

APPENDIX C (ii)

Electrical Statement

ANNEXURE K

PLAN



ELECTRICAL STATEMENT



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To: Plan Associates Development Planners (Pty) Ltd
Tel No: 012 342 8701
For Att: Mr Herman Strydom
Email: herman@planassociates.co.za
Date: 16 August 2020 (Ver 1)

From: Nico van Wyk
Cell No: 082 600 8328
Email: nicovw@burotech.co.za
Page: 1 of 9
Ref: PL08 / DSN

**RE: PROPOSED TOWNSHIP DEVELOPMENT
PORTIONS 42, 43 & 47 OF THE FARM VALSCHFONTEIN 33-JS
ELECTRICAL SERVICES – BASIC OUTLINE SERVICES REPORT**

Dear Herman,

Enclosed please find for your information and attention the basic outline services report (version 01) for the electrical services as requested.

Version Notes:

01: 16 August 2022 : Original issue

Kindly contact us should any additional information be required.

Yours Faithfully

Nico van Wyk (Pr. Eng)

Cc: Nil

Enclosed: Report Version 1

Members: NJS van Wyk Pr Eng B Sc (Ing) (Elek) MSAACE MSAIEE MIESSA
CK 92/05979/23



Registered Firm: CESA
Soli Deo Gloria



ELECTRICAL SERVICES

BASIC OUTLINE SERVICES REPORT

PROPOSED SUNSHINE VIEW

ON PORTIONS 42, 43 & 47 OF THE FARM VALSCHFONTEIN 33-JS



PREPARED BY:

**BURO TECH
CONSULTING ENGINEERS CC**

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PREPARED FOR:

**PLAN ASSOCIATES
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**DATE: 16 Aug 2022
Version 1**

PROJECT: PL08 / DSN

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PROPOSED TOWNSHIP DEVELOPMENT – SUNSHINE VIEW ON PORTIONS 42, 43 & 47 OF THE FARM VALSCHFONTEIN 33-JS ELECTRICAL SERVICES– BASIC OUTLINE SERVICES REPORT

Date: 16 Aug 2022
Version 1

1. Introduction

Plan Associates Development Planners (Pty) Ltd appointed Buro Tech as specialist electrical engineers for the proposed Sunshine View, located on Portions 42, 43 & 47 of the Farm Valschfontein 33-JS on 04 August 2022.

This report is based on information received from:

- Plan Associates on 15 July 2022 (updated layout),
- Feedback on enquiries directed at the supply authority (Eskom) on 20, 27 & 29 July 2022, and 02, 04 & 10 August 2022.

The proposed township is located approximately 30 km South-East of Marble Hall along the R573 to KwaMhlanga and falls within the Eskom licensed supply area.

The locality map below indicates Sunshine View with relation to Marble Hall, Groblersdal and KwaMhlanga.

