Erf 325 Jacobsbaai

1. Rezoning of Erf 325 to Subdivisional Area,
2. Subdivision of Erf 325 for Residential Use, and
3. Departure from Section 41.1 of the IZS allowing for 8,2% Open Space in lieu of 10% (Residential Zone I)
4. Departure from Section 4.3.12 of the IZS allowing for 39,5m² Open Space in lieu of 80m² (Residential Zone II)



July 2022

CLIENT:

Forellendam Pty Ltd
76 Kommissaris Street
WELGEMOED
7530

APPLICANT:

conradie goodwin & associates
URBAN PLANNERS

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Proposed Development
Erf 325, Jacobsbaai

1.0 INTRODUCTION

1.1 Project Summary

APPLICANT:	Conradie Goodwin & Associates
OWNER:	Messrs Forellendam Pty Ltd
PROPERTY:	Erf 325
EXTENT:	6,5162ha
ZONING:	Small Holding
APPLICATION FOR:	1) Rezoning to Subdivisional Area 2) 45 Residential Zone I Erven 48 Residential Zone II Erven, 7 Open Space II Erven and 2 Transport Zone II Erven 3) Departure Use: 8,2 % Open Space ilo 10% (Residential I) 4) Departure Use: 39,5m^2 Open Space ilo 80m^2 (Residential II)
TITLE CONDITIONS:	None
BONDHOLDER:	Not Bonded

1.2 Purpose of Report

The historical residence of the Jacobsbaai Township, was constructed on the property now known as Erf 325, Jacobsbaai. While zoned as Small Holding, a small shop, 5 dwelling units, a large shed and outbuildings are found on this property.

Given the zoning and residential use of this property as well as the fact that it is wedged between the existing residential erven to the south and west thereof and the proposed commercial and administrative complex to the east, the development of this property as for residential purposes is a logical infilling of the vacant land within the existing town.

The fact that this erf is situated at the entrance to Jacobs Bay, offers the ideal opportunity to strengthen and re-establish the West Coast architectural character that to a certain extent got compromised in the Jacobsbaai Township, due to the introduction of non-traditional elements and colour schemes over time.

It is our clients' intention to develop Erf 325, Jacobsbaai as a focal point at the entrance to Jacobsbaai, strengthening the typical West Coast country life-style, philosophy. Our client believes that this can be achieved by allowing for typical "fisherman's villages", planned as group housing, adjacent to the Jacobsbaai main road, while providing for larger residential erven around the existing farmhouse and existing residential erven abutting the property to the south and west.

In line with the provisions of the general planning philosophy of densification, our client's proposed mixed residential development will comprise of erven ranging from 350m^2 to 850m^2.

The current owners of Erf 325, Jacobsbaai, Messrs Forellendam Pty Ltd, has appointed Conradie Goodwin & Associates to apply for the necessary approvals so as to give effect to this development proposal (see Annexure A).

To undertake this proposed development, Council has to consider:

- the rezoning from Small Holding to Subdivisional Area in terms of Section 15(2)(a) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning (2015),

- the subdivision in terms of Section 15(2)(d) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning (2015) so as to allow for 45 Residential Zone I Erven, 44 Residential Zone II Erven, 6 Open Space Zone II Erven (Private Open Space) and 2 Transport Zone II (Public Road) Erven,

- a Departure Use from the provision of the zoning scheme, allowing for 8,2% open space in lieu of 10% for Residential Zone I developments, and

- a Departure Use from the provision of the zoning scheme, allowing for 39,5% open space in lieu of 80m^2 for Residential Zone II developments,

1.3 Location

Erf 325, Jacobsbaai is situated along the extension of the R79 (Main Rd), at the entrance to Jacobs Bay (also refer to ANNEXURE D).



2.0 APPLICATION

We hereby apply:

1. *in terms of Section 15 (2) (a) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015- for*

the Rezoning from Small Holding to Subdivisional Area of Erf 325 Jacobsbaai allowing for the Subdivision of the property,

2. *in terms of Section 15 (2) (d) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015- for the Subdivision of Erf 325 Jacobsbaai allowing for 45 Residential Zone I Erven, 44 Residential Zone II Erven, 6 Open Space Zone II Erven and 2 Transport Zone II Erven,*

3. *in in terms of Section 15 (2) (b) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015- for a Departure from the provisions in Section 41.1 of the IZS to allow for 8,6% open space/erf in lieu of 10% for Residential Zone I erven.*

4. *in in terms of Section 15 (2) (b) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015- for a Departure from the provisions in Section 4.3.12 of the IZS to allow for 39,5% open space/erf in lieu of 80% for Residential Zone II erven.*

Attached please find the following administrative documentation in support of this application:

ANNEXURE A:

Special Power of Attorney

This document gives *Conradie Goodwin & Associates* the mandate to act on behalf of the owners of the subject property, Messrs Forellendam Pty Ltd.

ANNEXURE B:

Application Form and Previous Approval

This form provides all the relevant information required in terms of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015.

ANNEXURE C: Title Summary & Conveyancer Certificate

The Title Deed from the deeds office provides:

1. Property detail,
2. Title Deed detail,
3. Owners detail, and
4. Endorsements

ANNEXURE D:

Locality Plan, Zoning Plan and Planning Documentation

These documents reflect the regional and local position of Erf 325, Jacobsbaai, zoning as well as the position of the urban edge.

ANNEXURE E:

Draft Plan of Subdivision for Erf 325, Jacobsbaai

This plan reflects the proposed Plan of Subdivision so as to allow for the development of a residential complex.

ANNEXURE E: Services Report

The Services Report was prepared by Mr Johan Fowler from NWE Consulting Engineer. This report confirms the various connection points as well as the standard of services that will be installed. The final specifications will obviously be clarified with Council before the finalization of designs.

3.0 BACKGROUND INFORMATION

3.1 Regional Locality

With reference to Para 1.3 above the subject property is situated approximately 14km south west of Vredenburg, within the coastal town of Jacobsbaai. Access is obtained midway between Vredenburg and Saldanha, off the R399.

The position of the subject property allows for an exciting development proposal that will ensure an aesthetically pleasing entrance to Jacobsbaai, whilst satisfying the principles of a West Coast identity, accessibility, social and economic integration due to the wide spectrum of opportunities offered and last, but not the least, appropriate infilling, within this historically low-density urban area.

3.2 Property Description and Ownership

The subject property is registered as Erf 325, Jacobsbaai. The erf is 6,5162ha in extent and is situated in the Saldanha Bay Municipality, District of Malmesbury, Western Cape Province. The Title Deed still indicates the erf size as 6,5380ha. However, as reflected on page 5 of the Title Deed, Erf 427, Paternoster being 218m^2 was subdivided from Erf 325, Jacobsbaai in 2004. This Erf 427 was part of the cul-de-sac providing access to the then Erf 6 (and subsequent development thereof). This cul-de-sac also formalised access to the farm house on Erf 325, Jacobsbaai.

3.3 Title Deed Restrictions

The Title Deed T69343/1998 (see **ANNEXURE C)** contains no servitudes or conditions that can impact on this development proposal. The property is not bonded.

3.4 Local Authority and Previous Applications

The subject property falls within the area of jurisdiction of the Municipality of Saldanha Bay. The offices of this local authority are situated in Vredenburg.

Except for the subdivision of Erf 427, Jacobsbaai, no formal application for the development of Erf 325, Jacobsbaai was ever submitted to the Local Authority.

3.5 Other Approvals Required

3.5.1 Department of Environmental Affairs and Development Planning

In terms of the *"**LISTING NOTICE 1: LIST OF ACTIVITIES AND COMPETENT AUTHORITIES IDENTIFIED IN TERMS OF SECTIONS 24(2) AND 24D"*** published in terms of the National Environmental Management Act (NEMA), (Act 107 of 1998), the following activity is triggered:

27	The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for- (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.

It should however be noted that this particular property lies within an urban area and within the Urban Edge, as indicated in the 2019 Spatial Development Framework for Jacobsbaai,

3.5.2 Department of Transport

The proposed access off R79, has been clarified with the District Roads Engineer. Formal comment on this application in terms of the provisions of the Roads & Ribbon Development Act 21 of 1940, has however been requested.

3.5.3 Heritage Western Cape

As the subject property is in excess of 5000m^2 a Heritage Impact Assessment is required. This assessment is undertaken by Mr Jonathan Kaplan and will feed into the Environmental Approval process.

The NID has been submitted to Heritage Western Cape and has a Heritage Impact Assessment for Erf 325 Jacobsbaai, been requested.

Mr Kaplan has completed a draft report which includes a heritage as well as paleontology assessment and recommends:

"Archaeology:

1. Test excavations must be conducted on the remains of the dune cordon (Point 112) to establish the presence/absence and significance of sub surface archaeological deposits in that area, prior to construction excavations commencing.

2. Monitoring of excavations for building foundations, boundary walls, and services (i. e. water pipelines, stormwater & septic tanks) must be conducted by a professional archaeologist. A Monitoring Work Plan must be submitted to Heritage Western Cape prior to construction activities commencing.

3. If any unmarked human remains are exposed during excavations, work must immediately stop, and an archaeologist contacted to inspect the remains. Any human will have to be removed under a permit issued by Heritage Western Cape.

Paleontology:

1. A requirement to be alert for possible fossils and archaeological material must be included in the EMP for the Construction Phase, with a Fossil Finds Procedure in place

2. Deeper and/or large excavations must be inspected by a paleontologist at the stage of their greatest extent, to serve as a final inspection during the insertion of infrastructure components and before infilling, in order to record the exposures and take samples of the sediments and the ambient small-fossil content and unobserved fossil bones

3.6 Existing Policy Frameworks (ANNEXURE D3)

The following planning policy framework is relevant to this proposed Rezoning & Subdivision;

- Saldanha Bay SDF (Urban Dynamics 2005)

3.6.1 Saldanha Bay Spatial Development Framework

In terms of the Saldanha Bay SDF, area specific plans, reflecting the local spatial development, were prepared. The purpose of these area specific plans is inter alias

- to contextualise the spatial principles for the local circumstances,
- provide a strategic framework to formulate a appropriate land use management system,
- identify desired patterns of land use
- the conservation of the natural and built environment, and
- to identify areas where land use intensity should be intensified or reduced.

In terms of the Jacobs Bay SDF, prepared in terms of the Saldanha Bay SDF, the subject erf, in spite being zoned for Small Holding purposes, is earmarked as urban development (please refer to ANNEXURE D3).

It should also be noted that Erf 325 is considered as part of a tourism and business node within the Jacobsbaai context.

3.7 Existing Land Uses and Densities

The existing average residential erf size in this area is ± 600m^2-1200m^2. As stated in Par 3.1 above, this erf is situated at the western extremity off the R79, at the entrance to Jacobs Bay. Erven in the immediate vicinity of the subject property, are zoned for Small Holding, Residential and Commercial purposes.

3.8 Existing Zoning

The subject property is zoned as Small Holding and was historically used as such with one of the old Jacobsbaai farmhouses still forming part of the existing 5 residential dwellings on the property.

4.0 MOTIVATION - PROPOSED DEVELOPMENT

4.1 Planning Context

Jacobsbaai was developed as a Country Village ("Kontrei Dorp"). To this extent development was primarily driven by the two original township approvals.

Subsequent approvals included that for Erven 85 & 86 as well as the subdivision of a number of small holdings (Erven 313 & 314).

With the discussions re the approval for Erf 86, it became apparent that the botanical significance and environmental sensitivity of Jacobsbaai will have a definite impact on the future development of

this township/neighbourhood.

The eastward expansion of Jacobsbaai is limited by the mining activities of Holcim (Alpha) Cement given their long-term cement manufacturing project as well as the natural geography of the area.

