

**MOGALE CITY LOCAL MUNICIPALITY**

**LION PRIDE EXTENSION (MOGALE EXT 54 – 59) AND  
PROPOSED LANSERIA DEVELOPMENT**

**± 10 418 RESIDENTIAL ERVEN / UNITS**



**BULK SERVICES OUTLINE SCHEME REPORT**

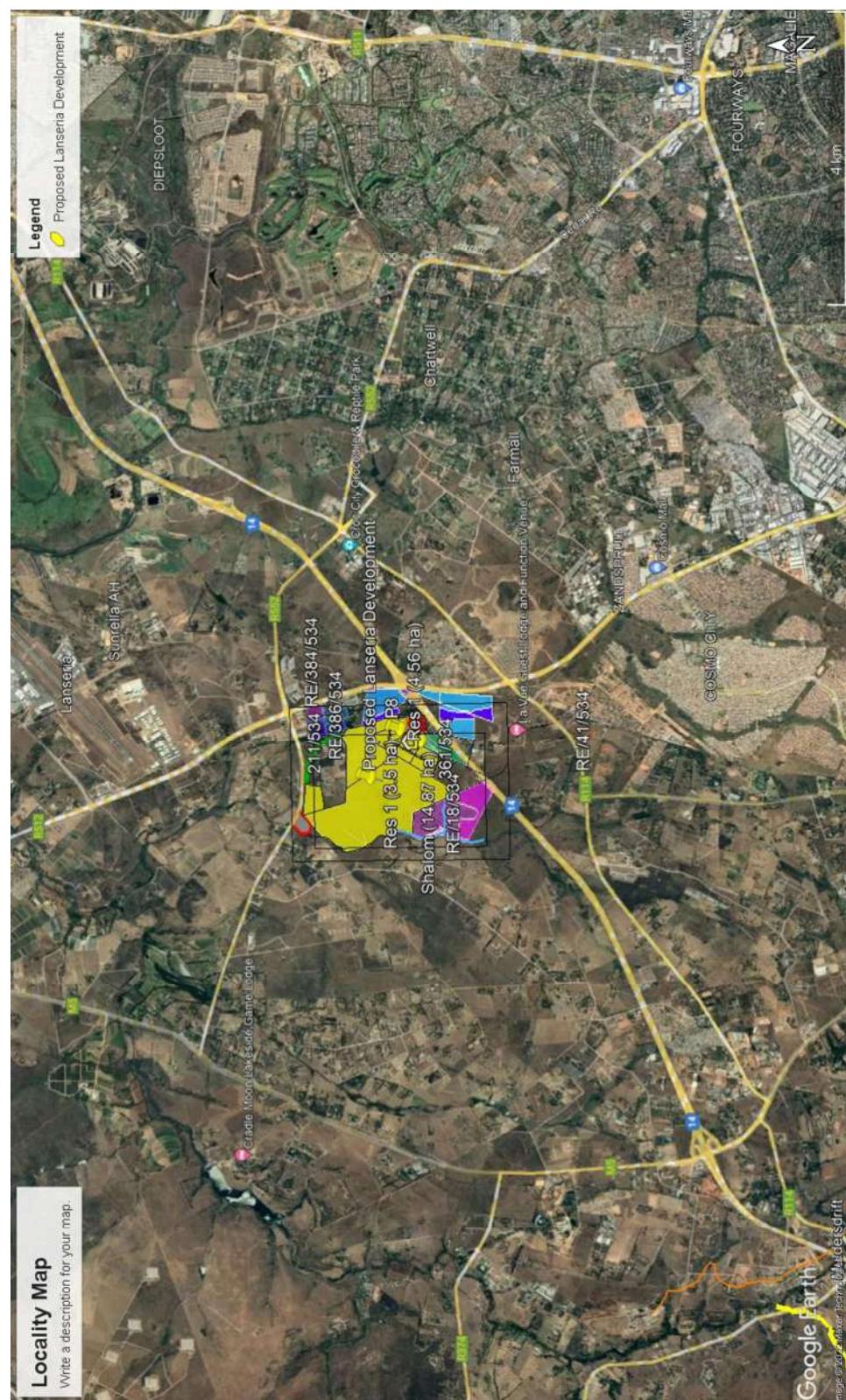
**Prepared for :**      **MCLM Department: Water and Sanitation**  
                                 **MCLM Department: Roads and Surface Drainage**

**Prepared by :**      **Ruimsig Infrastructure Consultants CC**  
                                 **Mobile: 082 852 6473**  
                                 **E-mail: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)**



**July 2022**

## LION PRIDE EXTENSION AND PROPOSED LANSERIA DEVELOPMENT: BULK SERVICES OUTLINE SCHEME REPORT



## LOCALITY MAP

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## 1. INTRODUCTION

This outline scheme report addresses the provision of bulk water and sewer municipal services for the Lion Pride Extension (Mogale extensions 54 to 59) as well as the land currently available for the Proposed Lanseria Developments, and furthermore the provision of roads and stormwater network for Lion Pride Extension (Mogale extensions 54 to 59) only. The Lion Pride Extension (Mogale extensions 54 to 59) development consists of approximately 40 Ha Agricultural zoned land and the proposed Lanseria development currently consists of approximately 383 Ha Agricultural zoned land. Application will be made for the establishment of various townships for approximately 10 418 residential erven / units. **Bulk and Link services for regional water supply, sewage disposal outfall sewers, wastewater treatment works, roads network and stormwater attenuation facilities are to be constructed.**

The Proposed Developments is situated in the Muldersdrift area that falls within the Municipal Boundary of Mogale City Local Municipality. Currently a cross border agreement between Mogale City and Johannesburg Water is in place with Johannesburg Water supplying the Muldersdrift area with water from Cosmo City. This water supply is under pressure due to limited availability from Johannesburg Water and no additional supply will be made available for future developments. No sewage disposal network or wastewater treatment works are currently available.

Please note that this report deals with all the land currently available for development and that more land could be added by the developer at a later stage to facilitate the feasibility for the provision of the required bulk infrastructure that will be installed by the developer.

The proposed township of Lion Pride Extension (Mogale extensions 54 to 59) will have direct access to the existing Malibongwe Drive (R512) bordering the proposed development on the eastern side. (See layout of the traffic engineer, Dhubecon Consulting, Annexure E, Layout Drawings)

## 2. LOCATION

The site is divided in two by the existing N14 Highway with Lion Pride Extension (Mogale extensions 54 to 59) to the South and the Proposed Lanseria Development to the North of the existing N14 Highway. The existing Malibongwe Drive / Pelindaba Road which is a provincial road, borders the Lion Pride Extension (Mogale extensions 54 to 59) development on the Eastern side. (See locality map.)

The development is planned on land situated on various portions of the farm Nooitgedacht No.534-JQ. The Proposed Development is situated in the Muldersdrift area that falls within the Municipal Boundary of Mogale City Local Municipality.

The site is divided by an east west watershed in the center of the proposed development and are being bordered by two permanent water courses on the eastern and western sides. The site slopes to the north. A stormwater masterplan for the area will be submitted at a later stage.

### 3. LAND USE AND PHASING

#### 3.1 Land use

The land use in the developments is shown in the following tables:

**Lion Pride Extension (Mogale Extensions 54 – 59):**

Land Use	Density	Area (Ha)	No of erven / units
Residential 3 – Medium density	40 units / Ha	23,2177	927
Residential 4 – High density	130 units / Ha	9,0791	1 179
<b>TOTAL</b>		<b>32,2968</b>	<b>2 106</b>

**Proposed Lanseria Development (Land currently available for development):**

Land Use	Density	Area (Ha)	No of erven / units
Residential – Low density	18 units / Ha	41,5876	748
Residential – Low density	24 units / Ha	109,7583	2 634
Residential – Medium density	40 units / Ha	41,2688	1 650
Residential – Charter	120 units / Ha	12,3422	1 481
Residential – High density	120 units / Ha	14,9962	1 799
<b>TOTAL</b>		<b>219,9531</b>	<b>8 312</b>

#### 3.2 Phasing of development

Due to the large scale of the proposed development, implementation will take place in numerous phases, most likely in 1 extension at a time. All other land uses are also indicated on the attached Town Planner's plans. (Refer to Town planner's detail plans in Annexure D: Land Use)

**Please note that this report deals with all the land currently available for development and that more land could be added by the developer at a later stage to facilitate the feasibility for the provision of the required bulk infrastructure that will be installed by the developer.**

## 4. BULK SERVICES

### 4.1 Water reticulation

The water supply of the Muldersdrift area east of Beyers Naude Drive are currently being supplied by Johannesburg Water via Cosmo City. Currently no water supply or water storage facilities are available from Mogale City in this area and therefore the following proposal for the supply of bulk water.

It is proposed that the developer construct a 10 ML Water Reservoir on behalf of Mogale City Local Municipality in the proximity of the Nootgedacht primary school. (See Bulk Water Reticulation 1 of 2 and 2 of 2)

This reservoir will be supplied via a proposed 315mm / 400mm dia reservoir feeder line. It is proposed to connect this feeder line onto the existing Rand Water Weltevreden Park – Cosmo City Reservoir feeder line on the corner of Aureole Avenue and Boundary Road. Mogale City will apply at Rand Water for a metered bulk water connection onto the Weltevreden Park – Cosmo City Reservoir feeder line. All these bulk infrastructure will be financed and constructed by the developer. Payment of bulk contribution / Handing over of the infrastructure to Mogale City will be negotiated prior to the signing of a service level agreement.

