE NEMA AND THE NEMA E	ΙA
	REGULATIONS	20
2.	IS THE FOLLOWING LEGISLATION APPLICABLE TO THE PROPOSI	
3.	OTHER LEGISLATION	20
4.	POLICIES	21
5.	GUIDELINES	23
6.	PROTOCOLS	23
SECTIO	ON D: APPLICABLE LISTED ACTIVITIES	24
SECTIO	ON E: PLANNING CONTEXT AND NEED AND DESIRABILITY	25
SECTIO	ON F: PUBLIC PARTICIPATION	34
SECTIO	ON G: DESCRIPTION OF THE RECEIVING ENVIRONMENT	35
1.	GROUNDWATER	35
2.	SURFACE WATER	36
3.	COASTAL ENVIRONMENT	36
4.	BIODIVERSITY	40
5.	GEOGRAPHICAL ASPECTS	41
6.	HERITAGE RESOURCES	41
7.	HISTORICAL AND CULTURAL ASPECTS	41
8.	SOCIO/ECONOMIC ASPECTS	41
	ON H: ALTERNATIVES, METHODOLOGY AND ASSESSMENT (NATIVES 42)F
1.	DETAILS OF THE ALTERNATIVES IDENTIFIED AND CONSIDERED	42
	"NO-GO" AREAS	

3.	METHODOLOGY TO DETERMINE THE SIGNIFICANCE RATINGS OF TH	Ε
	POTENTIAL ENVIRONMENTAL IMPACTS AND RISKS ASSOCIATED WIT	Н
	THE ALTERNATIVES6	2
4.	ASSESSMENT OF EACH IMPACT AND RISK IDENTIFIED FOR EAC	
	ALTERNATIVE6	5
SECTIO MEASUI	,	
SECTIO	N J: GENERAL8	6
1.	ENVIRONMENTAL IMPACT STATEMENT8	6
2.	RECOMMENDATION OF THE ENVIRONMENTAL ASSESSMEN PRACTITIONER ("EAP")	
3.	WATER9	1
4.	WASTE9	1
5.	ENERGY EFFICIENCY9	
SECTIO 1.	N K: DECLARATIONS9 DECLARATION OF THE APPLICANT9	
2.	DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONE	R
	("EAP")9	4
3.	DECLARATION OF THE REVIEW EAP9	5
4.	DECLARATION OF THE SPECIALIST9	6
5.	DECLARATION OF THE REVIEW SPECIALIST	9
	FIGURES	
Figure 1: Pro	posed new dwelling (CLD Architects, 2021)	6
Figure 2: Pro	posed new dwelling	7
Figure 3: Pro	posed new dwelling (ground and first floor) (CLD Architects, 2021)	16
Figure 4: Pro	posed new dwelling	17
Figure 5: 5m	Contours (CapeFarmMapper, 2021)	18
Figure 6: Lay	yout with Eden Coastal Management Lines (DEA&DP, 2018)	18
Figure 7: Access (Google Earth Pro, 2021)		
Figure 8: Alt	ernative 1 (Preferred Alternative)	26
Figure 9: Cri	tical Biodiversity Areas	28

Figure 10: Coastal Zones (2009 The Department of Environmental Affairs & SSI Engineers and Environme	
South Africa)	29
Figure 11: Coastal Management Lines	30
Figure 12: Coastal Management Lines (DEA&DP, 2021)	31
Figure 13: Central Keurboomstrand with Eden Coastal Management Lines (DEA&DP, 2018)	37
Figure 14: Erosion Risk Lines (DEA&DP, 2018)	37
Figure 15: Layout with Erosion Risk Lines	38
Figure 16: Alternative 1-OPTION 01: GABION WALL	43
Figure 17: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)	44
Figure 18: Layout with Eden Coastal Management Lines (DEA&DP, 2018)	45
Figure 19: Alternative 2-OPTION 02: SHEETPILE WALL	46
Figure 20: Alternative 3-OPTION 03: PILED SUPPORT	47
Figure 21: Alternative 1-OPTION 01: GABION WALL	50
Figure 22: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)	51
Figure 23: Layout with Eden Coastal Management Lines (DEA&DP, 2018)	52
Figure 24: Alternative 1-OPTION 01: GABION WALL	53
Figure 25: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)	54
Figure 26: Layout with Eden Coastal Management Lines (DEA&DP, 2018)	55
Figure 27: Alternative 2-OPTION 02: SHEETPILE WALL	56
Figure 28: Alternative 3-OPTION 03: PILED SUPPORT	57
Figure 29: Alternative 1-OPTION 01: GABION WALL	59
Figure 30: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)	60
Figure 31: Layout with Eden Coastal Management Lines (DEA&DP, 2018)	61
Figure 32: No go areas along western boundary	62
Figure 33: Site Sensitivity Map	88

1. CONTENT OF BASIC ASSESSMENT REPORTS

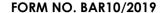
Appendix 1 of the 2014 EIA Regulations (as amended) contains the required contents of a Basic Assessment Report. The checklist below serves as a summary of how these requirements were incorporated into this Basic Assessment Report.

Requi	irement	Details
(a) De	etails of -	
(i) (ii)	The EAP who prepared the report; and The expertise of the EAP, including, curriculum vitae.	Ms Melissa Mackay (EAPASA Registered) BTech & ND Nature Conservation, with sixteen years' experience as an environmental practitioner. Company profile is included as Appendix L3.
(iii)	Applicant Details	Cava Mola Mining (Pty) Ltd
		PO Box 20366, Protea Park, 0305
		Email: gmz@agrilime.com
(b) Th	e location of the activity, including –	
(i)	The 21 digit Surveyor General code of each	Erf 390 - C03900040000039000000
(ii)	cadastral land parcel; Where available, the physical address and farm name;	RE Erf 141 - C03900040000014100000
(iii)	Where the required information in items (i) and (ii) is not available, the coordinates of the boundary of the property or properties.	
activit	plan which locates the proposed activity or ies applied for as well as the associated ures and infrastructure at an appropriate scale, or,	Refer to Appendix A & B
(i) (ii)	A linear activity, a description and coordinates of the corridor in which the proposed activity or activities is to be undertaken; or On land where the property has not been defined, the coordinates within which the activity is to be undertaken.	
(d) a d	description of the scope of the proposed activity,	Section B
(i)	All listed and specified activities triggered and being applied for; and	
(ii)	A description of the activities to be undertaken including associated structures and infrastructure.	
	description of the policy and legislative context which the development is proposed, including –	Section B
(i)	An identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity	

Requirement	Details
and have been considered in the preparation of the report; and (ii) How the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks and instruments.	
(f) A motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred location.	Section D
(g) A motivation for the preferred site, activity and technology alternative.	Section E&F
 (h) A full description of the process followed to reach the proposed preferred alternative within the site, including - (i) Details of all alternatives considered; (ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs; 	Section E Section C and Appendix F
(iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them;	Section F
(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	Section E & F and Appendix G
(v) The impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts:	Section G and Appendix G
(aa) can be reversed; (bb) may cause irreplaceable loss of resources; and	
(cc) can be avoided, managed or mitigated. (vi) The methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts	
and risks associated with the alternatives; (vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;	
(viii) The possible mitigation measures that could be applied and level of residual risk; (ix) The outcome of the site selection matrix;	
 (x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such; and 	

Requirement	Details
(xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity.	
 (i) A full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including – (ii) A description of all environmental issues and risks that were identified during the environmental impact assessment process; and (iii) An assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures. 	Section F & G and Appendix G
(j) An assessment of each identified potentially significant impact and risk, including -	Section G
 (i) Cumulative impacts; (ii) The nature, significance and consequences of the impact and risk; (iii) The extent and duration of the impact and risk; (iv) The probability of the impact and risk occurring; (v) The degree to which the impact and risk can be reversed; (vi) The degree to which the impact and risk may cause irreplaceable loss of resources; and (vii) The degree to which the impact and risk can be mitigated. 	
(k) Where applicable, a summary of the findings and impact management measures identified in any specialist report complying with Appendix 6 to these Regulations and an indication as to how these findings and recommendations have been included	Section G and Appendix G
in the final assessment report. (I) An environmental impact statement which contains: (i) A summary of the key findings of the environmental impact assessment; (ii) A map at an appropriate scale which superimposes the proposed activity and its associated structures and infrastructure on the environmental sensitivities of the preferred site indicating any areas that should be avoided, including buffers; and (iii) A summary of the positive and negative impacts and risks of the proposed activity and identified alternatives.	Section G & H and Appendix G
(m) Based on the assessment, and where applicable, impact management measures from specialist reports, the recording of proposed impact management objectives, and the impact management outcomes for the development for inclusion in the EMPr.	Section G & H, Appendices G & H
(n) Any aspects which were conditional to the findings of the assessment either by the EAP or specialist	Section H

Requirement	Details
which are to be included as conditions of authorisation.	
(o) A description of assumptions, uncertainties and gaps in knowledge which relate to the assessment and mitigation measures proposed.	Section F, G & H and Appendix G
(p) A reasoned opinion as to whether the proposed activity should or should not be authorised, and if the opinion is that it should be authorised, any conditions that should be made in respect of that authorisation.	Section H
(q) Where the proposed activity does not include operational aspects, the period for which the environmental authorisation is required, the date on which the activity will be concluded and the post construction monitoring requirements finalised.	Section H
 (r) An undertaking under oath or affirmation by the EAP in relation to: (i) The correctness of the information provided in the reports; 	Section J
(ii) The inclusion of comments and inputs rom stakeholders and I&APs	
(iii) The inclusion of inputs and recommendations from the specialist reports where relevant; and	
(iv) 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.	
(s) Where applicable, details of any financial provisions for the rehabilitation, closure and ongoing post decommissioning management of negative environmental impacts.	Not applicable to this application
(t) Any specific information that may be required by the competent authority.	
(u) Any other matters required in terms of section 24(4)(a) and (b) of the Act.	





BASIC ASSESSMENT REPORT

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

NOVEMBER 2019

(For official use only)		
Pre-application Reference Number (if applicable):		
EIA Application Reference Number:	16/3/3/1/D1/6/0011/21	
	10/3/3/1/01/0/0011/21	
NEAS Reference Number:		
Exemption Reference Number (if applicable):		
Date BAR received by Department:		
Date BAR received by Directorate:		
Date BAR received by Case Officer:		

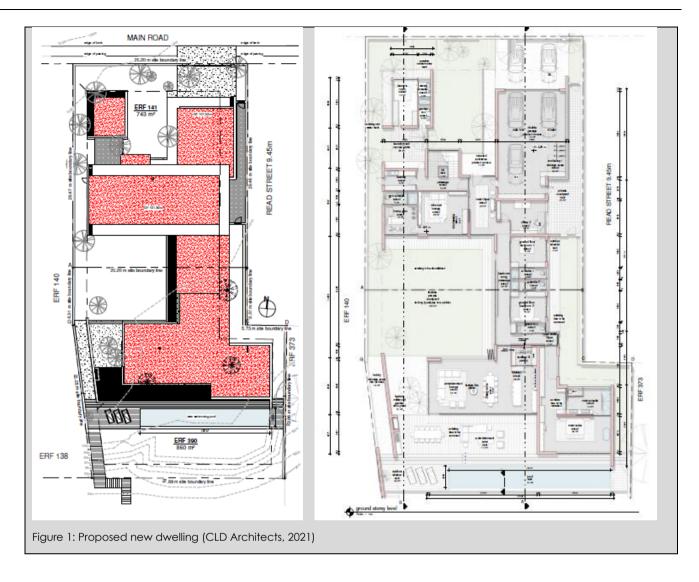
GENERAL PROJECT DESCRIPTION

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

Erf 390 and Remainder Erf 141 Keurboomstrand were previously a single erf (Erf 141) and was subdivided and rezoned in August 2015. Erf 390 was rezoned from Residential Zone 1 to Open Space Zone II for private open space (private garden). Remainder Erf 141 retained the Residential Zone I zoning and has a single residential dwelling of ± 348 m².

The new owner and applicant is proposing the reconsolidation of Erven 390 and Remainder 141 into a single cadastral unit again, and the refurbishment of a single residential dwelling on the reconsolidated erf of ± 965 m², including buildings and stoep. This will entail the removal of the existing structure and the refurbishment of the dwelling on the original sized erf. The reconsolidated erf size will be ± 1603 m², thus a total of $\pm 60\%$ of the erf will be developed.

The erven are within the urban edge of Keurboomstrand, and located on the seafront.



FORM NO. BAR10/2019 Page 6 of 110



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. 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.
- 4. All applicable sections of this BAR must be completed.
- 5. 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.
- 6. This BAR is current as of **November 2019**. 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/eadp to check for the latest version of this BAR.
- 7. 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.
- 8. 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

FORM NO. BAR10/2019 Page 7 of 110

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.

- 9. 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.
- 10. 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.
- 11. 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.
- 12. 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.
- 13. 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.
- 14. 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: REGION 1 and REGION 2 (Region 1: City of Cape Town, West Coast District) (Region 2: Cape Winelands District & Overberg District)	GEORGE OFFICE: REGION 3 (Central Karoo District & Garden Route District)
BAR must be sent to the following details:	BAR must be sent to the following details:
Western Cape Government	Western Cape Government
Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management	Department of Environmental Affairs and Development Planning Attention: Directorate: Development Management
(Region 1 or 2) Private Bag X 9086	(Region 3) Private Bag X 6509
Cape Town, 8000	George, 6530
Registry Office 1#-Floor Utilitas Building 1 Dorp Street, Cape Town	Registry Office 4 th Floor, York Park Building 93 York Street George
Queries should be directed to the Directorate: Development Management (Region 1 and 2) at: Tel: (021) 483-5829 Fax (021) 483-4372	Queries should be directed to the Directorate: Development Management (Region 3) at: Tel: (044) 805-8600 Fax (044) 805 8650

FORM NO. BAR10/2019 Page 8 of 110

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 <u>must</u> 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);
 - Coastal Risk Zones as delineated for the Western Cape by the Department of Environmental Affairs and Development Planning ("DEA&DP"):
 - o Ridges;
 - 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 $\bf Appendix \, D$.

FORM NO. BAR10/2019 Page 9 of 110

Linear activities	GPS co-ordinates must be provided in degrees, minutes and seconds using the Hartebeeshoek
or development	94 WGS84 co-ordinate system.
and multiple	Where numerous properties/sites are involved (linear activities) you must attach a list of the Farm
properties	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 \checkmark (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)				
	Maps						
Appendix A:	Appendix A1:	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 B1:	Site development plan(s)	✓				
Appendix B:	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 overlo	Biodiversity overlay map					
Appendix E:		Permit(s) / license(s) / exemption notice, agreements, comment Department/Organs of state and service letters from the municipality.					
Appendix E:	Appendix E1:	Final comment/ROD from HWC	Pending				

FORM NO. BAR10/2019 Page 10 of 110

Appendix E2:	Copy of comment from Cape Nature	Pending
Appendix E3:	Final Comment from the DWS	×
Appendix E4:	Comment from the DEA: Oceans and Coast	Pending
Appendix E5:	Comment from the DAFF	×
Appendix E6:	Comment from WCG: Transport and Public Works	×
Appendix E7:	Comment from WCG: DoA	Pending
Appendix E8:	Comment from WCG: DHS	×
Appendix E9:	Comment from WCG: DoH	Pending
Appendix E10:	Comment from DEA&DP: Pollution Management	×
Appendix E11:	Comment from DEA&DP: Waste Management	×
Appendix E12:	Comment from DEA&DP: Biodiversity	×
Appendix E13:	Comment from DEA&DP: Air Quality	×
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)	Pending
Appendix E17:	Comment from the District Municipality	Pending
Appendix E18:	Copy of an exemption notice	×
Appendix E19	Pre-approval for the reclamation of land	×
Appendix E20:	Proof of agreement/TOR of the specialist studies conducted.	✓
Appendix E21:	Proof of land use rights	√

FORM NO. BAR10/2019 Page 11 of 110

	Appendix E22:	Proof of public participation agreement for linear activities	×			
Appendix F:	I&APs, the commo	on information: including a copy of the register of ents and responses Report, proof of notices, and any other public participation information as is	√			
Appendix G:	Specialist Report(Specialist Report(s)				
Appendix H:	EMPr	EMPr				
Appendix I:	Screening tool re	Screening tool report				
Appendix J:	The impact and ri	sk assessment for each alternative	In report			
Appendix K:	terms of this Depa	bility for the proposed activity or development in rtment's guideline on Need and Desirability (March ated Environmental Management Guideline	In report			
Appendix L:	appendices Appendix L1: Aut	ments must be included as subsequent hority correspondence deed Property Report & Title Deeds Company Profile	√			

FORM NO. BAR10/2019 Page 12 of 110

SECTION A: ADMINISTRATIVE DETAILS

	CAPE TOW	/N OFFICE:		GEORGE OFFICE:			
Highlight the Departmental Region in which the intended application will fall	REGION 1 (City of Cape Town, West Coast District	REGION (Cape Winel District & Overberg Dis	ands	REGION 3 (Central Karoo District & Garden Route District)			
Duplicate this section where there is more than one Proponent Name of Applicant/Proponent:	Cava Mola Minin	g (Pty) Ltd					
Name of contact person for Applicant/Proponent (if other):	Mr Gerhard Marit	Z					
Company/ Trading name/State Department/Organ of State:	Cava Mola Minin	g (Pty) Ltd					
Company Registration Number:	1996/013634/07						
Postal address:	PO Box 20366						
	Protea Park		Postal code:	1 0.30.5			
Telephone:	()		Cell:	083 267 1719			
E-mail:	gmz@agrilime.co	m	Fax:				
Company of EAP:	Cape Environme	ntal Assessm	ent Pr	actitioners (Cape EAPrac)			
EAP name:	Ms Melissa Macko	ау					
Postal address:	PO Box 2070						
	George		Postal code:	1 6.5.30			
Telephone:	044 874 0365		Cell:	071 603 4132			
E-mail:	mel@cape-eapro	ac.co.za	Fax:	044 874 0432			
Qualifications:	BTech & ND Natu	re Conserva	ıtion				
	Melissa Mackay E	EAPASA Regi	istratio	n Number 2019/1446			
EAPASA registration no:	Director Louise-Mari van Zyl (MA Geography & Environmental Science [US]; Registered Environmental Assessment Practitioner with the Environmental Assessment Practitioners of South Africa, EAPSA, Registration Number 2019/1444. Ms van Zyl has over nineteen years' experience as an environmental practitioner.						
Duplicate this section where there is more than one landowner Name of landowner:	Cava Mola Minin	g (Pty) Ltd					
Name of contact person for landowner (if other):	Mr Gerhard Marit	Z					
Postal address:	PO Box 20366						