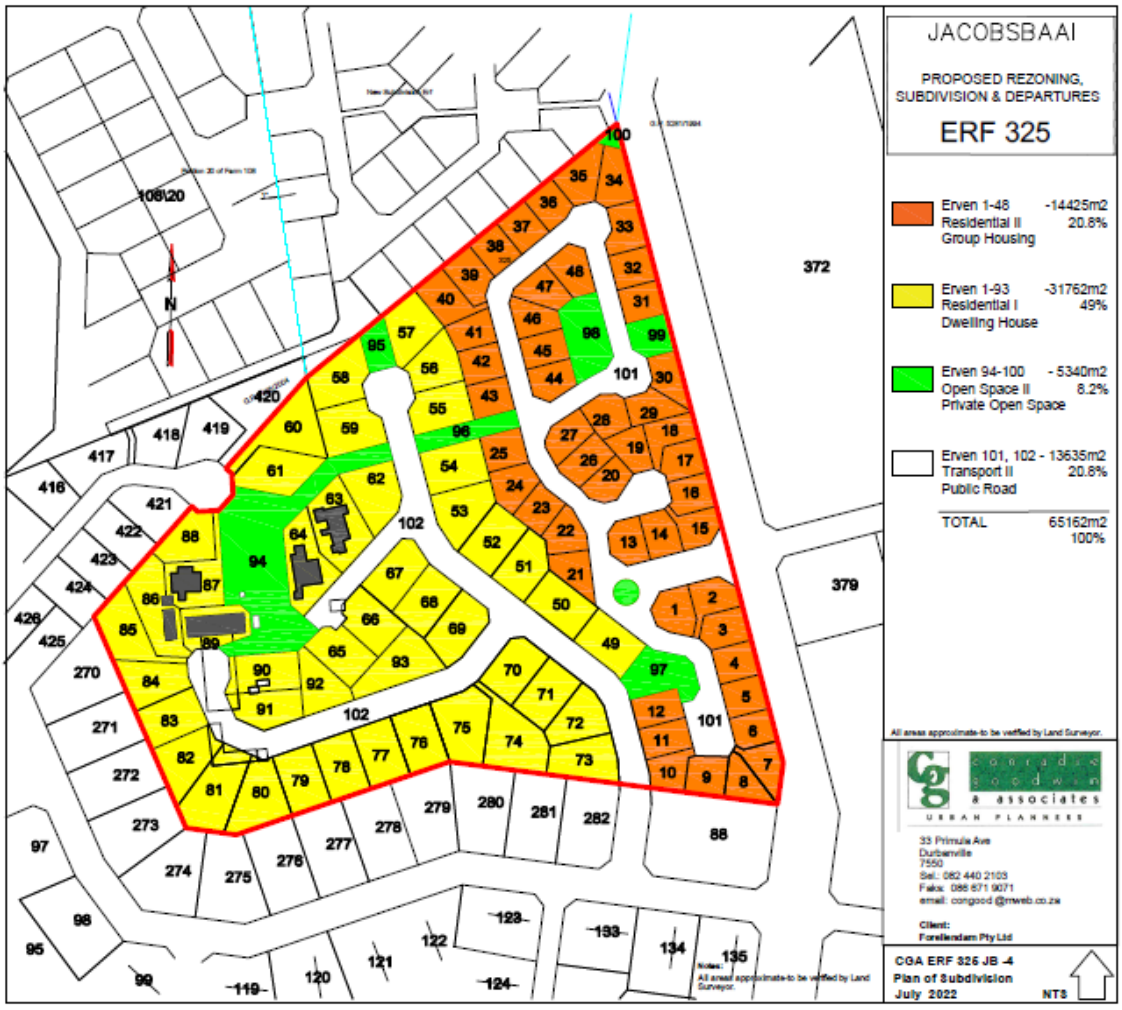
Jacobsbaai is situated within a natural amphitheatre which not only allows for an optimal north to northwest orientation, but also visually isolates this town from the industrial development between Saldanha and Vredenburg.

To the south of Jacobsbaai lies the Tooth Rock area that was historically used as a practice area for the various units of the Defence Force. Given the fairly pristine nature of this area, coupled with the possible occurrence of undetonated arms, it seems unlikely that formal residential development will ever take place on this property, thus limiting the southward expansion of the town.

The smallholdings to the east and northeast of Jacobsbaai have always been considered as the ideal position for future expansion and appropriate residential infill development due to the fact that these small holdings were historically ploughed as well as the fact that given the limitation on outward expansion, this in fact defines the ultimate development envelope/urban edge of Jacobsbaai, as a whole.

4.2 Development Proposal (Please refer to ANNEXURE E)

Traditionally erven in Jacobsbaai were ±800 -1600m² and priced for the higher income bracket. Our clients' development proposal will entail Residential Zone I (Single Residential) erven of between 600-800m² as well as Residential Zone II Erven (Group Housing) erven of ±350m², allowing for a diversified market.



All the existing residences on the property will be formalised and accommodated on separate residential erven. In addition to this it is proposed to retain the existing garden and as much of the existing

trees that gave character to this area, as part of an integrated open space system.

Our client is of the opinion that:

- the development philosophy of densification around higher order nodes (Section 6.7.3.4 Jacobsbaai SDF Proposals),
- the opportunity to create and establish an attractive entrance to Jacobsbaai,
- the position of the property at the entrance to Jacobsbaai, opposite the commercial node and adjacent to the R79,
- the mixed residential development proposed, and
- the need for a more compact urban structure and optimal use of service infrastructure,

the Rezoning & Subdivision application on the subject property to allow for a residential extension of approximately 93 units (45 Residential Zone I Erven and 48 Residential Zone II (Group Housing), should be considered as appropriate, complementing the commercial node, optimising the available vacant land within Jacobsbaai and establishing a definitive entrance condition/address (please refer to ANNEXURE E).

4.2.1 General Design Principles

This proposed residential extension will have an architectural theme compatible and complementary to that of the existing Jacobsbaai architectural style.

The basic design principles will revolve around a combination of pitch

and flat roof, predominately (off)white walls and black/charcoal roofs, with doors and windows in vertical proportions and heavy chimney structures.

The design of buildings will be modular so as to keep individual buildings at a residential scale, whilst allowing for the sensible placement of units, especially in the Group Housing development where we would like to encourage a Fisherman's Village concept.

4.2.2 Residential Zone II (Group Housing) Development

Considering the status quo of a sprawling Jacobsbaai consisting of fairly large erven, the need for a more diversified market offering more affordable as well as "lock-up and go" housing opportunities, was eminent.

In addressing this market, the client was also of the opinion that such a development proposal where such smaller erven are more clustered, could in fact contribute positively to Jacobsbaai if directed more towards the historical fisherman's village character of the area. To this extent the group housing erven (Erven 1-48) were designed to form four (4) pockets of ±12 units each.

It is anticipated that each of these pockets would be designed in such a manner as to reflect a compact, but architectural pleasing development with a definitive traditional character.

The design of these units will have an overall harmonious flow and architectural theme, which we believe will only strengthen the country

lifestyle, whilst providing for an attractive entrance and address to Jacobsbaai. For this every reason this development comprising a total of 48 Group Housing erven were positioned off the main road.

It is proposed that this Group Housing development obtain access off Main Rd, Jacobsbaai. Given the higher density of tis development, this proposed access onto the R79 will not only ease mobility, but also access to the commercial node.

The Residential Zone II (Group Housing) development is proposed at a density of 22 Units/ha which compares favourably to the max density of 30 Units/ha prescribed in the Saldanha Bay IZS.

4.2.3 Residential Zone I Development

The design of the proposed layout was informed inter alia by the existing residential character of Jacobsbaai, the old farmhouse and other residences, proximity to the Jacobsbaai Main Road, current entrance (address of) to Jacobsbaai as well as the need for a more diversified market.

Given the above, we have used our best endeavours to protect the integrity of the existing single residential erven of ±1000m^2 in the established township. It has become increasingly evident that these large erven are difficult, both physically and financially, to maintain - even more so for those people that has retired here. To this effect the size of the single residential erven (Erven 49 - 93) within the proposed development was reduced to ±650m^2, which still allows for a dwelling unit with a reasonable floor area.

The existing 5 residences on the property will be retained and was therefore surveyed and incorporated within the layout, taking into account the various access point. Given the proximity of the existing garden area (Erf 94), it is believed that this area in conjunction with the old farmhouse, is ideally suited as a tea garden or similar low-key facility, at some point in the future.

The Residential Zone I development is proposed at a density of 10 Units/ha.

4.2.4 Provision of Open Space

In keeping with Jacobsbaai design philosophy of extensive open space within the developments, a functional open space system has been provided for, allowing access to the rest of the development and especially the coast.

Our client proposes that the open spaces, covering the existing garden area (Erf 94), should rather be private (retained by Forellendam Pty Ltd), but with the proviso that the public would have structured access to the private open space. We agree with our client that the upkeep and maintenance of these gardens would place an undue burden on Council and that our client would be in a better position to attend to this.

In addition to the above, our client wishes to rehabilitate the proposed open spaces (Erven 95 -100) with the natural vegetation, whilst maintaining the functionality of these aesthetic and recreational

areas. It is therefore proposed that the property owners within this development also take responsibility for the upkeep and maintenance of these open space, hence the proposal for these to be private, as well.

Open space of 39,5m²/Unit is currently provided for within the Residential Zone II (Group Housing) development. In terms of the provisions of the Saldanha Bay Integrated Zoning Scheme, 80m² is required. This 80m² requirement can however be adjusted given the presence of suitable open space/recreational area (i.e., the coast) in close proximity to the property.

A total of 8,2% open space is provided for within the Residential Zone I (Single Residential) development. In terms of the Saldanha Bay IZS, 10% Open Space is required (which can be adjusted by Council). We are of the opinion that although a central open space is provided, the main focus of residents withing Jacobsbaai, is the access to the coast as recreational asset (that is primarily the reason why people invest in this area). In view of the above, we believe that the functional pedestrian access (via Open Spaces) to the coast fundamental to any development in Jacobsbaai.

Given the functional design of the open space system on Erf 325 Jacobsbaai allowing for internal mobility as well as access to the external recreational opportunities, we have applied for:

- in in terms of Section 15 (2) (b) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015- for a Departure from the provisions

in Section 41.1 of the IZS to allow for 8,6% open space/erf in lieu of 10% for Residential Zone I erven.

- in in terms of Section 15 (2) (b) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015- for a Departure from the provisions in Section 4.3.12 of the IZS to allow for 39,5% open space/erf in lieu of 80% for Residential Zone II erven.

4.2.5 Access

The proposed Residential Zone I Erven (Single Residential) will obtain access via Jacob de Goede Street while access to the Residential Zone II Erven (Group Housing), is proposed off Main Rd (R79). The internal road network is considered as private roads.

Access to the Group Housing development will be off Main Road, Jacobsbaai. Effectively the internal roads (Erven 101) will be a minimum of 10m wide, creating a more intimate environment. The benefit of this access is that the increased traffic generated by this higher density development will be directed onto a main road immediately and will not cause any undue traffic congestion within the existing internal road network. Sufficient vehicular stacking distance of ±45m has been provided for at the entrance.

Access to the Single Residential erven will be off Jacob de Goede Street, via the existing access road onto the property. This internal road (Erf 102) will be a maximum of 13m wide, also allowing for a vehicular stacking distance of ±45m.

Whilst these roads would be public, our client wishes to introduce a traffic monitoring system so as to provide increased security in both of these developments, whilst allowing the public free access.

Crime has become an increasing troubling phenomenon in Jacobsbaai and hence the design of this layout is of such a nature that it not only enhances the overall security of this area, but only two access points need to be monitored, one for each of the developments.

Please note that Erf 100 (reserved as open space) will allow sufficient space should the construction of a traffic circle or other suitable feature at the entrance to Jacobsbaai, become necessary in future.

4.2.5 Property Owners Association

The homeowners of each of the respective developments will be responsible for the aesthetic and architectural appearance of the developments as well as the maintenance and upkeep of the infrastructure such as the gate, refuse room and private use areas. The Home Owner Association Constitutions will be submitted for Council's approval prior to application for clearance of erven.

4.3 Services

The scale of this development will result in the limited upgrading of the external service infrastructure to the property.

All aspect regarding services has been suitably addressed. The only issue raised by the Consulting Engineers, is that while sufficient capacity in terms of water provision exists, the storage capacity may require upgrading.

The detailed services report prepared by Mr Michael Smuts of NWE Consulting Engineers (ANNEXURE F).

5.0 ASSESSMENT OF DESIRABILITY

(a) With regard to socio-economic impact, the proposed sensitive densification of the property will enable the more efficient use of the land, a scarce and expensive resource, and will have a positive impact on the municipal valuation of the property concerned as well as the surrounding properties.

(b) As motivated, the impact of the proposed development is compatibility with the existing predominant residential land use. The proposal is in line with the proposals of densification and the economic growth.

(c) There should be no negative impact on external engineering services. The application will be circulated to relevant services branches for comment, a development contribution levy will be paid given the increased development rights and where necessary, existing services will be upgraded at the developer's cost.

(d) There will be a positive impact on the safety, health and wellbeing of the surrounding community. Sensitive densification as proposed enable more people to reside on a property thereby increasing surveillance and as such, considered to be in the interest of the community.

(e) The impact on heritage resources is considered as a priority and has the required Heritage Impact Assessment process been undertaken by an independent Archaeologist, familiar with Jacobsbaai.

(f) Since more that 1ha of indigenous vegetation will be disturbed, and EIA process is being followed in terms of the National Environmental Management Act.

(g) There will be no negative impact on traffic, parking and access. Adequate on-site parking is provided.

(h) While we are of the opinion that the proposal will not have any adverse impact, SBM may impose conditions of approval if deemed warranted.

6.0 SUMMARY

The application for the Rezoning and Subdivision of Erf 325, Jacobsbaai will not have a negative impact on the urban character of this area but should rather be seen as complementing and strengthening the long-term planning philosophy of densification and integration at this node.

