

# PHASE 1 ARCHAEOLOGICAL ASSESSMENT OF LAND AT CAPE TOWN INTERNATIONAL AIRPORT

Prepared for

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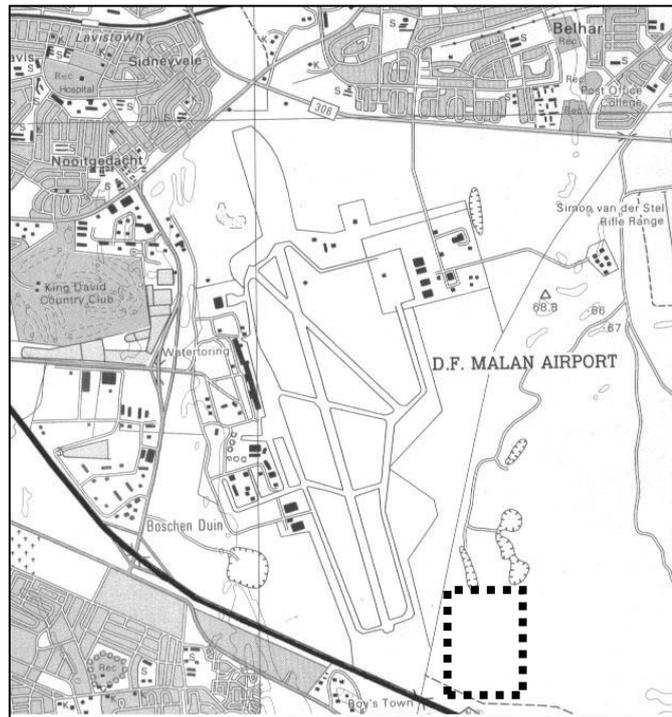
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## 1. Introduction

The ACO was commissioned by Chand Environmental Consultants to participate in a heritage impact assessment of a portion of land on the south east side of Cape Town International Airport. The land in question is currently undeveloped and overgrown with mainly invasive vegetation species. The site, which is has been identified for development, has the potential to contain heritage material such as structural remains, prehistoric sites and fossiliferous rock, all of which is protected by the South African Heritage Resources Act 25 of 1999. The following report describes the findings of the study and indicates impacts and mitigatory measures where required.



### 1.1 Method

The assessment was done by physical site inspection, examination of historic maps and historic aerial photographs. Any sites located were plotted using a hand held Garmin GPS 3 Plus receiver (set up for the WGS84 datum). No trial excavations were undertaken, however, a nearby calcrete quarry was inspected to gauge sub-surface conditions.

### 1.2 Restrictions

Restrictions to the assessment of the site were dense vegetation that has obscured the land surface with foliage and generally reduced visibility. The plant cover has also acted as a trap for drifting sands creating a depositional environment, which has also contributed to obscuring the visibility of any surface remains. Illegal dumping has also impacted land surface visibility. Several informal tracks provided access to a number of areas.

## 2. Palaeontology

The later geology of the area is characterised by two formations. These are the recent Witsand formation of loose aeolian sands deposited mainly during the Holocene (last 10 000 years) and the Varswater formation of consolidated calcretes of Quaternary - Tertiary age (last 6 million years). The Varswater formation has proved to be fossiliferous in a number of areas in the South Western Cape, particularly in the Langebaan area (Hendy 1982). Halkett, Hart and Yates (pers comm) have encountered patches of fossil bearing calcretes on the Cape Flats, in particular at the sand mines in the vicinity of Macassar sewerage works. An important

fossil bearing site also exists at Swartklip where a number of significant mammalian fossils have been located (Hendey 1969).

There are very few calcretes exposed on the surface within the study area. A nearby calcrete quarry (on ACSA property) provided some evidence with respect to prevailing sub-surface conditions. The subsurface material at the quarry consists of calcrete and consolidated sands. Two fragment of fossil bone were found in the quarry. These were not associated with any human made artefactual material. No specifically dense fossiliferous areas were noted that could denote the presence of a fossil hyena den (Hyenas are a main agent of bone accumulation).

### **2.1 Impact:**

Palaeontological material will be impacted and destroyed or displaced from context by earth moving activities.

### **2.2 Significance:**

The fossil accumulations of the calcrete formations in the Cape have and continue to provide a great deal of scientific information about the evolution of African mammalian species, including potentially human ancestors have been present in Africa for some 5 million years. Dense accumulations of fossil bone are potentially highly significant and could occur anywhere within calcrete deposits. Notwithstanding this, the potential presence of such material on the airport site is hypothetical and based on observations of ephemeral finds in nearby calcrete quarries.

### **2.3 Mitigation:**

Fossil occurrences in the nearby calcrete quarries are incidental and not frequent enough to justify that any extensive mitigation measures be put into place before development activities begin.