FORM NO. BAR10/2019 Page 13 of 110

	Protea Park	Postal code:	0305					
Telephone: E-mail:	()	Cell:	083 267 1719					
	gmz@agrilime.com	Fax:						
Name of Person in control of the land:	Cava Mola Mining (Pty) Ltd							
Name of contact person for person in control of the land:	Mr Gerhard Maritz							
Postal address:	As Above							
		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:	Bitou Municipality							
Contact person:	Mr Chris Schliemann							
Postal address:	4 Church Street Lonks View Office no. 2,							
	Plettenberg Bay	Postal code:	6600					

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

Cell:

Fax:

086 659 7954

044 501 3324

cschliemann@plett.gov.za

Telephone

E-mail:

1.	Is the proposed development (please tick):	New	✓	Expansion						
2.	2. Is the proposed site(s) a brownfield of greenfield site? Please explain.									
	The project is a greenfield development, in that the two erven will be consolidated, the existing infrastructure will be demolished and a new dwelling will be constructed.									
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 alternative	natives.		m²						
3.3.	Provide a description of the proposed development (e.g. for road case of pipelines indicate the length and diameter) for all alternations.		dth and width	of the road reserve in the						

FORM NO. BAR10/2019 Page 14 of 110

3.4.		Indica	te ho	w ac	cess	to the	prop	osec	l route	es will	be ol	otaine	ed fo	r all al	terno	ıtives.							
																			_				
3.5.	SG codes the Farms m Portion rf num for altern es	rs/E hbers ativ																					
3.6.	Startin	g poin	t co-	ordin	ates f	or all	alterr	native	es.														
	Latitud	d e (S)									0					4					"		
	Longit	ude (E	:)								0					1							
	Middle	e-point	t co-	ordine	ates f	or all	altern	ative	s														
	Latitud	d e (S)									o				•					44			
	Longit	tude (E	:)								0				£					u			
	End p	oint co	-ordi	nates	for a	ll alte	rnativ	/es												<u> </u>			
	Latitud	d e (S)									0				6					u			
	Longit	tude (E	:)								0				4				44				
	For Line								than	500m	, a m	ap in	dicati	ng th	e co-	ordin	ates f	or ev	ery 10	00m	along	the ro	oute
4.		develo			40 AP	репа	IX AU	•															
4.1.								Erf 390 – ±870.6m ² Re 141 – ±750.6m ²															
4.2.	Developed footprint of the existing facility and associated infrastructure (if applicable):													on F	RE 14 ±348								
4.3. Development footprint of the proposed development and associated infrastructure size(s) for all alternatives:								The proposed area for development on the reconsolidated erf is ±454m².				for the m².											
4.4.		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).																			clude	detai	ls of

FORM NO. BAR10/2019 Page 15 of 110

Erf 390 and Remainder Erf 141 Keurboomstrand were previously a single erf (Erf 141) and was subdivided and rezoned in August 2015. Erf 390 was rezoned from Residential Zone 1 to Open Space Zone II for private open space (private garden). Remainder Erf 141 retained the Residential Zone I zoning and has a single residential dwelling of ±348m².

The new owner and applicant is proposing the reconsolidation of Erven 390 and Remainder 141 into a single cadastral unit again, and the refurbishment of a single residential dwelling on the reconsolidated erf of ± 965 m², including buildings and stoep. This will entail the removal of the existing structure and the refurbishment of the dwelling on the original sized erf. The reconsolidated erf size will be ± 1603 m², thus a total of $\pm 60\%$ of the erf will be developed.

The erven are within the urban edge of Keurboomstrand, and located on the seafront.

The dwelling will have 3 bedrooms on the ground floor with living spaces (kitchen, lounge, office), along with a nanny unit, gymn and garage. The upstairs area consists of 3 bedrooms and a lounge. Outdoor living space includes decked patio, pebble garden and a swimming pool. The remainder of the site will be retained as gardened / landscaped areas.

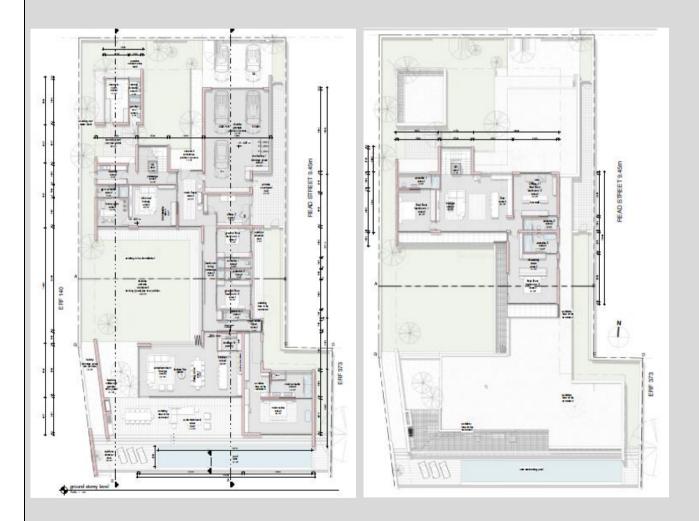


Figure 3: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)

FORM NO. BAR10/2019 Page 16 of 110

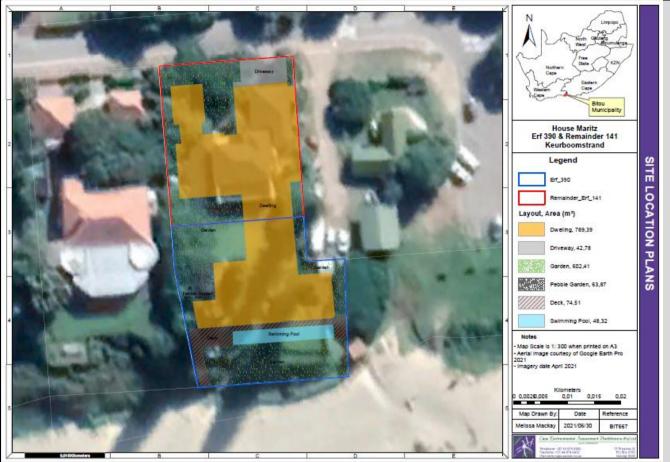
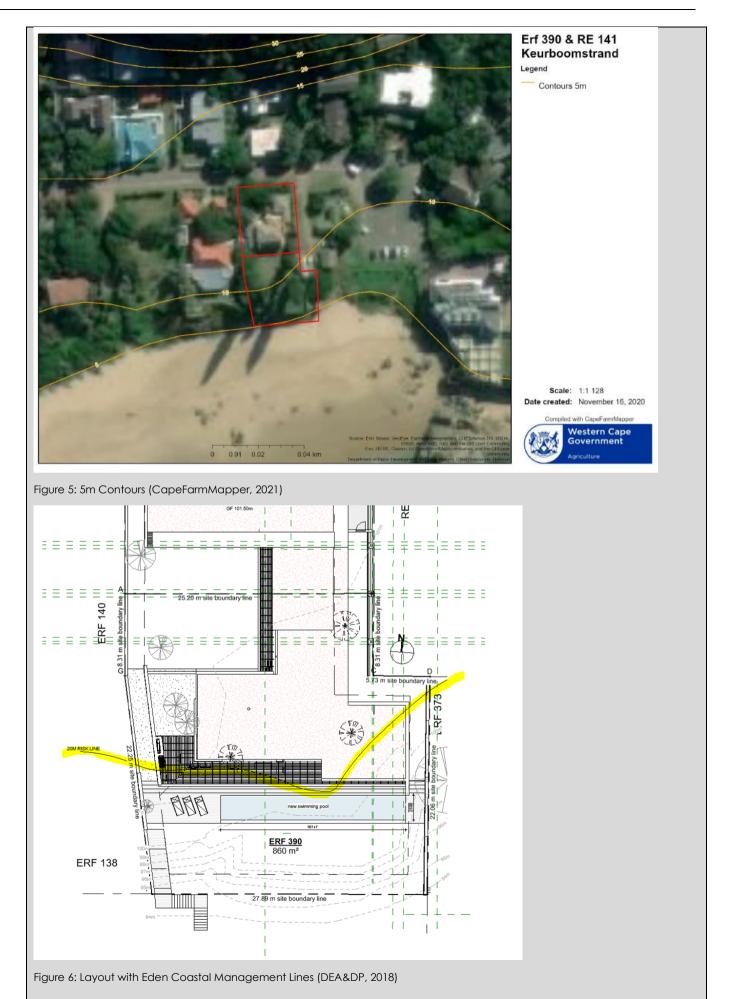


Figure 4: Proposed new dwelling

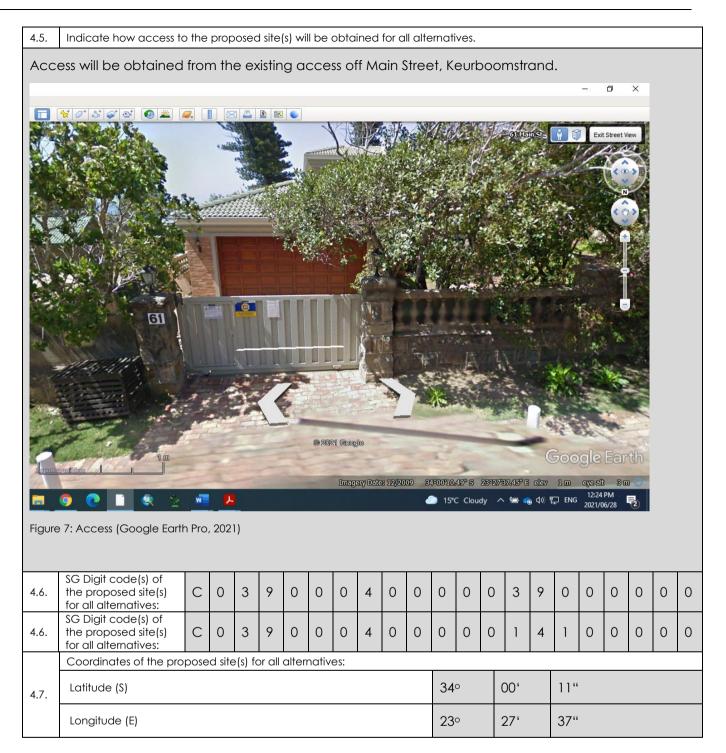
The majority of the new dwelling will remain above the 10m contour (CapeFarmMapper, 2021 & as surveyed) and landwards of the 20year Risk Line as indicated in the Eden Coastal Management Lines, however the majority of the settlement of Keurboomstrand is located within 100m of the high water mark of the sea.

The swimming pool and a portion of the deck fall just inside the 20-year risk line.

FORM NO. BAR10/2019 Page 17 of 110



FORM NO. BAR10/2019 Page 18 of 110



FORM NO. BAR10/2019 Page 19 of 110

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	VEC	NO
a copy of the exemption notice in Appendix E18.	ILS	NO

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	OH
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	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
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
The National Environmental Management Waste Act (Act No. 59 of 2008) ("NEM:WA")	YES	NO
The National Environmental Management Biodiversity Act, 2004 (Act No. 10 of 2004 ("NEMBA").	YES	NO
The National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003) ("NEMPAA").	YES	NO
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

3. OTHER LEGISLATION

LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	ADMINISTERING AUTHORITY and how it is relevant to this application	TYPE Permit/license/authorisation/comment / relevant consideration (e.g. rezoning or consent use, building plan approval, Water Use License and/or General Authorisation, License in terms of the SAHRA and CARA, coastal discharge permit, etc.)	DATE (if already obtained):
National Environmental Management Act (Act 107 of 1998 as amended)	DEA&DP	Environmental Authorisation	Pending
National Environmental Management Laws Amendment Act (Act 25 of 2014)	DEA&DP	Public participation as part of the Environmental Authorisation	Pending

FORM NO. BAR10/2019 Page 20 of 110

BIT667/06 House Maritz

National Environmental Management: Biodiversity Act (Act 10 of 2004)	DEA&DP	Removal of invasive vegetation / impact on threatened ecosystem type	None
National Water Act (Act 36 of 1998)	Department of Water & Sanitation	None	None
National Forest Act (Act 84 of 1998)	Department of Forestry	Possible pruning of milkwood trees	To be confirmed with final survey
Conservation of Agricultural Resources Act (Act 43 of 1983)	Department of Agriculture	Removal of invasive vegetation	None
Land Use Planning Ordinance (Act 15 of 1985)	Bitou Municipality	Rezoning & Consent Use Application Building Plan Application	Pending post EIA
Outeniqua Sensitive Coastal Areas Act (OSCA)	Bitou Municipality	OSCA Permit	Will not be applicable if EA is issued

4. **POLICIES**

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

policies.	
LEGISLATION, POLICIES, PLANS, GUIDELINES, SPATIAL TOOLS, MUNICIPAL DEVELOPMENT PLANNING FRAMEWORKS, AND INSTRUMENTS	Describe how the proposed development complies with and responds:
National Environmental Management Act (Act 107 of 1998 as amended)	Environmental Impact Assessment is being undertaken in terms of Chapter 5 of NEMA using the 2017 EIA regulations.

FORM NO. BAR10/2019 Page 21 of 110

National Environmental Management Laws Amendment Act (Act 25 of 2014)	The public participation is being undertaken in terms of this Act, specifically the 30 day comment period prescribed.
National Environmental Management: Biodiversity Act (Act 10 of 2004)	The identification of the onsite vegetation and the ecosystem status associated with the vegetation is undertaken in terms of this Act. This Act also applies to the control and management of Alien Invasive Species (AIS), which includes animals and vegetation.
National Heritage Resources Act (Act 25 of 1999)	Not required
National Water Act (Act 36 of 1998)	Since the development will be obtaining water directly from the municipality and no water resources will be affected, this Act is not applicable to this application.
National Forest Act (Act 84 of 1998)	Should the applicant need to prune the on site Milkwood trees, a permit in terms of this Act will be needed. This can only be confirmed on site post EIA.
Conservation of Agricultural Resources Act (Act 43 of 1983)	This Act applies for the removal and control of alien invasive vegetation, protection of water resources and the prevention of soil erosion.
Land Use Planning Ordinance (Act 15 of 1985)	The planning and construction of a dwelling to accommodate the land use proposed is regulated by this Ordinance. This process will only commence on the EIA process is completed.
Outeniqua Sensitive Coastal Areas Act (OSCA)	An OSCA application will not be necessary once an EA issued for this application.
National Waste Management Strategy	All waste from construction to decommissioning must be dealt with in terms of this strategy.
National Protected Area Expansion Strategy	There are no NPAES focus areas near the development properties.
Municipal Biodiversity Summary Project	The summary provides a tool with which to evaluate the impact of the development on the environment.

FORM NO. BAR10/2019 Page 22 of 110

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.		
Guideline for Environmental Management Plans (2005)	An EMPr has been included with this Basic Assessment to provide practical and implementable actions to ensure that the development maintains sustainability and minimise impacts through all its phases. The document is drafted as per the Guidelines and requirements of NEMA.	
Guideline for Public Participation (2013)	The PPP for this process is based on this Guideline and also includes any updated regulations.	
Guideline on Alternatives (2013)	Feasible and reasonable alternatives must be considered alongside the development proposal in order to ensure the Best Practicable Environmental Option (BPEO). These Guidelines have been used in their consideration.	
Guideline on Need & Desirability (2013)	Need & Desirability refers to the temporal and spatial need of an area for a specific development. This Guideline was used to define the requirements and implications of Need & Desirability.	
Bitou Municipality Spatial Development Framework (2013)	The proposal is identified in line with the SDF. Demographic information was obtained from this document.	
Bitou Municipality Integrated Development Plan 2017 - 2022	The proposal is identified in line with the IDP. Demographic information was obtained from this document.	

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

The following protocols apply:

- SITE SENSITIVITY VERIFICATION REQUIREMENTS WHERE A SPECIALIST ASSESSMENT IS REQUIRED BUT NO SPECIFIC ASSESSMENT PROTOCOL HAS BEEN PRESCRIBED
- PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL BIODIVERSITY
- PROTOCOL FOR THE SPECIALIST ASSESSMENT AND MINIMUM REPORT CONTENT REQUIREMENTS FOR ENVIRONMENTAL IMPACTS ON TERRESTRIAL PLANT SPECIES

FORM NO. BAR10/2019 Page 23 of 110

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.
19A(ii)	The infilling or depositing of any material of more than 5m³ into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 5m³ from — (i) The seashore; (ii) The littoral active zone, an estuary or a distance of 100m inland of the high water mark of the sea; (iii) The sea; - but excluding where such infilling, depositing, dredging, excavation, removal or moving — (i) Will occur behind a development setback line; (ii) Is for maintenance purposes undertaken in accordance with a maintenance management plan; (iii) Falls withing the ambit of activity 21 in this Notice, in which case that activity applies; (iv) 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 of Listing Notice 2 of 2014 applies.	The entire property and the erven to the north are located within 100m of the high water mark of the sea. The existing structure will be demolished and replaced with a new dwelling of ±965m² and the existing retaining wall will be replaced with rock gabion baskets. This demolition and redevelopment will require the moving of building materials of more than 5m³ into and from the area located within 100m of the high water mark of the sea.
52.	The expansion of structures in the coastal public property where the development footprint will be increased by more than 50 square metres, excluding such expansions within existing ports or harbours where there will be no increase in the development footprint of the port or harbour and excluding activities listed in activity 23 in Listing Notice 3 of 2014, in which case that activity applies.	The existing retaining wall will be replaced with rock gabion baskets to reduce the potential risks to the public property. The buried toe mattress will extend to and connect with the existing half buried gabions which is located seawards of the property's boundary and just inside the coastal public property thus expanding the existing structure.

FORM NO. BAR10/2019 Page 24 of 110

		The mapped area indicates that approximately 31m² will be added to the existing gabion wall, however detailed designs and on site conditions may increase this area which is likely to trigger this activity.
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.
Activity No(s):	Provide the relevant Scoping and EIR Activity(ies)	Describe the portion of the proposed development
	as set out in Listing Notice 2	to which the applicable listed activity relates.
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.

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):		Describe the portion of the proposed
	Provide the relevant Listed Activity(ies)	development to which the applicable listed
		activity relates.

SECTION E: PLANNING CONTEXT AND NEED AND DESIRABILITY

1. Provide a description of the preferred alternative.

Alternative 1 (Preferred Alternative)

The applicant is proposing the consolidation of the two erven back into their original erf, breaking down the existing dwelling and building a new dwelling (Alternative 1 (Preferred Alternative)) that is comprised of the following aspects:

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling with a swimming pool on the reconsolidated erf of ±965m²

FORM NO. BAR10/2019 Page 25 of 110

Replacement of the existing interlocking concrete block retaining wall with a gabion
wall (option 1 below) which connects to the existing gabion wall located seawards of
the current retaining wall.