With the exception of the provision of open space, the proposed development complies fully with all the development parameters, pertaining to minimum proposed erf sizes and densities, as reflected in the current Saldanha Bay Municipal Integrated Zoning Scheme.

The development of Erf 325, Jacobsbaai is not only considered to be appropriate but will this residential extension, due to the historical design theme, residential scale and design, complement the character of this area whilst providing for an attractive address.

In view of the above we respectfully request your approval for:

1. *in terms of Section 15 (2) (a) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015- for the Rezoning from Small Holding to Subdivisional Area of Erf 325 Jacobsbaai allowing for the Subdivision of the property,*

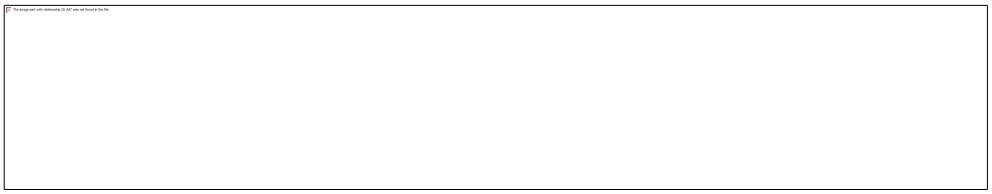
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4. *in in terms of Section 15 (2) (b) of the Saldanha Bay Municipality: By-Law on Municipal Land Use Planning, GN. 7468 of August 2015- for a Departure from the provisions in Section 4.3.12 of the IZS to allow for 39,5% open space/erf in lieu of 80% for Residential Zone II erven.*

CONRADIE GOODWIN & ASSOCIATES

July 2022



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LAND USE PLANNING APPLICATION FORM

(for applications in terms of Section 15 of the Saldanha Bay Municipal Land Use Planning By-law)

KINDLY NOTE: Please complete this form using BLOCK capitals and ticking the appropriate boxes.

PART A: APPLICANT DETAILS					
First name(s)	**Jaco**				
Surname	**Goodwin**				
South African Council for Planners (SACPLAN) registration number *(if applicable)*					
Company name *(if applicable)*	**CONRADIE GOODWIN & ASS**				
Postal Address	**33 Primula Ave,**				
	Durbanville		Postal Code	**7550**	
Email	**congood@mweb.co.za**				
Tel	**0824402103**	Fax	**0866716091**	Cell	**0824402103**

PART B: REGISTERED OWNER(S) DETAILS *(If different from applicant)*					
Registered owner(s)	**Forellendam Pty Ltd**				
Physical address	**c/o 33 Primula Ave**				
	Durbanville		Postal code	**7550**	
E-mail	**pieter@ppsmit.co.za**				
Tel	**021 913 2840**	Fax		Cell	**0833217400**

PART C: PROPERTY DETAILS									
Property description as per title deed *[Erf Number(s)/ Farm portion(s) & allotment area.]*	**Erf 325, Jacobs Bay**								
Physical Address	**Off Main Rd Jacobs Bay**								
GPS Coordinates	**32°57'51.60"S 17°53'21.60"E**				Town/City	**Jacobs Bay**			
Current Zoning	**Small Holdingl**		Extent	**6,5162ha**	Are there existing buildings?		**Y**	N	
Applicable Zoning Scheme	**Saldanha Bay Integrated Zoning Scheme**								
Current Land Use	**Developed**								
Title Deed number and date	T	**69343/1998**							
Are there any restrictive conditions of title?	Y	N	If Yes, list the condition(s) (page and paragraph number)						
Are the restrictive conditions in favour of a third party(ies)?	Y	N	If Yes, list the party(ies)						
Is the property encumbered by a bond?	Y	N	If Yes, list bondholder(s)						
Are there any existing unauthorized buildings and/or land use on the subject property(ies)?			Y	N	If yes, is this application to legalize the building / land use?		Y	N	
Are there any pending liquidation /court case(s) / court order(s) relating to the subject property(ies)?			Y	N	Are there any land claim(s) registered on the subject property(ies)?		Y	N	

PART D: PRE-APPLICATION CONSULTATION					
Has there been any pre-application consultation?	Y		If Yes, complete the information below and attach the minutes of the pre-application consultation.		
Name of Official consulted			Date of consultation		

PART E: TYPE OF LAND USE PLANNING APPLICATION IN TERMS OF SECTION 15 OF THE SALDANHA BAY MUNICIPAL LAND USE PLANNING BY-LAW AND APPLICATION FEES PAYABLE			
Tick	**Section**	**Type of application**	**Cost**
X	15(2)(a)	a rezoning of land;	R
X	15(2)(b)	a permanent departure from the development parameters of the zoning scheme;	R
	15(2)(c)	a temporary departure to utilise land for a purpose not permitted in terms of the primary rights of the zoning of the land;	R
X	15(2)(d)	a subdivision of land that is not exempted in terms of section 24, including the registration of a servitude or lease agreement;	R
	15(2)(e)	a consolidation of land that is not exempted in terms of section 24;	R
	15(2)(f)	a removal, suspension or amendment of restrictive conditions in respect of a land unit;	R
	15(2)(g)	a permission required in terms of the zoning scheme;	R
	15(2)(h)	an amendment, deletion or imposition of conditions in respect of an existing approval;	R
	15(2)(i)	an extension of the validity period of an approval;	R
	15(2)(j)/(t)	an approval of an overlay zone as contemplated in the zoning scheme; or approval of architectural/development guidelines	R
	15(2)(k)	an amendment or cancellation of an approved subdivision plan or part thereof, including a general plan or diagram;	R
	15(2)(l)	a permission required in terms of a condition of approval;	R
	15(2)(m)	a determination of a zoning;	R
	15(2)(n)	a closure of a public place or part thereof;	R
	15(2)(o)	a consent use contemplated in the zoning scheme;	R
	15(2)(p)	an occasional use of land;	R
	15(2)(q)	to disestablish a home owner's association;	R
	15(2)(r)	to rectify a failure by a home owner's association to meet its obligations in respect of the control over or maintenance of services;	R
	15(2)(s)	a permission required for the reconstruction of an existing building that constitutes a non-conforming use that is destroyed or damaged to the extent that it is necessary to demolish a substantial part of the building.	R
		TOTAL A:	**R**

PRESCRIBED NOTICE AND FEES** *(for completion and use by official)*			
Tick	**Notification of application in media**	**Type of procedure (strike through which not applicable)**	**Cost**
	SERVING OF NOTICES	Delivering by hand; registered post; data messages	**R**
	PUBLICATION OF NOTICES	Local Newspaper(s); *Provincial Gazette*; Municipality's website	R
	ADDITIONAL PUBLICATION OF NOTICES	Site notice, public meeting, local radio station, Municipality's website, letters of consent or objection	R
	NOTICE OF DECISION	*Provincial Gazette*	R
	INTEGRATED PROCEDURES	To be calculated separately	R
		TOTAL B:	**R**
		TOTAL APPLICATION FEES* (A + B)	**R**

* ***Application fees that are paid to the Municipality are non-refundable and proof of payment of the application fees must accompany an application.***

***** The applicant is liable for the cost of publishing and serving notice of an application.***

BANKING DETAILS FOR PAYMENT OF FEES

Name:	Saldanha Bay Municipality
Bank:	Standard bank
Branch no.:	05051100
Account no.:	083290044
Payment reference: (if applicable)	……

PART F: DETAILS OF PROPOSAL

Brief description of proposed development / intent of application:

Proposed Rezoning & Subdivision of Erf 325 Jacobs Bay to establish a residential development

PART G: ATTACHMENTS AND SUPPORTING INFORMATION AND DOCUMENTATION FOR LAND USE PLANNING APPLICATION

Complete the following checklist and attach all the information and documentation relevant to the proposal. Please note that failure to submit all information and documentation required will result in the application being deemed incomplete and acceptance may be refused.

Compulsory information and documentation required:

Y	N	Power of attorney / Owner's consent if applicant is not owner	Y	N	Bondholder's consent (if applicable)
Y	N	Resolution or authorisation that applicant can act on behalf of a juristic entity (e.g. company resolution)	Y	N	Proof of registered ownership or any other relevant right held in the land concerned
Y	N	Written motivation	Y	N	S.G. diagram / General plan extract
Y	N	Locality plan	Y	N	Site development plan or conceptual layout plan
Y	N	Proposed subdivision plan	Y	N	Proof of agreement or permission for required servitude
Y	N	Proof of payment of application fees	Y	N	Full copy of the title deed
Y	N	Conveyancer's certificate	Y	N	Minutes of pre-application consultation meeting (if applicable)

Supporting information and documentation:

Y	N	N/A	Consolidation plan		Y	N	N/A	Land use plan / Zoning plan
Y	N	N/A	Street name and numbering plan					
Y	N	N/A	Landscaping / Tree plan		Y	N	N/A	1 : 50 / 1:100 Flood line determination (plan / report)
Y	N	N/A	Abutting owner's consent		Y	N	N/A	Home Owners' Association consent
Y	N	N/A	Copy of Environmental Impact Assessment (EIA)		Y	N	N/A	Abutting owner's consent
Y	N	N/A	Copy of Heritage Impact Assessment (HIA)		Y	N	N/A	Proof of lawful use right
Y	N	N/A	Copy of Traffic Impact Assessment (TIA) / Traffic Impact Statement (TIS)		Y	N	N/A	Services Report or indication of all municipal services / registered servitudes
Y	N	N/A	Copy of Major Hazard Impact Assessment (MHIA)		Y	N	N/A	Proof of failure of Home owner's association
Y	N	N/A	Copy of Environmental Authorisation(EA) / Record of Decision (ROD)		Y	N	N/A	Any additional documents or information required as listed in the pre-application consultation form / minutes
Y	N	N/A	Copy of original/previous approval and conditions of approval		Y	N	N/A	Other (specify)
Y	N	N/A	Required number of documentation copies					

PART H: AUTHORISATION(S) IN TERMS OF OTHER LEGISLATION

Y	N/A	National Heritage Resources Act, 1999 (Act 25 of 1999)		Y	N/A	National Water Act, 1998 (Act 36 of 1998)
Y	N/A	National Environmental Management Act, 1998 (Act 107 of 1998)		Y	N/A	National Environmental Management: Waste Act, 2008 (Act 59 of 2008)
Y	N/A	Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970)		Y	N/A	National Environmental Integrated Coastal Management Act, 2008 (Act 24 of 2008)
Y	N/A	Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013)(SPLUMA)		Y	N/A	National Environmental Management: Air Quality Act, 2004 (Act 39 of 2004)
Y	N/A	Occupational Health and Safety Act, 1993 (Act 85 of 1993): Major Hazard Installations Regulations		Y	N/A	Environmental Conservation Act, 1989 (Act 73 of 1989)
Y	N/A	Land Use Planning Act, 2014 (Act 3 of 2014) (LUPA)		Y	N/A	Other (specify)
Y	N	If required, has application for EIA / HIA / TIA / TIS / MHIA approval been made? If yes, attach documents / plans / proof of submission etc.				
Y	N	If required, do you want to follow an integrated application procedure in terms of section 44(1) of the Saldanha Bay Municipal Land Use Planning By-law? If yes, please attach motivation.				

SECTION I: DECLARATION

I hereby wish to confirm the following :

1. That the information contained in this application form and accompanying documentation is complete and correct.

2. I'm aware that it is an offense in terms of section 86(1)(d) of the Saldanha Bay Municipal Land Use Planning By-law to supply particulars, information or answers knowing it to be false, incorrect or misleading or not believing them to be correct, and that I can be held liable on conviction to a fine or imprisonment not exceeding 20 years or to both such fine and imprisonment.

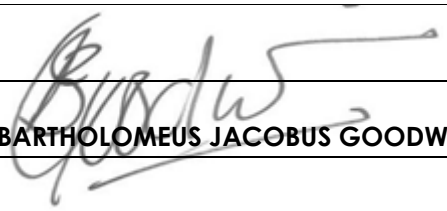
3. I am properly authorized to make this application on behalf of the registered land owner and (where applicable) that a copy of the relevant power of attorney or consent are attached hereto.

4. Where an agent is appointed to submit this application on the land owner's behalf, it is accepted that correspondence from and notifications by the Municipality in terms of the by-law will be sent only to the applicant as indicated on this application form.

5. That this submission includes all necessary land use planning applications required to enable the development proposed herein and that the municipality cannot be held responsible for the omission of use rights not applied for herein.

6. I confirm that the relevant title deed(s) have been investigated and that there are no restrictive title deed restrictions which impact on this application, or alternatively that an application for removal/suspension or amendment of such title deed restrictions forms part of this submission.

7. I am aware that development charges to the Municipality in respect of the provision and installation of external engineering services are payable by the land owner/developer as a result of the proposed development, as determined in terms of Council policy.