The motive behind the chosen site for the construction of the reservoir is to construct bulk infrastructure according to Mogale City's future water master plan. The ground elevation of the proposed reservoir site is 1471m MSL while the proposed development's elevation changes from 1431m MSL in the south to 1351m MSL in the north. This results in 40m to 120m water pressure due to the change in elevation and therefore no water pressure tower will be required.

As can be seen in the flow calculations, the average daily water flow for the proposed development will be 8,751 ML. **The proposed 10 ML reservoir will accommodate 24 hours of storage capacity as well as 1,249 ML spare capacity. The size of the reservoir could be increased to 12 ML should additional development opportunities become available to the developer.**

### 4.2 Sewer reticulation

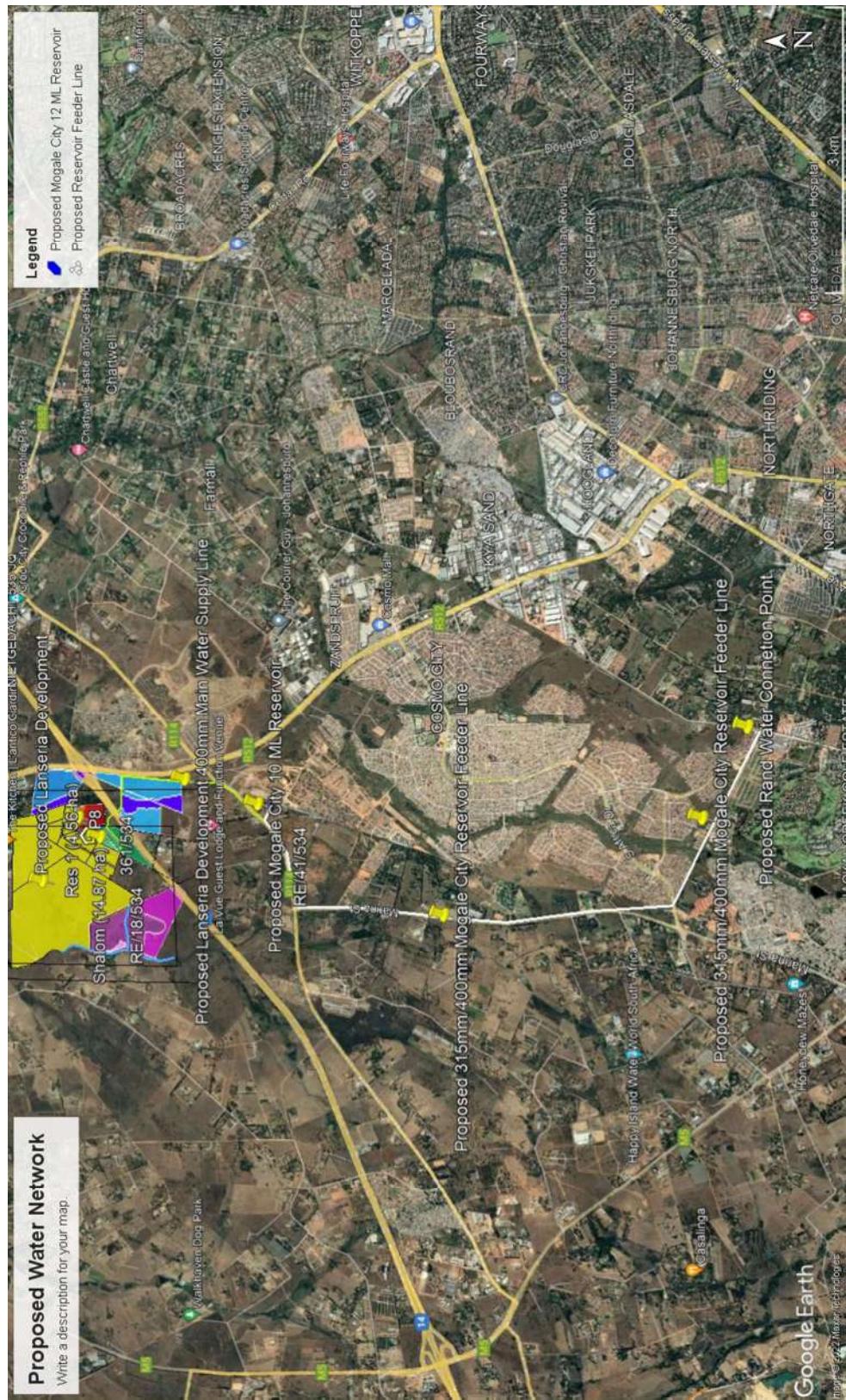
Currently no bulk sewer infrastructure is available in the proximity of the proposed development.

It is proposed to construct an on-site, 7ML, mechanical dewatering, wastewater treatment works on the north western corner of the site. 3 Sewer pump stations will also have to be constructed as part of the required sewer network. (See Annexure E – Layout Drawings)

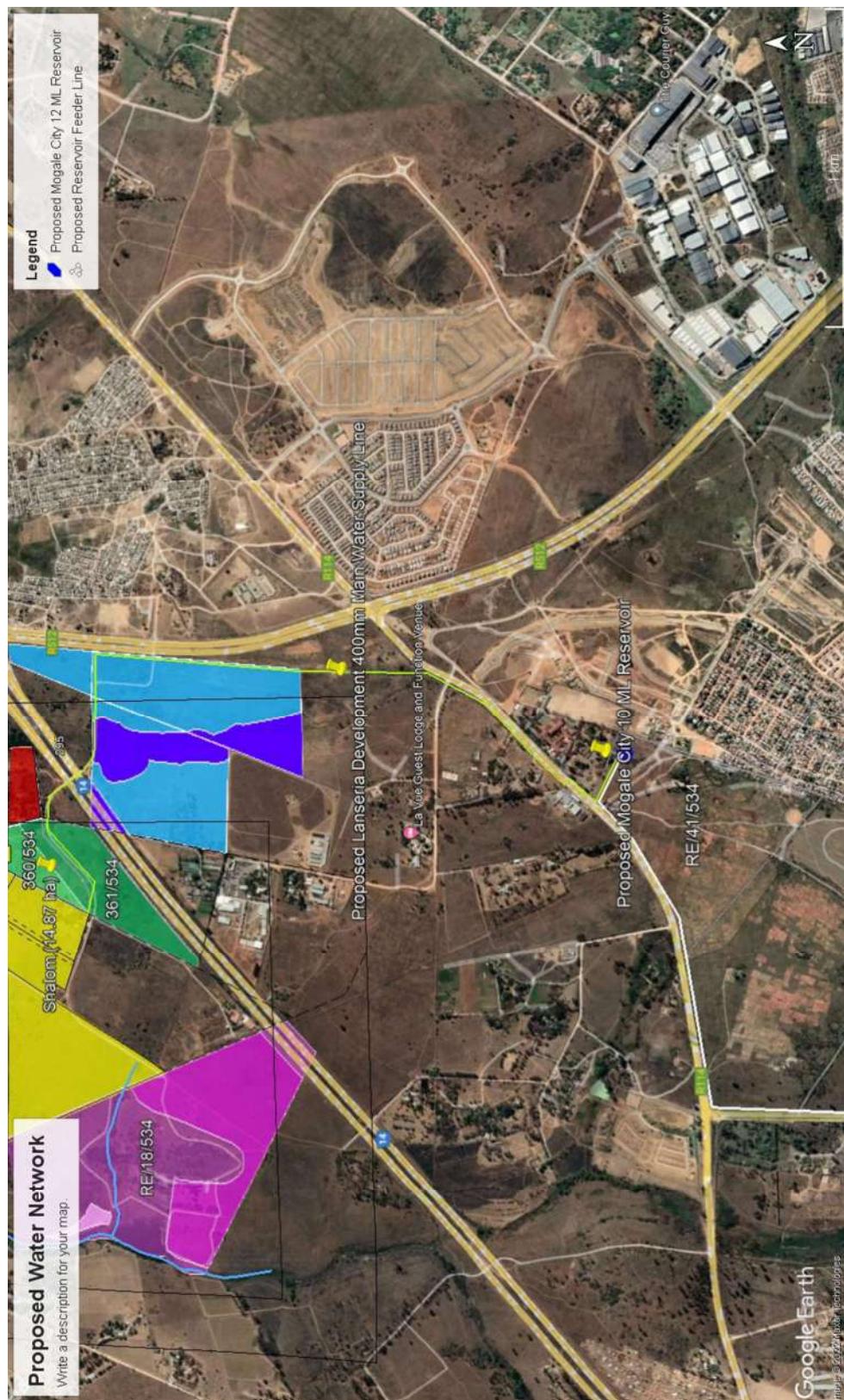
This WwTW will be constructed in phases of 1ML as the development of the proposed townships progress.

The WwTW and associated bulk outfall sewers, together with 3 sewer pump stations and rising mains will be financed and constructed by the developer. Payment of bulk contribution / Handing over of the infrastructure to Mogale City will be negotiated prior to the signing of a service level agreement.