The gabion wall will have timber decking and stairs.

Reconsolidated erf size will be ± 1603 m², thus a total of $\pm 60\%$ of the erf will be developed.

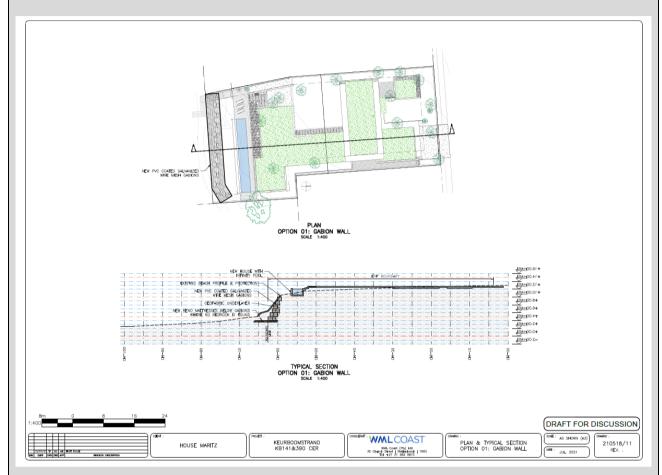


Figure 8: Alternative 1 (Preferred Alternative)

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 provincial gazette of 24 March 2016 confirmed the subdivision of Erf 390. In the title deed it indicates that not more than one building be erected on any one lot. This implies that a unit may be erected on Erf 390.

The applicant / new owner does not wish to construct a separate dwelling on Erf 390 and have one on Remainder Erf 141, but wishes to construct one dwelling in the middle of the two properties, essentially in the middle of the previous Erf 141. In order to achieve this, the two erven have to be reconsolidated and the Open Space Zone II be changed back to Residential Zone I. The Open Space II zonation was for specifically done for the purpose of a garden and not for any conservation purposes.

Without the reconsolidation, the construction will conflict with the current land uses.

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.

FORM NO. BAR10/2019 Page 26 of 110

The applicant is applying for the rezoning and reconsolidation of the properties.					
4.	4. Explain how the proposed development will be in line with the following?				
4.1	The Provincial Spatial Development Framework.				
• •	s are located within the urban edge of Keurboomstrand and the applicant wishes to right to a residential dwelling in an urban area.				
4.2	The Integrated Development Plan of the local municipality.				
The properties are located within the urban edge of Keurboomstrand and the applicant wishes to exercise their right to a residential dwelling in an urban area. The IDP supports development inside the urban area.					
4.3.	The Spatial Development Framework of the local municipality.				

Bitou Municipal Spatial Development Framework, 2017 (BMSDF)

The BMSDF, adopted during 2017, included a comprehensive contextual analysis of bio-physical, economic and social elements of Bitou Municipality and provides the policy framework taken into consideration with the formulation of the spatial proposals for Bitou. The BMSDF follows on and refines policy guidelines emanating from the Western Cape Provincial Spatial Development Framework, 2014 and the Eden District Spatial Development Framework, 2017.

The BMSDF (Keurbooms River Draft SDF) does not contain site-specific spatial proposals for the two subject properties other than highlighting its location within an existing urban area and inside the urban edge. General notes relating to urban development within this area include (BMSDF, 2017:276):

□ "All development in this area would have to be subject to strict urban design, architectural and land use guidelines;

☐ High income housing/market housing to be promoted."

The proposal would be consistent with the overall intention of the BMSDF particularly insofar as these relate to urban development within the existing suburb of Keurboomstrand, which was established in 1926.

Draft Bitou Municipal Spatial Development Framework, 2020 (Draft BMSDF)

While not yet formally adopted, the Draft BMSDF will eventually replace the current BMSDF (2017), together with specific spatial policies and objectives for Bitou Municipality. The draft document therefore has a bearing on future spatial planning and should be acknowledged as part of this application.

The Draft BMSDF does not contain specific spatial proposals pertaining to site other than highlighting the Remainder of Erf 141 as "residential" and Erf 390 as "vacant". The Draft BMSDF refers to the Keurbooms Local Area Structure Plan (refer to 5.3 below) and defines the development rationale as follows:

"A strong holiday/resort character predominates the area. It is fairly homogenously developed with residential and resort uses, wedged between sea and coastal plateau slopes. Altering its character by permitting commercial and other non-residential development could detract from the area's attraction. The theme should thus be a low density residential one." (Draft BMSDF, 2020:127)

A lower order business node ("B3") is proposed at the far eastern end of Main Street, directly east of the site, where some business and tourism orientated uses already exist.

The proposal would not militate against the spatial objective to retain the low density residential/ resort character of Keurboomstrand. As such the proposal is considered consistent with the overall spatial proposals for the subject site.

FORM NO. BAR10/2019 Page 27 of 110

4.4.	4.4. The Environmental Management Framework applicable to the area.			
No adopted	No adopted EMF is currently in place for the Bitou Municipality.			
5.	5. Explain how comments from the relevant authorities and/or specialist(s) with respect to biodiversity have influenced the proposed development.			

The properties have been significantly transformed due to many years of urban development taking place. The biodiversity on the site is deemed to be negligible due to these transformations. The only items of significance are a few milkwood trees located on the western boundary fence which will be observed.

6. Explain how the Western Cape Biodiversity Spatial Plan (including the guidelines in the handbook) has influenced the proposed development.

The WCBSP was utilised to determine the desktop sensitivities associated with the site. The spatial plan takes into account the urban environment that makes up Keurboomstrand and has not included it in the Critical Biodiversity Areas, as shown below.

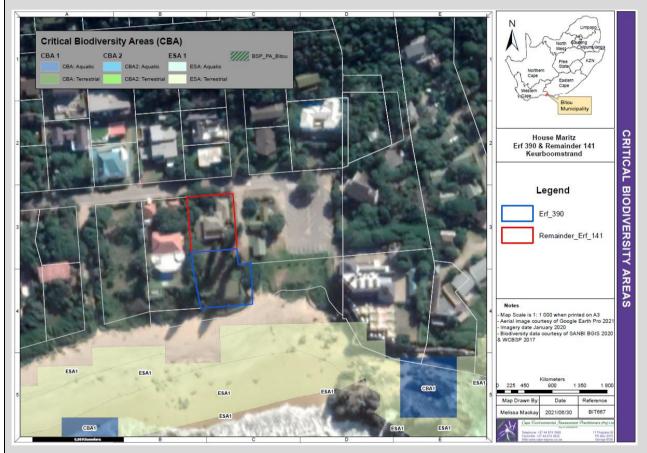


Figure 9: Critical Biodiversity Areas

The area is considered to be in the category of No Natural Remaining

No Natural Remaining

These areas are suitable for development but may still provide limited biodiversity and ecological infrastructure functions and should be managed in a way that minimises impacts on biodiversity and ecological infrastructure.

The Handbooks lists Land Use Activity Descriptions and Biodiversity–related Conditions/Controls for Urban Areas as follows:

FORM NO. BAR10/2019 Page 28 of 110

5. a) Existing settlements and urban expansion

Includes: Metropolitan areas, cities, larger towns, small towns, villages and hamlets.

Assumes the following conditions/controls:

- The control of urban expansion through the delineation of an urban edge to prevent urban sprawl.
- The delineation process is guided by the provincial urban edge guideline document and informed by the Western Cape Biodiversity Spatial Plan, for example: a Critical Biodiversity Area Map is used to delineate a boundary of the urban edge.
- The promotion of compact urban settlements, whilst maintaining an open space system (where possible) that is informed by a fine-scale biodiversity plan or map.

Since the properties are within the urban edge of Keurboomstrand it is an allowable activity as per the Land Use Zones.

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

According to the ICMA Coastal Zonation, the properties fall within the Coastal Protection Zone. This is the urban area located 100m inland of the high water mark of the sea. The existing dwelling and both of the erven are located within the 100m buffer area that makes up the Coastal Protection Zone. The coastal protection zone is established to manage, regulate and restrict the use of land that is adjacent to coastal public property, or that plays a significant role in the coastal ecosystem (DEA&DP & SSI, 2009).

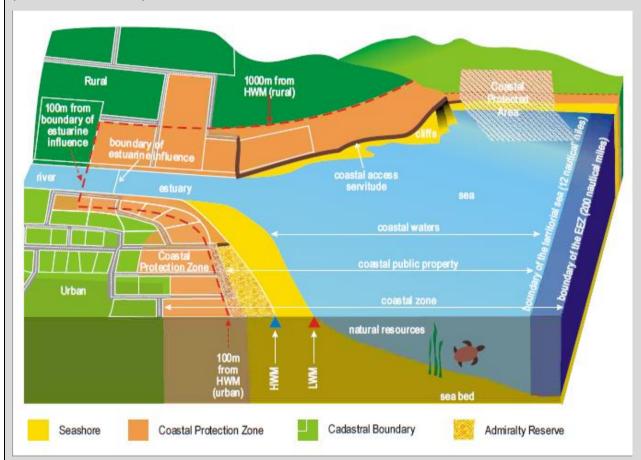
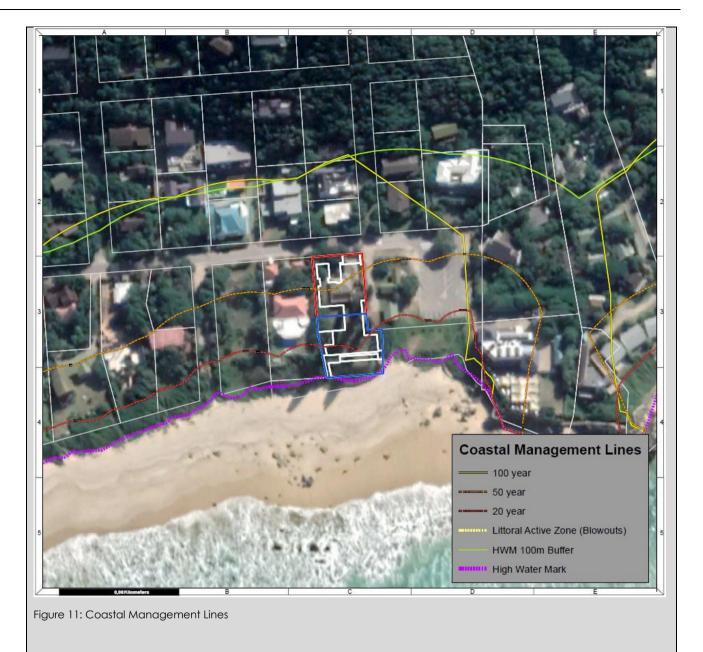


Figure 10: Coastal Zones (2009 The Department of Environmental Affairs & SSI Engineers and Environmental Consultants, South Africa)

FORM NO. BAR10/2019 Page 29 of 110



FORM NO. BAR10/2019 Page 30 of 110



Figure 12: Coastal Management Lines (DEA&DP, 2021)

The Coastal Protection Zones aims to:

- To protect the ecological integrity, natural character, and the economic, social and aesthetic value of the neighbouring coastal public property;
- To avoid increasing the effect or severity of natural hazards;
- To protect people, property and economic activities from the risks and threats which may arise from dynamic coastal processes such as wave and wind erosion, coastal storm surges, flooding and sea-level rise;
- To maintain the natural functioning of the littoral active zone;
- To maintain the productivity of the coastal zone; and
- To allow authorities to perform rescue and clean-up operations.

The reconsolidation and rezoning of the two properties will not adversely affect the aims of the Coastal Protection Zone as identified above. The following must be taken into consideration:

- The properties do not form part of any current or future protected areas and are located inside the urban edge of Keurboomstrand, with development on either side of them;
- The proposed improvement of the existing interlocking walls by replacing it with a gabion structure improves the risk mitigation and enhances the protection afforded by the current gabion structure in the coastal public property that extends beyond just the relevant properties;
- The land associated with these erven has been set aside for township development and forms part of the established urban area and urban edge of Keurboomstrand;
- The proposed option for refurbishing the seawards boundary of the properties will not cause irreversible or long lasting adverse effects on the coastal environment. It will greatly improve the current support system and extend the risk mitigation duration;

FORM NO. BAR10/2019 Page 31 of 110

- This proposed risk mitigation will improve the existing structures ability to withstand coastal pressures and to lessen damage to existing and future infrastructure;

- The proposed risk mitigation will improve the resilience of the coastal protection zone and will support current coastal management objectives to take into consideration climate change impacts;
- The proposed reconsolidation and redevelopment on the properties is not likely to affect the interests of the community as the erf will remain as a single residential entity in a residential environment.
- 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.

No, the screening tool report has not changed from the one submitted with the Application Form.

9. Explain how the proposed development will optimise vacant land available within an urban area.

The previous owner subdivided Erf 141 and rezoned the seawards erf (Erf 390) as Open Space II for the use of a private garden. The new owner is proposing the reconsolidation of the two erven and the rezoning of Erf 390 back to residential in order to optimise the usage of the property within the urban area of Keurboomstrand.

10. Explain how the proposed development will optimise the use of existing resources and infrastructure.

The existing dwelling is serviced by the Bitou Municipality in terms of water, electricity and sewage. This connection will be retained for the proposed new development. The current dwelling will be demolished completely.

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).

The existing dwelling is serviced by the Bitou Municipality in terms of water, electricity and sewage. This connection will be retained for the proposed new development.

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.

Need (time)

<u>Is the land use considered within the timeframe intended by the existing approved Spatial Development Framework (SDF)? (I.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP?</u>

Yes, the SDF dated 2017 and the Draft 2020 version clearly include the property inside the urban edge of Keurboomstrand. The proposal implies a form of densification and intensified use of land forming part of a residential suburb traditionally characterised by low density urban development. The proposal would effectively transform a "private residential garden" to a "private residential dwelling" and associated private space – upon land situated within the urban edge within an area where there is a high demand (i.e. need) for residential properties.

The proposal is not inconsistent with spatial policies and objectives in relation to densification pertinent within existing urban areas of Keurboomstrand (i.e. inside the urban edge).

Should the development occur here at this point in time?

Yes, the land has been utilised for residential purposes since the township was set out in 1946. The proposal implies a form of densification and intensified use of land forming part of a residential

FORM NO. BAR10/2019 Page 32 of 110

suburb traditionally characterised by low density urban development, which is supported by the current municipal approach.

Does the community / area need the activity and the associated land use concerned?

The proposal would maximise land used for residential purposes within a residential area characterised by high demand and low supply. The consolidated property is likely to attract further investment and therefore contribute to the long-term development of the area.

Are the necessary services with adequate capacity currently available?

Yes, there is existing services provided to the existing dwelling which will be retained.

Is this development provided for in the infrastructure planning of the municipality?

Yes, there is existing services provided to the existing dwelling which will be retained.

Is this project part of a national programme to address an issue of national concern or importance?

No.

Desirability (place)

Is the development the best practicable environmental option for this land / site?

Yes. The proposal is not inconsistent with spatial policies and objectives in relation to densification pertinent within existing urban areas of Keurboomstrand (i.e. inside the urban edge).

The proposal would maximise land used for residential purposes within a residential area characterised by high demand and low supply. The consolidated property is likely to attract further investment and therefore contribute to the long-term development of the area.

Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF?

No. The proposal is not inconsistent with spatial policies and objectives in relation to densification pertinent within existing urban areas of Keurboomstrand (i.e. inside the urban edge).

Would the approval of this application compromise the integrity of the existing approved environmental management priorities for the area?

No. The properties have been significantly transformed to accommodate residential requirements. They are located within the urban edge of Keurboomstrand. The proposed changes to the existing retaining wall will support risk mitigation within the Coastal Protection Zone.

Do location factors favour this land use at this place?

Yes. The properties have been utilised for residential use since the township was set out in 1946 and there is no intention to change this land use. According to the planner, the former landowners argued that Erf 390's former single residential zoning resulted in a higher municipal valuation and therefore higher property tax, which they were intent to reduce through rezoning of Erf 390 to a zoning consistent with its actual use. Reverting back to a Residential zoning is favourable in this location.

How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas?

The properties are located in the Coastal Protection Zone and the proposed risk mitigation for the seawards boundary would ensure better resilience along the erven boundaries. The site itself are not sensitivity environmentally due to the significant urban transformation that has taken place over many decades.

How will the development impact on people's health and wellbeing?

FORM NO. BAR10/2019 Page 33 of 110

The site will not negatively impact on people's health and wellbeing. It is private property and the activities are consistent with the current residential land use.

Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?

Unlikely. The property will be owned and managed by the applicant.

Will the proposed land use result in unacceptable cumulative impacts?

Unlikely. The properties currently have a single residential dwelling located on them. The proposed risk mitigation on the seaward boundary will improve the current resilience of the property, as well as the neighbouring properties.

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.
2.	Confirm that the PPP as indicated in the application form has been complied with. All the PPP must be included in Appendix F.
3.	Confirm which of the State Departments and Organs of State indicated in the Notice of Intent/application form were consulted with.
4.	If any of the State Departments and Organs of State were not consulted, indicate which and why.
5.	if any of the State Departments and Organs of State did not respond, indicate which.
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.

Note:

A register of all the I&AP's notified, including the Organs of State, <u>and</u> 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

FORM NO. BAR10/2019 Page 34 of 110

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:
 - o 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);
 - o if a facsimile was sent, a copy of the facsimile Report;
 - o if an electronic mail was sent, a copy of the electronic mail sent; and
 - o 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

1.1.	Was a specialist s	tudy conducted?		YE\$	NO
1.2.	Provide the name	and or company who conducted the specialist	study.		
	La dia ata ata ata	de la la constitución de la cons	la a sika al ana al ann	-1-1-1-1-1-1-1	
1.3.	your proposed de	vhich aquifer your proposed development will be evelopment.	localea ana exp	piain now inis r	ias iniluencea
Acco	ording to CapeF	armMapper, the following aquifer char	acteristics app	ply:	
Δauif	er Type and Yie	ld			
- qon	er type and the				
Classi	ification:	Fractured 0.5 - 2.0 l/s			
Danil	h to Croundwat				
Depii	h to Groundwate	31			
Deptl	h (mbgl):	50.25			
<u></u>					
Groui	ndwater Quality				
EC (n	nS/m):	150 - 370			
1.4.		th of groundwater and explain how the depth of	f groundwater a	nd type of aqu	uifer (if present) h
	· ·	proposed development.			
The d	levelopment will	not impact on the groundwater any mo	ore than the e	existing resid	ential use doe
Depth	h to Groundwate	er			
Danti	h (mbgl):	50.25			

FORM NO. BAR10/2019 Page 35 of 110

2. SURFACE WATER

2.1.	Was a specialist study conducted?	YES	NO	
2.2.	Provide the name and/or company who conducted the specialist study.			
2.3.	2.3. Explain how the presence of watercourse(s) and/or wetlands on the property(ies) has influenced your proposed development.			
There are no water resources located on the properties.				