Applicant's signature:		Date:	**20/09/2022**
Full name:	**BARTHOLOMEUS JACOBUS GOODWIN**		
Capacity in which application is being made:	**PLANNER**		

FOR OFFICE USE ONLY

Municipal Date Stamp	Received by: Name:

PROD DEEDS REGISTRATION SYSTEM - CAPE TOWN DATE : 20100607 TIME : 11:43:35.6 PAGE : 1
PREPARED BY : LARS08042 - INFORMATION 1

PROPERTY DETAILS PRINT FOR PORTION 0 (R/E)
ERF NO 325
TOWNSHIP JACOBSBAAI
REG DIV MALMESBURY RD

PROVINCE WESTERN CAPE
PREV DESCRIPTION
DIAGRAM DEED NO T69343/1998
EXTENT 6.5162 H
CLEARANCE VREDENBURG-SALDANHA MUN

FIRM NR : 999
FIRM NAME : AKTEKANTOOR KAAPSTAD
FILE NR : PREP
FEE AMOUNT: R .00

ORIGIN REASON ORIGIN PROPERTY
SUBDIVISION FROM JACOBSBAAI , 299 , 0 (R/E)

SUBDIVISION TO TOWN JACOBSBAAI , ERF 427 , PRTN 0

NO INTERDICTS

NO DOCUMENTS

OWNER DETAILS

FULL NAME & SHARE	PURCH DATE	AMOUNT/REASON	O/P/A	IDENTITY	TITLE DEED	MMDD	MICROFILM REF
FORELLENDAM PTY LTD		CRT		199802453607	T69343/1998	0724	2005 0315 0811

* O/P/A - O - MULTIPLE OWNER P - MULTIPLE PROPERTY A - MULTIPLE OWNER AND PROPERTY

** PLEASE NOTE : THE INFORMATION APPEARING ON THIS PRINTOUT IS FURNISHED FOR PURPOSES OF INFORMATION ONLY.
FOR MORE DETAILED INFORMATION, PLEASE REFER TO THE REGISTERED SOURCE DOCUMENTS.

* * * END OF REPORT * * *

151.
MARAIS MÜLLER ING.

OPGESTEL DEUR MY:

TRANSPORTBESORGER
STOFBERG K

SEËLS
STAMPS
R 55,00

FOR FURTHER ENDORSEMENT / VIR VERDERE ENDOSSEMENT BLS

3476
T 69343 98

SERTIFIKAAT VAN GEREGISTREERDE TITEL

Uitgereik kragtens die bepalings van Artikel 43 van die Registrasie van Akteswet 1937 (Nr 47 van 1937)

UITSLUITLIK VIR INFORMASIE DOELEINDES

NADEMAAL

FORELLENDAM BK
CK 88/12952/23

aansoek gedoen het vir die uitreiking aan Forellendam BK van 'n Sertifikaat van Geregistreerde Titel kragtens Artikel 43 van die Registrasie van Akteswet, 1937, ten opsigte van die hierondergemelde grond, synde gedeelte van die grond geregistreer op die maatskappy se naam kragtens Sertifikaat van Verenigde Titel Nr T95202/1994.

SO IS DIT DAT ingevolge die bepalings van die genoemde Wet, ek, die Registrateur van Aktes te Kaapstad, hierby sertifiseer dat

FORELLENDAM BK
CK 88/12952/23

of sy gemagtigdes, die geregistreerde eienaar is van

ERF 325 ('n Gedeelte van Erf 299) JACOBSBAAI, geleë in die gebied van die Weskus Skiereiland Oorgangsraad, Afdeling Malmesbury, Provinsie Wes-Kaap;

GROOT: 6,5380 (Ses Komma Vyf Drie Agt Nul) hektaar;

SOOS blyk uit aangehegte Kaart L.G. Nr 5553/1996 en gehou kragtens Sertifikaat van Verenigde Titel Nr T95202/1994.

A. ONDERHEWIG aan die voorwaardes waarna verwys word in Transportakte Nr T2661/1966 en aan die volgende spesiale voorwaarde vervat in Transportakte Nr T9246/1921, naamlik:

"The Transferee, their Heirs, Executors, Administrators, Assigns and Successors in title, shall have the right of way or road or access to or over the dominant tenement except at such places as may be agreed between the transferee and the transferor or their respective successors in title and then only for the personal use of the transferees or such their successors or their families, but not for use for purpose of or connected with the conduct of any trading, fishing or canning business or of the purpose of a fishery. No accretion, natural or artificial to or diminution caused by attrition or advance of the dea on the dominant tenement shall give the transferees, their heirs, executors, administrators or assigns or successors in title to the land hereby transferred any greater right to, over or upon the dominant tenement when so added to or diminished than those acquired by the transferees at the date of the passing of this deed."

ISSUED FOR INFORMATION ONLY
ALLEEN VIR INFORMASIEDOELEINDES UITGEREIK

B. VERDER ONDERHEWIG aan die terme van 'n serwituut aantekening gedateer 5 September 1924 gemaak op Transportakte Nr T2241/1924, welke aantekening as volg lui:

"By Deed of Transfer No T8094 d.d 5th September 1924 the owners of the land hereby conveyed acquire the right to cart water to the said land from the nearest spring on the remainder of the land hereby transferred, subject to conditions as will more fully appear on reference to the said Transfer."

C. VERDER ONDERHEWIG aan die spesiale voorwaarde vervat in Transportakte Nr T4928/1926, naamlik:

"That the Appearer's Principal, the said Seller reserves to himself and his successors in title as owners of the remaining extent of Jacobs Bay J (hereinafter called the Seller's land) the right to use the wells situate near the north western boundary of the above land Jacobs Bay M and indicated on the diagram thereof as blue dots on either side of the road from Lot N.P. to the above land, and the right to erect a windmill there and to pump water therefrom to the Seller's land, and the right to cart water therefrom to the Seller's land, and the right to water cattle thereat; and the right to use a trekpath 94,46 metres wide over the above land to enable him and his successors to drive cattle from the Seller's land to the said well and back and to drive carts thereover for the purpose of carting water as aforesaid."

D. VERDER ONDERHEWIG aan die terme van 'n Serwituutaantekening gedateer 29 Maart 1971 gemaak op Transportakte Nr T8144/1971, welke aantekening as volg lui:

"By Notarial Deed No 115/1971 dated 18th December 1970 the within property Paragraph 1 is subject to conditions relating to carrying on of business connected with buying, selling, freezing, storing or conveyance thereon of rock lobster in favour of Stephan Holdings (Proprietary) Limited. As will more fully appear from said Notarial Deed."

ISSUED FOR INFORMATION ONLY
ALLEEN UIT INFORMATIEVOORDELENDES UITGEREIK

EN dat kragtens hierdie Sertifikaat, genoemde

FORELLENDAM BK
CK 88/12952/23

of sy gemagtigdes, nou en voortaan daartoe geregtig is ooreenkomstig plaaslike gebruik maar behoudens die regte van die Staat.

TEN BEWYSE waarvan ek, die voornoemde Registrateur, hierdie Akte onderteken en met die Ampseël bekragtig het.

ALDUS GEDOEN en GETEKEN op die kantoor van die Registrateur van Aktes

te KAAPSTAD

op 24 June 1998.

REGISTRATEUR VAN AKTES

ISSUED FOR INFORMATION ONLY
ALLEEN VIR INFORMASIEDOELEINDES UITGEREIK

BORG VERBIND

ARTIKEL 43 WET 47 VAN 1937 SECTION ACT 47 OF 1937

VERBIND MORTGAGED

B 3718/98

R 5 700 000,00

BC 43480/2001

GEKANSELLEER
CANCELLED

REGISTRATEUR/REGISTRAR

2001-08-08

BC (2) 43130 98

24 7 98

REGISTRATEUR/REGISTRAR

ENDOSSEMENT KRAGTENS ARTIKEL 27D VAN WET 61 VAN 1973

ENDORSEMENT BY VIRTUE OF SECTION 27D OF ACT 61 OF 1973

WITH/UNMENTIONED

CLOSE CORPORATION HAS BEEN CONVERTED TO A COMPANY AND IS NOW

KS

FOREKENDAM (Gardams)

Beperk

NO 1998/024536/07

BC 000043481 *2001

2001-08-08

REGISTRATEUR/REGISTRAR

ISSUED FOR INFORMATION ONLY
ALLEEN VIR INLIGTINGSDOELEINDES UITGEREIK

SERTIFIKAAT VAN GEREGISTREERDE TITEL UITGEREIK
CERTIFICATE OF REGISTERED TITLE ISSUED

TEN OPSIGTE VAN
IN RESPECT OF ERF 427 = 218 m²

RESTANT
REMAINDER 6,5162

T 000118291/2004

01 DEC 2004

REGISTRATEUR/REGISTRAR

VIR ENDOSSEMENTE KYK BLADSY 6
FOR ENDORSEMENTS SEE PAGE

-6-

Registrateur

IDENTITEITSNOMMER VAN DIE THE IDENTITY NUMBER OF THE

Transferor

IS VERANDER NA HAS BEEN CHANGED TO

1998/024536/07

REGISTRATEUR/REGISTRAR

01 DEC 2004

ISSUED FOR INFORMATION ONLY
ALLEEN VIR INLIGTING UITGEREIK

SALDANHA BAAI BAY

MUNISIPALITEIT · MUNICIPALITY · uMASIPALA

Municipal Manager
Munisipale Bestuurder
Umphati kaMasipala
Privaatsak / Private Bag x12
VREDENBURG
7380

☎ (022) 701 7000 (022) 715 1518
mun@saldanhabay.co.za
www.saldanhabay.co.za

MELD ASB ONS VERW NR:
PLEASE QUOTE OUR REF NO: 15/2/R
NGESICELO BONISA INOMBOLO:

Navrae:
Enquiries: T Brand
iMibuzo:

27 June 2012

TO WHOM IT MAY CONCERN

ZONING CERTIFICATE

The zoning of Erf 325, Jacobsbaai, is hereby confirmed as:

SMALL HOLDINGS

The Vredenburg-Saldanha Zoning Scheme Regulations determine that the property can be utilised for the purpose of a

Rural residence; agricultural building; livery stable; riding school; breeding purposes; veterinary building; educational building

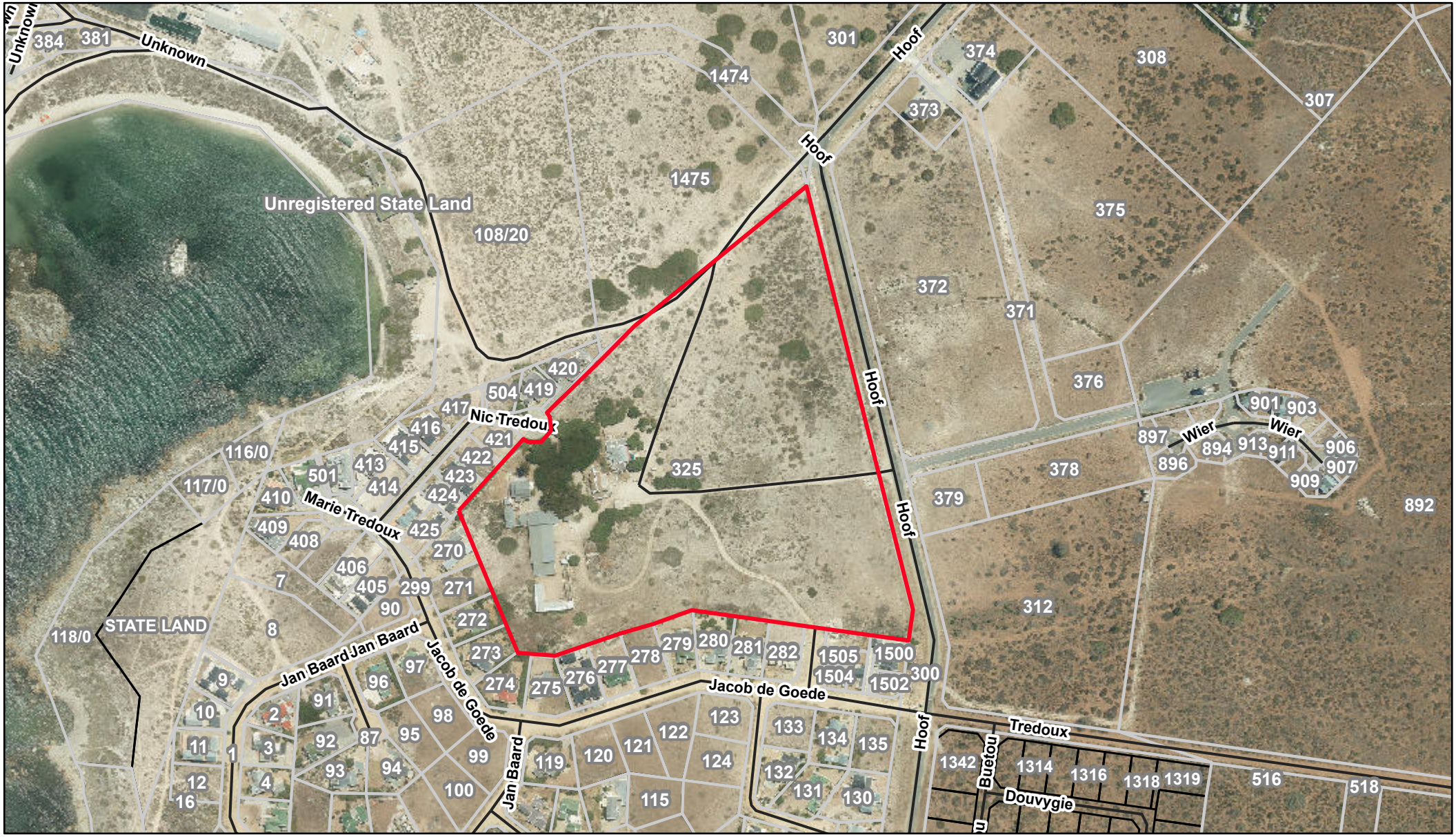
and with Council's special consent,

special usage.