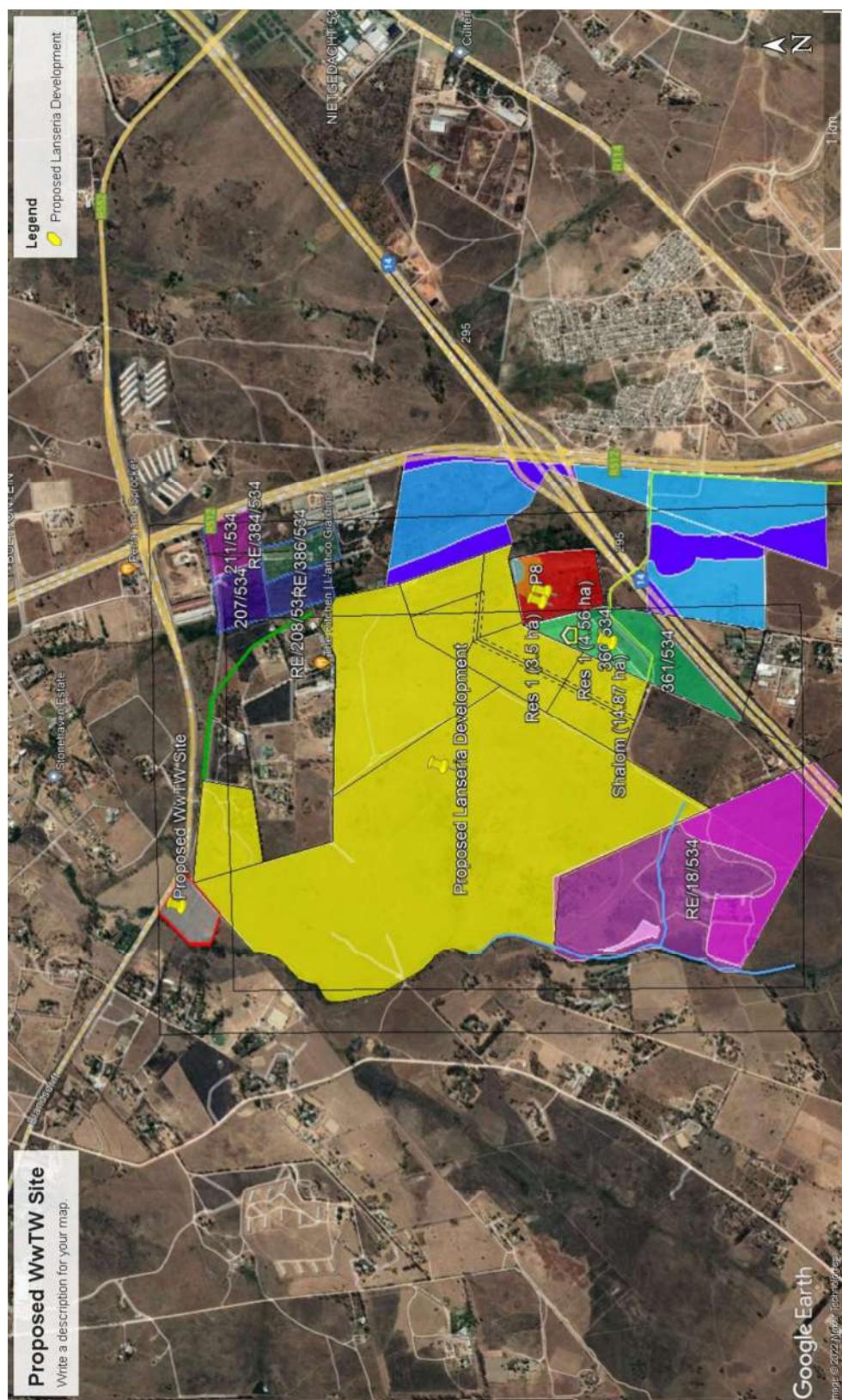
## LION PRIDE EXTENSION AND PROPOSED LANSERIA DEVELOPMENT: BULK SERVICES OUTLINE SCHEME REPORT



## Bulk Water Reticulation 1 of 2



Bulk Water Reticulation 2 of 2



Bulk Sewer – On Site WwTW

#### 4.3 Stormwater Management

A comprehensive stormwater management plan serving the entire catchment area of the proposed development will be submitted to Mogale City Local Municipality, Roads And Surface Drainage Section, for approval after finalization of the Site Development Plan of the various extensions and prior to the submission of detail construction drawings.

Provision for attenuation ponds will be made during the finalization of the various Site Development Plans according to the requirements of Mogale City Local Municipality, Roads And Surface Drainage Section. **The attenuation ponds will be designed so that the 1:25 year post-development stormwater discharge after attenuation will not exceed the 1:5 year pre-development discharge.**

#### 4.4 Roads

The following existing and future roads are affected by the layout of the proposed townships:

- Existing Malibongwe Drive (R512 / P103-1 / K29)
- Existing N14 Freeway (P158-2)
- Road R114 (P39-1 / Future K52)

A Comprehensive Traffic Impact Assessment for the development of Lion Pride Extension (Mogale extensions 54 to 59) townships was done by Dhubecon Consulting Engineers and will be submitted to Mogale City Local Municipality, Roads And Surface Drainage Section, for approval.

The proposed Lion Pride Extension (Mogale extensions 54 to 59) townships will have access to the existing Malibongwe Drive provincial road via an existing access crossings. This existing access crossing will have to be upgraded as recommended in the Traffic Impact Assessment.

## 5. INTERNAL SERVICES

### 5.1 Water reticulation

The proposed internal reticulation will be located and planned in road reserves at 1.5m from stand boundaries, with house connections to the individual stands. The development will be serviced to provide the required minimum flow and head requirements as determined by the "Red Book". A water network analysis will be done with Technocad **Watermate** Ver 2023 to optimize the pipe sizes for the development. A minimum pipe size of 75mm dia will be specified.

The reticulation will consist of class 12 uPVC / PVC-O / HDPE pipes and fittings with each erf being provided with an HDPE type 4 class 16 pipe house connections with Plasson compression fittings.

The designed services will be in accordance with the requirements of the "Red Book" specifications and designs and constructed in accordance with the relevant SABS 1200 specifications. Valves and hydrants will be installed as required in terms of specifications of the "Red Book" standards and the system will provide for fire flow as per various category determined by the "Red Book".

The water layout construction drawings will be submitted to Mogale City Local Municipality, Water and Sanitation Section, for approval.

### 5.2 Sewer reticulation

The proposed internal reticulation will be located and planned in road reserves at 1.5m from stand boundaries, with house connections to the individual stands. The sewers will be designed to drain 85% of the depth of the stands and manhole spacing will not exceed 80m.

Minimum slope for 160 mm sewer pipes will be 1:140 with a minimum full flow velocity of 0.7m/sec. The capacity of a pipe at this slope is 13.1l/sec .The pipes to be used are Maincore Class 400 Heavy Duty uPVC.

The reticulation will be in accordance with the specifications of the "Red Book" and installation will be in accordance with the relevant SABS 1200 specifications. A preliminary assessment of the sewer design has been completed and no sewers exceed a depth of 3.0m

The proposed development will be gravity reticulated through proposed stands to the lowest point of the development which is in the north western corner where it will connect to the proposed WwTW. The sewer pipes will range in size from 160mm to 200mm diameter.

Construction drawings for the planned development will be submitted to Mogale City Local Municipality, Water and Sanitation Section, for approval and stands will be serviced to provide the required minimum flow and pipe sizes as required by the "Red Book". A sewer flow network analysis will be done with Technocad **Pipemate** Ver 2023 to determine the pipe sizes for the development. A minimum pipe size of 160mm dia will be specified.

The Mogale City Local Municipality, Water and Sanitation Section's standard sewer drawings will be applicable for the construction phase as well as the relevant SABS 1200 specifications.

### 5.3 Stormwater management

A complete Stormwater Management Plan will be submitted to Mogale City Local Municipality, Roads And Surface Drainage Section, after finalization of a Site Development Plan.

#### Design Engineer

The design will be done by **John H Bakkes Pr Eng** (No. 780156) of **Ruimsig Infrastructure Consultants CC** using HydroCube HQ3 Urban Hydrology model.

### 5.4 Roads

The street geometric and vertical design will be done with Technocad **Roadmate** Ver 2023. The proposed internal roads will consist of prepared earthworks layers with a 125mm crusher run base course; 150mm sub-base; 150mm selected gravel layer and 150mm road bed and a 25mm asphalt surface all to the requirements of Mogale City. The kerbs will be pre-cast semi-mountable fig 8 kerbs.

The vertical and horizontal alignment will be determined based on a design speed of 60 kph and providing comfortable vehicular access to the individual properties. There is no direct access from the bus route to individual properties. The road widths for various reserve widths will be as specified by Mogale City and up to 7,4m for higher order roads (Busroutes).

Construction will be in accordance with the Mogale City Local Municipality, Roads And Surface Drainage Section standards and specifications and relevant SABS 1200 specifications.

## 6. GEOTECHNICAL

The site was investigated by Intraconsult in October 2021 and the results documented in a comprehensive report, reference IR1737.1S (Prelim) and titled: "GFSH-2, Phase 1, Geotechnical Investigation: Various portions of the Farm Nooitgedacht 534-JQ located south of the N14 Freeway (Lion Pride Extension): Preliminary.

The report is available from Cosmopolitan Project Johannesburg (Pty) Ltd.

## 7. TRAFFIC IMPACT STUDY

A Comprehensive Traffic Impact Assessment for the development of Lion Pride Extension (Mogale extensions 54 to 59) townships was done by Dhubecon Consulting Engineers and will be submitted to Mogale City Local Municipality, Roads And Surface Drainage Section, for approval.