3. COASTAL ENVIRONMENT

3.1.	Was a specialist study conducted?	YES	Ю	
3.2.	3.2. Provide the name and/or company who conducted the specialist study.			
WML	WML Coastal			
3.3.	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 National Environmental Management Act (NEMA, Act 107 of 1998) makes provision for activities identified in terms of section 24(2)(a) that require an Environmental Impact Assessment to be undertaken in order to be issued with an Environmental Authorisation. "environmental authorisation", when used in Chapter 5, means the authorisation by a competent authority of a listed activity or specified activity in terms of this Act, and includes a similar authorisation contemplated in a specific environmental management Act. The National Environmental Management: Integrated Coastal Management Act (NEM:ICMA, Act 24 of 2008) is considered to be a "specific environmental management Act", or SEMA.

The development triggers a coastal related listed activity, in that the development is located within 100m of the high water mark of the sea. A significantly large portion of Keurboomstrand falls within this area.

Thus coastal activities identified in terms of Chapter 5 of NEMA for this application are considered in terms of Section 63 of the ICMA as follows:

63. Environmental authorisations for coastal activities

- (1) Where an environmental authorisation in terms of Chapter 5 of the National Environmental Management Act is required for coastal activities, the competent authority must take into account all relevant factors, including -
- (a) the representations made by the applicant and by interested and affected parties;

This report will be subject to a public participation process which will generate representations by I&APs. These will be included in the final BAR submitted to the competent authority for their consideration.

(b) the extent to which the applicant has in the past complied with similar authorisations;

The applicant has not applied for any similar authorisations, thus this item is not applicable.

(c) whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development or activity is consistent with the purpose for establishing and protecting those areas;

FORM NO. BAR10/2019 Page 36 of 110

The erven are located within 100m of the high water mark of the sea, thus they are considered to fall within the Coastal Protect Zone as defined by the NEM:ICMA. The erven are within the urban edge of Keurboomstrand and the proposed risk mitigation for the seaward boundary of Erf 390 improves the resilience of the coastal interface. The Coastal Engineering Report provides details on the status quo of this zone and promotes the implementation of risk averse mitigation.

(d) the estuarine management plans, coastal management programmes, coastal management lines and coastal management objectives applicable in the area;

The Eden Coastal Management Lines (DEA&DP, 2018) indicate that the many of the seaside erven within the urban area of Keurboomstrand falls withing the Coastal Management Line. The applicable properties are identified by the yellow star.

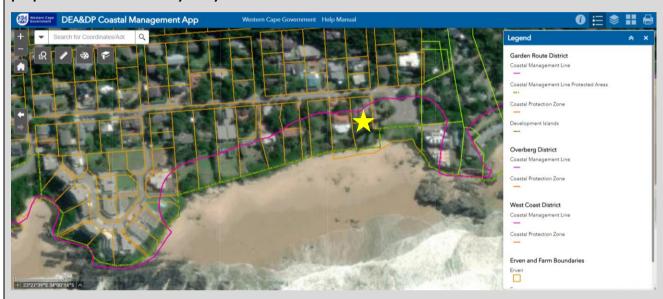


Figure 13: Central Keurboomstrand with Eden Coastal Management Lines (DEA&DP, 2018)

The coastal management lines effectively delineate different management zones proposed to facilitate improved planning and management of sensitive and often vulnerable coastal areas, and to safeguard public access points. In terms of how existing development is influenced by the implementation of this setback line, it is necessary to look closer at the projected risk lines.



Figure 14: Erosion Risk Lines (DEA&DP, 2018)

All of the properties are located within the 100 year erosion risk line and the 50 year line is replicated on the Coastal Management Line. The 20 year erosion risk line appears to have become the de facto

FORM NO. BAR10/2019 Page 37 of 110

setback line, as all the existing dwellings have been constructed above this line. The proposed new dwelling will have the majority of the infrastructure above the 20 year risk line, with only swimming pool and a portion of the front deck within this area.

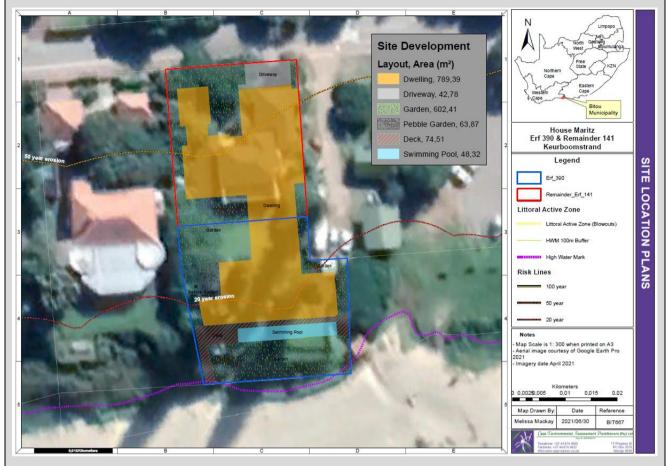


Figure 15: Layout with Erosion Risk Lines

- (e) the socio-economic impact if the activity –
- (i) is authorised;
- (ii) is not authorised;

Remainder Erf 141 has an existing residential dwelling on it. The reconsolidation of the erven and the refurbishment of the dwelling has some socio-economic benefit to the community in that it will provide construction opportunities. In terms of operational impacts, they remain the same with or without the proposed new development (residential rates, taxes, land use, employment opportunities).

(g) the likely impact of coastal environmental processes on the proposed activity;

(Section 63(1)(g) amended by section 33(c) of Act 36 of 2014)

A Coastal Engineering study was undertaken to determine potential impacts of the coastal environmental processes on the proposed activity. According to the specialist, the current block retaining wall is not sufficient as a risk mitigation measure, neither for the status quo nor the proposed refurbishment. The specialist recommends that the current retaining wall should be replaced with a rock gabion wall structure which connects to the existing gabion structure on coastal public property.

- (h) whether the development or activity—
- (i) is situated within coastal public property and is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations;

FORM NO. BAR10/2019 Page 38 of 110

The development is located on private property and the proposed risk mitigation measures will enhance the current measures in place protecting coastal public property. The proposed gabion wall to replace the current interlocking retaining will provide a significantly improved risk mitigation for the proposed development.

(ii) is situated within the coastal protection zone and is inconsistent with the purpose for which a coastal protection zone is established as set out in section 17;

The current dwelling and other residential dwellings of Keurboomstrand are located within the coastal protection in that they are located within 100m of the high water mark of the sea. The redevelopment of the existing dwelling and the improved risk mitigation being proposed is not inconsistent with the purpose of the CPZ. The properties do not play a significant role in a coastal ecosystem, nor are they considered sensitive areas in terms of ecosystem type and status, indigenous vegetation or aquatic features.

The proposed development will improve the current risk mitigation in place to protect the coastal area and the current infrastructure. The properties have been developed and transformed for many decades and as such the impact on the littoral zone will not be increased from the status quo.

(iii) is situated within coastal access land and is inconsistent with the purpose for which coastal access land is designated as set out in section 18;

The properties are not located within coastal access land.

(iv) is likely to cause irreversible or long-lasting adverse effects to any aspect of the coastal environment that cannot satisfactorily be mitigated;

No. The properties are located inside the urban edge and urban area of Keurboomstrand and this township area has been in place since as early as 1946. The reconsolidation and refurbishing as proposed will not cause any further irreversible or long-lasting adverse effects. Rather, it is submitted that the proposed risk mitigations associated with this proposal will improve the current risk mitigation in place for protecting the coastal environment.

(v) is likely to be significantly damaged or prejudiced by dynamic coastal processes;

No. The properties are located inside the urban edge and urban area of Keurboomstrand and this township area has been in place since as early as 1946. The reconsolidation and refurbishing as proposed will not cause any further irreversible or long-lasting adverse effects. Rather, it is submitted that the proposed risk mitigations associated with this proposal will improve the current risk mitigation in place for protecting the coastal environment.

(vi) would substantially prejudice the achievement of any coastal management objective; or

No. The properties are located inside the urban edge and urban area of Keurboomstrand and this township area has been in place since as early as 1946. The reconsolidation and refurbishing as proposed will not cause any further irreversible or long-lasting adverse effects. Rather, it is submitted that the proposed risk mitigations associated with this proposal will improve the current risk mitigation in place for protecting the coastal environment.

(vii) would be contrary to the interests of the whole community;

No. The proposal is related to a residential dwelling which is in keeping with the current land use of the area.

(Section 63(1)(h) substituted by section 33(d) of Act 36 of 2014)

(i) whether the very nature of the proposed activity or development requires it to be located within coastal public property, the coastal protection zone or coastal access land;

FORM NO. BAR10/2019 Page 39 of 110

The properties are located within the coastal protection zone (they are within 100m of the high water mark of the sea) and the proposed risk mitigation will partially be located in the coastal public property. This has led to this Basic Assessment process being undertaken.

(j) whether the proposed activity or development will provide important services to the public when using coastal public property, the coastal protection zone, coastal access land or a coastal protected area; and

The improved risk mitigation will benefit the protection of the coastal area, however the residential development will not provide important services to the public.

(5) The competent authority must ensure that the terms and conditions of any environmental authorisation are consistent with any applicable coastal management programmes and promote the attainment of coastal management objectives in the area concerned.

The competent authority for this application is obliged to comply with this requirement. This Basic Assessment Report and the specialist studies will also aid in their consideration of the application.

(6) Where an environmental authorisation is not required for coastal activities, the Minister may, by notice in the Gazette list such activities requiring a permit or licence.

Not applicable.

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

Not applicable.

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.

4. BIODIVERSITY

4.1.	Were specialist studies conducted?	YES	ОИ
4.2.	Provide the name and/or company who conducted the specialist studies.		

Messrs Benjamin Walton & Peet Joubert

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 following systemic conservation planning and biodiversity tools were utilised:

- SANBI Vegetation Maps 2018;
- Terrestrial ecosystem threat status assessment 2018;
- Terrestrial Ecosystem Threat Status 2011;
- National Freshwater Ecosystem Priority Areas (NFEPA);
- Western Cape Biodiversity Spatial Plan (WCBSP, 2017;
- Eden Coastal Management Lines (DEA&DP, 2018).

The site has been significantly transformed, has no aquatic resources nor any sensitive vegetation types on it.

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

The site has been significantly transformed and is located inside the urban edge of Keurboomstrand. In terms of biodiversity objectives, the site does not add nor detract further from them.

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.

FORM NO. BAR10/2019 Page 40 of 110

The following statement is an excerpt from the specialist study:

Consolidation of the abovementioned properties, in the opinion of the author, will not impact on the conservation status of Goukamma Dune Thicket; with remaining vegetation of Low Terrestrial Biodiversity Sensitivity.

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.

Not applicable.

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

The site is located inside the urban edge of Keurboomstrand, it has been part of the township area since at least 1946, has been significantly transformed to gardens and the existing residential dwelling which has led to very little faunal presence except species that tolerate such a disturbed environment.

GEOGRAPHICAL ASPECTS

Explain whether any geographical aspects will be affected and how has this influenced the proposed activity or development.

The development of the preferred alternative is due to the risk averse approach motivated by the coastal engineer to ensure that the coastal interface is improved and made more sustainable. This takes into consideration the type of coastline and future impacts on it associated with sea level rise and climate change.

6. HERITAGE RESOURCES

6.1.	Was a specialist study conducted?	YES	ОИ
6.2.	Provide the name and/or company who conducted the specialist study.		

Mr Stefan de Kock of Perception Planning

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

No Section 38 of the NHRA submission is required, however a Section 34 Demolition Application has been submitted for the removal of a portion of the existing boundary wall. See the Heritage Applicability Statement in Appendix F of this Application.

The Section 34 Demolition Permit was issued by Heritage Western Cape on 15 December 2021.

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.

No Section 38 of the NHRA submission is required, however a Section 34 Demolition Application has been submitted for the removal of a portion of the existing boundary wall. See the Heritage Applicability Statement in Appendix F of this Application.

The Section 34 Demolition Permit was issued by Heritage Western Cape on 15 December 2021.

8. SOCIO/ECONOMIC ASPECTS

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

FORM NO. BAR10/2019 Page 41 of 110

The site is situated within a coastal hamlet characterised predominantly by single residential land use. Existing zonings within the direct proximity also include Open Space Zone II (Erf 390 and public parking area directly to the east), Business Zone II (Restaurant/ Accommodation), Agriculture Zone I (to the northeast) and Resort Zone (Accommodation).

The area is mostly seasonal, although the Covid-19 pandemic has led to more residents staying on and working remotely.

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

The proposed development will replace the existing single residential dwelling on the Remainder of Erf 141 and as such does not contribute any additional value to the areas than what is already in place. There will be some contribution at construction phase.

The proposal would maximise land used for residential purposes within a residential area characterised by high demand and low supply. The consolidated property is likely to attract further investment and therefore contribute to the long-term development of the 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 development is a single residential development replacing an existing single residential development. No additional social initiatives will be introduced.

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 following potential impacts may impact on people's health and well being:

- Noise during construction this will be mitigated by managing construction work hours and health and safety on the construction area.
- The development of the Preferred Alternative includes improved risk mitigation that will add additional protection to the coastal interface which will benefit the landowner and beach users.
- The visual impact / sense of place of the residential dwelling will be in keeping with the surrounding residential land use.

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.

<u>Alternative 1 (Preferred Alternative)</u>

The applicant is proposing the consolidation of the two erven back into their original erf, breaking down the existing dwelling and building a new dwelling (Alternative 1 (Preferred Alternative).

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling on the reconsolidated erf of ±965m²

FORM NO. BAR10/2019 Page 42 of 110

 Replacement of the existing interlocking concrete block retaining wall with a gabion wall (option 1 below) which connects to the existing gabion wall located seawards of the current retaining wall.

• The gabion wall will have timber decking and stairs.

Reconsolidated erf size will be ± 1603 m², thus a total of $\pm 60\%$ of the erf will be developed.

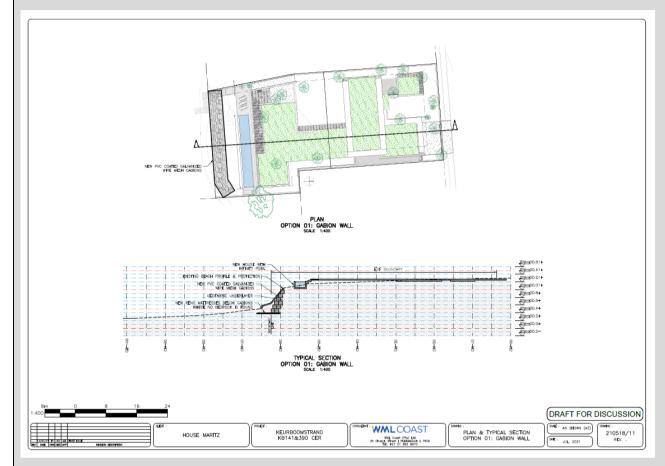


Figure 16: Alternative 1-OPTION 01: GABION WALL

The dwelling will have 3 bedrooms on the ground floor with living spaces (kitchen, lounge, office), along with a nanny unit, gymn and garage. The upstairs area consists of 3 bedrooms and a lounge. Outdoor living space includes decked patio, pebble garden and a swimming pool. The remainder of the site will be retained as gardened / landscaped areas.

FORM NO. BAR10/2019 Page 43 of 110

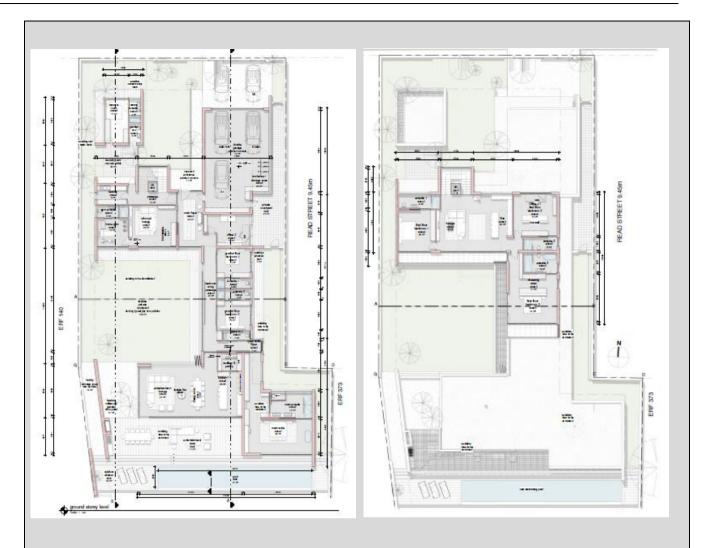


Figure 17: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)

The majority of the new dwelling will remain above the 10m contour (CapeFarmMapper, 2021 & as surveyed) and landwards of the 20year Risk Line as indicated in the Eden Coastal Management Lines, however the majority of the settlement of Keurboomstrand is located within 100m of the high water mark of the sea.

The swimming pool and a portion of the deck fall just inside the 20-year risk line.

FORM NO. BAR10/2019 Page 44 of 110

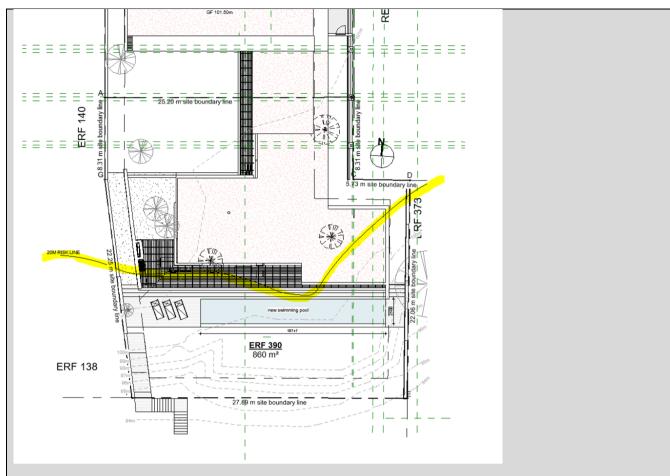


Figure 18: Layout with Eden Coastal Management Lines (DEA&DP, 2018)

Access will be obtained from the existing access off Main Street, Keurboomstrand.