Yours truly

for MUNICIPAL MANAGER
/tb

Locality Erf 325 JB



9/21/2022, 6:54:35 AM

Registered Property

SG Approved Property

1:4,514

0 0.03 0.06 0.12 mi

0 0.05 0.1 0.2 km

Saldanhabay Municipality

Esri Community Maps Contributors, Esri South Africa, Esri, HERE, Garmin, Foursquare, METI/NASA, USGS | Esri, NASA, NGA, USGS | Saldanhabay Municipality | Esri South Africa | GISCOE |

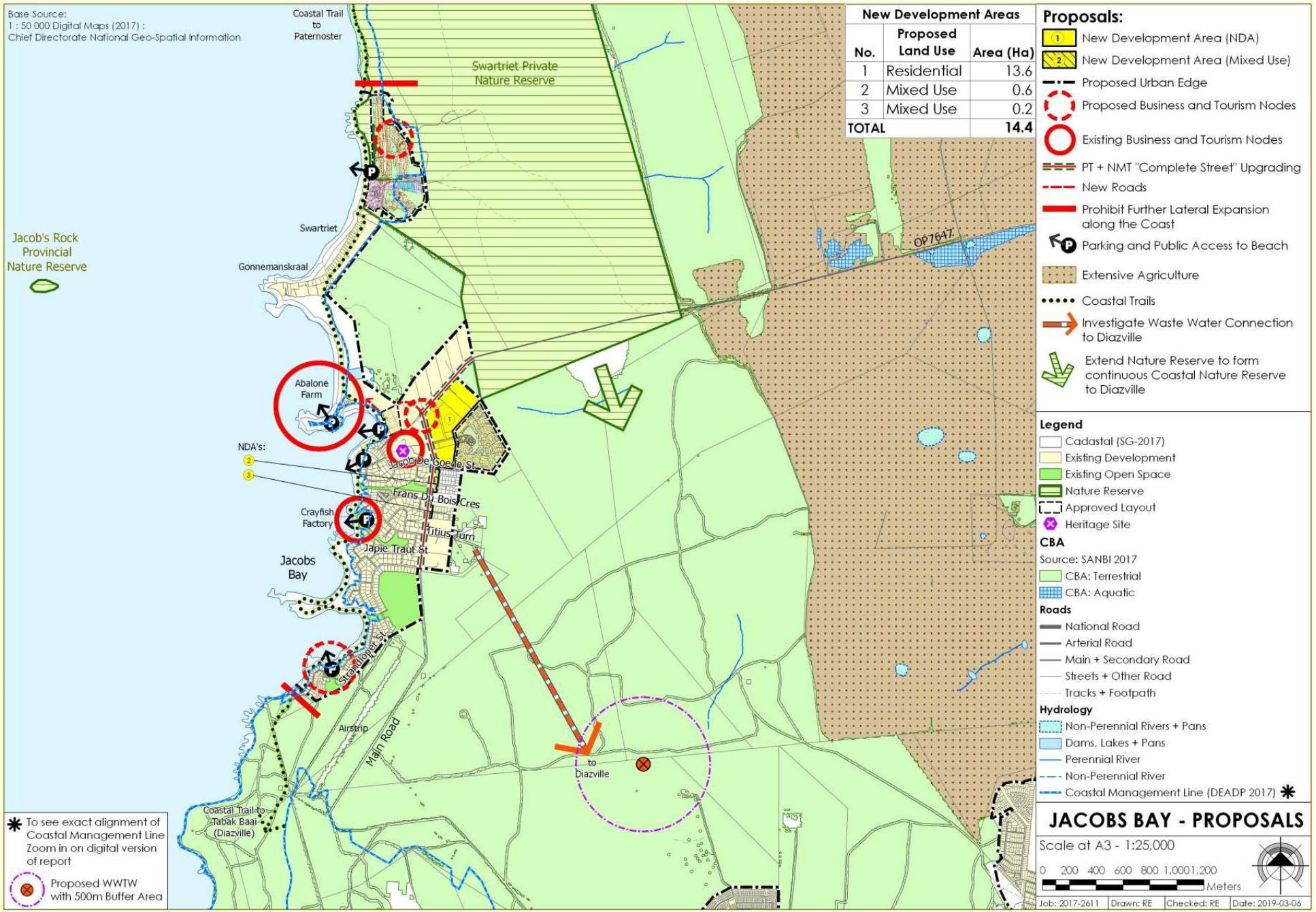


Figure 6.7.3 **Proposals: Jacobsbaai**



JACOBSBAAI

PROPOSED REZONING, SUBDIVISION & DEPARTURES

ERF 325

Erven 1-48 Residential II Group Housing	-14425m2 20.8%	
Erven 1-93 Residential I Dwelling House	-31762m2 49%	
Erven 94-100 Open Space II Private Open Space	- 5340m2 8.2%	
Erven 101, 102 Transport II Public Road	- 13635m2 20.8%	
TOTAL	65162m2 100%	

All areas approximate-to be verified by Land Surveyor.

Notes:
All areas approximate-to be verified by Land Surveyor.

conradie goodwin & associates
URBAN PLANNERS

33 Primula Ave
Durbanville
7550
Sel.: 082 440 2103
Faks: 086 671 9071
email: congood @mweb.co.za

Client:
Forellendam Pty Ltd

CGA ERF 325 JB -4
Plan of Subdivision
July 2022

NTS

INTERNAL ENGINEERING SERVICES REPORT

FOR THE PROPOSED

FORELLENDAM HOUSING ESTATE

ERF 325, JACOBSBAAI

(SBM Pre-consultation Submission)

Report compiled for:

Conradie Goodwin & Associates
33 Primula Avenue
Durbanville
7550

Report compiled by:

NWE Consulting Engineers
Plattekloof House, Tygerberg Office Park
163 Uys Krige Drive
Plattekloof
7530

October 2021

DOCUMENT CONTROL

TITLE:	Forellendam Housing Estate
SUB-TITLE:	Internal Engineering Services Report
REPORT STATUS:	Draft Issue
DOCUMENT NUMBER:	10025-ForDam-ESR
REPORT NUMBER:	01
REVISION NUMBER:	02 (SBM Pre-consultation Submission)
CLIENT:	Matflor (Pty) Ltd
PREPARED BY:	NWE Consulting Engineers (Pty) Ltd Plattekloof House, Tygerberg Office Park 163 Uys Krige Drive Plattekloof 7530
DATE:	28 October 2021
PROJECT TEAM:	Author: M Smuts, Pr Eng Reviewer: C Smuts, BEng
COPIES ISSUED TO:	Internal; Client; Saldanha Bay Municipality

INITIAL AND SURNAME	DATE	SIGNATURE
Author (s)		
M Smuts (Pr Eng)	28 October 2021	
Reviewer		
C Smuts (BEng)	28 October 2021	

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APPENDIX E ..... GLS Report - Capacity Analysis of the Bulk Water Services

1 EXECUTIVE SUMMARY

1.1 INTRODUCTION

This Engineering Services Report has the aim of briefly setting out a philosophy for the design of the internal engineering services for the proposed Development of Erf 325, Jacobsbaai.

1.2 REFERENCES FOR DESIGN CRITERIA

Various recognised design standard documents and guidelines have been used as the basis for the design criteria and standards for the provision of the internal engineering infrastructure.

1.3 GENERAL BACKGROUND

The site of the proposed Development is situated in Jacobsbaai and is in the administrative district of the Saldanha Bay Municipality. The site comprises Erf 325 and measures approximately 6,5 hectares in extent. The land is currently zoned for single residential use, but is set to be rezoned to sub divisional area.

It is the intention to develop a total of 48 general residential opportunities, and 45 single residential (Residential Zone 1) erven.

A topographical survey of the site was undertaken by Messrs CB Surveys in order to model the site topography and to verify the positions and levels of all existing buildings and services on and adjacent to the site.

A geotechnical inspection of the site was undertaken by the Engineers. The inspection indicated that the site consisted predominantly of sandy topsoil with calcrete / limestone outcrops in places. From past experience on an adjacent site it can be expected to encounter hard subsurface limestone boulders and lenses in the trench excavations.

1.4 POTABLE WATER

The water supply system will be designed as a conventional medium pressure, gravity reticulation network and will be connected into the existing municipal infrastructure. General service standards will be as explained in detail in the report and as agreed with the Local Authority.

1.5 FOUL SEWER

The foul sewer system will be designed as a conventional waterborne, gravity reticulation network and will be connected into a conservancy tank, designed appropriately for conversion to a pump station at a later stage. General service standards will be as explained in detail in the report and as agreed with the Local Authority.

1.6 STORMWATER

The calculation of design storms will be based on recognised deterministic hydrological methods.

Provision will be made for a minor and a major system, as well as an emergency system as part of the design of the internal stormwater management system.

Stormwater will be routed to a scrubbing / detention facility with due consideration to sustainable urban drainage system practices. An emergency overflow with regulated discharge rates for various storm recurrence intervals will pass overflow water to the natural drainage routes around the site. General service standards will be as explained in detail in the report and as agreed with the Local Authority.

1.7 ROADS

The road pavements will be structurally designed with due consideration of the site specific geotechnical conditions and appropriate traffic loads.

Internal roads will be asphalt surfaced, while interlocking segmented paving may be used in areas for aesthetic purposes.

1.8 ELECTRICAL ENGINEERING

There is adequate 11 kV bulk supply available in the area surrounding the development and no problems are foreseen to have an 11 kV supply made available to the development.

Street lighting will be supplied and a pre-paid metering system will be used throughout.

1.9 TELECOMMUNICATION

Telecommunication ducts and appropriate associated structures will be installed throughout the Development in order to ensure an “optic fibre ready” state.

1.10 SOLID WASTE

The Saldanha Bay Municipality will collect waste from the Development.

2 INTRODUCTION

This Engineering Services Report has the aim of briefly setting out a philosophy for the design of the internal engineering services for the proposed Forellendam Housing Estate development on Erf 325, Jacobsbaai.

Each one of the civil engineering services will be dealt with individually.

Liaison with the relevant engineering departments of the Local Authority will be undertaken prior to finalising this report in order to:

- Establish the status of bulk engineering services infrastructure in the vicinity of the proposed Development.
- Establish the availability of spare capacity in the existing infrastructure to accommodate the requirements of the proposed Development.
- Agree services standards, materials to be used on the proposed Development etc.

The agreed standards will be carried through to the final services design.

3 REFERENCES FOR DESIGN CRITERIA & STANDARDS

The following documents have been used as the basis for the design criteria and standards for the provision of the internal civil engineering services:

i. *"Guidelines for the Provision of Engineering Services in Residential Townships"* (Blue Book).
ii. *"Toward Guidelines for Services and Amenities in Developing Communities"* (Red Book).
iii. *"Guidelines for Urban Stormwater Management"*, UTG4.
iv. *"Structural design of Urban Roads"*, UTG3.
v. *"Guidelines for road construction materials"*, TRH14.
vi. *"The Wiring of Premises. Part 1: Low Voltage Installations"* as published by the SABS.
vii. *"Electrical Distribution – Guidelines for the Provision of Electrical Distribution Networks in Residential Areas. Part 1: Planning and Design of Distribution Systems"* including Table 3a as modified for City of Cape Town.
viii. Preliminary discussions held with officials from the Saldanha Bay Municipality.

All materials and construction techniques are to comply with the relevant SANS Standardised Specifications as well as the latest best practice principals for Sustainable Urban Drainage Systems (SUDS).

4 GENERAL BACKGROUND

4.1 LOCATION OF PREMISES

The site of the proposed Development is situated in Jacobsbaai and is in the administrative district of the Saldanha Bay Municipality. The site comprises Erf 325 and measures approximately 6,5 hectares in extent. The land is currently zoned for single residential use, but is set to be rezoned to sub divisional area.

It is the intention to develop a total of 48 general residential opportunities, and 45 single residential (Residential Zone 1) erven. There will be 7 public open spaces provided with the balance of the site taken up by public roads.

