



**CIVIL ENGINEERING SERVICES OVERVIEW
FOR THE PROPOSED DEVELOPMENT ON
ERF 301, WILDERNESS**

**08 FEBRUARY 2023
REV 5**

Developer:

Mr Sean Holms

Prepared By:

S&Z Consulting (Pty) Ltd

P O Box 2732
GEORGE
6530

Contents

CIVIL ENGINEERING SERVICES OVERVIEW	1
1. SITE AND LAND USE.....	1
2. ROADS AND STORMWATER	1
3. WATER SUPPLY	2
4. SEWER DRAINAGE	2
5. SUMMARY AND CONCLUSION	2
ANNEXURE A: LOCALITY PLAN.....	3
ANNEXURE B: EXISTING MUNICIPAL SERVICES	3

CIVIL ENGINEERING SERVICES OVERVIEW

S&Z Consulting (Pty) Ltd was appointed by Mr Sean Holmes for an overview of the Civil Engineering Services for the proposed development on Erf 301 Wilderness. Our findings and recommendations are as follows.

1. SITE AND LAND USE

The proposed development is situated on Erf 301 Wilderness., The Erf size is 39322m² (±4ha).

See attached the Locality plan in ANNEXURE A: LOCALITY PLAN.

The boundaries as per compass direction is as follows:

Northern Boundary -	Along Whites Road (gravel road) between erven 1244, and Remainder of erf 547.
Southern Boundary -	Along Waterside Road (tar road) between erven 1244, and Remainder of erf 547
Eastern Boundary -	Boundary with Remainder of erf 547.
Western Boundary -	Boundary with Erf 1244

The proposed development consists of the following:

Erf size	-	39322 m ²
Proposed Main dwelling (including garage & store)	-	±446 m ²
Proposed 6 x Single Eco Pods / Units	-	±38m ² each
Entrance road & driveway platform	-	±812 m ²

The estimated disturbed footprint area for the above development is as follows.

Proposed Main dwelling (including garage & store)	-	±200 m ²
Proposed 6 x Single Eco Pods / Units	-	±10m ² each
Entrance road & driveway platform	-	<u>±812 m²</u>

Total disturbed area inclusive of all structures, road, and driveway = 1072m²

Total disturbed site percentage = 1072m² /39322m² = **2.72%**

The intention of the development is to house a) main residential unit of ±446m² which includes an information site office and communal meeting area, b) 6 x single eco pods of approximately 38m² each, set back into the bush and accessed via forest walk paths.

The natural topography of the site falls at a slope of approximately 1:4 from North to South. The erf is currently overgrown with dense natural vegetation. No development has been undertaken on the site.

2. ROADS AND STORMWATER

Main access to the development is proposed from the northern boundary of the property leading out of Whites Road. This access can be accommodated for by means of a new road/driveway section of approximately 75m long, cut into the

Northern face of the property with a gradual slope from West to East, terminating on a level platform next to the proposed main dwelling and garage section.

Internal walkways are proposed between the separate buildings / units leading out of the new driveway / road section.

Stormwater run-off will be directed into soft landscaping and dispersed over large sections of the property and surrounding natural vegetation to prevent concentrated run off and erosion. Concentrated run off from roofs will be diverted into rainwater harvesting tanks with an overflow connected to an artificially constructed swale to prevent erosion.

The requirements of the Design Guideline for New Developments will be adhered to.

3. WATER SUPPLY

A 50mm dia water connection exists on the northeast corner of the site (See ANNEXURE B: EXISTING MUNICIPAL SERVICES). This connection will be more than adequate to service the proposed development.

4. SEWER DRAINAGE

An existing 160mm dia municipal sewer line exist on the lower end of the property along its Southern boundary and Waterside Road. (See ANNEXURE B: EXISTING MUNICIPAL SERVICES). A switchback gravity sewer line with a series of back drop manhole structure is proposed to accommodate the steep site topography towards the southwest corner of the site.

5. SUMMARY AND CONCLUSION

From investigations of the existing infrastructure surrounding the site, it is evident that municipal and internal services can be provided for the proposed development in a feasible and sustainable manner.