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

Three alternatives are being considered for this assessment. They are as follows:

Alternative 1 (Preferred Alternative) – Consolidation of the two erven back into their original erf, breaking down the existing dwelling and building a new dwelling (Alternative 1 (Preferred Alternative) as described above.

Alternative 2-OPTION 02: SHEETPILE WALL (Drawing 210518/21)

-The construction of a single residential dwelling, made up of the following aspects:

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling on the reconsolidated erf of ±965m²
- Replacement of the existing interlocking concrete block retaining wall with a sheetpile wall (option 2 below)

FORM NO. BAR10/2019 Page 45 of 110

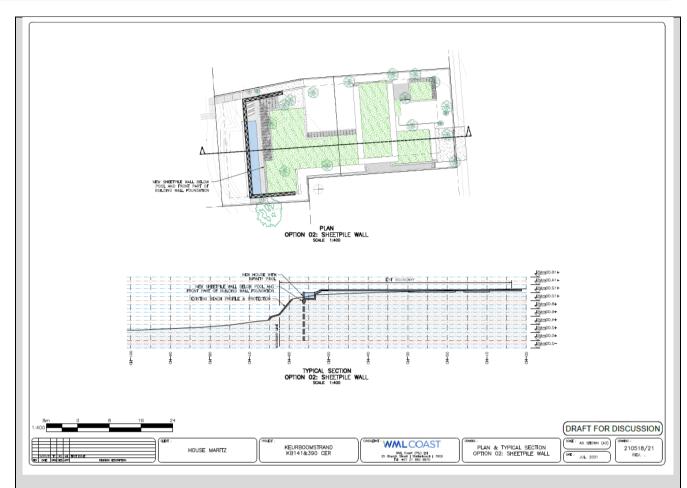


Figure 19: Alternative 2-OPTION 02: SHEETPILE WALL

Alternative 3-OPTION 03: PILED SUPPORT (Drawing 210518/31)

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling on the reconsolidated erf of ±965m²
- Replacement of the existing interlocking concrete block retaining wall with a piled support (option 3 below)

FORM NO. BAR10/2019 Page 46 of 110

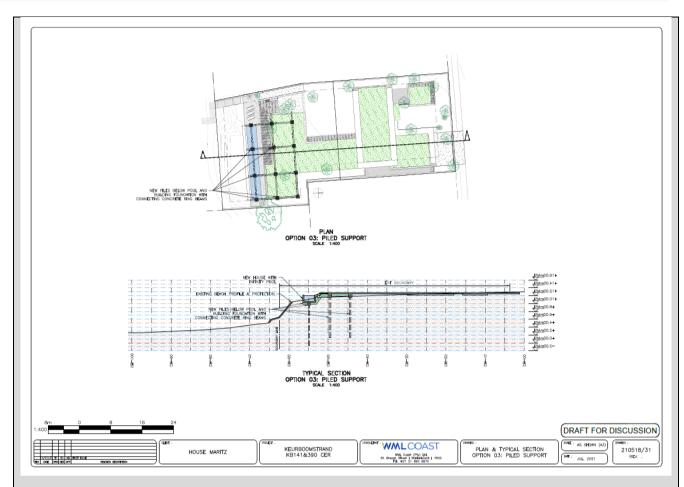


Figure 20: Alternative 3-OPTION 03: PILED SUPPORT

Alternative 4- (No-Go Alternative) – this option retains the status quo which includes the existing residential dwelling and the current interlocking block retaining wall. This option is likely to lead to coastal erosion over time according to the predicted modelling. These impacts can be mitigated now to ensure more sustainable management of the coastal interface associated with this property and the neighbouring erven.

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

Following were the criteria provided by the applicant for the site selection:

- The applicant has obtained ownership of both of the properties.
- Municipal services are already provided to the property.
- The Open Space zonation of Erf 390 does not serve any specific conservation objective but is specified for a garden and was done to lessen the municipal rates of the previous landowner.
- There is an existing residential dwelling on the property and it has been utilised for residential use for decades.
- The properties are inside the urban edge and urban area of Keurboomstrand.

The following were criterial provided by the EAP & specialist:

• Dwelling must not impact take into account any remaining indigenous vegetation i.e. the existing milkwoods must be incorporated into the design as far as possible.

FORM NO. BAR10/2019 Page 47 of 110

• The property, initially zoned as residential, was subdivided and rezoned in August 2015 from Residential Zone 1 to Open Space Zone II for private open space (private garden). Remainder Erf 141 retained the Residential Zone I zoning and has a single residential dwelling of ±348m² allows for the development of a single residential dwelling. The reconsolidation of the properties is not inconsistent with the municipal planning for the area.

- The size of the property does not restrict the proposed single residential dwelling.
- The sensitivity of the site from a biodiversity aspect is Very Low.
- The risk mitigation will improve protection against coastal erosion.

The matrix value is determined by multiplying the weighting by the individual score assigned.

The maximum score that can be achieved by this site selection matrix is 105. Achieving a 97 score confirms the suitability of the site for the proposed activity.

It must be noted that should the properties be reconsolidated and Erf 390 is rezoned to residential again, then the score is 103.

Site Selection Matrix

Criteria		Site 1	Site 2	Site 3
Property				
Size	3	15	0	0
Applicant owned	1	5	0	0
Zonation	3	9	0	0
Landuse	2	10	0	0
Services				
Access	3	15	0	0
Water	3	15	0	0
Electricity	3	15	0	0
Environmental considerations	2	8	0	0
Waste Management	1	5	0	0

1 = Not Acceptable

2 = Poor

3 = Acceptable

4 = Very Good

5 = Excellent

Multiply weighting for criteria by the individual score assigned i.e. weighting for Size is 3, score given is 5 therefore matrix value is 15

97

0

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

FORM NO. BAR10/2019 Page 48 of 110

The applicant, in consultation with the architect developed the site plan based on their requirements for a permanent single residential dwelling. The applicant was advised to obtain a Coastal Engineer Report to ascertain if the proposed residential dwelling would impact on the coastal protection zone.

Whilst undertaking the study, the coastal engineer confirmed that it would be better in the long term to include the gabion wall risk mitigation even though it is the more expensive option for the development. The applicant agreed and the risk mitigation has been put forward as the preferred Alternative.

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

- The properties are both owned by the applicant and the intention is to reconsolidate them back to the previous erf.
- The Open Space II zoning was specified as being for a private garden and was not utilised for an conservation outcome.
- Remainder Erf 141 already has a single residential dwelling on it and all services are already in place.

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

The properties are already utilised for residential use and have been since the inception of the Keurboomstrand township as early as 1946. The impacts of continuing using the site for the same use is thus negligible.

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

Provide a description of the preferred activity alternative.

<u>Alternative 1 (Preferred Alternative)</u>

The applicant is proposing the consolidation of the two erven back into their original erf, breaking down the existing dwelling and building a new dwelling (Alternative 1 (Preferred Alternative).

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling on the reconsolidated erf of ±965m²
- Replacement of the existing interlocking concrete block retaining wall with a gabion wall (option 1 below) which connects to the existing gabion wall located seawards of the current retaining wall.
- The gabion wall will have timber decking and stairs.

Reconsolidated erf size will be ± 1603 m², thus a total of $\pm 60\%$ of the erf will be developed.

FORM NO. BAR10/2019 Page 49 of 110

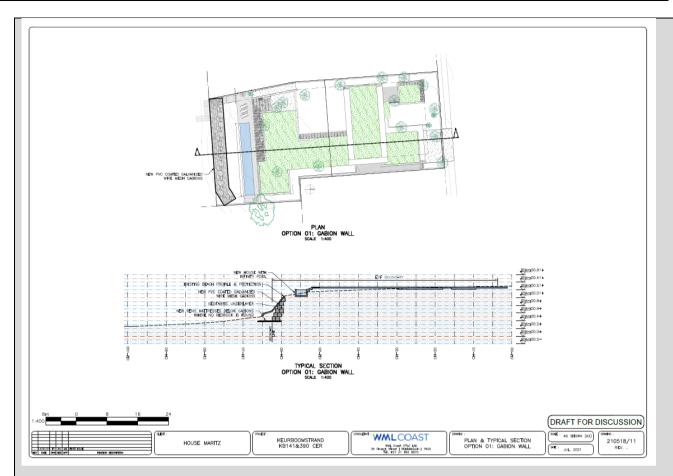


Figure 21: Alternative 1-OPTION 01: GABION WALL

The dwelling will have 3 bedrooms on the ground floor with living spaces (kitchen, lounge, office), along with a nanny unit, gymn and garage. The upstairs area consists of 3 bedrooms and a lounge. Outdoor living space includes decked patio, pebble garden and a swimming pool. The remainder of the site will be retained as gardened / landscaped areas.

FORM NO. BAR10/2019 Page 50 of 110

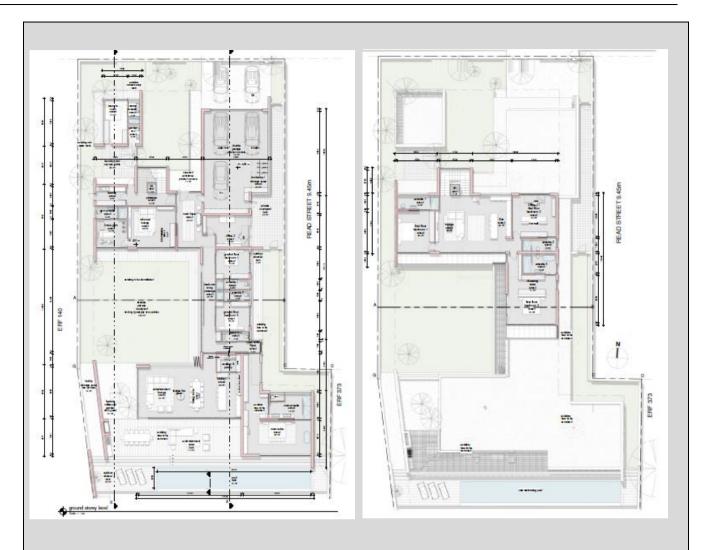


Figure 22: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)

The majority of the new dwelling will remain above the 10m contour (CapeFarmMapper, 2021 & as surveyed) and landwards of the 20year Risk Line as indicated in the Eden Coastal Management Lines, however the majority of the settlement of Keurboomstrand is located within 100m of the high water mark of the sea.

The swimming pool and a portion of the deck fall just inside the 20-year risk line.

FORM NO. BAR10/2019 Page 51 of 110

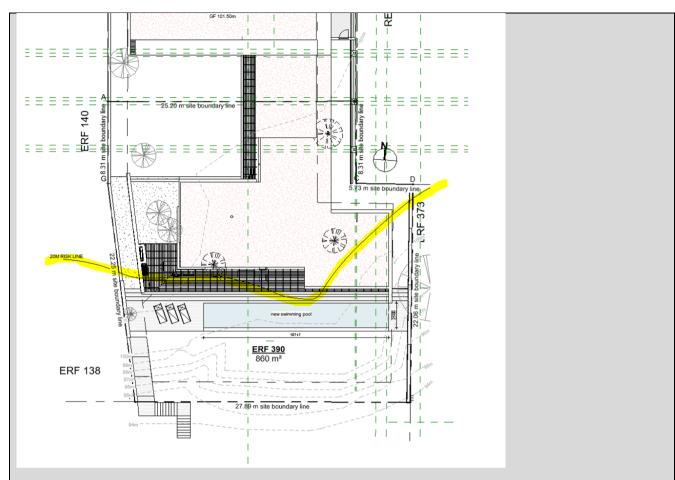


Figure 23: Layout with Eden Coastal Management Lines (DEA&DP, 2018)

Access will be obtained from the existing access off Main Street, Keurboomstrand.

Provide a motivation for the preferred activity alternative.

The applicant is proposing the consolidation of the two erven back into their original erf, breaking down the existing dwelling and building a new dwelling within an urban area inside the urban edge of Keurboomstrand.

Provide a detailed motivation if no activity alternatives exist.

The activity is for a residential dwelling in a residential area on property owned by the applicant as such no activity alternatives are being proposed.

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

The following impacts have been identified:

Positive:

- Improved risk mitigation by replacing the existing interlocking retaining wall with a rock gabion wall that connects up to the existing gabion wall at the high water mark.
- Supporting the local economy during construction phase.

Negative:

- Temporary access disruption during construction.
- Temporary noise impacts during construction.
- Very low impact on Goukamma Dune Thicket vegetation.

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.

FORM NO. BAR10/2019 Page 52 of 110

Alternative 1 (Preferred Alternative)

The applicant is proposing the consolidation of the two erven back into their original erf, breaking down the existing dwelling and building a new dwelling (Alternative 1 (Preferred Alternative).

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling on the reconsolidated erf of ±965m²
- Replacement of the existing interlocking concrete block retaining wall with a gabion wall (option 1 below) which connects to the existing gabion wall located seawards of the current retaining wall.
- The gabion wall will have timber decking and stairs.

Reconsolidated erf size will be ±1603m², thus a total of ±60% of the erf will be developed.

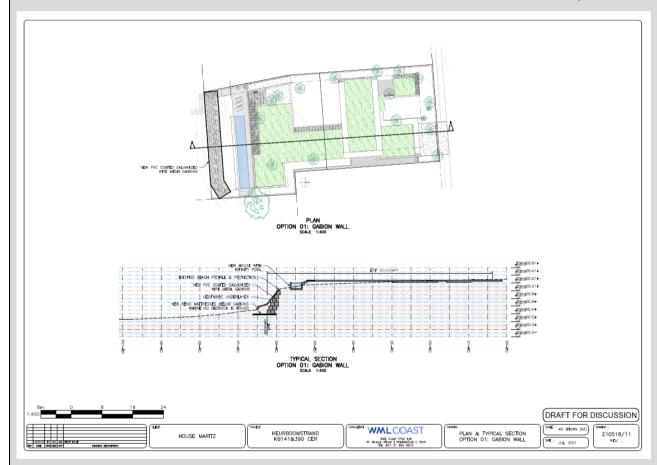


Figure 24: Alternative 1-OPTION 01: GABION WALL

The dwelling will have 3 bedrooms on the ground floor with living spaces (kitchen, lounge, office), along with a nanny unit, gymn and garage. The upstairs area consists of 3 bedrooms and a lounge. Outdoor living space includes decked patio, pebble garden and a swimming pool. The remainder of the site will be retained as gardened / landscaped areas.

FORM NO. BAR10/2019 Page 53 of 110

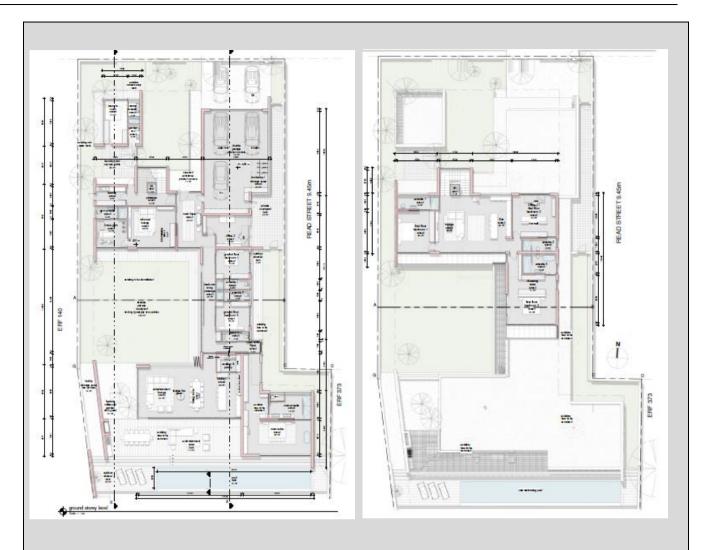


Figure 25: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)

The majority of the new dwelling will remain above the 10m contour (CapeFarmMapper, 2021 & as surveyed) and landwards of the 20year Risk Line as indicated in the Eden Coastal Management Lines, however the majority of the settlement of Keurboomstrand is located within 100m of the high water mark of the sea.

The swimming pool and a portion of the deck fall just inside the 20-year risk line.

FORM NO. BAR10/2019 Page 54 of 110

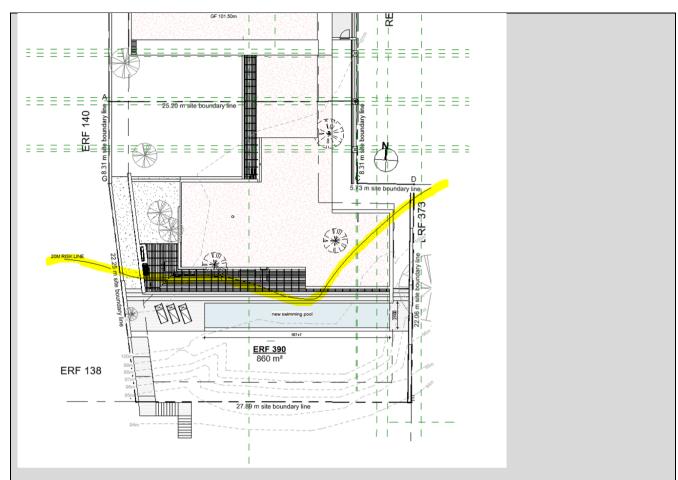


Figure 26: Layout with Eden Coastal Management Lines (DEA&DP, 2018)

Access will be obtained from the existing access off Main Street, Keurboomstrand.