The site location is indicated on the attached Locality Plan in Appendix A.

4.2 TOPOGRAPHY

A topographical survey of the site was undertaken by Messrs CB Surveys (Mr Christopher Bezuidenhout).

The survey indicated a site with grades ranging from 3,5% in the north west to less than 0,5% in the south east. The survey further served to verify the existence, positions and levels of existing engineering services, roads and building structures on the site.

There are no natural streams or water courses that have flood lines that will impact on the subject site.

The site survey drawing is attached as Appendix B.

4.3 EXISTING STRUCTURES ON PREMISES

There are a number of existing structures with outbuildings on the site at present. Some of these will be retained on the new erf subdivision layout, while others are set to be demolished.

4.4 EXISTING SERVICES ON PREMISES

Engineering services are currently supplied to the area by the Saldanha Bay Municipality.

Availability of these services together with spare capacities to accommodate the proposed Development will be discussed in the sections that follow.

4.5 SOIL & GEOTECHNICAL CONDITIONS

A geotechnical inspection of the site was undertaken by the Engineers.

The inspection indicated that the site consisted predominantly of sandy topsoil with calcrete / limestone outcrops in places. From past experience on an adjacent site it can be expected to encounter hard subsurface limestone boulders and lenses in the trench excavations.

The geotechnical conditions will have little or no impact on the services design and no portion of the site was found to be problematic or un-developable.

5 POTABLE WATER

The internal water supply system will be designed as a conventional medium pressure, gravity reticulation network and will be connected into the existing municipal infrastructure.

The internal potable water reticulation network will be designed based on the following criteria:

5.1 MUNICIPAL BULK SUPPLY SYSTEM

- The municipal water reticulation network is in place and currently already services the surrounding developments.
- Suitable connection points to the municipal system have been identified based on information supplied by the Local Authority regarding the existing services in the area.
- According to the Local Authority engineering department, there is sufficient spare capacity available in the bulk reticulation system to accommodate the proposed Development.
- According to a report compiled by Messrs GLS Consulting Engineers, there is insufficient storage capacity in the existing service reservoir supplying the area where the proposed development is situated. The GLS report is attached in Appendix E.

5.2 POTABLE WATER CONSUMPTION & FLOW

- The following average daily consumption rates will be used for the design of the internal reticulation network:
  - 45 Single residential erven (4 persons / erf) 600 litres / erf / day (27.0 kilolitres per day)
  - 48 Group housing erven (3 persons / erf) 600 litres / erf / day (28.8 kilolitres per day)

  (Refer to Appendix D for detailed consumption calculations).
- Erf connections shall be able to deliver 45 litres / minute minimum.
- A Peak Factor of 11.6 will be used for the calculation of the instantaneous peak demand.
- A Summer Season Peak Factor of 1.5 will also be applied.
- Maximum head of 90 m under zero flow conditions.
- Minimum head of 24 m under instantaneous peak demand conditions.
- Maximum velocity allowed of 1.5 metres / second under peak flow conditions.
- Consumption metering will be done at the erf boundary with individual 20 mm diameter domestic meters for the single residential properties (Kent meters or similar approved).
- Metering and billing will be the responsibility of the Local Authority.

5.3 FIRE WATER FLOW

- Fire risk is set as Low Risk Group II (Residential Zone 1 with building gross floor area varies between 100m² and 200m²) with fire flows of 8.3 litres / second / hydrant.
- Hydrants spaced at 240m (max) intervals.
- Minimum residual head of 6 m at peak demand with a superimposed fire flow demand.
- Maximum velocity allowed of 3.0 metres / second under fire flow conditions.

5.4 POTABLE WATER SYSTEM MATERIALS

- Minimum pipe diameter of 110 mm external to buildings.
- Potable water reticulation pipes are to be SABS approved, standard length, Class 12 uPVC pipes on a bed suitable for flexible pipes.
- All uPVC pipes to utilise standard uPVC Z-lock couplings.
- Bends to be uPVC Class 12, but tees and crosses shall be ductile iron to EN12842.
- Erf connections to single residential erven to be 25 millimetre diameter PN16 PE100 HDPE or similar. All consumption meters to be Kent or similar approved (meters installed by Local Authority).

- Erf connections shall come off ductile iron saddles on the water main line.
- Specifications for valves are as follows:
  - AVK or similar approved Class 16, left-hand closing isolation valves with non-rising spindles in brick built chambers with ductile iron covers and frames, painted blue.
  - Underground Ainsworth type fire hydrants with London round screw thread in brick built chambers with ductile iron Type 5 FH box, covers and frames painted yellow.
- Minimum cover on water pipes to be 0.8 metres.
- Pipes under roadways shall be bedded and backfilled with clean imported sand, compacted to 100% Mod AASHTO.
- Pipes outside of roadways shall be bedded with clean imported sand, but backfilled with approved backfill material compacted to 95% Mod AASHTO.
- All thrust blocks shall be cast using Class 20/19 concrete throughout.

5.5 LAYOUT

- Main line pipes shall not have a longitudinal grade of less than 0.5%.
- Pipes shall generally be located in the road reserves and then 1.2 metres off the cadastral erf boundaries with erf connections marked on the road kerbs.
- Isolation valves shall be located such that not more than four valves are to be closed to isolate a section of pipeline for maintenance and repair functions and shall be located opposite cadastral erf boundaries or cadastral splays as applicable.
- Fire hydrants shall be located not more than 240 metres apart and shall also be located opposite cadastral erf boundaries or splays. Fire hydrants shall also be located to double as air release points or scour valves as required.
- The positions of all valves and hydrants shall be marked on the road kerbs opposite the valves.
- Only single erf connections to be constructed.
- Erf connections shall be situated 1.0 metres off the lateral cadastral erf boundary of the erf and shall terminate 1.0 metres inside the erf.
- The minimum depth to invert on reticulation mains shall not be less than 900 millimetres and the minimum cover over house connections shall not be less than 800 millimetres.

5.6 GENERAL

- Messrs GLS Consulting Engineers compiled a report on behalf of Saldanha Bay Municipality Engineering Department on the availability of spare capacity in the bulk water supply network to allow the proposed Development to go ahead.
- The report stipulated that:
  - There is sufficient capacity available in the potable water reticulation system, but
  - There is insufficient emergency storage capacity in the service reservoir and that additional storage needs to be created.
- On completion, hydraulic testing of the system will be carried out in the presence of the Engineer and representatives of the Municipality.

6 FOUL SEWER

The sewer system will be designed as a conventional waterborne, gravity reticulation network and will be terminated in a strategically located conservancy tank.

The design of the sewer system is based on the following:

6.1 MUNICIPAL BULK SUPPLY SYSTEM

- There is no municipal sewer reticulation network in place currently.
- A conservancy tank shall be installed to service the Development.
- The tank shall be sized to allow for a 7 day storage volume (275 cubic metres effective storage).
- The tank shall be designed such that it can be converted to a sewer pump station in future.

6.2 FOUL SEWER DISCHARGE & FLOW

- The internal sewer network is being designed based on an expected discharge flow equal to 70% of the potable water demand for the Development.
- The following average daily flow rates will be used for the design of the foul sewer network:
  - 45 Single residential erven: 420 litres / erf / day (70% of water usage = 18.9 kilolitres per day)
  - 48 Group housing erven: 420 litres / erf / day (70% of water usage = 20.2 kilolitres per day)

  (Refer to Appendix D for detailed consumption calculations).
- An un-attenuated Peak Factor of 2.5 will be used.
- An allowance for extraneous flows of 15% is catered for.
- Pipes will be graded for a minimum flow velocity of 0.7 metres / second achieved at least once per day.

6.3 FOUL SEWER SYSTEM MATERIALS

- Minimum pipe diameter of 160 millimetres for all network lines and 110 millimetres for all erf connections.
- Foul sewer pipes to be standard length, Class 34 heavy duty, solid wall uPVC pipes for both the main lines and the individual erf connections, both on a bed suitable for flexible pipes.
- A minimum cover of 600 millimetres over all pipes outside trafficked areas and 800 millimetres elsewhere.
- Pipes under roadways shall be bedded and backfilled with clean imported sand, compacted to 100% Mod AASHTO.
- Pipes outside of roadways shall be bedded with clean imported sand, but backfilled with approved backfill material compacted to 95% Mod AASHTO.
- Precast concrete ring manholes (suitably waterproofed at the joints and top slabs) with flexible pipe connections will be used. Covers and frames shall be Type 2A (modified) hinged ductile iron throughout.

6.4 LAYOUT

- Main lines to be located on the centreline of the cadastral road reserves, or 1.5 metres inside the cadastral erf boundary of the row of erven it services in the case of mid-blocks, depending on the topography of the site.
- Minimum grade on main lines of 1:120 and minimum grade on erf connections of 1:60 with at least 75% of the erf able to drain to the erf connection.
- A maximum distance between manholes of 80 metres will be allowed.

- There shall be no change in flow direction where the internal angle of change is less than 90°.
- Only single erf connections will be constructed. Erf connections shall be situated 1.5 metres off the lateral cadastral erf boundary of the erf.
- Erf connections will terminate and be fitted with a rodding eye 1.0 metre inside the cadastral erf boundary. Where applicable, erf connections will be marked on the road kerbs.

6.5 GENERAL

- Representatives of Saldanha Bay Municipality Engineering Department have confirmed verbally that the use of a sewerage conservancy tank with a storage capacity of minimum seven days is acceptable.
- On completion, air pressure testing and mirror testing of the system will be carried out in the presence of the Engineer and representatives of the Municipality.

7 STORMWATER

Provision will be made for a minor and a major system, as well as an emergency system as part of the design of the internal stormwater management system.

7.1 MUNICIPAL BULK STORMWATER SYSTEM

- There is no municipal stormwater management system in place currently.
- An attenuation facility (stormwater / evaporation pond) shall be constructed to service the Development.
- The pond shall be sized to allow ensure that the post-development runoff volumes do not exceed the pre-development runoff volumes.
- The pond shall be designed such that it doubles as a ground water recharge facility.

7.2 STORMWATER RUN-OFF & FLOW

The design criteria are as follows (read in conjunction with Section 8: Roads):

- The Mean Annual Precipitation (MAP) for the region is taken as 319 millimetres per annum (Rainfall gauging station No 20864, Vredenburg) and runoff will be calculated using the Rational Method with appropriate catchment and site specific factors.
- Stormwater flow velocities in roadways and side channels will be kept as low as possible and related to the surface finish utilised to prevent scour and erosion.
- The estimated run-off volumes for various return periods that are to be attenuated on site (pond volumes) are as follows:
  - 1:2-year 165m³
  - 1:5-year 220m³
  - 1:10-year 270m³
  - 1:20-year 365m³
  - 1:50-year 525m³
- Discharge rates from the detention facility will be regulated to correspond to pre-development run-off rates for all return periods up to the 1:50 year storm event.

7.3 FLOOD LINES

- There are no flood lines applicable to this Development.

7.4 STORMWATER SYSTEM MATERIALS

- Stormwater pipes will generally be Class 100D pre-cast concrete pipes with spigot and socket joints, laid on a Class B bed.
- Minimum pipe diameters on main lines are 375 millimetres.
- Pipe diameter of catchpit links to be 300 millimetres.
- The minimum cover on stormwater pipes is generally 750 millimetres outside road reserves and 1,000 millimetres underneath trafficable areas.
- Pipes under roadways shall be bedded and backfilled with clean imported sand, compacted to 100% Mod AASHTO.
- Pre-cast concrete ring manholes with flexible pipe connections will be used. Covers and frames shall be Type 2A (modified) hinged ductile iron throughout.
- Catchpits shall be brick built with double pre-cast concrete kerb inlets and pre-cast concrete top slabs with suitably sized ductile iron covers and frames.

7.5 LAYOUT

- The minor stormwater system is designed as an underground pipe network to cater for a 2-year return period with a maximum overland flow distance of approximately 75 metres.
- Maximum distance between manholes of 50 metres.
- Catchpits will be located appropriately at road intersections in order to minimise surface flow through the intersections.
- The piped stormwater system will be discharged into a detention dam (suitably sized to attenuate up to the 50-year storm event), located at the low point of the eastern boundary of the site.
- The road network acts as the major system when the minor system capacities are exceeded and routes runoff above ground within the road prism.
- Roads will be graded to ensure a free and continuous flow of stormwater towards the main drainage routes as well as to prevent the ponding of water or trapped low points.
- The emergency system recognises exceedance of both the minor and major systems and consists of managed overland flow which is directed towards and allowed to overflow into the detention facility.
- An emergency overflow from the proposed detention dam will be constructed and allow the attenuated flow, not more than the pre-developed flow, to discharge into the natural overland water courses adjacent to the existing Jacobsbaai Main Road to the east of the proposed development.