## 8. COST ESTIMATES

### BULKS

The following costs have been estimated for the construction of the required bulk services:

EXTENSION	TBA
STAND No	10 418
<b><u>WATER:</u></b>	
<i>400mm dia HDPE Reservoir Feeder Line and Connection to Rand Water's steel water main</i>	R 24 350 000
<i>400mm dia uPVC water main to the Proposed Lanseria Development</i>	R 5 400 000
<i>10 ML Reservoir</i>	R 36 000 000
<b><u>SEWER:</u></b>	
<i>7 ML WwTW</i>	R 105 000 000
Roads	TBA
Stormwater	TBA
<b>Sub-total</b>	<b><u>R 170 750 000</u></b>
Add 10% Contingencies	<u>R 17 075 000</u>
VAT 15%	R 28 173 750
<b>TOTAL</b>	<b>R 215 998 750</b>

**ANNEXURE A:      Design Standards**

## DESIGN STANDARDS

The Johannesburg Water (Pty) Ltd design guidelines and “Red Book” are used as a basis for the design of the water and sewer reticulations. The Wastewater Department’s “Township Sewer Design Standards and Procedures”, JWater Drawing Nos.1 to 7 as well as the SABS 1200 Series are also used.

### 1. WATER NETWORK

Average demand	800 litre per day per stand / unit
Peak factor	4,0
Fire risk	risk group 2
Minimum flow at hydrants	8l/s
Minimum water pressure	24m
Fire hydrant spacing	240m max on minimum 110mm dia pipe
Minimum pipe size	75mm dia
Pipe material	uPVC / PVC-O / HDPE
Class	12 minimum
House Connections	25mm dia HDPE (for single connection)
Velocity	2,5 m/s maximum

### 2. SEWER RETICULATION

Average daily flow	600 litre per day per stand
Minimum pipe size	160mm diameter
Pipe material	Heavy Duty uPVC Class 34 or Class 400 Type 1 for gravitating mains and High Impact Class 16 for rising main
Maximum manhole spacing	80m
Peak factor	2,3
Minimum flow speed	0,7 m/s (full bore)

Minimum slope	160mm – 1: 140
	200mm – 1: 200
Minimum cover pipes	700mm in servitudes
	800mm in tarred roads
	1,20m in footways and carriageways
	1,40m at road crossings and intersections.

**The Mogale City Local Municipality, Roads And Surface Drainage Section design guidelines are used as a basis for the design of the streets and stormwater reticulations.**

### **3. ROADS AND STORMWATER**

All roads will be surfaced with pre-cast concrete fig 8c kerbing on both sides.

ROAD RESERVE WIDTH	SURFACED WIDTH
16m	7,4m
13 and 16m	5,5m and 6,0m
10.5m	5,0m

### **STREET PAVEMENT LAYERS**

The insitu materials will be used for an insitu layer on Class 4 roads; lower selected layer on Class 5(a) roads and an upper selected layer on Class 5 (b) roads **only if the material is suitable**. The sub-base and selected layers will be imported gravel material in layers of 150mm. The base will be crushed stone in a 150mm layer. Asphalt wearing course will be 30mm on Class 4 and 25mm on the other roads.

The pavement design will be to the latest Mogale City Local Municipality, Roads And Surface Drainage Section requirements and be approved by same.

## ANNEXURE B: Flow Calculations

## FLOW CALCULATIONS (10 418 stands)

### 1. SEWAGE AND TRADE EFFLUENT

$$\begin{aligned}
 \text{Average daily flow} & 10\ 418 \times 600 = 6\ 250,8 \text{ kL} \\
 5\% \text{ municipal and schools} & = \underline{312,54 \text{ kL}} \\
 & = 6\ 563,34 \text{ kL}
 \end{aligned}$$

<b>Average Daily Flow</b>	<b>=</b>	<b>6 563,34 kL/day</b>
---------------------------	----------	------------------------

$$\begin{aligned}
 \text{Design peak Flow (PF} = 2,3) & = 2,3 \times 1,15 (\underline{6\ 563,34 \times 10^3}) \\
 (\text{extraneous flow} = 15\%) & = 24*60*60 \\
 & = 200,926 \text{ L/sec}
 \end{aligned}$$

<b>Design Peak Flow</b>	<b>=</b>	<b>200,926 L/s</b>
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Purification works: On-Site WwTW

### 2. WATER SUPPLY

$$\begin{aligned}
 \text{Average daily flow} & 10\ 418 \times 800 = 8\ 334,40 \text{ kL} \\
 5\% \text{ municipal and schools} & = \underline{416,72 \text{ kL}} \\
 & = 8\ 751,12 \text{ kL}
 \end{aligned}$$

<b>Average Daily Flow</b>	<b>=</b>	<b>8 751,12 kL/day</b>
---------------------------	----------	------------------------

$$\begin{aligned}
 \text{Design peak Flow (PF} = 4,0) & = 4 \times (\underline{8\ 751,12 \times 10^3}) \\
 & = 24*60*60 \\
 & = 405,144 \text{ L/sec}
 \end{aligned}$$

<b>Design Peak Flow</b>	<b>=</b>	<b>405,144 L/s</b>
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**ANNEXURE C: Professional Team**

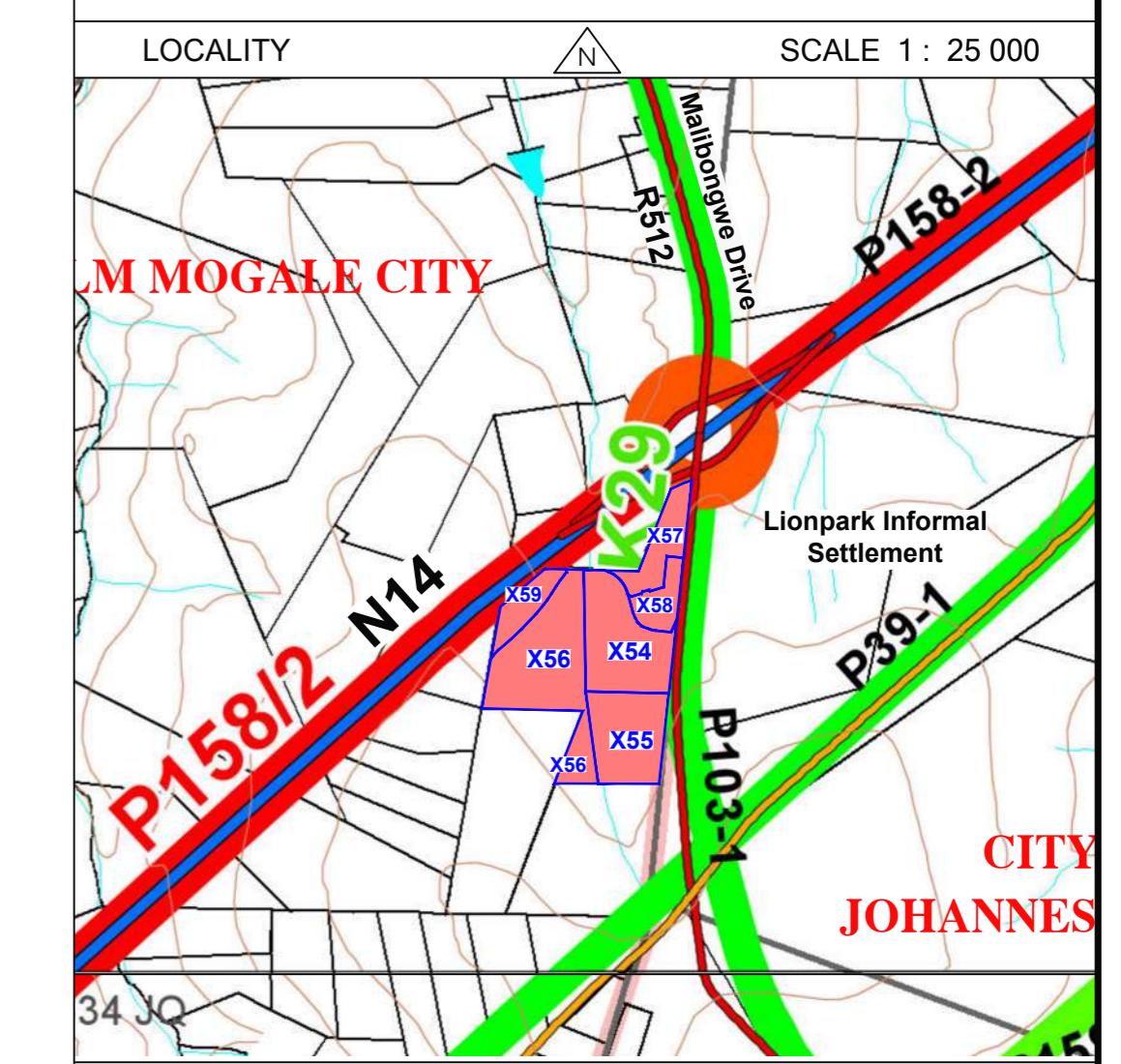
## Professional Team

	Description	Name	Contact Person
1	Developer	Cosmopolitan Projects Johannesburg (Pty) Ltd	Mr Ian van Rensburg Mr Pieter Pistorius
2	Civil Engineer	Ricon Consulting Engineers	John Bakkes Pr Eng
3	Electrical Engineer	Eksteen & Le Roux	Ed Kotze Pr Eng
4	Town Planners	SMR Town and Environmental Planning	Sonja Meissner-Roloff TRP (SA)
5	Surveyors	SVR	Eamon Swart B Landm (PTA)
6	Geotechnical Engineers	Intra Consultants	Dr. Dave Buttrick
7	EIA Consultant	iSquare	Ronel Dreyer
8	Civil Contractors	T.B.A	
9	House Builders	T.B.A	

