de villiers & moore
CONSULTING ENGINEERS
Electrical, Mechanical, Fire

Our Ref: E5422P/L004 Your Ref:
Date: 2026-03-20

Natural Purpose (NPC)
SEDGEFIELD

Attention: Mr C Bouwer

Sir

SEDGEFIELD: ERF 1746: MULTI PURPOSE DEVELOPMENT: CAUSEWAY CAFE ELECTRICAL RETICULATION BULK SERVICES: REV 001

This report has been compiled by de Villiers & Moore Consulting Engineers, having been instructed our Client, Messrs Natural Purpose (NPC) with purpose of informing the team of the extent of the electrical bulk services required to be put into place to provide the electrical supply to the Development.

LOCATION

The Development is situated on erf 1746, Sedgefield in the administrative district of Knysna Municipality.

SUPPLY AUTHORITY

The Development is situated in the electrical supply area of Knysna Municipality (Sedgefield).

DRAWINGS

The Architects site plan is included below for reference.

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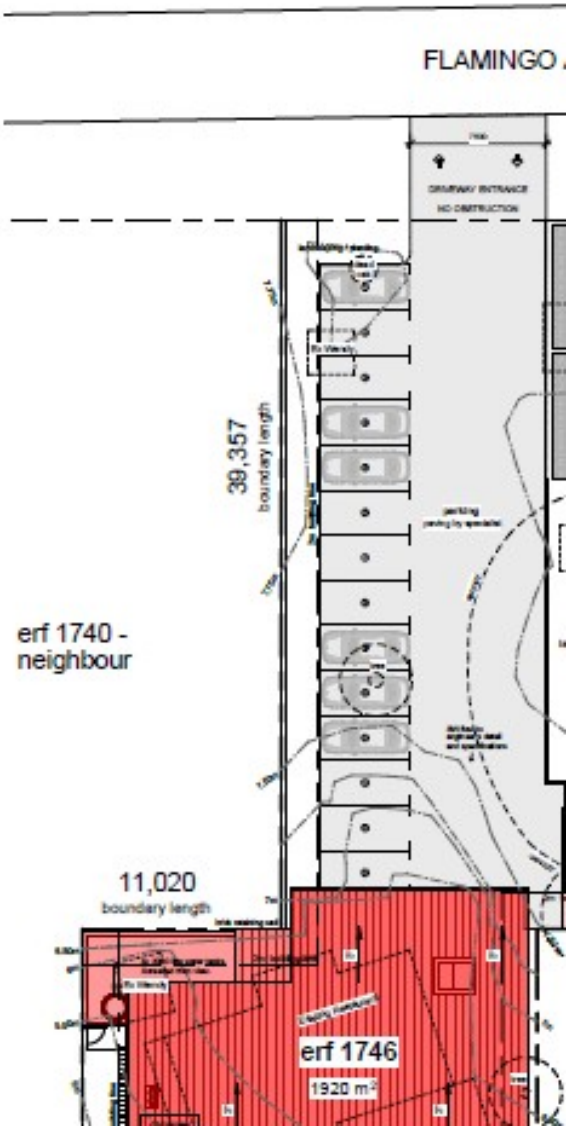

EXISTING ELECTRICAL DISTRIBUTION NETWORK

The Municipality confirmed that there is sufficient capacity in the local network to supply the required demand.
It is confirmed that the Sedgefield Electrical Supervisor did visit the site and did install a logger on the mini-substation which confirmed that there is sufficient capacity. *He has undertaken to provide a letter in this respect by 2026-03-30.*

DEMAND REQUIREMENTS

The demand calculated for the Development is estimated on the load calculation document below and this will be used when calculating the Development Charges as well as the capacity on the existing network.

Total Estimated Notified Electrical Demand once Fully Developed = 54kVA

This demand translates to a 80A three phase supply.

SEDGEFIELD
ERF 1746: CAUSEWAY CAFÉ
ELECTRICAL MAIN SUPPLY LOAD SCHEDULE
ESTIMATED

Type	m^2	Number	VA
GROUND FLOOR			
Restaurant	126,5	1	2(
Retail Spaces	107,5	1	1(
Managers Accomodation	37,3	1	8
FIRST FLOOR			
Meeting Rooms and Offices	54,8	1	1(

PROPOSED ELECTRICAL LV DISTRIBUTION NETWORK

The low voltage network currently in place is sufficient to supply the intended Development.
It is recommended that a 60A three phase connection be made available since this is the largest connection that can be taken without moving to Bulk Low Voltage Metering.

In order to accommodate the difference between the calculated capacity (80A) required and the applied for capacity (60A), solar PV system will be installed to assist with the capacity deficit.

Point of Connection

The point of connection will be the mini-substation and a low voltage cable, suitably sized will be installed up to the erf boundary where a meter kiosk will be installed.

METERING AND RESPONSIBILITY

On completion of the installation and after the one year guarantee period, the responsibilities will be as follows:
The Knysna Municipality will be responsible for the maintenance of the low voltage network including the low voltage cables and meter kiosk at the boundary.
Standard Knysna Municipal metering will be applicable.
The Developer will be responsible for the cable from the kiosk to the facility.

ENERGY SAVING MEASURES

The use of the following equipment will be made mandatory
Water and sewage pumps to be supplied with energy efficient motors and vsd motor control.
Water heating to be done using gas or heat pumps.
Lighting to make use of LED lamps only.
Use of motion sensor lighting control.
Photovoltaic Systems will be installed.

COST ESTIMATE AND ELECTRICAL DEVELOPMENT CHARGES

The Developer will be responsible for all costs associated with the supply and installation of the electrical infrastructure required to service the Development.
A detailed design of the proposed low voltage and earthing installation will be submitted to Knysna Municipality for approval prior to construction commencing on site.
A detailed cost estimate will be submitted as part of a different process.

The estimated Electrical Development Contributions for the current financial year are awaited and will be received by 2026-03-30.
It is noted that the amount is adjusted each year at the end of June.

IMPACT

1. Impact on Existing Electricity Consumers
   The development will have no detrimental effect on the quality of supply to the existing consumers due to the fact that the development will be supplied by from a mini-substation that has spare capacity available for the development,

2) Impact on Distribution Authority Operating Costs
   The development will have no negative effect on the electrical costs of the distribution authority, due to the fact that the complete electrical infrastructure required for the development will be supplied and installed by the Developer.

3) Impact on the Environment
   Services will be located within the road reserves to prevent additional disturbances of vegetation.
   The internal electrical infrastructure design will take into account energy saving technologies which may include load control, the use of energy efficient lighting, the use of alternative means of water heating and inverter type HVAC equipment

CONCLUSION

We trust the information provided is of sufficient detail to allow for an informed decision to be made. Please do not hesitate to contact the undersigned should additional information be required.

Yours faithfully

R G HALL Pr Eng
DE VILLIERS & MOORE (PTY) LTD