



**PROPOSED TOWNSHIP DEVELOPMENT
ERF 3726, 3727 & 3728 MAHIKENG**

**BULK ELECTRICAL SERVICES
REPORT**

**Erf 3726, 3727 & 3728 Mahikeng
Bulk Electrical Services Report**

**For
Proplan Technologies
By
Motla Consulting Engineers**

MOTLA

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1. DEVELOPMENT INFORMATION

The development is planned for Erf 3726, 3727 & 3728 in Mahikeng. It falls within the Eskom licensed area for Mahikeng.

The location of the proposed development can be seen in the images below.



Figure 1: Geographical Location

The development will be commercial and in the following configuration:

- A. Filling Station
- B. Shopping Centre of 6605 m²

The proposed layout for the development can be seen below:

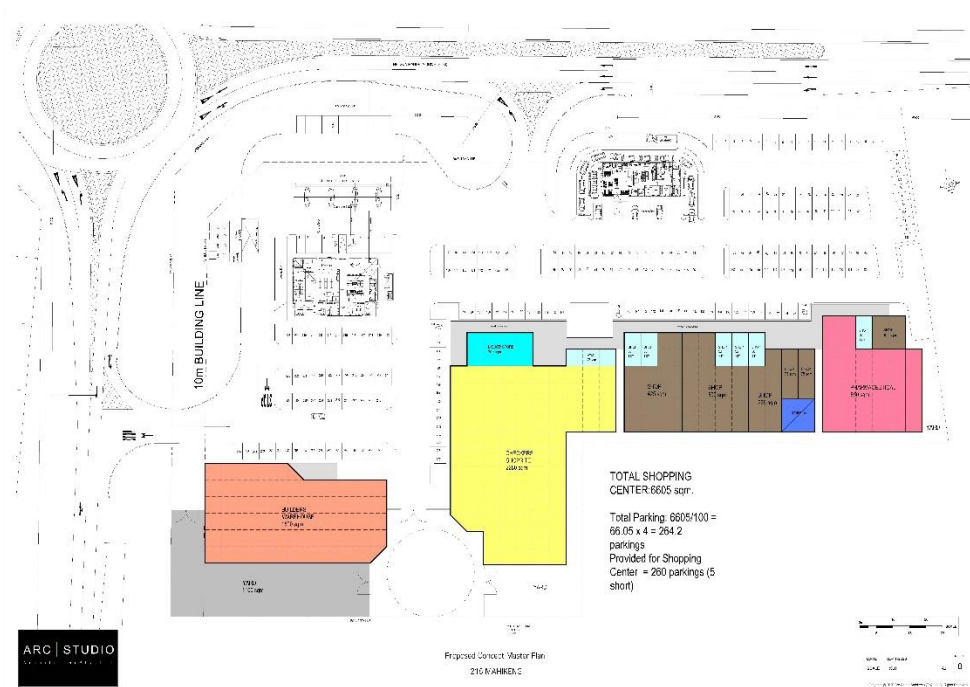


Figure 2: Proposed Development

2. DEMAND CALCULATION

The projected electrical loading for the development is as follows:

| | | |
|-----|----------------------|--|
| 2.1 | Filling Station | : ± 50 kVA |
| 2.2 | Checkers/Shoprite | : ± 320 kVA (2280 m ² @ ± 140 VA/m ²) |
| 2.3 | Builders Warehouse | : ± 90 kVA (1500 m ² @ ± 60 VA/m ²) |
| 2.4 | Lineshops | : ± 116 kVA (2825 m ² @ 40 VA/m ²) |
| 2.5 | Total Maximum Demand | : ± 576 kVA |

To accommodate the above projected maximum demand, the following Standard minisub sizes are to be taken into consideration:

| | | |
|-----|----------|--------------------------|
| 2.6 | Option 1 | : 630 kVA (91 % loading) |
| 2.7 | Option 2 | : 800 kVA (72 % loading) |

3. ELECTRICAL BULK SUPPLY

There is an existing Eskom 22 kV overhead line crossing the stand in a zig-zag configuration, and also feeding an existing pump station next to the road.

The overhead line will have to be re-routed in order not to "interfere" with the proposed development.

The electrical bulk supply proposal is for a new 800 kVA minisub (72 % loading) to be fed from the 22 kV overhead line.

Eskom is not prepared to confirm available capacity on the overhead line, but we believe that it should be available. The capacity and the cost can only be confirmed via the official Eskom application procedure.

4. COST ESTIMATE

The cost for the electrical bulk supply is estimated to be R 1,536,000.00 inclusive of VAT.

5. WAY FORWARD

The way forward will be for an official application to Eskom in order to confirm the capacity and the cost implications.

It is recommended that this process be initiated without any further delays, as it can take a very long time.

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