**ANNEXURE D: Land Use**

**LION PRIDE EXTENSION****MOGALE EXT. 54 - X59**

To be Situated on  
Part of Remainder of Portion 23,  
Part of Portion 162, and  
Part of Remainder of Portion 196  
of the farm **NOOTGEDACHT 534-JQ**

**MOGALE EXT. 54**

USES	No. OF ERVEN	ERF NUMBERS	AREA (ha)	%
Residential 3 40 units / ha	1	1	6,7768	70.96
Private Open Space	1	2	1,3393	14.02
Existing street			1,4339	15.02
Total	2		9,5500	100.00

**MOGALE EXT. 55**

USES	No. OF ERVEN	ERF NUMBERS	AREA (ha)	%
Residential 3 40 units / ha	1	1	6,6569	86.70
Private Open Space	1	2	1,0208	13.30
Total	2		7,6777	100.00

**MOGALE EXT. 56**

USES	No. OF ERVEN	ERF NUMBERS	AREA (ha)	%
Residential 3 40 units / ha	2	1-2	9,7840	72.94
Private Open Space	1	3	2,3259	17.34
Existing street			1,3032	9.72
Total	3		13,4131	100.00

**MOGALE EXT. 57**

USES	No. OF ERVEN	ERF NUMBERS	AREA (ha)	%
Residential 4 130 units / ha	2	1-2	3,9301	100.00
Total	2		3,9301	100.00

**MOGALE EXT. 58**

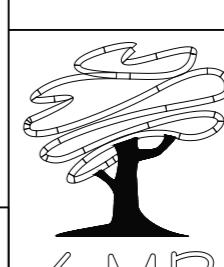
USES	No. OF ERVEN	ERF NUMBERS	AREA (ha)	%
Residential 4 130 units / ha	2	1-2	2,4176	94.24
Existing Street			0,1478	5.76
Total	2		2,5654	100.00

**MOGALE EXT. 59**

USES	No. OF ERVEN	ERF NUMBERS	AREA (ha)	%
Residential 4 130 units / ha	2	1-2	2,7314	100.00
Total	2		2,7314	100.00

## Total number of units

Res 4 (130/ha) : 1 179  
Res 3 (40/ha) : 927  
Total : 2 106



Sonya Messner-Roloff

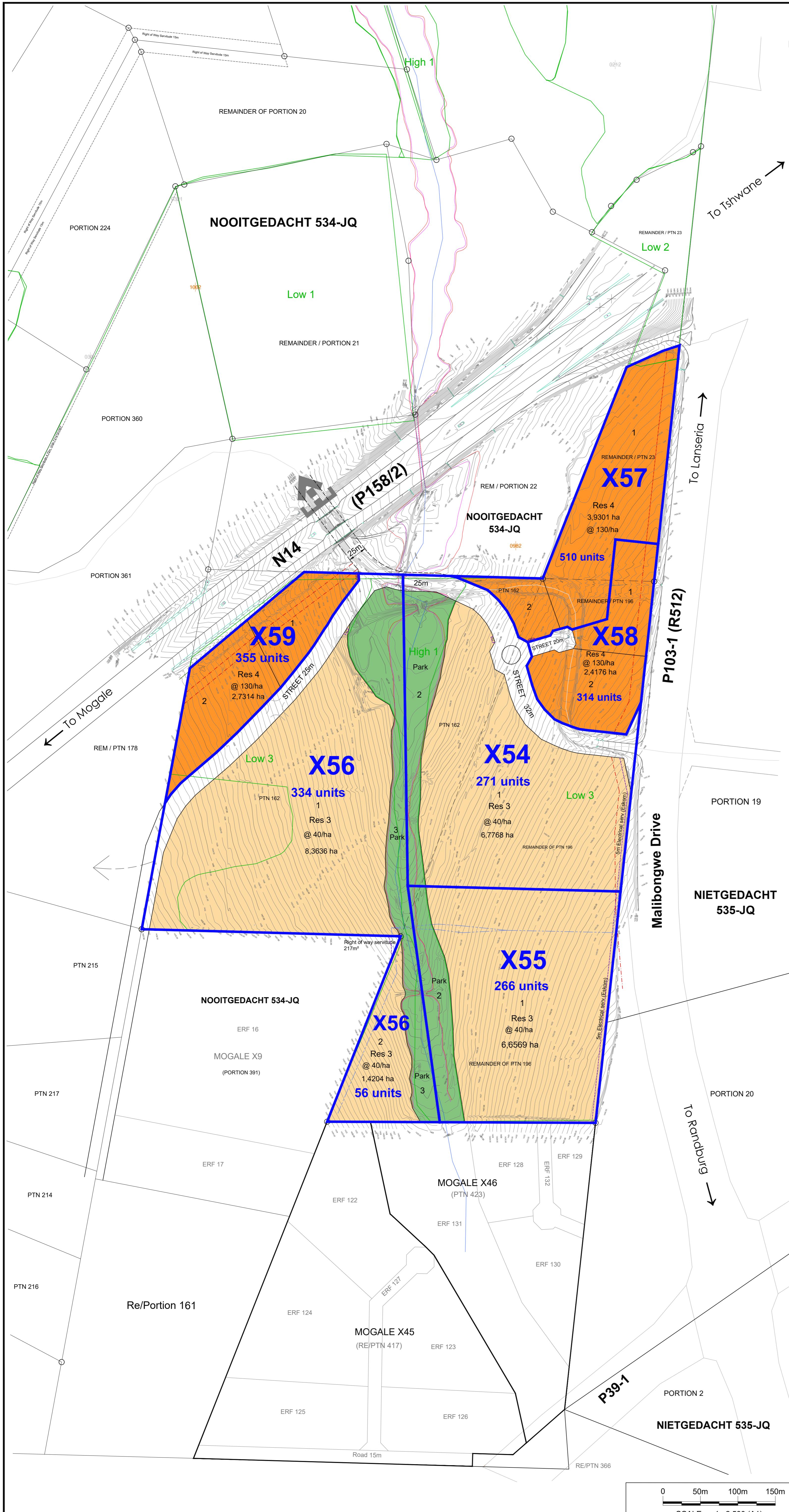
Town &amp; Environmental Planning

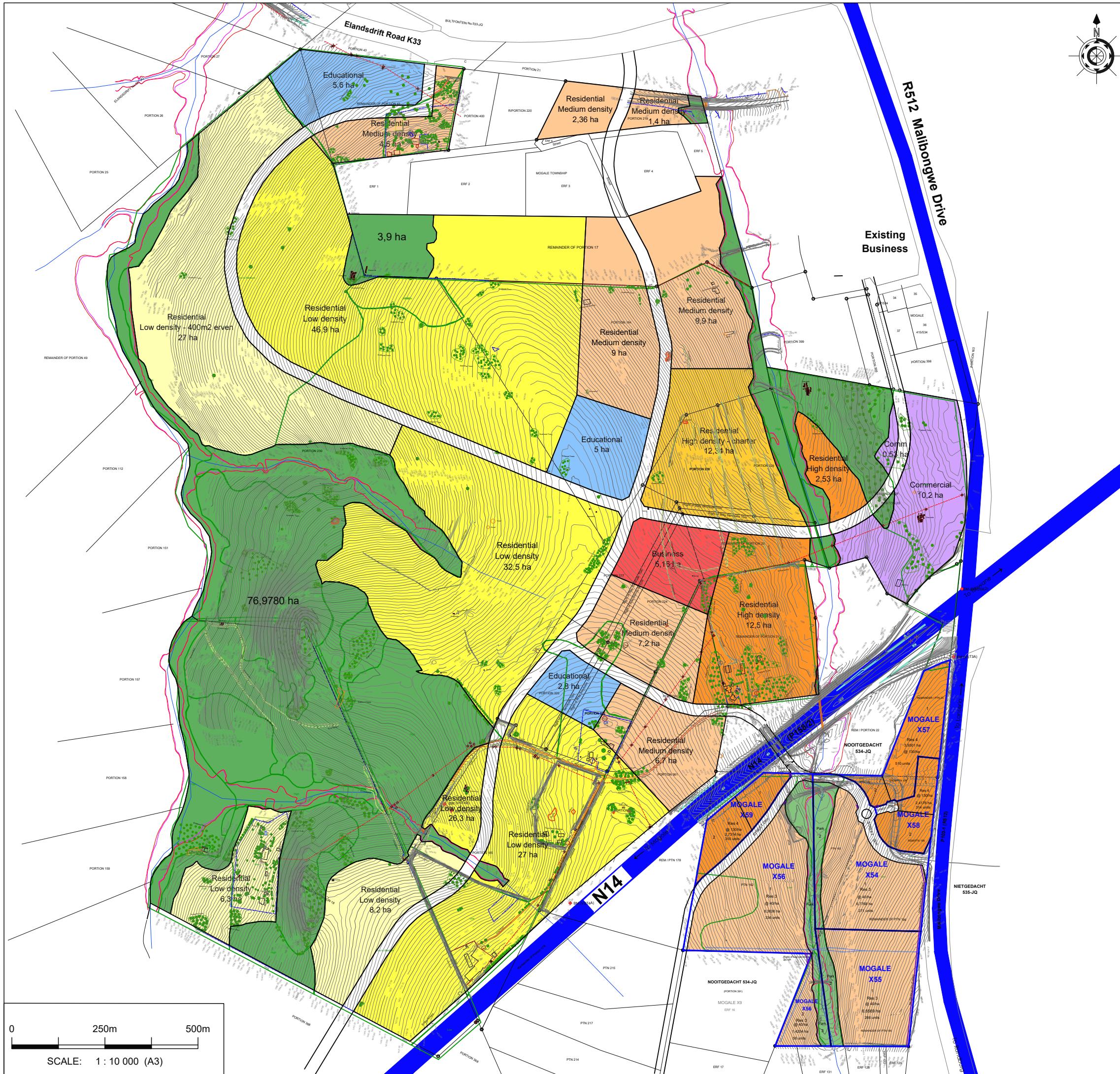
P.O. Box 7194  
Centurion 0046  
Highveld Office Park  
Charles de Gaulle Crescent  
Highveld  
Centurion