7.6 GENERAL

- Representatives of the Saldanha Bay Municipality Engineering Department have confirmed verbally that there is no existing municipal infrastructure to which the proposed development can tie into. Further to this it was confirmed that a stormwater pipe network with manholes and catchpits must be provided for the minor storm and a detention facility for the major storm. The discharge rate (post-developed flow rate) from the detention facility into the natural overland drainage water course may not exceed the pre-developed flow rate determined from the hydraulic calculations.
- On completion, mirror testing of the piped system and inspection of the detention facility will be carried out in the presence of the Engineer and representatives of the Municipality.

8 ROADS & PARKING

The design criteria for roads within the Development are as follows:

8.1 ACCESS TO THE SITE

- The existing adjacent road infrastructure is sufficient to allow the proposed Development to proceed.
- Eastern access to the site will be off the Jacobsbaai Main Road and there will also be a southern access point off Jacob De Goede Street. Three erven on the north western cadastral boundary of the Development will take access off the turning circle in Jan Tredoux Close.

8.2 ROADS MATERIALS

- Subgrade CBR - 7 to 15 minimum (in-situ sand / soil of G7 to G10 quality).
- Basecourse CBR - 80 minimum at 98% Mod AASHTO (G4 quality).
- Asphalt surface treatment to all roads.
- In addition 80 millimetre pre-cast interlocking concrete pavers on suitably designed layerworks may be used for architectural and aesthetic reasons in selected areas.
- Precast concrete kerbs and channels used throughout.
- All road construction materials to be specified with due consideration for the site geotechnical conditions, intended application, traffic loadings, climatic conditions, level of stormwater system incorporated etc.

8.3 ROADS STRUCTURAL DESIGN & FINISHES

The road pavement will be structurally designed for the appropriate site specific conditions and traffic loads (Category UC structural design for 20 year design life and E1 traffic class loading for Class 5 Roads):

Asphalt Roads		
Trafficked Width	**Structural Layers**	**Surfacing**
5.5m min	300mm thick Subgrade (G7) 150mm thick Base (G4)	40mm Asphalt
Segmented Paving Roads (internal to Development)		
Trafficked Width	**Structural Layers**	**Surfacing**
Varies (depending on location)	300mm thick Subgrade (G7) 150mm thick Subbase (G5)	80mm Interlocking paver on 20mm sand blinding

8.4 LAYOUT

All Roads (Asphalt & Paving)					
Road Res Width	**Road Width**	**Min Hor Curve Radius**	**Min Vert Curve Length**	**Min K Value**	**Bellmouth Radii**
>10.0m	Depending on traffic lanes	15.0m on CL	20.0m	1.0	12.0m
10.0m	5.5m (X-fall)	15.0m on CL	20.0m	1.0	6.0m

- Pre-cast barrier kerb and channel units will be used (BK2 & C1) on all bellmouths.
- Pre-cast mountable kerb and channel units will be used (CK5 & MK10) on all internal roads.
- Minimum longitudinal grade on roads is 0.5%.
- Minimum cross fall on roads is 2% for asphalt surfaced roads and 3% for segmented paving.

8.5 GENERAL

- Material quality control tests and workmanship will be monitored and tested throughout the construction period in terms of the standard SANS test procedures for compliance with the specifications.

9 ELECTRICITY

9.1 MUNICIPAL BULK ELECTRICITY SYSTEM

There is adequate 11 kV bulk supply available in the area surrounding the development and no problems are foreseen to have an 11 kV supply made available to the development.

9.2 MAXIMUM DEMAND

The maximum demand is calculated according to the following criteria:

- A design ADMD (After Diversity Maximum Demand) of 4,04 kVA per erf in accordance with SANS 507-1:2007 (NRS 034-1:2007) Table 3 will be used, after consultation with the local authority.
- All 93 erven will each be provided with a 60A single phase supply in the dwellings, resulting in a BDMD (Before Diversity Maximum Demand) of 13,8 kVA per erf. Street kiosks will be supplied with 63A slow tripping circuit breakers to provide the necessary protection discrimination during overload and fault conditions.

9.3 RETICULATION SYSTEM

- The total estimated maximum demand is calculated at 375 kVA. A single 400 kVA mini-substation will amply provide in the demand. The overhead 11 kV supply to Jacobsbaai was recently upgraded by the Local Authority. An 11 kV supply point will be made available by the Local Authority to the developer from the 11 kV overhead line to feed the aforementioned mini-substation.
- The low voltage system shall consist of feeder cables between the mini-substation and the distribution kiosks. The distribution kiosks will be the source of supply to the individual erven. The network will be taken over by the Local Authority after completion.

9.4 STREET LIGHTING

- Street lighting will be designed according to SANS 10098-1: 1998 for class B2 roads using 70W high pressure sodium post top luminaires mounted on fibre glass poles.

9.5 METERING

- Metering of individual dwellings shall be of the prepayment type according to the Local Authority's specifications. Meters will be installed inside each dwelling.

10 TELECOMMUNICATION

Telecommunication ducts and appropriate associated structures will be installed throughout the Development in order to ensure an “optic fibre ready” state.

The fibre network will be installed by others.

11 SOLID WASTE

The Local Authority will service the Development as far as solid waste is concerned and will collect refuse at each erf (single residential) and from allocated collection areas at the larger buildings.

12 CONCLUSION

From the information on hand it appears that all the necessary engineering municipal services infrastructure exists in the vicinity of the proposed “Forellendam Housing Estate” Development and that the internal engineering services of the Development will be able to connect.

The provision of additional reservoir storage capacity remains an item to be discussed with the Municipality.

Completed designs will be submitted to the relevant Municipal Service Departments for final design approvals. On-going liaison with the Municipality during the planning stage of the Development will ensure that the final approval process will not be unduly delayed.

- APPENDIX A -

Site Locality Plan
and
Site Development Plan



“Forellendam Housing Estate” Site Locality Plan



JACOBSBAAI

PROPOSED REZONING & SUBDIVISION

ERF 325, JACOBS BAY

ZONING

- Residential 1
- General Residential
- Transport
- Public Open Space

LAND USE	m²	(%)
Erven 1-48 General Residential		
Erf 49 -93\ Residential Zone 1		
Public Road		
Public Open Space		
Total		

NOTES

1. Erf 325 zoned as Single Residential
2. Roads = min 16m, Internal Public Roads = 10m & 13m
3. Erf to accommodate retention pond
4. Access points to Rem Erf 299, Jacobsbaai
5. All Areas are Approximate – to be verified by registered land surveyor

conradie goodwin & associates
URBAN PLANNERS

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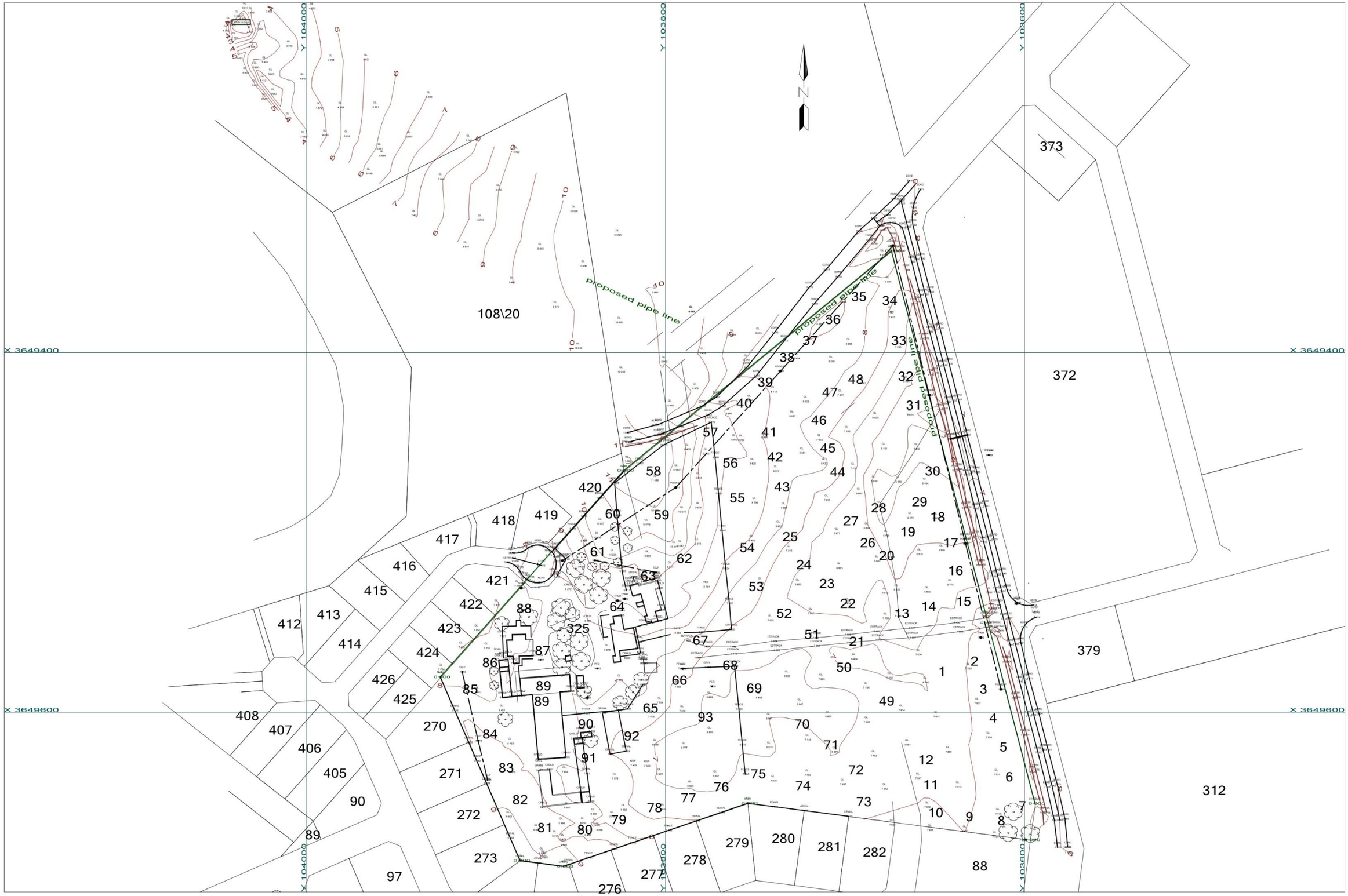
Client:
Forrellendam Pty Ltd

Plan no. CGA325JB-SB-4

June 2015 **NTS**

- APPENDIX B -

Survey Information


Y 104000
Y 103800
Y 103600
X 3649400
X 3649600
N
proposed pipe line
108\20
373
372
379
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- APPENDIX C -

Proposed Services Connection Locations


Proposed Stormwater Detention Facility
Proposed Sewer Conservancy Tank
Proposed Water Connection Point
Proposed Water Connection Point
200 Ø UPVC
150 Ø UNK
150 Ø UNK
100 Ø UNK
100 Ø UNK
100 Ø UNK
100 Ø UNK
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- APPENDIX D -

Potable Water and Foul Sewer Demand Calculations

ERF 325 - POTABLE WATER DEMAND ESTIMATION

Summary	
Annual Ave Daily Water Demand (AADWD)	55.800 kl/day
Daily Peak Factor	11.30
Summer Peak Factor	1.50
Peak Summer Water Demand (PSWD)	10.95 l/s

Development Type	Unit	Qty			Ave (l/day)	AADWD (kl/day)
Dwelling houses (Res Zone I)	Erven (No)	45	Ave erf area	620m²	600	27.000
Dwelling houses (Gen Res)	Erven (No)	48	Ave erf area	400m²	600	28.800

FOUL SEWER EFFLUENT ESTIMATION

Summary	
Annual Ave Dry Weather Flow (AADWF)	39.060 kl/day
Extraneous Flows	15%
Peak Factor	2.5
Peak Daily Wet Weather Flow (PDWWF)	1.300 l/s

% of Pot Water	Persons per Erf	Population (No)	Ave (l/day)	AADWF (kl/day)
70%	4	180	420	18.900
70%	3	144	420	20.160

- APPENDIX E -

GLS Report - Capacity Analysis of the Bulk Water Services

10 December 2021

NWE Consulting Engineers
1st Floor Plattekloof House
163 uys Krige Drive
Plattekloof
7500

Attention: Mr Michael Smuts

Dear Sir,

PROPOSED RESIDENTIAL DEVELOPMENT ON ERF 325, JACOBS BAY: CAPACITY ANALYSIS OF THE BULK WATER SERVICES

The request for GLS Consulting (Pty) Ltd to investigate and comment on the bulk water supply of the proposed development (proposed residential development on Erf 325 located in Jacobs Bay, refers.

This document should inter alia be read in conjunction with the Water Master Plan (performed for the Saldanha Bay Municipality (SBM)) dated June 2019.

The proposed development was not taken into consideration for the June 2019 master plan for the water network.

