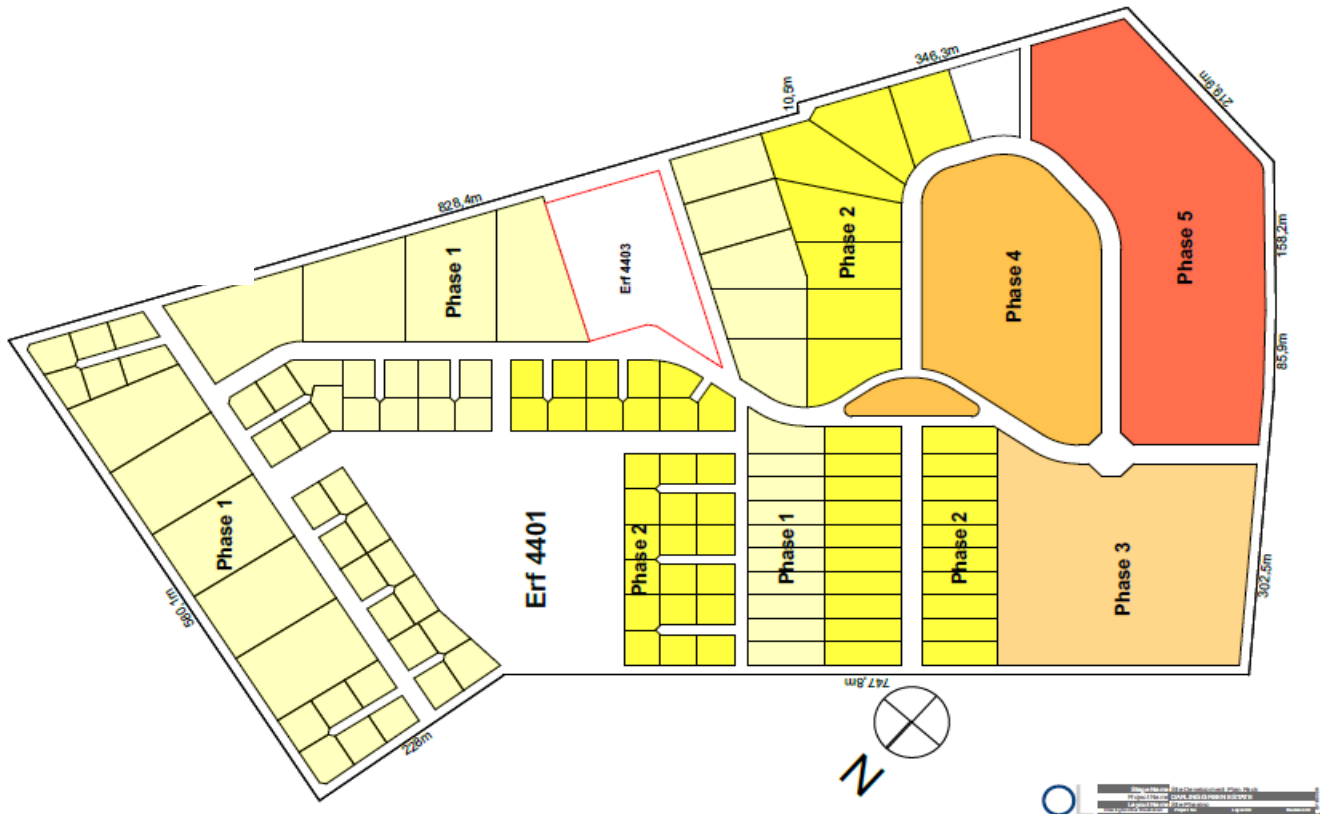


DESIGN REPORT FOR ELECTRICAL SERVICES



ELECTRICAL RETICULATION : GREEN LIFESTYLE ESTATE - DARLING

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REVISION 0

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Project No: R4826X

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**DESIGN REPORT FOR THE ELECTRICAL SERVICES
DARLING GREEN LIFESTYLE ESTATE
DARLING ERF 4401**

1. DESIGN REPORT

This report must be read in conjunction with the layout drawing. The development consists of 5 phases of development. It includes 1ha stands, 0,5ha stands, 2000m² stands, Public open space, 1250m²stands, Crafter's Village, Retirement Village and a Food & Craft Market.

This report encompasses the scope of electrical services to be supplied to the development of the stands and business zones.

1.1 Purpose of this report

- consolidate the principles, concepts and specific requirements of the client
- provide the basic information parameters on which the design will be based
- confirm availability of services for the proposed development

1.2 Assumptions

The following assumptions have been made for the basis of this report.

- Preliminary designs were completed based on the layout drawing and number of erven / areas indicated.
- Sufficient capacity is available on the town's electricity network.
- MV-ring network will be installed.

2. MAINS SUPPLY

The supply authority for the area is Swartland Municipality.

The nearest 11kV-point is in Kalkoentjie Street.

Part of that ring is still a 25mm² 11kV-cable, which will be upgraded by the municipality in due course.

The ring network for the Darling Green Lifestyle Estate shall be tapped off from the Kalkoentjie street connection point, and fed to the development with 2 x 95mm² 11kV-cables. A 4-way Ring Main Unit will be supplied and installed at Kalkoentjie street, to feed the ring network.

Cabling within the site will be 95mm² 11kV-cable, feeding the different miniature substations. The complete ring-network will be installed as part of Phase-1. Subsequent phases will be supplied by miniature substations being installed as part of that phase, connected to the initial ring main cables.

3. LOW-VOLTAGE RETICULATION

Each phase / area will be supplied with a low-voltage cable-network and kiosks, housing metering and distributing consumer cables to each dwelling.

The initial design is based on the following MDAD-figures :

- 1ha Stands 6 – 8kVA
- 0,5ha Stands 5kVA
- 0,2ha Stands 5kVA
- 0,125ha Stands 4kVA
- Retirement Village 3kVA

- Crafter's Village 40kVA (100-130 stalls)
- Food & Craft market 350kVA (food stalls, etc.)

A separate supply will be taken to Erf 4403. The miniature substation will be sized to allow for future sub-division of this stand, up to 12 sub-divided stands.

The retirement village will be fed by a dedicated miniature substation.

All cabling will be done in accordance with municipal standards.

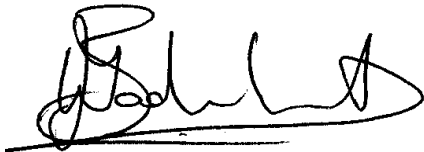
4. STREET LIGHTING

Street lighting will be metered separately, to allow for decorative fittings be installed, and not being limited to municipal street lighting. Street-light cabling will be installed in the road reserve, in the Public Open Space and along the footpaths.

5. FIBRE/COMMUNICATIONS INFRASTRUCTURE

Manholes and sleeves will be installed along all roads, to cater for fibre / Telkom communication services to each stand, including the business facilities.

The manholes and sleeves will be within the road reserve dedicated for services.



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