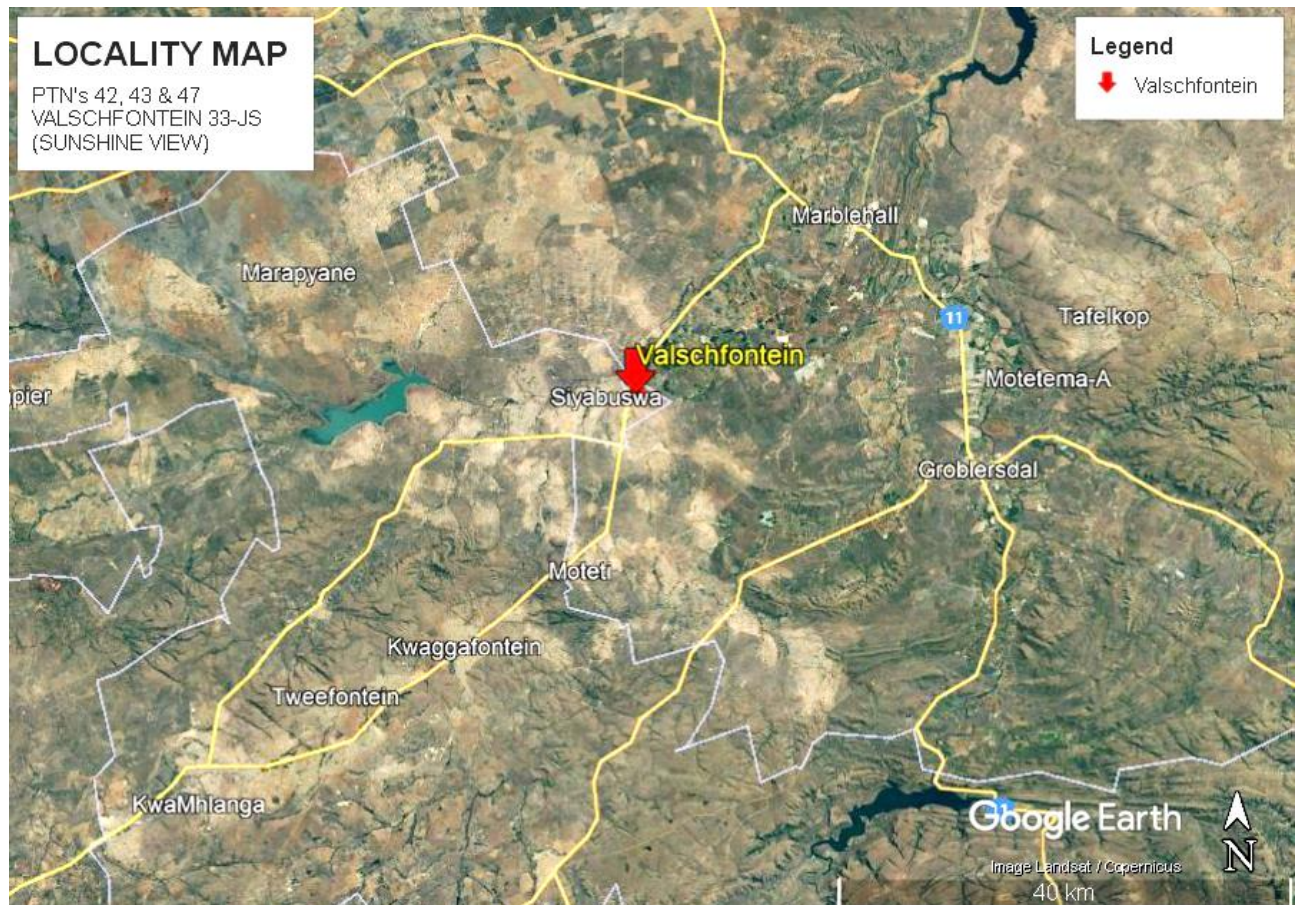


Image 1: Locality Map – Sunshine View

2. Brief on Existing Networks

No electrical reticulation networks exist within the project envelope of the proposed Sunshine View. Refer to images below.



Images 2: The Site, proposed Sunshine View

Electricity supply to townships adjacent to the proposed development consists of a combination of MV & LV overhead Aerial Bundle Conductor (ABC) on wooden poles, with voltage stepped down from 22 000-Volt to 400-Volt via platform mounted transformers.

A site inspection show that the area is supplied via the AMK 22kV feeder (from the Amandla 88/22kV substation).



Images 3: Typical MV & LV electricity reticulation networks & step down transformers.

House connections will be done via concentric cable with metering via smart split prepaid metering.

All electrical construction work will be done in compliance with the applicable Eskom standards and specifications.

The area is supplied from the Amandla 88/22kV substation. The substation have an installed capacity of 2x 40MVA, with a firm capacity of 40MVA. Below an geographical overview of the project site with relation to the Amandla 88/22kV Substation. Others Eskom substations also shown in the image below include the Wolwekraal and Groblersdal Eskom substations, and the supporting 132kV and 88kV transmission lines.



The Amandla, 88/22kV, Eskom Substation. Refer to images below.



Images 4: Amandla 88/22kV Substation.