Tel: (012) 665-2330  
Fax: (012) 665-2333  
Cell: 082 451 9585  
E-mail: smessner@icon.co.za

PLAN NUMBER: SMR586 / combined10

DATE: JUNE 2022





# Proposed Development Plan

LANSERIA

Lanseria North

Land Use	Density	Area (ha)	No of erven/units
Residential - low density	18 units/ha (400m <sup>2</sup> +)	41,5876	748
Residential - low density	24 units/ha (225m <sup>2</sup> - 300m <sup>2</sup> )	109,7583	2634
Residential - medium density	40 units/ha	41,2688	1650
Residential - Charter (high dens)	120 units/ha	12,3422	1481
Residential - high density	120 units/ha	14,9962	1799
Total			8312

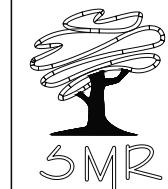
Lanseria South (Lion Pride Extension)

MOGALE EXT. 54 - X59

Land Use	Density	Area (ha)	No of erven/units
Residential 3 medium density	40 units/ha	23,2177	927
Residential 4 high density	130 units/ha	9,0791	1179
Total			2106

**Total number of erven/units = 10 418**

## LOCAL COUNCIL: MOGALE CITY LOCAL MUNICIPALITY

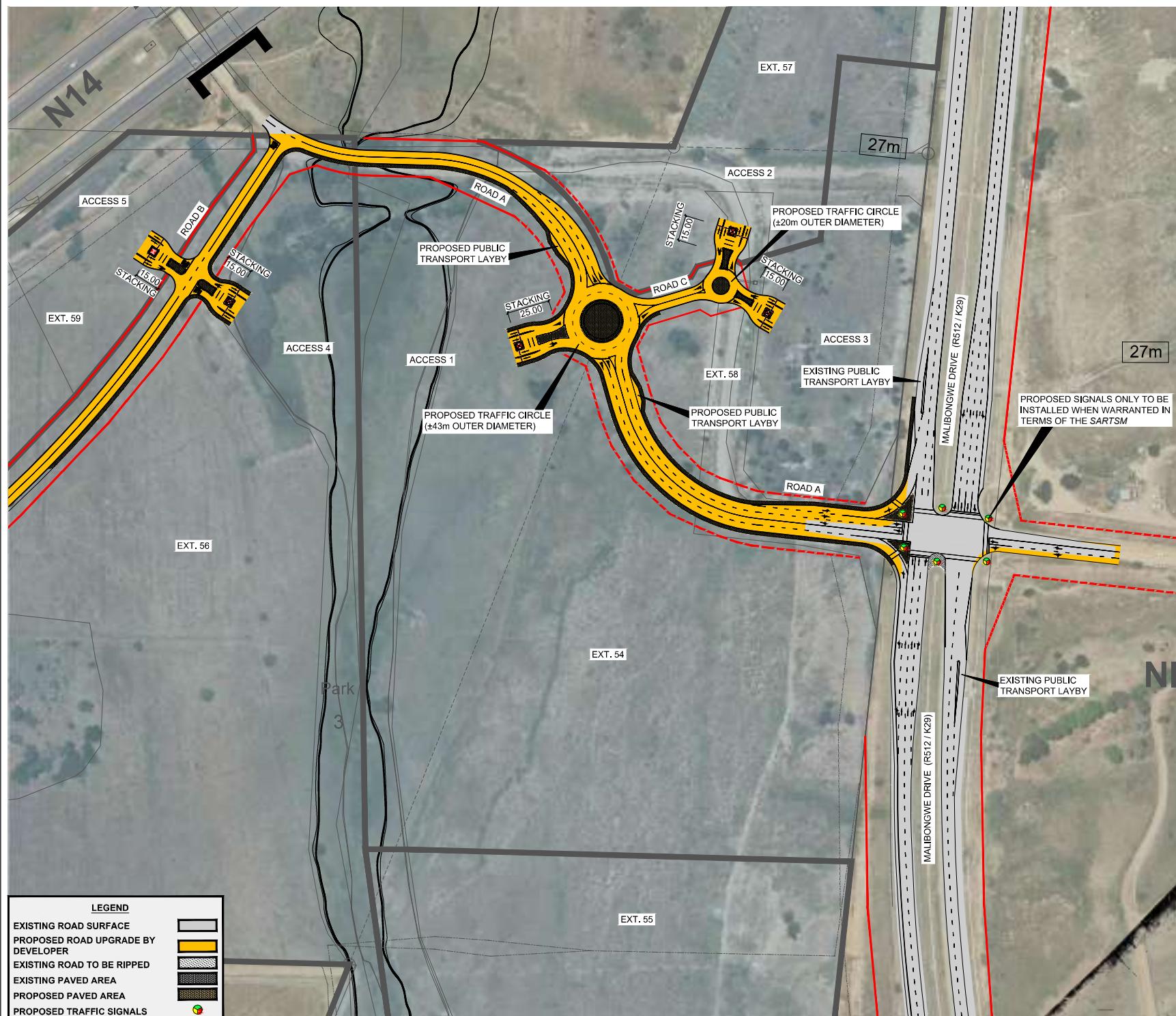


Sonja Meissner-Roloff

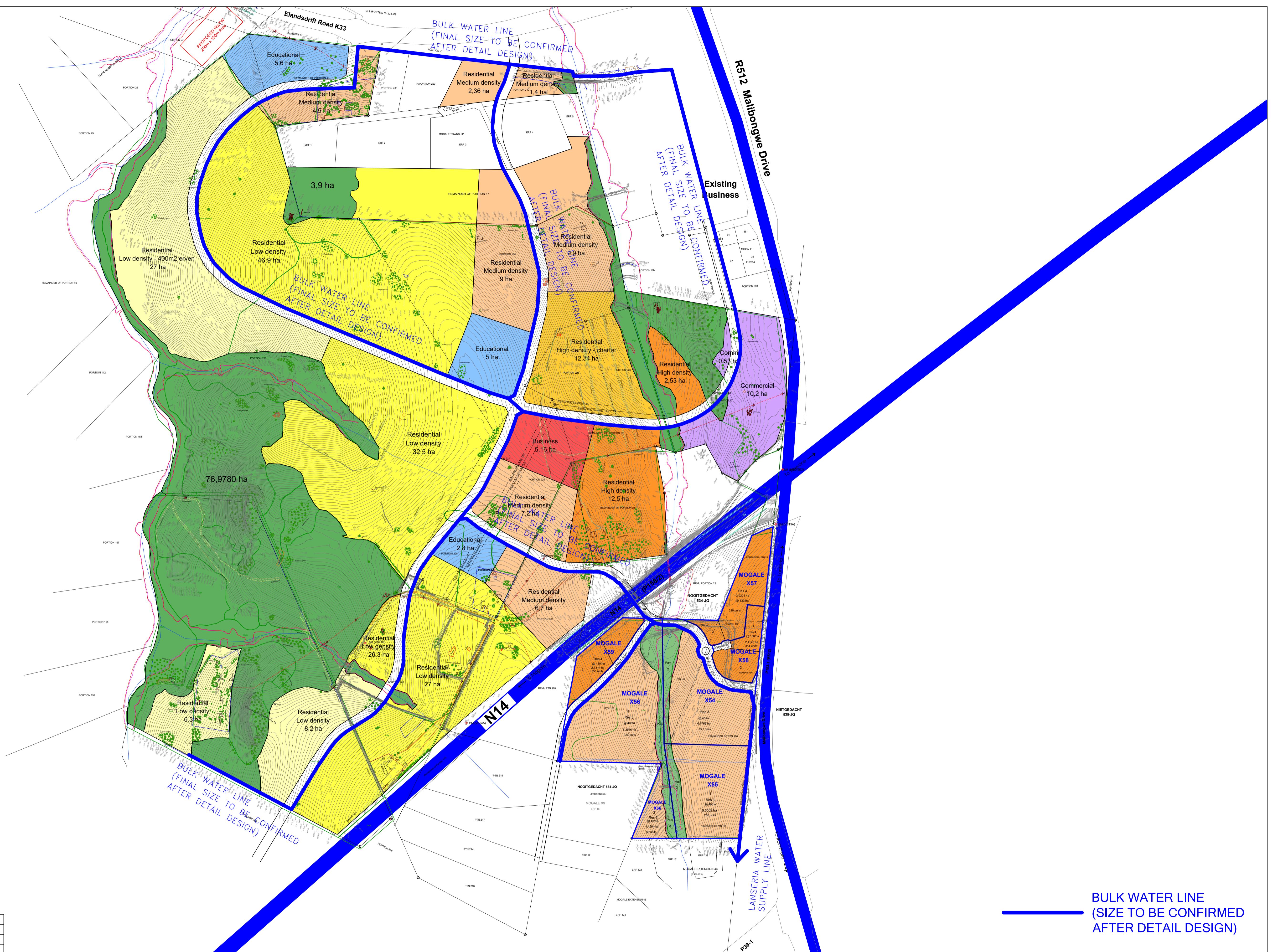
Town & Environmental Planning	
O. Box 7194	Highveld Office Park
nturion	Charles de Gaulle Crescent
46	Highveld
	Centurion
12) 665-2330	Cell: 082 451 9585
smeissner@icon.co.za	