1. WATER DISTRIBUTION SYSTEM

1.1 Distribution zone

The master plan indicated that the proposed development area should be accommodated in the existing Jacobs Bay reservoir water distribution zone. The proposed water connections to the existing Jacobs Bay water system are to the existing 100 mm Ø in Jacob de Goede Street and the 150 mm Ø in Main Road, as shown on Figure 1 attached.

The proposed development is situated inside the water priority area.

1.2 Water demand

No allowance was made for additional development on Erf 325 in the original water analysis for the master plan.

For this re-analysis of the master plan, the average annual daily demand (AADD) for the proposed development and fire flow criteria was calculated and classified as follows:

- 93 Residential units @ 0,6 kL/d/unit = 55,8 kL/d
- Fire flow criteria (Moderate risk 2) = 15 L/s @ 10 m

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Reg no: 2007/003039/07
www.gls.co.za

Directors: HA Baartman, AG Hingeston

1.3 Present situation

1.3.1 Reticulation network

The Jacobs Bay reservoir zone is supplied from the Jacobs Bay reservoir from a Top Water Level (TWL) of 78,5 metres above mean sea level (m a.s.l.) via a 200 mm Ø network supply pipeline. The existing water reticulation system of the Jacobs Bay reservoir network has sufficient capacity to accommodate the proposed development to comply with the pressure and fire flow criteria as set out in the master plan.

1.3.2 Bulk supply

The Jacobs Bay reservoir is supplied with bulk water from the Hospital reservoir in Vredenburg through a 200 mm Ø bulk pipeline. The bulk supply system between Vredenburg and Jacobs Bay has sufficient capacity to accommodate the proposed development.

1.3.3 Reservoir capacity

The criteria for total reservoir volume used in the Saldanha Bay Water Master Plan is 48 hours of the AADD (of the reservoir supply zone).

According to the water master plan the Jacobs Bay reservoir water supply area has a water demand of approximately 440 kL/d (based on the 2019 Water Master Plan water demand figures). The capacity of the existing Jacobs Bay reservoir is 1 000 kL, which results in a current reservoir storage capacity of 54 hours of the AADD.

For the fully occupied scenario where all existing erven with development rights in Jacobs Bay are fully developed the water demand increases significantly to approximately 880 kL/d. For this scenario, the capacity of the existing Jacobs Bay reservoir results in a reservoir storage capacity of 27 hours x AADD supplied and could result in significant operational issues in future. This implies that the Jacobs Bay reservoir could already be operating under capacity during holiday seasons.

There is therefore insufficient capacity in the existing Jacobs Bay reservoir to accommodate the proposed development.

1.3.4 WCDM bulk supply

Jacobs Bay is supplied with water from the SBM's Jacobs Bay reservoir, which in turn is supplied with bulk water from the Hospital reservoir in Vredenburg. The Hospital reservoir in Vredenburg is supplied with bulk water from the Vredenburg reservoirs in Vredenburg, which in turn is supplied with bulk water from the West Coast District Municipality's (WCDM's) Besaansklip reservoir via the SBM's Vredenburg-Besaansklip pump station (PS).

The analysis of the capacity of the WCDM system in order to accommodate the proposed development is discussed in a separate report, addressed to WCDM, dated 10 December 2021.

1.4 Implementation of the master plan

The following master plan item is required to augment the Jacobs Bay reservoir storage capacity in order to accommodate the proposed development together with other future development areas within the existing Jacobs Bay water system, as shown on Figure 2 attached:

- JBW.B1: Install new 2,0 ML Jacobs Bay reservoir no. 2 = R 8 530 000 *

(* Including P & G, Contingencies and Fees, but excluding VAT - Year 2021/22 Rand Value. This is a rough estimate, which does not include major unforeseen costs).

1.5 Minimum items required

The minimum item required to accommodate the proposed development within the existing Jacobs Bay water system is master plan item JBW.B1 in order to augment reservoir storage capacity.

2. CONCLUSION

The developer of Erf 325 in Jacobs Bay may be liable for the payment of a Development Contribution (as calculated by the Saldanha Bay Municipality) for bulk water infrastructure as per Council Policy.

The master planning indicated that the development area should be accommodated in the existing Jacobs Bay reservoir water distribution zone. The proposed water connections to the existing Jacobs Bay water system are to the existing 100 mm Ø in Jacob de Goede Street and the 150 mm Ø in Main Road, as shown on Figure 1 attached.

The existing bulk and reticulation water networks of the Jacobs Bay water system have sufficient capacity to accommodate the proposed development to comply with the pressure and fire flow criteria as set out in the master plan. There is however insufficient spare capacity in the existing Jacobs Bay reservoir to accommodate the proposed development.

The minimum item required to accommodate the proposed development within the existing Jacobs Bay water system is master plan item JBW.B1 in order to augment reservoir storage capacity.

We trust that you find this of value.

Yours sincerely,

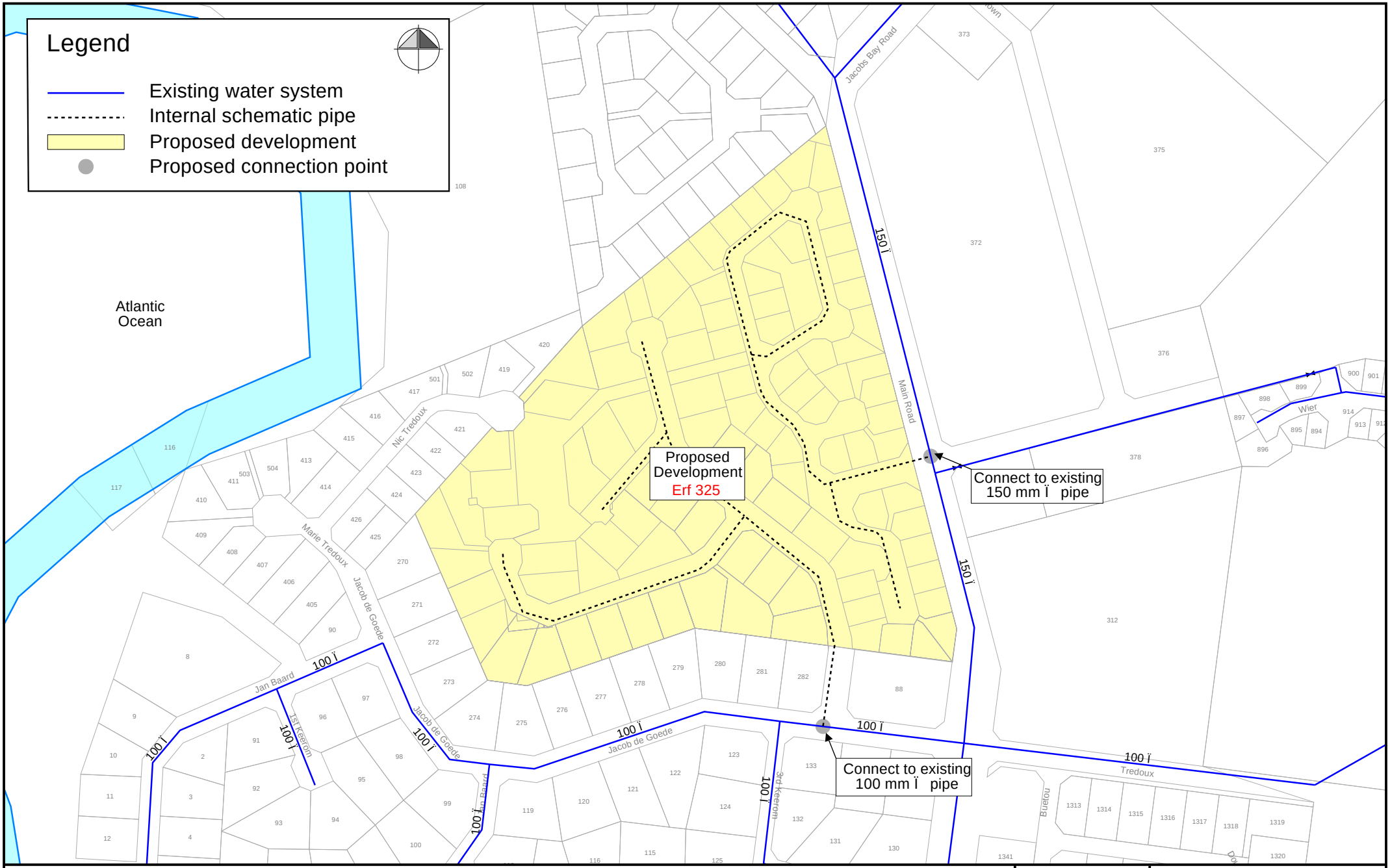
GLS CONSULTING (PTY) LTD
REG. NO.: 2007/003039/07



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Per: PC DU PLESSIS

cc. The Director: Technical Engineering Services
Saldanha Bay Municipality
Private Bag X12
Vredenburg
7380

Attention: Mr Gavin Williams

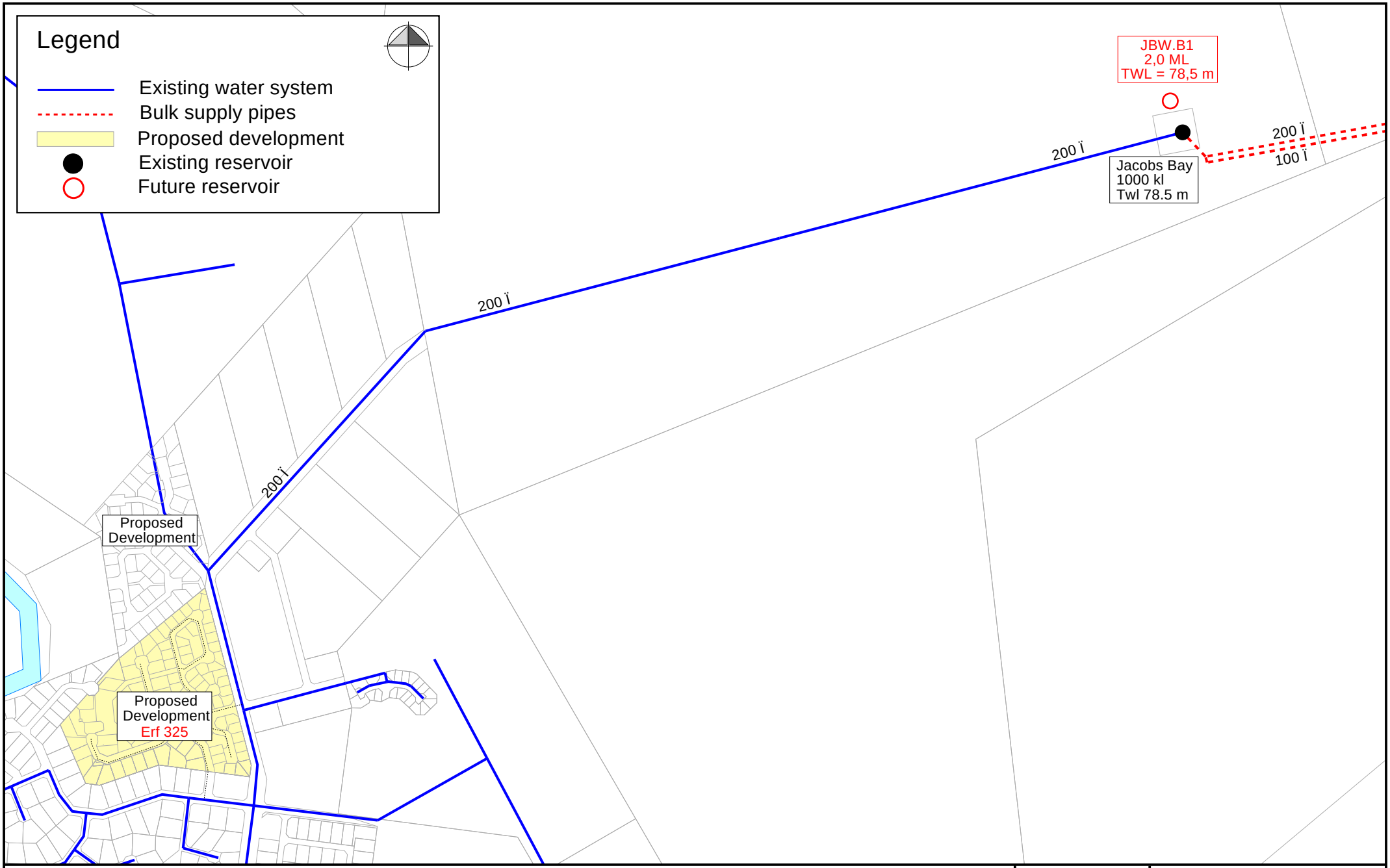


December 2021

Jacobs Bay - Proposed Development of Erf 325

Figure 1

Proposed Development
Erf 325 - Jacobs Bay
Existing Water System



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Jacobs Bay - Proposed Development of Erf 325

Figure 2

Proposed Development
Erf 325 - Jacobs Bay
Bulk Water Upgrades