3. Estimated Electricity Demand

The bulk load requirements are calculated to be as follows:

VALSCHFONTEIN, PTN 42, 43, 47						Rev 00	2022-07-20		
Erf #	AREA OF ERF		PROPOSED ZONING	Units	FAR	DEVELOPABLE FLOOR AREA (m ²)	kVA/unit or VA/m ²	Unit	Total Load (kVA)
	Hectare	m ²							
TBA	45.0200 Ha	450 200.00 m ²	Res 1	1034		—	2.00	kVA[ADMD]	2 068.00 kVA
TBA	3.8000 Ha	38 000.00 m ²	Bus 1	—	0.60	22 800.00 m ²	80.00	VA/m ²	1 824.00 kVA
TBA	0.8000 Ha	8 000.00 m ²	Church	2		—	13.80	kVA	27.60 kVA
TBA	0.5100 Ha	5 100.00 m ²	Creche	1		—	13.80	kVA	13.80 kVA
TBA	2.0100 Ha	20 100.00 m ²	P.O.S.	4		—	13.80	kVA	55.20 kVA
TBA	16.6300 Ha	166 300.00 m ²	Streets	—		—		~Select~	Nil
68.7700 Ha		687 700.00 m ²		1041		22 800.00 m ²		SUB-TOTAL	3 988.60 kVA
Diversity Factor									80%
Final Demand									3 190.88 kVA

TOTAL ESTIMATED ELECTRICAL NOTIFIED MAXIMUM DEMAND

≈3 200 kVA

4. Available capacity

Eskom did not provide any feedback at the time of publishing of this report regarding availability of spare capacity on either the substation or the 22kV distribution lines. The formal Eskom application process will have to be followed to obtain network capacity details from Eskom.

5. Conclusion

The final estimated maximum demand for the new development is calculated to be 3 200 kVA (3.2 MVA).

The Amandla 88/22kV Eskom Substation should have sufficient capacity available to provide the proposed development with capacity required. This will have to be confirmed by following the formal Eskom application process.

6. Annexures:

Proposed Layout: PTN's 42, 43 & 47 of the Farm Valschfontein 33-JS (Sunshine View)

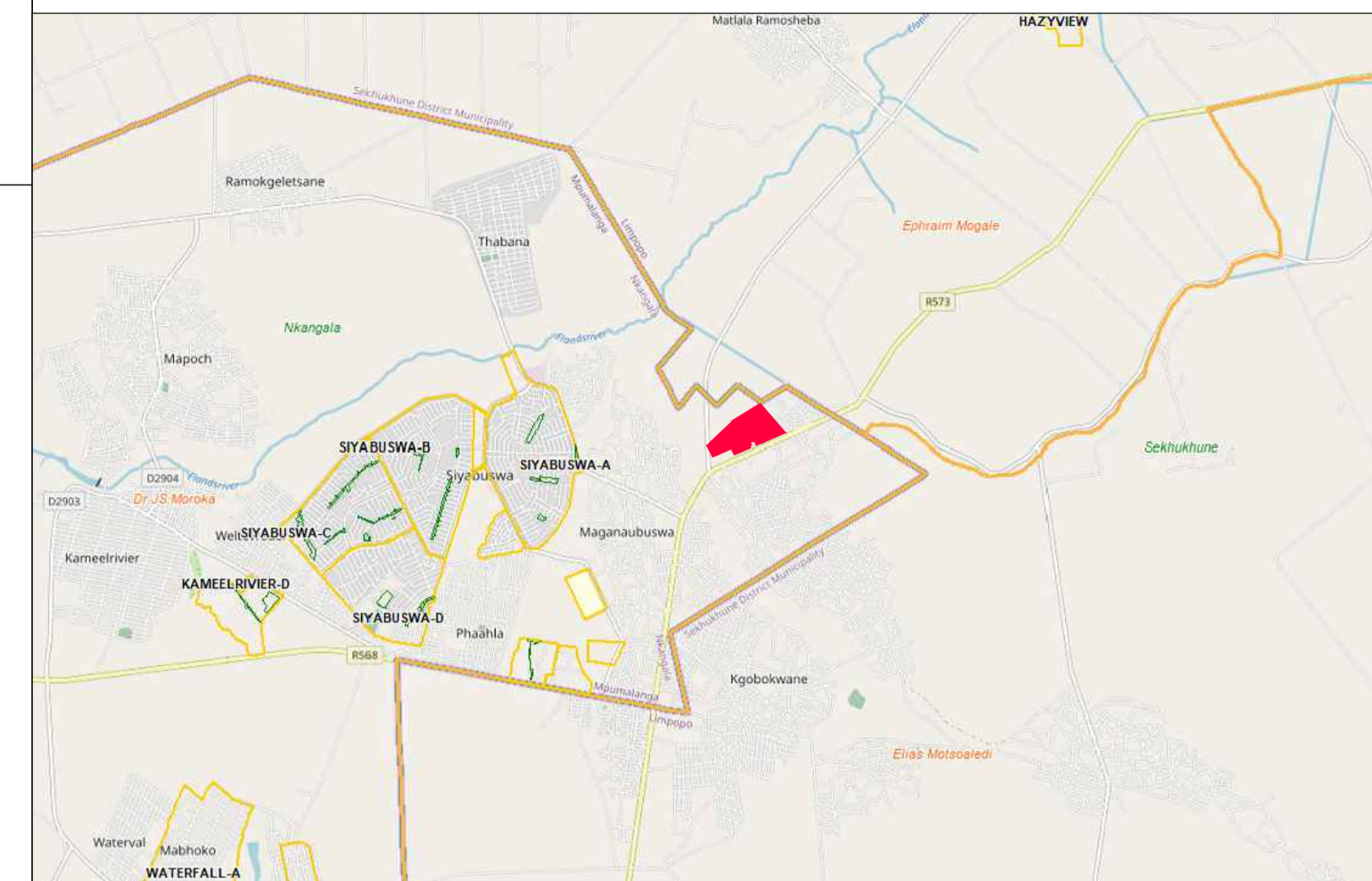
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DRAFT