PLAN NUMBER:SMR561/dev8 DATE: JUNE 2022

**ANNEXURE E: Layout Drawings**



A	-	-	INITIAL ISSUE	-	-
REV	DATE	BY	DESCRIPTION	CHK	APD
DRAWING STATUS: TRAFFIC IMPACT ASSESSMENT					
<b>dhubecon</b> consulting engineers					
Dhubecon Consulting Engineers 41 Via Andile Drive Irene Corporate Corner Irene, Centurion Tel: 012 667 5531 Email: admin@dhubecon.co.za					
CLIENT: -					
ARCHITECT: -					
PROJECT: Mogale Ext. 54-59					
TITLE: Key Plan of Overall Road & Intersection Upgrades in the Site Area					
SCALE: 1:1500	CHECKED: R VAN DER WALT	APPROVED: D HUNDERMARK			
DESIGN: -	DRAWN: V MTHOMBENI	DATE: 2022/06/24			
PROJECT No: P0583	DRAWING No: 0583/CL/01	REV: -			



# BULK WATER LINE (SIZE TO BE CONFIRMED AFTER DETAIL DESIGN)

DEPARTMENT	APPROVED	DESIGNATION	DATE

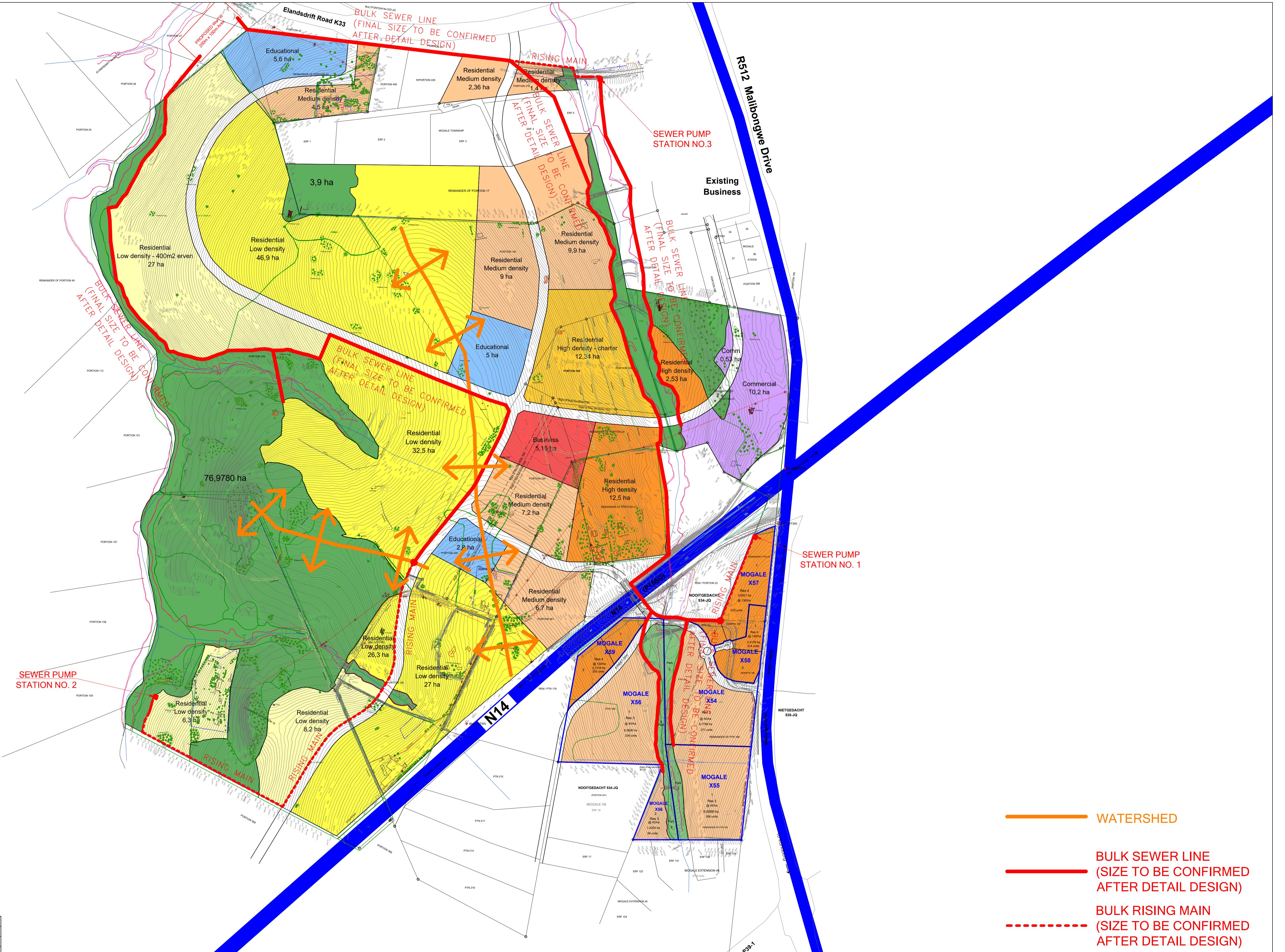
CONSULTING ENGINEERS		SURVEYED
		DESIGNED
		DRAWN
		CHECKED
		SEVICES CHECKED
		GEOTECHNICAL INVESTIGATION
PRIVATE DWG NO.	APPR.	SERVITUDES
LANS/2022/200	DATE	APPROVED

# MOGALE CITY LOCAL MUNICIPALITY

JANSFRIA

BULK WATER KEY PLA

GN GER	SCALE	AMENDMENTS	APPR.	DATE	DRAWING NO.
1:6000		<b>APPROVAL 1</b>			
FILE NO.					



**ANNEXURE F: Correspondence**



PostNet 1152  
Private Bag x 1007  
Lyttelton 0140

Suite E003, Midlands Office Park  
1 Mount Quray Street, Midstream  
VAT Registration No: 4470238223

21 January 2021

Enquiries: Mr. H.N. Bakkes  
Cell. No.: 082 852 6473

Att: Ms Boitumelo Maifadi  
Rand Water  
Planning Engineer – HO  
522 Impala Road  
Glenvista, Johannesburg  
2058

Mam,

## RE: PROPOSED LANSERIA DEVELOPMENT

Our various emails exchanged regarding same refers. Please find attached to this letter our revised civil engineering services outline scheme report.

Herewith I would like to formally request your comment on the civil engineering services outline scheme report and in particular the following pertaining to the proposed Rand Water connection point.

- Does Rand Water have sufficient available water capacity to support the proposed development?
- Will Rand Water support an application from Mogale City Local Municipality for a metered bulk connection as per outline scheme report?

As I've explained before, we are currently in the investigation phase of the development and need to know the answer to the above prior to us moving forward.

Your earliest response would highly be appreciated as our client has a deadline on the offer to purchase the land for the proposed development.

For any further information, please contact writer.

Yours faithfully,

A handwritten signature in black ink, appearing to read "H.N. Bakkes".

H.N. Bakkes  
For: Ricon Consulting Engineers

## Henri Bakkes

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**From:** Boitumelo Maifadi <bmaifadi@randwater.co.za>  
**Sent:** Monday, 15 February 2021 09:53  
**To:** Henri Bakkes  
**Cc:** 'Ian van Rensburg'  
**Subject:** RE: Proposed Lanseria Area Development

Hi Henri,

We have engaged Mogale City on water provision for this development and all other developments in the Lanseria area. RW would be able to provide a connection to supply water to Mogale City for the benefit of this development and others in the area.

Regards,

**Name:** Boitumelo  
**Surname:** Maifadi  
**Position:** Planning Engineer - HO  
**Tel:** 011 682 0785  
**Email:** [bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)  
**Web:** [Rand Water Home Page](#)



Rand Water Customer Service Centre  
Tel: 0860 10 10 60  
[customerservice@randwater.co.za](mailto:customerservice@randwater.co.za)



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**From:** Henri Bakkes [mailto:[henrib@acenet.co.za](mailto:henrib@acenet.co.za)]  
**Sent:** Monday, 15 February 2021 07:18  
**To:** Boitumelo Maifadi <bmaifadi@randwater.co.za>  
**Cc:** 'Ian van Rensburg' <ianJ@cosmopro.co.za>  
**Subject:** RE: Proposed Lanseria Area Development

Good morning Boitumelo,

The trailing mail refers.

May I please request your feedback in this regard.

