



## PART C4: SITE INFORMATION

C4.1	SITE INFORMATION & LOCALITY PLAN .....	286
C4.2	SOIL PROPERTIES .....	287
C4.3:	EXISTING SERVICES.....	288

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2

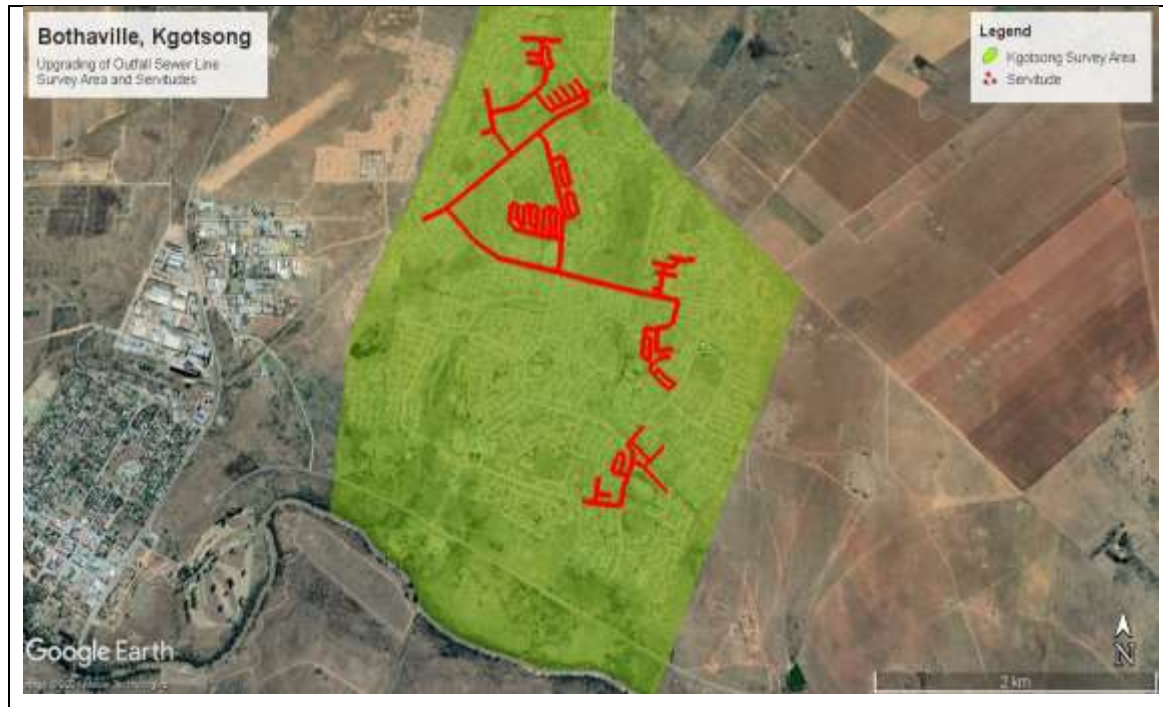


### C4.1 SITE INFORMATION & LOCALITY PLAN

#### SITE INFORMATION:

Site information is incorporated in the C3 Scope of Work.

#### LOCALITY PLAN:

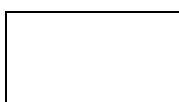


Nala Local Municipality consists of two towns namely Bothaville / Kgotsong and Wesselsbron / Monyakeng. It falls within the jurisdiction of Lejweleputswa District Municipality.