Yours sincerely



IM ZAAIMAN
Pr Eng

ANNEXURE A: LOCALITY PLAN

N

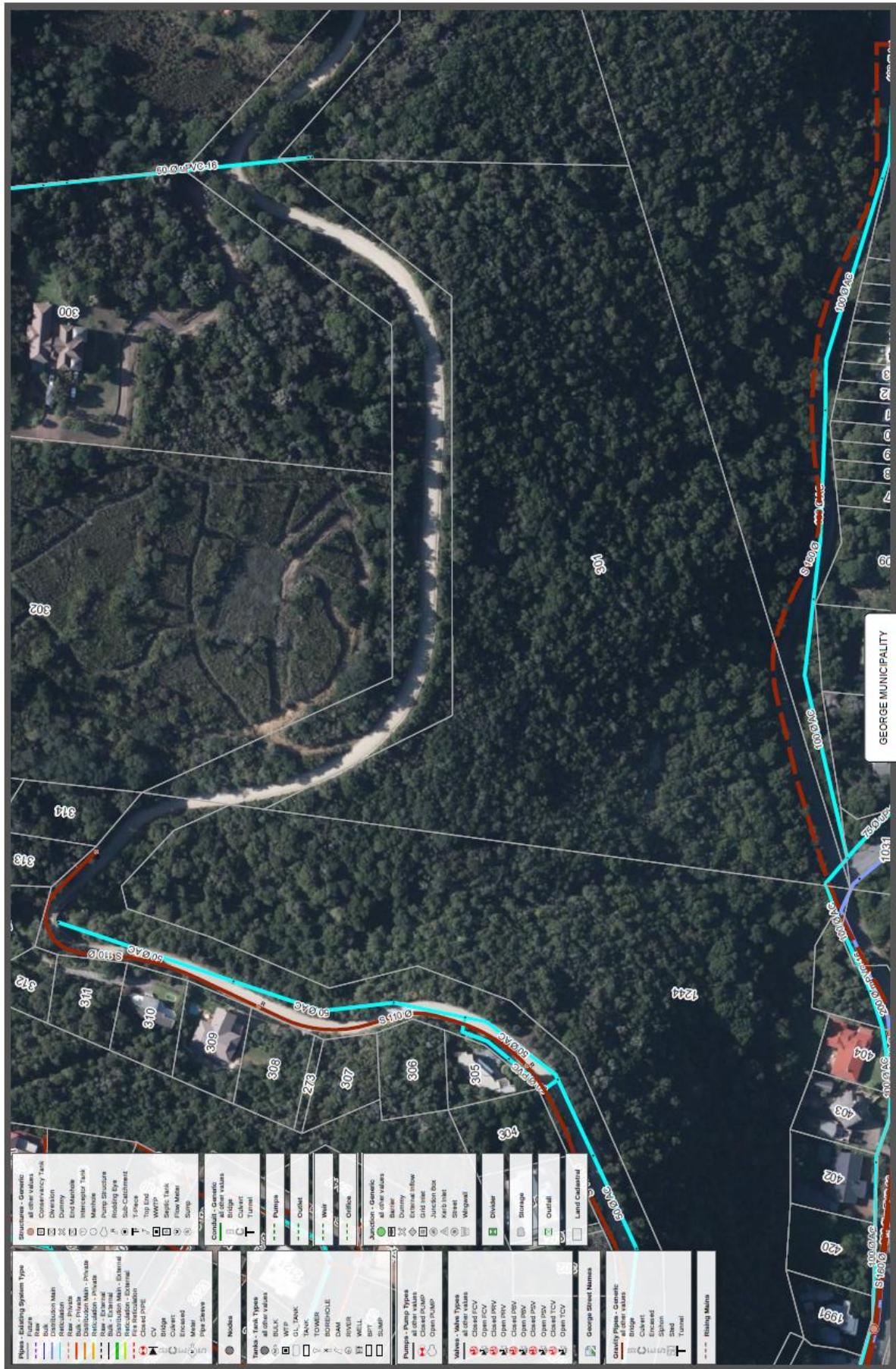
W



E

S

ANNEXURE B: EXISTING MUNICIPAL SERVICES



Existing Civil Engineering Services
2023-10-14 15:09



Existing Municipal Services