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

Alternative 2-OPTION 02: SHEETPILE WALL (Drawing 210518/21)

-The construction of a single residential dwelling, made up of the following aspects:

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling on the reconsolidated erf of ±965m²
- Replacement of the existing interlocking concrete block retaining wall with a sheetpile wall (option 2 below)

FORM NO. BAR10/2019 Page 55 of 110

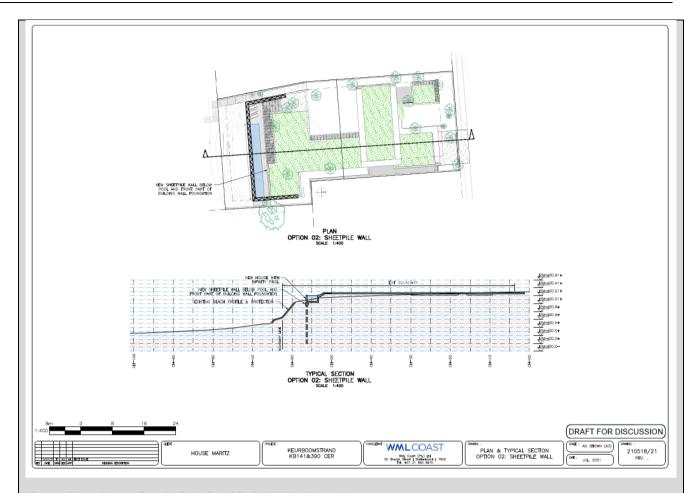


Figure 27: Alternative 2-OPTION 02: SHEETPILE WALL

Alternative 3-OPTION 03: PILED SUPPORT (Drawing 210518/31)

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling on the reconsolidated erf of ±965m²
- Replacement of the existing interlocking concrete block retaining wall with a piled support (option 3 below)

FORM NO. BAR10/2019 Page 56 of 110

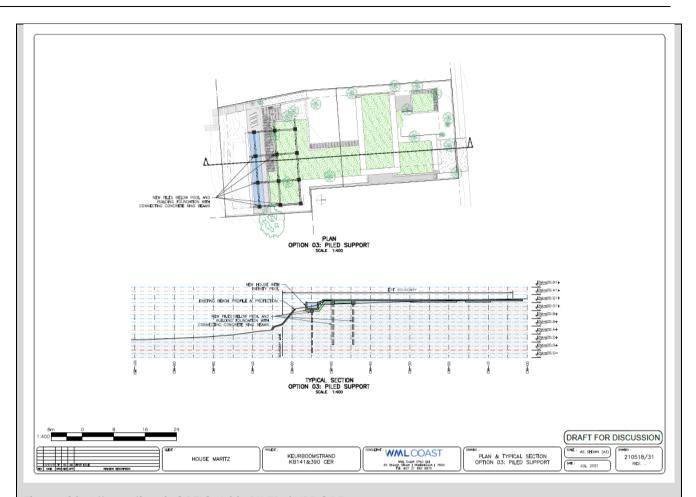


Figure 28: Alternative 3-OPTION 03: PILED SUPPORT

Alternative 4- (No-Go Alternative) – this option retains the status quo which includes the existing residential dwelling and the current interlocking block retaining wall. This option is likely to lead to coastal erosion over time according to the predicted modelling. These impacts can be mitigated now to ensure more sustainable management of the coastal interface associated with this property and the neighbouring erven.

Provide a motivation for the preferred design or layout alternative.

According to the Coastal Engineering Report, the preferred Alternative will provide better risk mitigation for the coastal interface.

This solution protects the full embankment and swimming pool as well as the building and also reduces the potential risks to the public property associated with failure of the existing wall. The gabion wall with timber decking and stairs is deemed fitting with the new dwelling design. The exposed gabion wall structure can be fit within the boundary of Erf 390 (set back from the toe of the existing wall). However, a buried toe mattress which extends over the seaward boundary line (to the existing half buried gabions) will be required for scour protection.

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

Not applicable.

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

The following impacts have been identified:

Positive:

• Improved risk mitigation by replacing the existing interlocking retaining wall with a rock gabion wall that connects up to the existing gabion wall at the high water mark.

FORM NO. BAR10/2019 Page 57 of 110

• Supporting the local economy during construction phase.

Negative:

- Temporary access disruption during construction.
- Temporary noise impacts during construction.
- Very low impact on Goukamma Dune Thicket vegetation.

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:

No technology alternatives are being proposed.

Provide a description of any other technology alternatives investigated.

No technology alternatives are being proposed.

Provide a motivation for the preferred technology alternative.

No technology alternatives are being proposed.

Provide a detailed motivation if no alternatives exist.

No technology alternatives are being proposed.

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

No technology alternatives are being proposed.

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

Provide a description of the preferred operational alternative.

The activity is a residential dwelling as described for Alternative 1 (Preferred). No operational alternatives are being proposed.

Provide a description of any other operational alternatives investigated.

Not applicable.

Provide a motivation for the preferred operational alternative.

Not applicable.

Provide a detailed motivation if no alternatives exist.

Not applicable.

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

Not applicable.

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.

Alternative 4- (No-Go Alternative) – this option retains the status quo which includes the existing residential dwelling and the current interlocking block retaining wall. This option is likely to lead to coastal erosion over time according to the predicted modelling. These impacts can be mitigated now to ensure more sustainable management of the coastal interface associated with this property and the neighbouring erven

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.

FORM NO. BAR10/2019 Page 58 of 110

Alternative 1 (Preferred) is being proposed as the best practicable alternative for the properties. Alternatives 2 and 3 are both viable and feasible but will not provide the same long term risk mitigation for the coastal interface that Alternative 1 will.

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

Alternative 1 is the preferred option for the proposed development. This alternative is consistent with planning requirements and objectives, will be utilised for residential use within a residential area inside the urban edge, has a very low impact on the biodiversity and provides a long term risk mitigation for the coastal interface.

Alternative 1 (Preferred Alternative)

The applicant is proposing the consolidation of the two erven back into their original erf, breaking down the existing dwelling and building a new dwelling (Alternative 1 (Preferred Alternative).

- Removal of the existing structure and the refurbishment of the dwelling on the original sized erf.
- A single residential dwelling on the reconsolidated erf of ±965m²
- Replacement of the existing interlocking concrete block retaining wall with a gabion wall (option 1 below) which connects to the existing gabion wall located seawards of the current retaining wall.
- The gabion wall will have timber decking and stairs.

Reconsolidated erf size will be ± 1603 m², thus a total of $\pm 60\%$ of the erf will be developed.

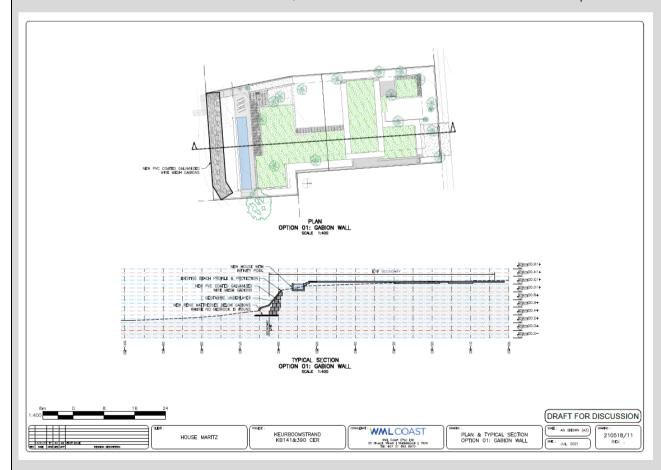


Figure 29: Alternative 1-OPTION 01: GABION WALL

The dwelling will have 3 bedrooms on the ground floor with living spaces (kitchen, lounge, office), along with a nanny unit, gymn and garage. The upstairs area consists of 3 bedrooms and a lounge.

FORM NO. BAR10/2019 Page 59 of 110

Outdoor living space includes decked patio, pebble garden and a swimming pool. The remainder of the site will be retained as gardened / landscaped areas.

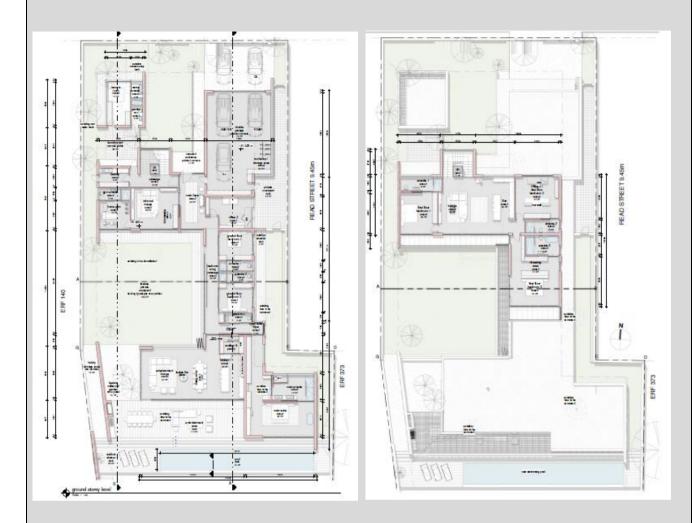
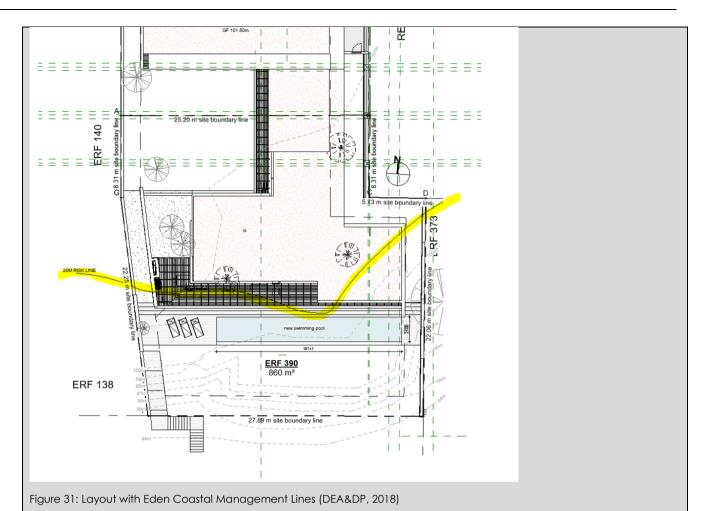


Figure 30: Proposed new dwelling (ground and first floor) (CLD Architects, 2021)

The majority of the new dwelling will remain above the 10m contour (CapeFarmMapper, 2021 & as surveyed) and landwards of the 20year Risk Line as indicated in the Eden Coastal Management Lines, however the majority of the settlement of Keurboomstrand is located within 100m of the high water mark of the sea.

The swimming pool and a portion of the deck fall just inside the 20-year risk line.

FORM NO. BAR10/2019 Page 60 of 110



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).

Access will be obtained from the existing access off Main Street, Keurboomstrand.

The no-go area during construction will be on the western boundary under the milkwood trees. This will ensure protection of the roots of the trees. If any of the milkwoods require pruning, a Forestry License must be obtained.

FORM NO. BAR10/2019 Page 61 of 110



Figure 32: No go areas along western boundary

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.

Criteria for Assessment

These criteria are drawn from the EIA Regulations, published by the Department of Environmental Affairs and Tourism (April 1998) in terms of the Environmental Conservation Act No. 73 of 1989.

These criteria include:

• Nature of the impact

This is the appraisal of the type of effect the construction, operation and maintenance of a development would have on the affected environment. This description should include what is to be affected and how.

Extent of the impact

Describe whether the impact will be: local extending only as far as the development site area; or limited to the site and its immediate surroundings; or will have an impact on the region, or will have an impact on a national scale or across international borders.

FORM NO. BAR10/2019 Page 62 of 110

• Duration of the impact

The specialist / EAP should indicate whether the lifespan of the impact would be short term (0-5 years), medium term (5-15 years), long term (16-30 years) or permanent.

Intensity

The specialist / EAP should establish whether the impact is destructive or benign and should be qualified as low, medium or high. The study must attempt to quantify the magnitude of the impacts and outline the rationale used.

• Probability of occurrence

The specialist / EAP should describe the probability of the impact actually occurring and should be described as improbable (low likelihood), probable (distinct possibility), highly probable (most likely) or definite (impact will occur regardless of any prevention measures).

The impacts should also be assessed in terms of the following aspects:

Legal requirements

The specialist / EAP should identify and list the relevant South African legislation and permit requirements pertaining to the development proposals. He / she should provide reference to the procedures required to obtain permits and describe whether the development proposals contravene the applicable legislation.

• Status of the impact

The specialist / EAP should determine whether the impacts are negative, positive or neutral ("cost – benefit" analysis). The impacts are to be assessed in terms of their effect on the project and the environment. For example, an impact that is positive for the proposed development may be negative for the environment. It is important that this distinction is made in the analysis.

Accumulative impact

Consideration must be given to the extent of any accumulative impact that may occur due to the proposed development. Such impacts must be evaluated with an assessment of similar developments already in the environment. Such impacts will be either positive or negative, and will be graded as being of negligible, low, medium or high impact.

• Degree of confidence in predictions

The specialist / EAP should state what degree of confidence (low, medium or high) is there in the predictions based on the available information and level of knowledge and expertise.

Based on a synthesis of the information contained in the above-described procedure, you are required to assess the potential impacts in terms of the following significance criteria:

No significance: the impacts do not influence the proposed development and/or environment in any way.

FORM NO. BAR10/2019 Page 63 of 110

Low significance: the impacts will have a minor influence on the proposed development and/or environment. These impacts require some attention to modification of the project design where possible, or alternative mitigation.

Moderate significance: the impacts will have a moderate influence on the proposed development and/or environment. The impact can be ameliorated by a modification in the project design or implementation of effective mitigation measures.

High significance: the impacts will have a major influence on the proposed development and/or environment and will result in the "no-go" option on the development or portions of the development regardless of any mitigation measures that could be implemented. This level of significance must be well motivated.

FORM NO. BAR10/2019 Page 64 of 110

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.

■ State Impact e.g Odour, Noise, clearanc Terrestrial Biodiversity State Impact e.g Odour, Noise, clearanc ■ Terrestrial Biodiversity				
Alternative:	Alternative 1	Alternative 2	Alternative 3	No Go Option
PLANNING, DESIGN AND DEVELO	DPMENT PHASE			
Potential impact and risk:	Loss of vegetation	Loss of vegetation	Loss of vegetation	Loss of vegetation
Nature of impact:	Clearance of vegetation within the Goukamma Dune Thicket ecosystem type affecting pattern and process	Clearance of vegetation within the Goukamma Dune Thicket ecosystem type affecting pattern and process	Clearance of vegetation within the Goukamma Dune Thicket ecosystem type affecting pattern and process	No clearance of vegetation, status quo retained
Extent and duration of impact:	Site specific, permanent	Site specific, permanent	Site specific, permanent	Site specific, permanent
Consequence of impact or risk:	Loss of pattern and process	Loss of pattern and process	Loss of pattern and process	None
Probability of occurrence:	Unlikely as there is no such vegetation on site	Unlikely as there is no such vegetation on site	Unlikely as there is no such vegetation on site	Unlikely as there is no such vegetation on site
Degree to which the impact may cause irreplaceable loss of resources:	None	None	None	None
Degree to which the impact can be reversed:	None	None	None	None
Indirect impacts:	None	None	None	None
Cumulative impact prior to mitigation:	Very low as site is already significantly transformed	Very low as site is already significantly transformed	Very low as site is already significantly transformed	None

FORM NO. BAR10/2019 Page 65 of 110

Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Very Low	Very Low	Very Low	Very Low
Degree to which the impact can be avoided:	None	None	None	None
Degree to which the impact can be managed:	None	None	None	None
Degree to which the impact can be mitigated:	None	None	None	None
Proposed mitigation:	Best Practise: - Remove alien invasive species - Use indigenous landscaping - Retain milkwoods	Best Practise: - Remove alien invasive species - Use indigenous landscaping - Retain milkwoods	Best Practise: - Remove alien invasive species - Use indigenous landscaping - Retain milkwoods	Best Practise: - Remove alien invasive species - Use indigenous landscaping - Retain milkwoods
Residual impacts:	None	None	None	None
Cumulative impact post mitigation:	None	None	None	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Very Low	Very Low	Very Low	None
OPERATIONAL PHASE				
Potential impact and risk:	None	None	None	None
Nature of impact:	None	None	None	None
Extent and duration of impact:	None	None	None	None
Consequence of impact or risk:	None	None	None	None
Probability of occurrence:	None	None	None	None

FORM NO. BAR10/2019 Page 66 of 110

Degree to which the impact may cause irreplaceable loss of resources:	None	None	None	None
Degree to which the impact can be reversed:	None	None	None	None
Indirect impacts:	None	None	None	None
Cumulative impact prior to mitigation:	None	None	None	None
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	None	None	None	None
Degree to which the impact can be avoided:	None	None	None	None
Degree to which the impact can be managed:	None	None	None	None
Degree to which the impact can be mitigated:	None	None	None	None
Proposed mitigation:	None	None	None	None
Residual impacts:	None	None	None	None
Cumulative impact post mitigation:	None	None	None	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	None	None	None	None

DECOMMISSIONING AND CLOSURE PHASE

Since this application is for the development of a residential dwelling replacing an existing residential dwelling within an urban area, it is unlikely that it will be decommissioned in the near future. As such there are no impacts associated with decommissioning currently identified, however, any legislative requirements valid at the time that decommissioning may occur, should be followed.

Potential impact and risk:			
----------------------------	--	--	--

FORM NO. BAR10/2019 Page 67 of 110

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)		

FORM NO. BAR10/2019 Page 68 of 110

State Impact e.g Odour, Noise, clearanc Coastal Erosion State Impact e.g Odour, Noise, clearanc ▶				
Alternative:	Alternative 1	Alternative 2	Alternative 3	No Go Option
PLANNING, DESIGN AND DEVELO	PMENT PHASE			
Potential impact and risk:	Coastal erosion on the seawards boundary of the property	Coastal erosion on the seawards boundary of the property	Coastal erosion on the seawards boundary of the property	Status quo retained
Nature of impact:	Construct dwelling but replace existing retaining wall with rock gabion basket that connects to existing rock gabion basket	Construct dwelling but replace existing retaining wall with sheetpile wall	Construct dwelling but replace existing retaining wall with piled support	Keep existing retaining wall in situ.
Extent and duration of impact:	Site specific, Permanent	Site specific, Permanent	Site specific, Permanent	Site specific, Permanent
Consequence of impact or risk:	Improved risk mitigation for coastal protection zone	Will protect the development but not the coastal interface	Will keep the development stable but will not protected against coastal erosion on the interface	Is currently sufficient but experience has shown that it is not a sustainable protection option in the event of high storm surge
Probability of occurrence:	Definite	Definite	Definite	Very probable
Degree to which the impact may cause irreplaceable loss of resources:	None	None	None	Medium
Degree to which the impact can be reversed:	None	None	None	None
Indirect impacts:	Improved coastal protection for adjacent properties	Could lead to coastal erosion on adjacent properties	Could lead to coastal erosion on adjacent properties	Could lead to coastal erosion on this and adjacent properties

FORM NO. BAR10/2019 Page 69 of 110

Cumulative impact prior to mitigation:	Medium	Medium	Medium	Medium	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Medium (positive)	Medium	Medium	Medium	
Degree to which the impact can be avoided:	Low	Low	Low	Low	
Degree to which the impact can be managed:	High	Medium	Medium	Low	
Degree to which the impact can be mitigated:	Medium	Medium	Medium	Low	
Proposed mitigation:	Construction of the gabion rock wall to prevent coastal erosion; Cover gabions with topsoil and replant indigenous vegetation on the slope	Maintenance of existing gabions to prevent retaining wall being impacted.	Maintenance of existing gabions to prevent retaining wall being impacted.	Maintenance of existing gabions to prevent retaining wall being impacted.	
Residual impacts:					
Cumulative impact post mitigation:	Improved coastal protection for the property and adjacent erven	Stabilised erf but requires ongoing maintenance of existing gabions on coastal public property	Stabilised erf but requires ongoing maintenance of existing gabions on coastal public property	Stabilised erf but requires ongoing maintenance of existing gabions on coastal public property	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	Medium	Medium	Medium	
OPERATIONAL PHASE					
Potential impact and risk:	Costal erosion associated with stormwater	Costal erosion associated with stormwater	Costal erosion associated with stormwater	Costal erosion associated with stormwater	
Nature of impact:	Stormwater management	Stormwater management	Stormwater management	Stormwater management	

FORM NO. BAR10/2019 Page 70 of 110

Extent and duration of impact:	Site specific, permanent	Site specific, permanent	Site specific, permanent	Site specific, permanent
Consequence of impact or risk:	Incorrect stormwater management impacting on the integrity of the foredune	Incorrect stormwater management impacting on the integrity of the foredune	Incorrect stormwater management impacting on the integrity of the foredune	Status quo
Probability of occurrence:	Probable	Probable	Probable	Probable
Degree to which the impact may cause irreplaceable loss of resources:	Low	Low	Low	Low
Degree to which the impact can be reversed:	High	High	High	High
Indirect impacts:	Undercutting of the existing gabion from the land	Undercutting of the existing gabion from the land	Undercutting of the existing gabion from the land	Collapse of the existing block retaining wall
Cumulative impact prior to mitigation:	Low	Low	Low	Low
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	Low	Low	Low
Degree to which the impact can be avoided:	High	High	High	High
Degree to which the impact can be managed:	High	High	High	High
Degree to which the impact can be mitigated:	High	High	High	High
Proposed mitigation:	No stormwater may concentrate on the gabions or on the beachfront; Stormwater must be directed landwards to the existing municipal stormwater system;	No stormwater may concentrate on the gabions or on the beachfront; Stormwater must be directed landwards to the existing municipal stormwater system;	No stormwater may concentrate on the gabions or on the beachfront; Stormwater must be directed landwards to the existing municipal stormwater system;	Rainwater harvesting should be implemented; Retain areas of soft landscaping to absorb stormwater.