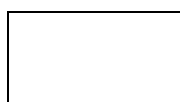
The town of Bothaville / Kgotsong area is located in the northwestern Free State and is approximately 50 km south of Klerksdorp, 80 km north of Welkom and 230 km North-West of Bloemfontein and is accessible via the R30 between Bloemfontein and Klerksdorp. The location of the works is in Kgotsong. The following coordinates can be used:

Latitude: 27°23'30.67"S

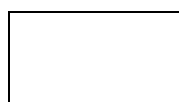
Longitude: 26°37'14.09"E



Contractor



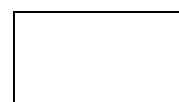
Witness 1



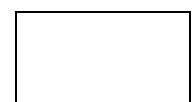
Witness 2



Employer



Witness 1



Witness 2



## C4.2 SOIL PROPERTIES

### Regional Geological Context:

The geological context of the surrounding area provides further insight into the composition and characteristics of the site's substrate. The broader geological framework includes sedimentary strata comprising sandstones, siltstones, and shales from the Vryheid Formation within the Karoo Sequence. These formations contribute to the overall geological makeup of the region and influence soil composition and behavior.

Additionally, the presence of dolerite sills and outcrops in the vicinity adds complexity to the geological setting.

### Soil Composition:

The soil composition at the proposed construction site is characterized by a layered structure, predominantly consisting of fine-grained sandstones from the Vryheid Formation within the Karoo Sequence. These sandstones form the underlying substrate upon which the site is built.

Above this foundational layer lies a combination of different soil types, each contributing to the overall soil profile. The uppermost layer is comprised of fine sandy hillwash, likely a result of erosion and sedimentation processes over time. Adjacent to this hillwash layer is a poorly developed pedogenic horizon, indicative of limited soil development and minimal organic matter accumulation. Finally, fine sandy residual soils are present, likely derived from the weathering and decomposition of underlying geological formations.

It's important to note that the hillwash layer exhibits a collapsible grain structure, meaning it has the potential to compact and settle under load. This characteristic necessitates special considerations during foundation design and construction to mitigate the risk of settlement-related issues.

### Soil Properties:

Both the hillwash and residual sandstone layers exhibit similar soil properties, classifying as fine silty sands with varying compaction characteristics. These soils possess a mixture of fine particles, including silt and sand, which influence their engineering behavior.

The upper hillwash layer is deemed suitable for use in lower subgrade layers and lightly loaded structures due to its composition and relatively stable properties. However, it's important to acknowledge that certain areas may require the addition of imported material to achieve desired engineering properties, particularly where higher load-bearing capacity is needed.

Contractor

Witness 1

Witness 2

Employer

Witness 1

Witness 2



**C4.3: EXISTING SERVICES**

**CONSTRUCTION RESTRAINTS**

It is to be noted that there are existing services such as water and sewer, within the site boundaries and their positions and levels are to be confirmed on site. There will be possible clashes of storm water with some of these existing services. It remains the responsibility of the contractor to relocate the service if instructed to do so and to recommission the same.

The following existing services are present in these areas:

- Water network.
- Sewer network
- Electrical service with underground cables.
- Existing roads and stormwater channels/culverts

The known services will be indicated on the drawings but it remains the responsibility of the Contractor to detect and protect the existing services. The Contractor must liaise with all service owners before any excavation begins. The contractor’s attention is drawn to the fact that cables running down a pole into the ground, consumer distribution units, miniature substations, substations, pillar boxes, indentations in roads, are all indications of the presence of existing services.

It is hence deemed that the contractor will obtain the necessary authorisation to open up existing services so as to ascertain the proximity thereof in relation to where construction is to take place and in respect of cover to protect such works. It must be noted that the Engineer will use the factual circumstances as indicated above to adjudicate if the contractor has observed the necessary precaution when damage to or interruption of an existing service occurs.

Working space is sometimes restricted. The construction method used in these restricted areas largely depends on the Contractors’ Plant. However, the Contractor must note that measurement and payment will be according to the specified cross-sections and dimensions irrespective of the method used, and that the rates and prices tendered will be deemed to include full compensation for difficulties encountered while working in restricted areas. This will also apply to over-break during any excavation. Payment will always be based on specified cross sections and dimensions. No extra payment or any claim for payment due to these difficulties will be considered.

[Signature box for Contractor]

Contractor

[Signature box for Witness 1]

Witness 1

[Signature box for Witness 2]

Witness 2

[Signature box for Employer]

Employer

[Signature box for Witness 1]

Witness 1

[Signature box for Witness 2]

Witness 2