



**Head Office**

Unit 8, Time Square Building,  
9 Electron Street, Techno Park,  
Stellenbosch, 7600

PO Box 50487  
V&A Waterfront  
8002

**General Enquiries:**

Elmarie Els  
T +27 (0)21 880 0443  
info@udsafrika.co.za

**Services**

Civil Engineering  
(Water, Sewer, Stormwater)  
Roads and Transport  
Traffic Engineering  
Project Management

**Offices**

Stellenbosch, Piketberg, Somerset  
West, Clanwilliam



A Level 1 Contributor to B-BBEE

**Date:** 13 June 2024

**Our Reference:** 640/reports/csr01.doc

ASLA Devco  
25 Conradie Crescent  
ASLA Park  
Strand  
7151

**ATTENTION:** Belinda Swartland

Dear Madam,

**NUWERUS HOUSING PROJECT: CIVIL SERVICES REPORT**

The proposed housing project in Nuwerus will entail the construction of 91 new low-cost housing units. This report summarizes the current situation with regards to the provision of basic civil engineering services to the development.

**1. SITE LOCATION AND DESCRIPTION**

The areas allocated to the housing project are as follows:

- Portion A: 31 new erven north of the existing erven in Olyf Street;
- Portion B: 60 new erven north of the existing erven in Arcarcia Streett.

Portions A & B are in currently undeveloped areas with indigenous vegetation.

Topographically, Portion A slopes from west to east at an average slope of 1:20, while Portion B slopes from east to west at slopes varying between 1:7 and 1:10.

**2. DESIGN STANDARDS OF NEW SERVICES**

Design of services will be in accordance with the “Guidelines for the provision of engineering services and amenities in residential townships”, the UTG7 publication “Geometric Design of Urban Local Residential Streets” and is also to satisfy the standards and requirements of the local authority.

Construction of the services will be specified to be in accordance with SANS 1200.

**3. CIVIL ENGINEERING SERVICES REQUIRED**

The various internal services and their connections to the existing services are described in the subsections that follow.

**3.1 Water**

The demand for potable water for the proposed development is estimated at 45,5 kl/day with a peak demand of 2.10 l/s. Portions A & B will require new internal reticulation networks, which will be 90mm diam uPVC

Class 12 pipes and will connect to the existing water mains in Olyf Street (Portion A) and Arcarcia Street (Portion B). Valves and hydrants will be provided at suitable positions.

The existing water network has adequate capacity to accommodate the proposed housing project. A site visit by our Mr Cobus Louw on 30 May 2024 confirms that the existing bulk services have adequate capacity to accommodate the proposed development.

### **3.2 Sewer**

The peak day dry-weather flow for proposed 91 housing units is calculated at 36,4 kl/day. The internal network will be 160 mm diam class 34 uPVC pipes with 110 mm dia erf connections. See the attached drawing UDS 640/PRELIM for the preliminary design of the proposed new sewer networks.

The existing sewer network has adequate capacity to accommodate the proposed housing project. Our Mr Cobus Louw visited the site and the existing oxidation ponds on 30 May 2024, and confirmed in consultation with the representatives from the local Municipality that the existing bulk services have adequate capacity to accommodate the proposed new development.

### **3.3 Stormwater**

The existing township has no underground piped stormwater system to connect onto. Stormwater from Portion A and B will be collected and dispense of via a new piped system onto the adjacent vacant areas as shown on the attached drawing UDS 640/PRELIM, showing the preliminary design of the civil engineering services.

### **3.4 Roads**

The new roads for Portions A and B will connect to the existing Olyf Street and Arcarcia Street respectively. The new internal roads will consist of a combination of premix and paved surfaces.

### **3.5 Solid Waste**

Solid waste will be collected by Matzikama Municipality.

### **3.6 Bulk Earthworks**

The general topography of the development is fairly steep, and some measure of bulk earthworks will be required.

## **4. CONCLUSIONS**

The existing bulk infrastructure, in terms of water and sewerage, have sufficient capacity to accommodate the proposed development. This proposed housing project is therefore deemed to be feasible in terms of bulk municipal infrastructure.

We trust that the above will be to your satisfaction and will gladly provide any additional information required on request.

Yours faithfully,

**UDS AFRICA**



---

**John Wessels** (PrEng)

**Attachments:**

- Drawing UDS 640/PRELIM: Proposed Civil Engineering Service