FORM NO. BAR10/2019 Page 71 of 110

	Rainwater harvesting should	Rainwater harvesting should	Rainwater harvesting should	
	be implemented; Retain areas of soft landscaping to absorb stormwater.	be implemented; Retain areas of soft landscaping to absorb stormwater.	be implemented; Retain areas of soft landscaping to absorb stormwater.	
Residual impacts:	None	None	None	None
Cumulative impact post mitigation:	Low	Low	Low	Low
Significance rating of impact after mitigation (e.g. Low, Medium, Medium-High, High, or Very-High)	Very Low	Very Low	Very Low	Very Low

DECOMMISSIONING AND CLOSURE PHASE

Since this application is for the development of a residential dwelling replacing an existing residential dwelling within an urban area, it is unlikely that it will be decommissioned in the near future. As such there are no impacts associated with decommissioning currently identified, however, any legislative requirements valid at the time that decommissioning may occur, should be followed.

Potential impact and risk:		
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:		

FORM NO. BAR10/2019 Page 72 of 110

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:	Alternative 1	Alternative 2	Alternative 3	No Go Option	
PLANNING, DESIGN AND DEVELO	PLANNING, DESIGN AND DEVELOPMENT PHASE				
Potential impact and risk:	Nuisance to other landowners	Nuisance to other landowners	Nuisance to other landowners	None	
Nature of impact:	Construction noise	Construction noise	Construction noise	None	
Extent and duration of impact:	Site specific, short term	Site specific, short term	Site specific, short term	None	

FORM NO. BAR10/2019 Page 73 of 110

Consequence of impact or risk:	Nuisance to neighbours	Nuisance to neighbours	Nuisance to neighbours	None
Probability of occurrence:	Probable	Probable	Probable	None
Degree to which the impact may cause irreplaceable loss of resources:	None	None	None	None
Degree to which the impact can be reversed:	Medium	Medium	Medium	None
Indirect impacts:	None	None	None	None
Cumulative impact prior to mitigation:	Low	Low	Low	None
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	Low	Low	None
Degree to which the impact can be avoided:	Medium	Medium	Medium	None
Degree to which the impact can be managed:	Medium	Medium	Medium	None
Degree to which the impact can be mitigated:	Medium	Medium	Medium	None
Proposed mitigation:	Construction work must take place during normal work hours	Construction work must take place during normal work hours	Construction work must take place during normal work hours	None
Residual impacts:	None	None	None	None
Cumulative impact post mitigation:	Low	Low	Low	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	Low	Low	None
OPERATIONAL PHASE				

FORM NO. BAR10/2019 Page 74 of 110

Potential impact and risk:	None	None	None	None
Nature of impact:	None	None	None	None
Extent and duration of impact:	None	None	None	None
Consequence of impact or risk:	None	None	None	None
Probability of occurrence:	None	None	None	None
Degree to which the impact may cause irreplaceable loss of resources:	None	None	None	None
Degree to which the impact can be reversed:	None	None	None	None
Indirect impacts:	None	None	None	None
Cumulative impact prior to mitigation:	None	None	None	None
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	None	None	None	None
Degree to which the impact can be avoided:	None	None	None	None
Degree to which the impact can be managed:	None	None	None	None
Degree to which the impact can be mitigated:	None	None	None	None
Proposed mitigation:	None	None	None	None
Residual impacts:	None	None	None	None
Cumulative impact post mitigation:	None	None	None	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	None	None	None	None

FORM NO. BAR10/2019 Page 75 of 110

DECOMMISSIONING AND CLOSURE PHASE

Since this application is for the development of a residential dwelling replacing an existing residential dwelling within an urban area, it is unlikely that it will be decommissioned in the near future. As such there are no impacts associated with decommissioning currently identified, however, any legislative requirements valid at the time that decommissioning may occur, should be followed.

Potential impact and risk:		
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:		

FORM NO. BAR10/2019 Page 76 of 110

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

State Impact e.g Odour, Noise, clearanc Traffic Access during construction State Impact e.g Odour, Noise, clearanc				
Alternative:	Alternative 1	Alternative 2	Alternative 3	No Go Option
PLANNING, DESIGN AND DEVELO	DPMENT PHASE			
Potential impact and risk:	Nuisance to other landowners	Nuisance to other landowners	Nuisance to other landowners	None
Nature of impact:	Construction traffic causing congestion	Construction traffic causing congestion	Construction traffic causing congestion	None
Extent and duration of impact:	Site specific, short term	Site specific, short term	Site specific, short term	None
Consequence of impact or risk:	Nuisance to neighbours and visitors	Nuisance to neighbours and visitors	Nuisance to neighbours and visitors	None
Probability of occurrence:	Probable	Probable	Probable	None
Degree to which the impact may cause irreplaceable loss of resources:	None	None	None	None
Degree to which the impact can be reversed:	Medium	Medium	Medium	None
Indirect impacts:	None	None	None	None

FORM NO. BAR10/2019 Page 77 of 110

Cumulative impact prior to mitigation:	Low	Low	Low	None	
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Low	Low	Low	None	
Degree to which the impact can be avoided:	Medium	Medium	Medium	None	
Degree to which the impact can be managed:	Medium	Medium	Medium	None	
Degree to which the impact can be mitigated:	Medium	Medium	Medium	None	
	Construction period must not coincide with school holidays;	Construction period must not coincide with school holidays;	Construction period must not coincide with school holidays;		
Proposed mitigation:	Traffic management must be in place during construction;	Traffic management must be in place during construction.	Traffic management must be in place during construction.	None	
	An ORV license must be obtained for gabion beach work.				
Residual impacts:	None	None	None	None	
Cumulative impact post mitigation:	Low	Low	Low	None	
Significance rating of impact after mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	Very Low	Very Low	Very Low	None	
OPERATIONAL PHASE					
Potential impact and risk:	None	None	None	None	
Nature of impact:	None	None	None	None	

FORM NO. BAR10/2019 Page 78 of 110

Extent and duration of impact:	None	None	None	None
Consequence of impact or risk:	None	None	None	None
Probability of occurrence:	None	None	None	None
Degree to which the impact may cause irreplaceable loss of resources:	None	None	None	None
Degree to which the impact can be reversed:	None	None	None	None
Indirect impacts:	None	None	None	None
Cumulative impact prior to mitigation:	None	None	None	None
Significance rating of impact prior to mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	None	None	None	None
Degree to which the impact can be avoided:	None	None	None	None
Degree to which the impact can be managed:	None	None	None	None
Degree to which the impact can be mitigated:	None	None	None	None
Proposed mitigation:	None	None	None	None
Residual impacts:	None	None	None	None
Cumulative impact post mitigation:	None	None	None	None
Significance rating of impact after mitigation (e.g. Low, Medium, Medium- High, High, or Very-High)	None	None	None	None
DECOMMISSIONING AND CLOSURE PHASE				

FORM NO. BAR10/2019 Page 79 of 110

Since this application is for the development of a residential dwelling replacing an existing residential dwelling within an urban area, it is unlikely that it will be decommissioned in the near future. As such there are no impacts associated with decommissioning currently identified, however, any legislative requirements valid at the time that decommissioning may occur, should be followed.

Potential impact and risk:		
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:		

FORM NO. BAR10/2019 Page 80 of 110

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

FORM NO. BAR10/2019 Page 81 of 110

SECTION I: FINDINGS, IMPACT MANAGEMENT AND MITIGATION MEASURES

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.

Coastal Engineering:

The Keurboomstrand Beach sand erodes and accretes intermittently over time and appears to be currently "dynamically stable". Selected historical aerial photographs over the past 17 years show that west of Erf 390 thin dune vegetation appears to have grown further seaward over the past decade whereas the vegetation line in front of the public parking to the east shows some erosion. These minor trends are probably primarily due to pedestrian traffic rather than coastal processes. The effects of climate change (including sea level rise and increased storm intensity) can nonetheless be expected to pose increasing risk to the beachfront properties in this area.

While no physical inspections were made and no structural details have been reviewed, we consider the retaining wall on the beachfront edge of Keurboomstrand Erf 390 to be at risk from coastal attack. Interlocking concrete block retaining walls are typically highly susceptible to complete failure (via a "domino effect") when undermined and are not suitable as seawalls when the structures behind are reliant on them.

The gabion wall below the toe of the interlocking concrete block wall offers some protection from undermining but this is not considered sufficient for extreme wave run-up events, which are expected to occur more and more frequently in the future due to the effects of climate change.

Notwithstanding the risk of retaining wall failure, the risk of coastal flooding and damage to the new dwelling is **low**. The proposed floor levels are above the predicted 1:100 year wave run-up level (RHDHV, 2018).

Options to mitigate the risk of failure of the interlocking concrete block retaining wall include (a) replacing / reinforcing the retaining wall or (b) designing the foundations of the new structure to remain stable in the event of retaining wall failure.

Replacement of the existing interlocking concrete block retaining wall with a gabion wall (option 1 above) was selected as the preferred risk mitigation solution (see Drawing 210518/11). This solution protects the full embankment and swimming pool as well as the building and also reduces the potential risks to the public property associated with failure of the existing wall. The gabion wall with timber decking and stairs is deemed fitting with the new dwelling design. The exposed gabion wall structure can be fit within the boundary of Erf 390 (set back from the toe of the existing wall). However, a buried toe mattress which extends over the seaward boundary line (to the existing half buried gabions) will be required for scour protection. This may trigger an additional listed activity in terms of Environmental Regulations and will be included in the environmental assessment.

Mitigation and Recommendations for management

- (1) Gabions must be covered with top soil so that vegetation can re-establish with roots between the stones;
- (2) The integrity of a gabion structure is however completely reliant on the wire mesh cages. A double layer of gabions is therefore considered the minimum possible protection within the wave run-up zone, and inspections and maintenance are required throughout the life of the structure.
- (3) No stormwater runoff should be allowed to concentrate onto the gabion wall or the beachfront area in front of the property.

FORM NO. BAR10/2019 Page 82 of 110

(4) Runoff from the roof of the new building could be fed into an existing formal stormwater drainage system or directly infiltrate into soft landscaped areas surrounding the building (in such a way that it is not likely to form an erosion channel).

Terrestrial Biodiversity & Botanical:

According to the updated Vegetation Map of South Africa, Lesotho and Swaziland the mapped vegetation unit occurring at the property is Least Threatened **Goukamma Dune Thicket** (AT 36), which is not a threatened ecosystem i.t.o. the National Environmental Management Biodiversity Act4.

Based on an initial viewing on the 17th of June 2021 and a site inspection conducted on the 7th of July 2021 the property has a level lawned area and garden at the southern extent and an existing residence at the northern extent.

The lawned area has two large *Sideroxylon inerme* ssp. *Inerme* (Milkwood) trees adjacent to the western boundary and *Brachylaena discolor* (Coast Silver-Oak) and *Araucaria heterophylla* (Norfolk Island Pine) along the eastern boundary. The northern street boundary area has a Milkwood tree mixed with some *Pterocelastrus tricuspidatus* (Candlewood) trees on the front garden.

There is not a community of plants resembling Fynbos at the transformed suburban property as only a lawned garden with trees exist on site.

The vegetation unit at the receiving environment is mapped as Goukamma Dune Thicket, with a conservation status as Least Threatened. **Ground-truthing of the study area has refuted the presence of healthy or representative Shale Fynbos or Dune Thicket vegetation** occurring there, as the property is transformed, fragmented and situated adjacent to a built environment. Some indigenous and protected Milkwood tree species occur at the study area, and otherwise the area is lawned. The property does abut onto the seashore and coastal littoral zone.

Thus the clearing of transformed habitat of **Very Low Terrestrial Biodiversity Sensitivity** with a **Very Low Plant Species Sensitivity** is a very low impact for biodiversity and potentially positive impact for development.

Mitigation and Recommendations for management

- (1) All Invasive Alien Plant species must be controlled and prevented from spreading, without causing undue damage to the environment.
- (2) Only indigenous plant species should be used in the landscaped areas of the development.
- (3) Construction and operational management of the development must ensure that the Milkwoods are not impacted on should they be retained.
- (4) Following construction any exposed surfaces and slopes may be covered with stack pile mulch and debris, hessian cloth and / or "sausage rolls" to prevent loss of soil by natural wind and water erosion.
- (5) Ensure drainage and runoff is managed to prevent erosion and soil loss. Install contour berms where erosion has occurred to ensure that no new erosion pathways are formed.
- (6) Resource conservation measures should be implemented as far as practical, with downlighting to reduce light pollution.

Heritage:

The site presently contains a modern two-storeyed dwelling, the building envelope of which is contained within the cadastral boundaries of the Remainder of Erf 141 (zoned "Single Residential"). Several semi-mature indigenous (including milkwood) trees occur along the northernmost (street) as well as the western (side) boundaries. Access to the Remainder of Erf 141 is via a narrow gateway

FORM NO. BAR10/2019 Page 83 of 110

directly off Main Street. The primary access to Erf 390 via Read Street largely serves as a secondary entrance to the site.

The southern portion of the site (or Erf 390) is zoned Open Space II, primarily serves as a private garden and remains largely vacant save for a small support wall, section of boundary walling and narrow staircase leading to the beach (parts of which are older than 60 years). It is mostly overgrown by grass but contains other vegetation, including three prominent Norfolk pines, planted in 1945.

The northern (street) boundary is lined by a stonewall structure older than 60 years, the typology of which occurs elsewhere within the proximity of the site – notably directly across the site as well as directly west along Main Street. Similar stonewalling – albeit less ornate in design – presently defines the eastern site boundary.

The broader proposal, details of which fall outside the ambit of the NHRA, is essentially for the total demolition of the existing modern dwelling and reconstruction of a new two-storey dwelling, the new building envelope of which would extend across the site.

No heritage themes of cultural significance pertaining to the subject property that would be an impediment to the proposed works could be established through research undertaken as part of this assessment.

Heritage Western Cape has issued a Section 34 Demolition Certificate for the portions of the stonewalling which will be removed and replaced.

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

Coastal Engineering:

- (1) Gabions must be covered with top soil so that vegetation can re-establish with roots between the stones;
- (2) The integrity of a gabion structure is however completely reliant on the wire mesh cages. A double layer of gabions is therefore considered the minimum possible protection within the wave run-up zone, and inspections and maintenance are required throughout the life of the structure.
- (3) No stormwater runoff should be allowed to concentrate onto the gabion wall or the beachfront area in front of the property.
- (4) Runoff from the roof of the new building could be fed into an existing formal stormwater drainage system or directly infiltrate into soft landscaped areas surrounding the building (in such a way that it is not likely to form an erosion channel).

Terrestrial Biodiversity & Botanical:

- (1) All Invasive Alien Plant species must be controlled and prevented from spreading, without causing undue damage to the environment.
- (2) Only indigenous plant species should be used in the landscaped areas of the development.
- (3) Construction and operational management of the development must ensure that the Milkwoods are not impacted on should they be retained.
- (4) Following construction any exposed surfaces and slopes may be covered with stack pile mulch and debris, hessian cloth and / or "sausage rolls" to prevent loss of soil by natural wind and water erosion.
- (5) Ensure drainage and runoff is managed to prevent erosion and soil loss. Install contour berms where erosion has occurred to ensure that no new erosion pathways are formed.

FORM NO. BAR10/2019 Page 84 of 110

(6) Resource conservation measures should be implemented as far as practical, with downlighting to reduce light pollution.

Heritage:

The following are the requirements of the HWC Demolition Certificate:

- (1) Work to be done strictly in accordance with the HWC stamped plans.
- 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.

Not applicable.

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

The proposed development is in keeping with the surrounding community of Keurboomstrand. The replacement of the existing retaining wall with a rock gabion structure will improve the coastal protection beyond the extent of the cadastral boundary (Erf 390).

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.

The proposed construction of the rock gabion wall to replace the existing retaining wall is a direct response to climate change. The existing retaining wall is still intact and the coastal engineer has determined that the coastal processes on the properties will have a low impact. In other works, the applicant could choose to develop Alternatives 2, 3 or retain the No Go and avoid potential coastal risks for some time to come. However in support of sustainable development and taking into consideration future potential climate change impacts, the proposed risk mitigation is being proposed and supported by the applicant.

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

There are no conflicting recommendations by the specialists.

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 properties has been significantly transformed over many decades and have been utilised as residential and will remain as residential. The impacts on the environment associated with the proposed activity (Alternative 1 (Preferred)) have been deemed to be Low, Very Low and Negligible by the specialists.

The preferred Alternative incorporates the most important of the recommendations, which is the replacement of the existing block retaining wall with a rock gabion structure that connects with the existing rock gabion wall located in the coastal public property. The recommendations in terms of best practise management have been included as mitigations and will be incorporated into the EMPr.