Regards,  
**Henri Bakkes**



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

Email: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

---

**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]

**Sent:** Wednesday, 03 February 2021 14:05

**To:** 'Boitumelo Maifadi' <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>

**Cc:** 'Ian van Rensburg' <[ianJ@cosmopro.co.za](mailto:ianJ@cosmopro.co.za)>

**Subject:** RE: Proposed Lanseria Area Development

Good day Boitumelo,

Hope you are well. I would like to follow up on the above mentioned project.

Would it be possible to connect onto the Weltevreden Park – Cosmo City feeder line as per my updated OSR?

Kind Regards

Henri Bakkes



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

Email: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

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**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]

**Sent:** Thursday, 28 January 2021 11:31

**To:** 'Boitumelo Maifadi' <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>

**Subject:** FW: Proposed Lanseria Area Development

Hi Boitumelo,

Not sure if you have received my updated OSR and letter.

Regards

Henri Bakkes



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

E-mail: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

---

**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]

**Sent:** Thursday, 21 January 2021 10:10

**To:** 'Boitumelo Maifadi' <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>

**Cc:** 'Ian van Rensburg' <[IanJ@cosmopro.co.za](mailto:IanJ@cosmopro.co.za)>; 'George Allison' <[GeorgeA@cosmopro.co.za](mailto:GeorgeA@cosmopro.co.za)>

**Subject:** RE: Proposed Lanseria Area Development

Good day Boitumelo,

Please find attached for your perusal.

Regards / Groete

Henri Bakkes



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

E-mail: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

---

**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]

**Sent:** Tuesday, 19 January 2021 12:02

**To:** 'Boitumelo Maifadi' <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>

**Subject:** RE: Proposed Lanseria Area Development

Good morning Boitumelo,

Thanks for your reply!

I am sure we can still work with a Bulk Connection even if it is located 10 km away. Please also indicate to me the location of the Rand Water line as well as if sufficient capacity is available.

If you don't mind, could you please provide me with a phone number so that I can discuss this matter with you?

Regards / Groete

Henri Bakkes



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

E-mail: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

**From:** Boitumelo Maifadi [<mailto:bmaifadi@randwater.co.za>]

**Sent:** Tuesday, 19 January 2021 11:25

**To:** Henri Bakkes <[henrib@acenet.co.za](mailto:henrib@acenet.co.za)>

**Subject:** RE: Proposed Lanseria Area Development

Good Morning Henri,

Your development will be located approximately 10 km from the nearest Rand Water pipe. There is currently no bulk infrastructure in the area therefore I would suggest that you explore using borehole water.

I will be engaging with Mogale City on water supply to this area as there is currently no bulk infrastructure in the area and there seems to be numerous developments planned for that area. This discussion will culminate in a long term plan for water supply to this area. In the short term, 0 to 5 years, I suggest you explore using boreholes.

Regards

**Name:** Boitumelo  
**Surname:** Maifadi  
**Position:** Planning Engineer - HO  
**Tel:** 011 682 0785  
**Email:** [bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)  
**Web:** [Rand Water Home Page](#)



Rand Water Customer Service Centre  
Tel: 0860 10 10 60  
[customerservice@randwater.co.za](mailto:customerservice@randwater.co.za)



**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]

**Sent:** Monday, 18 January 2021 14:45

**To:** Boitumelo Maifadi <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>

**Subject:** RE: Proposed Lanseria Area Development

Good day Boitumelo,

Just a follow up on Friday.

Just for clarification purposes, the proposal for the supply of water for the development is:

- The developer will be responsible for the construction and associated cost of the proposed 12ML Reservoir, the reservoir feeder line as well as the proposed development supply line and internal water reticulation network.
- All the above mentioned bulk infrastructure as well as the internal reticulation will be handed over to Mogale City.
- Mogale City will apply to Rand Water for a bulk meter connection from the existing Rand Water – Cosmo City Reservoir supply line.

My only request from you is:

- Will Rand Water support the request from Mogale City for a bulk meter connection onto the Rand Water – Cosmo City Reservoir supply line.

- Does Rand Water have sufficient available capacity to support the proposed development of ± 9000 housing units. (Average Daily Flow of 7 560 KL/day)

Please may I humbly request your urgent response as my client also has a deadline on his offer to purchase the property for the proposed development.

Kind Regards,

Henri Bakkes



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

Email: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

---

**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]

**Sent:** 15 January 2021 02:22 PM

**To:** 'Boitumelo Maifadi' <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>

**Subject:** RE: Proposed Lanseria Area Development

Hi Boitumelo,

We are currently in the investigation phase of the project. My client have signed an offer to purchase the land with condition that services must be available for the proposed development and at this stage we are investigating the availability of services.

I only require in principal approval from Rand Water for the supply of the proposed Reservoir to be constructed. At this stage I'm more concerned if Rand Water have capacity available and the exact location where a connection can be made. Once all this can be confirmed from your side, I will do a feasibility on the project prior to my client proceeding with the purchase of the property. With all due respect, I am of the opinion that only after this, we should look at the finer detail between Rand Water and Mogale City.

Kind Regards,

Henri Bakkes



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

Email: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

---

**From:** Boitumelo Maifadi [<mailto:bmaifadi@randwater.co.za>]

**Sent:** 15 January 2021 01:49 PM

**To:** Henri Bakkes <[henrib@acenet.co.za](mailto:henrib@acenet.co.za)>

**Subject:** RE: Proposed Lanseria Area Development

Hi Henri

Please forward me their email addresses. Rand Water will require a letter from the municipality granting Rand Water authority to supply this developing, and indicating reasons why they cannot supply this development.

I am concerned by the individual meter connection requests from the same area.

Regards  
Boitumelo

---

**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]  
**Sent:** Friday, 15 January 2021 13:45  
**To:** Boitumelo Maifadi <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>  
**Subject:** RE: Proposed Lanseria Area Development

Hi Boitumelo,

Please find attached letter from Mogale City that was send to JWATER.

The letter is signed by Duncan Mkhonto (Manager) but I am dealing with Johann van Eck (Assistant Manager)

Regards,  
Henri Bakkes



Ruimsig Infrastructure Consultants CC  
Mobile: 082 852 6473  
Email: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

---

**From:** Boitumelo Maifadi [<mailto:bmaifadi@randwater.co.za>]  
**Sent:** 15 January 2021 01:36 PM  
**To:** Henri Bakkes <[henrib@acenet.co.za](mailto:henrib@acenet.co.za)>  
**Subject:** RE: Proposed Lanseria Area Development

Hi Henri,

Please share with me the contact of the Mogale City personnel you are dealing with.

Regards

Boitumelo

---

**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]  
**Sent:** Friday, 15 January 2021 13:26  
**To:** Boitumelo Maifadi <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>  
**Subject:** RE: Proposed Lanseria Area Development

Good day Boitumelo,

Please find attached google earth location as requested.

Please also find attached OSR submitted to Mogale City as well as Johannesburg Water. The OSR refers to ± 5000 housing units, but this could be increased to ± 9000 units.

Please take note of the following:

- Mogale City do not have water in this area.
- JWater do have water, therefore the proposal as per OSR.
- JWater are not willing to provide water from their newly constructed 900mm dia as per OSR.
- JWater (Victor Chewe – Strat Planing Manager) indicated to me that the Cosmo City Reservoir feeder line from the Rand Water Weltevreden Park 100ML Reservoir belongs to Rand Water and therefore my request to Rand Water to explore the possibility for a connection to this particular line as close as possible to the Cosmo City Reservoir.

Please provide me with your phone number so that I could contact you should you wish to discuss this in detail.

Kind Regards,

Henri Bakkes



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

Email: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

---

**From:** Boitumelo Maifadi [<mailto:bmaifadi@randwater.co.za>]

**Sent:** 15 January 2021 12:48 PM

**To:** [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

**Subject:** FW: Proposed Lanseria Area Development

Good Day Henri,

Kindly send me the location of this development.

Regards,

Boitumelo

---

**From:** Hape Sebatana

**Sent:** Thursday, 14 January 2021 12:23

**To:** Boitumelo Maifadi <[bmaifadi@randwater.co.za](mailto:bmaifadi@randwater.co.za)>

**Cc:** [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

**Subject:** FW: Proposed Lanseria Area Development

Good day B

Please assist the customer

Kindest regards

Hape

---

**From:** Henri Bakkes [<mailto:henrib@acenet.co.za>]

**Sent:** Thursday, 14 January 2021 08:29

**To:** Hape Sebatana <[hsebatan@randwater.co.za](mailto:hsebatan@randwater.co.za)>

**Subject:** Proposed Lanseria Area Development

Good morning Ms Hape Sebatana,

Hope you are well and save!

I've got your contact details from my client, Cosmopolitan Projects.

I'm busy with an investigation for the supply of municipal services for a potential development in the vicinity of Lanseria. The proposed development falls within Mogale City and therefore JWATER are not willing to supply water for the project. I would like to explore the possibility of a Rand Water connection close to the Cosmo City Reservoir. It is my understanding that the bulk supply line from Rand Water's Weltevreden 100ML Reservoir to Cosmo City Reservoir belong to Rand Water and not JWATER.

Please could you assist me by referring me to the correct Rand Water official responsible for this particular area.

Thanks in advance.

Regards / Groete

Henri Bakkes



Ruimsig Infrastructure Consultants CC

Mobile: 082 852 6473

Email: [henrib@acenet.co.za](mailto:henrib@acenet.co.za)

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