- As a precautionary measure it is recommended that during the bulk earth works, trench excavations, or any deep excavation into the calcretes, an archaeologist or a palaeontologist be appointed to check the site.
- In the event of significant palaeontological material being located, this will need to be sampled under a permit issued by SAHRA.
- The Council for Geoscience (contact Dr David Roberts) or the South African Museum (Contact Dr G. Avery) is able to provide suitably qualified expertise with respect to palaeontological material.

### 3. Prehistoric Stone Age Material

No prehistoric material of any sort was located during the site inspection. None was seen in the calcretes of the nearby quarry. No impacts are foreseen. No mitigatory measures are required.

### 4. Historic material

Three historic sites were located. The three sites represent the remains of standing structures of the farm "Klip Fontein" which represents the first settled farming of this area. Historic records indicate that this land, originally a portion of Duinefontein, was transferred to G.M. Liebentrouw on 22 January 1849. A map dating to 1902 shows the farm Klip Fontein on the Cape Flats lying adjacent to a large area of drift sands (Military Map 1902). On the farm are marked some five wells indicating that one of the strengths of this area was access to fresh water for agriculture. It is quite possible that the remains of standing structures on this piece of land date to the mid-19th century.

Klip Fontein is older than most of the Cape Flat farms that were granted German immigrants after 1877. When arable land close to Cape Town and the Peninsula was fully utilized and under pressure to adequately provide for Cape Town's growing needs, poor German immigrants were shipped to the Cape and granted patches of Cape Flats waste land which they were obliged to stabilize and farm. The struggle and suffering that these settlers had endure in attempting to farm the depleted soils of the "Flats" has been well documented (Blumer 1959). Bearing in mind the poor farming qualities of the Cape Flats, the circumstances under which the farm Klip Fontein was granted is unclear. It is unlikely that the land would have ever supported anything more than subsistence agriculture; however the presence of permanent water would have been of benefit to livestock.

An examination of an aerial photograph of the airport area taken in 1955 shows that the farm was still active in that cleared areas of land and some patches of small fields existed at the time. It is also possible to discern several small structures (other than the farm house) in the area. These may have been wood and iron buildings, which have not survived until the present day.

Today the site is completely overgrown, standing structures have been stripped all fittings and have deteriorated considerably since they were vacated. The standing remains are detailed below:

#### 4.1 Site AP 1 (33.99327° S 18.61871° E)

The remains of what might have been the Klip Fontein dwelling house. A vernacular structure built of chunks of calcrete, using calcrete mortar. Parts of the front of the building have been plastered with modern cement indicating recent occupation. The building appears to have taken the form of an end-gabled cottage with a central entrance and rooms on the left and right sides. On the front was a long *stoep* while the rear took the form of an *afdak*, which contained the kitchen (hearth still present). Further rooms had been built against the left-hand end gable. The structure has no roof and the floors of the building are covered with toppled plaster and vegetation.



No obvious dumps or kitchen middens were visible in the vicinity of the structure.

#### **4.2 Site AP 2 (33.99135° S 18.61811° E)**

The foundations of a small two roomed dwelling built of calcrete chunks and calcrete mortar. The remains are heavily inundated with vegetation. Nearby is a round pit into the calcrete which may have once been a well. It is now dry. This structure may have been a labourers cottage or outbuilding of Klip Fontein Farm.

No obvious dumps or kitchen middens were visible in the vicinity of the structure.

#### **4.3 Site AP 3 (33.99126° S 18.61736° E)**

The foundations of single (?) room structure build of calcrete chunks and calcrete mortar heavily overgrown with vegetation.

No obvious dumps or kitchen middens were visible in the vicinity of the structure.

#### **4.4 Significance**

The significance of the structures is that they are the remains of one of the earliest Cape Flats farms that have been identified to date. The remains of these structures have the potential to increase existing knowledge of both the building and lifestyle of these small marginal farms, the study and conservation of which has been often neglected in favour of the more spectacular structures ("Cape Dutch") more commonly associated with the wine lands.

#### **4.5 Mitigation**

- The structures are poorly preserved and do not merit conservation or major change to any development plans. To mitigate against the loss of information it is suggested that the following action is taken before development activities begin.
- The sites need to be cleared of vegetation and the standing structures exposed. The debris need to be cleared from the interior of the rooms.
- The floor plan, and where possible, elevations of the structures need to be recorded by means of measured drawings and photography. A report detailing the work must be lodged with SAHRA.
- The client must apply to SAHRA for a permit to destroy a structure that is over 60 years old. SAHRA will issue such a permit if they are satisfied that the mitigatory measures that have been taken are satisfactory.

#### **References**

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