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

The properties has been significantly transformed over many decades and have been utilised as residential and will remain as residential. The impacts on the environment associated with the proposed activity (Alternative 1 (Preferred)) have been deemed to be Low, Very Low and Negligible by the specialists.

The preferred Alternative incorporates the most important of the recommendations, which is the replacement of the existing block retaining wall with a rock gabion structure that connects with the existing rock gabion wall located in the coastal public property. The recommendations in terms of best practise management have been included as mitigations and will be incorporated into the EMPr.

FORM NO. BAR10/2019 Page 85 of 110

SECTION J: GENERAL

1. ENVIRONMENTAL IMPACT STATEMENT

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

Coastal Engineering:

The Keurboomstrand Beach sand erodes and accretes intermittently over time and appears to be currently "dynamically stable". Selected historical aerial photographs over the past 17 years show that west of Erf 390 thin dune vegetation appears to have grown further seaward over the past decade whereas the vegetation line in front of the public parking to the east shows some erosion. These minor trends are probably primarily due to pedestrian traffic rather than coastal processes. The effects of climate change (including sea level rise and increased storm intensity) can nonetheless be expected to pose increasing risk to the beachfront properties in this area.

While no physical inspections were made and no structural details have been reviewed, we consider the retaining wall on the beachfront edge of Keurboomstrand Erf 390 to be at risk from coastal attack. Interlocking concrete block retaining walls are typically highly susceptible to complete failure (via a "domino effect") when undermined and are not suitable as seawalls when the structures behind are reliant on them.

The gabion wall below the toe of the interlocking concrete block wall offers some protection from undermining but this is not considered sufficient for extreme wave run-up events, which are expected to occur more and more frequently in the future due to the effects of climate change.

Notwithstanding the risk of retaining wall failure, the risk of coastal flooding and damage to the new dwelling is **low**. The proposed floor levels are above the predicted 1:100 year wave run-up level (RHDHV, 2018).

Options to mitigate the risk of failure of the interlocking concrete block retaining wall include (a) replacing / reinforcing the retaining wall or (b) designing the foundations of the new structure to remain stable in the event of retaining wall failure.

Replacement of the existing interlocking concrete block retaining wall with a gabion wall (option 1 above) was selected as the preferred risk mitigation solution (see Drawing 210518/11). This solution protects the full embankment and swimming pool as well as the building and also reduces the potential risks to the public property associated with failure of the existing wall. The gabion wall with timber decking and stairs is deemed fitting with the new dwelling design. The exposed gabion wall structure can be fit within the boundary of Erf 390 (set back from the toe of the existing wall). However, a buried toe mattress which extends over the seaward boundary line (to the existing half buried gabions) will be required for scour protection. This may trigger an additional listed activity in terms of Environmental Regulations and will be included in the environmental assessment.

Mitigation and Recommendations for management

- (5) Gabions must be covered with top soil so that vegetation can re-establish with roots between the stones;
- (6) The integrity of a gabion structure is however completely reliant on the wire mesh cages. A double layer of gabions is therefore considered the minimum possible protection within the wave run-up zone, and inspections and maintenance are required throughout the life of the structure.
- (7) No stormwater runoff should be allowed to concentrate onto the gabion wall or the beachfront area in front of the property.

FORM NO. BAR10/2019 Page 86 of 110

Runoff from the roof of the new building could be fed into an existing formal stormwater drainage system or directly infiltrate into soft landscaped areas surrounding the building (in such a way that it is not likely to form an erosion channel).

Terrestrial Biodiversity & Botanical:

According to the updated Vegetation Map of South Africa, Lesotho and Swaziland the mapped vegetation unit occurring at the property is Least Threatened **Goukamma Dune Thicket** (AT 36), which is not a threatened ecosystem i.t.o. the National Environmental Management Biodiversity Act4.

Based on an initial viewing on the 17th of June 2021 and a site inspection conducted on the 7th of July 2021 the property has a level lawned area and garden at the southern extent and an existing residence at the northern extent.

The lawned area has two large *Sideroxylon inerme* ssp. *Inerme* (Milkwood) trees adjacent to the western boundary and *Brachylaena discolor* (Coast Silver-Oak) and *Araucaria heterophylla* (Norfolk Island Pine) along the eastern boundary. The northern street boundary area has a Milkwood tree mixed with some *Pterocelastrus tricuspidatus* (Candlewood) trees on the front garden.

There is not a community of plants resembling Fynbos at the transformed suburban property as only a lawned garden with trees exist on site.

The vegetation unit at the receiving environment is mapped as Goukamma Dune Thicket, with a conservation status as Least Threatened. Ground-truthing of the study area has refuted the presence of healthy or representative Shale Fynbos or Dune Thicket vegetation occurring there, as the property is transformed, fragmented and situated adjacent to a built environment. Some indigenous and protected Milkwood tree species occur at the study area, and otherwise the area is lawned. The property does abut onto the seashore and coastal littoral zone.

Thus the clearing of transformed habitat of **Very Low Terrestrial Biodiversity Sensitivity** with a **Very Low Plant Species Sensitivity** is a very low impact for biodiversity and potentially positive impact for development.

Mitigation and Recommendations for management

- (7) All Invasive Alien Plant species must be controlled and prevented from spreading, without causing undue damage to the environment.
- (8) Only indigenous plant species should be used in the landscaped areas of the development.
- (9) Construction and operational management of the development must ensure that the Milkwoods are not impacted on should they be retained.
- (10) Following construction any exposed surfaces and slopes may be covered with stack pile mulch and debris, hessian cloth and / or "sausage rolls" to prevent loss of soil by natural wind and water erosion.
- (11) Ensure drainage and runoff is managed to prevent erosion and soil loss. Install contour berms where erosion has occurred to ensure that no new erosion pathways are formed.

Resource conservation measures should be implemented as far as practical, with downlighting to reduce light pollution.

Heritage:

The site presently contains a modern two-storeyed dwelling, the building envelope of which is contained within the cadastral boundaries of the Remainder of Erf 141 (zoned "Single Residential"). Several semi-mature indigenous (including milkwood) trees occur along the northernmost (street) as well as the western (side) boundaries. Access to the Remainder of Erf 141 is via a narrow gateway directly off Main Street. The primary access to Erf 390 via Read Street largely serves as a secondary entrance to the site.

FORM NO. BAR10/2019 Page 87 of 110

The southern portion of the site (or Erf 390) is zoned Open Space II, primarily serves as a private garden and remains largely vacant save for a small support wall, section of boundary walling and narrow staircase leading to the beach (parts of which are older than 60 years). It is mostly overgrown by grass but contains other vegetation, including three prominent Norfolk pines, planted in 1945.

The northern (street) boundary is lined by a stonewall structure older than 60 years, the typology of which occurs elsewhere within the proximity of the site – notably directly across the site as well as directly west along Main Street. Similar stonewalling – albeit less ornate in design – presently defines the eastern site boundary.

The broader proposal, details of which fall outside the ambit of the NHRA, is essentially for the total demolition of the existing modern dwelling and reconstruction of a new two-storey dwelling, the new building envelope of which would extend across the site.

No heritage themes of cultural significance pertaining to the subject property that would be an impediment to the proposed works could be established through research undertaken as part of this assessment.

Heritage Western Cape has issued a Section 34 Demolition Certificate for the portions of the stonewalling which will be removed and replaced.

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)

Site sensitivity map according to the specialist studies:



Figure 33: Site Sensitivity Map

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.

The following impacts have been identified:

FORM NO. BAR10/2019 Page 88 of 110

Positive:

• Improved risk mitigation by replacing the existing interlocking retaining wall with a rock gabion wall that connects up to the existing gabion wall at the high water mark.

• Supporting the local economy during construction phase.

Negative:

- Temporary access disruption during construction.
- Temporary noise impacts during construction.
- Very low impact on Goukamma Dune Thicket vegetation.

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

Coastal Engineering:

- (1) Gabions must be covered with top soil so that vegetation can re-establish with roots between the stones;
- (2) The integrity of a gabion structure is however completely reliant on the wire mesh cages. A double layer of gabions is therefore considered the minimum possible protection within the wave run-up zone, and inspections and maintenance are required throughout the life of the structure.
- (3) No stormwater runoff should be allowed to concentrate onto the gabion wall or the beachfront area in front of the property.
- (4) Runoff from the roof of the new building could be fed into an existing formal stormwater drainage system or directly infiltrate into soft landscaped areas surrounding the building (in such a way that it is not likely to form an erosion channel).

Terrestrial Biodiversity & Botanical:

- (1) All Invasive Alien Plant species must be controlled and prevented from spreading, without causing undue damage to the environment.
- (2) Only indigenous plant species should be used in the landscaped areas of the development.
- (3) Construction and operational management of the development must ensure that the Milkwoods are not impacted on should they be retained.
- (4) Following construction any exposed surfaces and slopes may be covered with stack pile mulch and debris, hessian cloth and / or "sausage rolls" to prevent loss of soil by natural wind and water erosion.
- (5) Ensure drainage and runoff is managed to prevent erosion and soil loss. Install contour berms where erosion has occurred to ensure that no new erosion pathways are formed.
- (6) Resource conservation measures should be implemented as far as practical, with downlighting to reduce light pollution.

Heritage:

The following are the requirements of the HWC Demolition Certificate:

(1) Work to be done strictly in accordance with the HWC stamped plans.

FORM NO. BAR10/2019 Page 89 of 110

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.

None to date. This section will be revised once the public participation is completed and if any authorities identify any conditional aspects.

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 property is utilised for residential purposes and will continue to be utilised for residential purposes. It is located inside the urban edge of Keurboomstrand and is serviced by the municipality. The proposed risk mitigation will provided surety for Erf 390 as well as the adjacent erven in response to potential climate change impacts.

The site has been significantly transformed and has formed part of the urban environment since at least 1946.

This office is confident that the application may be authorised. The following items should be included as conditions of approval:

- Appointment of a suitably qualified Environmental Control Officer (ECO) for the implantation
 of the rock gabion wall;
- Compliance with the Environmental Management Programme (EMPr).
- 2.4. Provide a description of any assumptions, uncertainties and gaps in knowledge that relate to the assessment and mitigation measures proposed.

Coastal Engineering:

The findings of this study are based on a purely desktop study of information obtained from the surveyor, published literature and engineering assumptions made which are deemed representative of the local site conditions. They are intended to provide a high level assessment of the coastal risks and potential solutions. All solutions proposed require expert detailed design prior to implementation.

This section provides a brief overview of specific assumptions and limitations having an impact on this environmental application process:

- It is assumed that the information on which this report is based (project information as well as existing information) is **correct, factual and truthful.**
 - The proposed development is in line with the statutory planning vision for the area and thus
 it is assumed that issues such as the cumulative impact of development in terms of character
 of the area and its resources, have been taken into account during the strategic planning
 for the area.
 - It is assumed that all the relevant **mitigation measures** and agreements specified in this report will be implemented in order to ensure minimal negative impacts and maximum environmental benefits.
 - It is assumed that Stakeholders and Interested and Affected Parties notified during the initial
 public participation process will submit all relevant comments within the designated review
 and comment period.
- 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.
 - Construction should commence within five (05) years from date of authorisation;
 - Construction should be concluded at least three (03) years from commencement;
 - Monitoring should include the following:

FORM NO. BAR10/2019 Page 90 of 110

- o Construction Completion Statement on handover of the site back to the applicant;
- Six (06) months post construction audit
- o Final audit two (2) years post construction.

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.

The property is serviced by the Bitou Municipality. It is advised that rainwater harvesting take place on the site for use outside. This will also reduce the amount of stormwater egressing to the stormwater system. The swimming pool may not be filled with potable water.

The following water saving mechanisms must be implemented:

- Dual flush toilets
- Low flow shower heads
- Low flow taps
- Water conservative washing machines
- Geyser and pipe insulation
- Swimming pools:
 - Pool covers must be used to prevent water evaporation, loss of chemicals, loss of water heat and as security against drowning of people or animals.
 - Well maintained pool equipment is more efficient and lasts longer.
 - Create a windbreak around the pool using indigenous plants. This prevents the wind from increasing evaporation on the surface of the water.
 - o Chemical pools are discouraged and consideration should rather be given to salt water or natural pools.
 - Backwash water (applicable to both chemical and salt water pools) may not be discharged onto the ground, but must be collected in a tank and removed from site.
 It is possible to discharge the backwash water into a grey water system if one is in place.

4. WASTE

Explain what measures have been taken to reduce, reuse or recycle waste.

Effective management of household waste contributes to a more sustainable implementation of landfill sites and their management. Sorting of recyclable materials at the source, i.e. in each household, causes less backlog at the landfill site and decreases the availability of material so required by scavengers to the dump site. Using biodegradable waste in a garden compost heap or an earthworm farm is far more supportive of the environment than disposing of it in the general waste.

Normal household waste will be generated during the operation phase of the development. According to the National Waste Information Baseline Report (2012) Fiehn and Ball (2005) estimated per capita waste generation in the Western Cape as 675kg per year or 1.85kg per day. Based on this figure and a minimum estimate of 4 pax living on site, there will be a generation of ±7.4kg per day. Recycling should be strongly encouraged by the development to minimise the amount of domestic waste generated. General municipal waste will be collected as per the municipal requirements.

FORM NO. BAR10/2019 Page 91 of 110

The following actions should be implemented:

- Recycling;
- Composting;
- Collection of garden refuse.

5. ENERGY EFFICIENCY

8.1. Explain what design measures have been taken to ensure that the development proposal will be energy efficient.

The provision of energy has become a controversial topic, and has led to the reconsideration fo many people of how they use energy in their homes. It is important for people to create a habit o conserving energy on a daily basis. The property is serviced by the Bitou Municipality.

The following energy saving should be implemented:

- Solar heated water system;
- Energy efficient lighting;
- Energy efficient appliances;
- Solar cooling systems;
- Evaporative cooling systems;
- Geyser and pipe insulation.

FORM NO. BAR10/2019 Page 92 of 110

SECTION K: DECLARATIONS

DECLARATION OF THE APPLICANT

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

I **Mr Gerhard Maritz**, ID number **CONFIDENTIAL** 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:
- o 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.

2022.02.02
Click or tap to enter a date.
Date:

on behalf of CAVA MOLA MINING PTY LTD

Name of company (if applicable):

FORM NO. BAR10/2019 Page 93 of 108



Power Of Attorney (Registered Owners Consent): Project: House Maritz – Additions & Alterations to Existing Dwelling Client: Cava Mola Mining (Pty) Ltd Contact Person: Gerhard Maritz (ID 8302185166081) Email: gmz@agrilime.com Address: PO Box 20366, Protea Park, 0305 To whom it may concern, I/we, the registered owner(s)/applicant: GERHARD MARITZ (ID 8302185166081) ON BEHALF OF CAVA MOLA MINING (PTY) LTD registered owner(s) of the following property(ies): THE REMAINDER OF ERF 141 & ERF 390 (KEURBOOMSTRAND), KNYSNA DISTRICT AND BITOU MUNICIPALITY wish to certify that authority is hereby granted to the following agent / consultant: LEON RUST (ID 8207205228086) in respect of the afore-mentioned property(ies), to enable it to be developed/utilized for the following purpose(s): ADDITIONS AND ALTERATIONS TO EXISTING DWELLING, CONSOLIDATION, REZONING, DEPARTURE APPLICATIONS The undersigned therefore nominates, constitutes and appoints the above party with power of substitution to be the registered owner's legal representative/agent and to act in the name, place and stead of the registered owner(s) in the above regard. Accordingly, power of attorney is hereby also granted to the agent to sign and receive all correspondence in respect of the matter referred to above during the applicable process. Owner/Representative: Print Name: _GERHARD MARITZ Date 2021.09.28

Signature: _

2. DECLARATION OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER ("EAP")

I **Ms Melissa Mackay**, EAPASA Registration number **2019/1446.** 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:
 - o 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
 - o 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;

	2022/02/09
Signature of the EAP:	Date:
Cape Environmental Assessment Practitioners (Cape EAPrac)	
Name of company (if applicable):	

FORM NO. BAR10/2019 Page 94 of 110

3.	DECLARATION OF THE REVIEW EAP
•	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 Lam aware that a false declaration is an offence in terms of Regulation 48 of the NEMA EIA
	Regulations.
	Click or tap to enter a date.
Sig	inature of the EAP: Date:
Nc	rme of company (if applicable):

FORM NO. BAR10/2019 Page 95 of 110

4. DECLARATION OF THE SPECIALIST

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

I Mr Benjamin Walton (Cape Vegetation Surveys), 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:
 - o 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
 - o 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.

	Click or tap to enter a date.
Signature of the EAP:	Date:
Name of company (if applicable):	

FORM NO. BAR10/2019 Page 96 of 110

STATEMENT OF INDEPENDENCE

I, Benjamin Alan Walton, trading as "Cape Vegetation Surveys", in terms of section 33 of the NEMA, 1998 (Act No. 107 of 1998), as amended, hereby declare that I provide services as an independent botanical specialist and receive remuneration for services rendered for expressing a factual account of the baseline environment. I have no financial or other vested interest in the project. Botanical information contained in the report may not be copied without the authors consent.

An abridged Curriculum Vitae:

Benjamin Alan Walton

Experience: Cape Vegetation Surveys: Consulting Botanist 2017-2020

Western Cape Nature Conservation Board (CapeNature), Scientist: Land Use Advisor 2010-2017;

Department of Environmental Affairs and Development Planning, Principal Environmental Officer (George) 2008-2010;

Cape Vegetation Surveys: Consulting Botanist (Cape Town) 2006-2008;

Qualification: M.Sc. Forestry (Conservation Ecology), Stellenbosch University, 2001- 2006;

B.Sc. Botany, University of Cape Town, 1986-1989.

BENJAMIN WALTON

Consulting Ecologist for Eden & Central Karoo Districts B.Sc. (Bot.), M.Sc. Forestry (Cons. Ecol.)

phytofundi@gmail.com 081 499 1678 Wilderness



I Mr Stefan de Kock (Perception Planning), 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
 - o 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 part of the application; and
- I am aware that a false declaration is an offence in terms of Regulation 48 of the EIA Regulations.

	03/02/12022
Signature of the EAP:	Date:
PERCEPTION PLANNING	
Name of company (if applicable):	

I Ms Robyn Owen (WML Coast), 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:
 - o 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
 - o 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:

Dale:

Name of company (if applicable):

FORM NO. BAR10/2019 Page 98 of 110

5. 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.
Click or tap to enter a date.
Signature of the EAP: Date:
Name of company (if applicable):

FORM NO. BAR10/2019 Page 99 of 110