Proposed Layout: SUNSHINE VIEW

Situated on Portions 42, 43 and 47 of the farm Valschfontein 33 JS approximately 68,76ha in extent, under the jurisdiction of the DR JS Moroka Local Municipality, Mpumalanga.

LOCALITY



Notation

Land Use / Zoning	Notation	No of Erven	Density	Average size in m ²	Area in m ²	% of Township
Residential 1		1034		400,0	45,02	65%
Business 1		2		1,8	3,80	6%
Institutional Church		2		0,8	0,80	1%
Institutional Creche		1		0,5	0,51	1%
Public Open Space		4		2,1	2,01	3%
Street					16,63	24%
Total		1043			68,76	100%

1	All erf sizes are approximate pending final survey.
2	All road reserves are as indicated on the layout plan.
3	Road splays are 5m X 5m and Provincial Road Splay 10m x 10m
4	All building lines are 5m along any boundary with a public street, and 2m along any boundary with a private road. All other building lines will be 2m accept where the local authority approve its relaxation.
5	All development will be subject to a further geo-technical assessment as required by the NHBC where applicable.
6	All erf numbers are temporary, and subject to final numbering by the office of the Mpumalanga Surveyor General.
7	Line of no access are indicated by the following line:
8	The proposed township boundary is indicated as follows on the layout plan by the figure A B C D E F G H J L K L M N P A :
9	Total street Length = 12559m
10	Minimum Street Slope = 0.2% Maximum Street Slope = 4.2%

FLOOD LINE:
With reference to Section 144 of the National Water Act (Act no. 36 of 1998) it is hereby certified that the proposed development, as indicated on this drawing, is not affected by flood lines

CONTOURS:
Interval: 0.5 m
Date AHSL: Sea level
Surveyed by: O. Raal
Contours conform to the standards laid down in the Regulations in terms of Section 138 of Ordinance 15/1986, dated 10 June 1987 (Administrators Notice 858)

C.J Coetzer Pr
Eng Prof. Reg
Number Date

SCALE: 1: 2500 (A1 Paper)

PLAN NO: 'XXXX

Town Planner:
Herman Strydom
Pr Pln A 2027/2015

Date: 15 July 2022

Client:

PLAN MEDEWERKERS P L A N
PLAN ASSOCIATES
PRETORIA
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Fax (012) 342 8714
E-mail / E-pos:
info@planassociates.co.za

THE SANDHORSE CC



CERTIFICATION

GEOLOGICAL:
It is hereby certified that the layout of the township complies with the recommendations and requirements set out in the geotechnical report dated: _____
Firm: GAGE Consulting
Engineering Geologist: _____
Prof. Reg. Number: _____
Date: _____
Signature: _____

ENVIRONMENTAL:
It is hereby certified that the layout of the township complies with the final recommendations set out in the Environmental Impact Assessment Report, _____
Firm: Enpac
Environmental Geologist: _____
Prof. Reg. Number: _____
Date: _____
Signature: _____

