

# PHASE 1 ARCHAEOLOGICAL ASSESSMENT OF A PORTION OF MAIN ROAD 174 N1 TO KLIPHEUWEL

Prepared for

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Prepared by

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## 1. INTRODUCTION

The Archaeology Contracts Office of the University of Cape Town was commissioned by Erica Van den Honert, Environmental consultant to conduct a Phase 1 archaeological assessment of a portion of Main Road 174 between the intersection of the N1 and Klipheuwel, South Western Cape Province (Figure 1). The portion of road is due for upgrading and realignment in certain areas. As the area is known for occurrences of Early Stone Age artefacts, it was necessary to establish the extent to which construction activities would impact this material. The following pages describe the survey method, the ESA sites which were located and possible impacts that could occur to archaeological material.

## 2. METHOD

The proposed alignment that follows the existing road was inspected and rock outcrops were visited and searched on foot. Where the proposed alignment deviated from the existing road, permission was obtained from land owners to inspect the proposed route. Any archaeological material located was recorded on the plan (Figure 2) provided by the environmental consultant. Each site was evaluated for significance and potential impacts. No test excavations were undertaken. The survey did not cover built structures as these have already been commented on by the National Monuments Council.

## 3. BACKGROUND

In 1902, an amateur archaeologist, Louis Peringuey, discovered numerous stone artefacts on terraces above the Eerste River in Stellenbosch. Among these was an artefact type which he recognised as early handaxes similar to those found in Europe and he suggested that they were of extreme age (Peringuey 1902, 1911). Other observations of similar stone tools were reported from diamond diggings on the Vaal, Riet and Modder rivers in the Northern Cape in the 1890s. For many years the ESA of South Africa was referred to as the “Stellenbosch Culture” until the term was re-defined in the 1960s with increasing growth of knowledge about this time period.

Today the ESA is divided into “Olduvan” period which is up to 1.7 million years old. This industry is associated with the oldest and most simple human-made artefacts. This was followed by the “Acheulian”, a more developed stone artefact industry characterised by the presence of specific types of stone tools such as handaxes and cleavers. During Acheulian times, after 1.5 million years ago, our human ancestors spread from Africa into Europe and the Far East (Sampson 1974). locally, Acheulian sites have been recorded throughout South Africa, especially associated with pans, river terraces, certain types of rock outcrops.

The raw materials favoured for the production of Early Stone Age tools were fine grained stones such as quartzites and silcretes. It is no coincidence therefore that ESA sites are often found close to outcrops of suitable stone or river beds where quartzite cobbles can be found. The makers of Acheulian artefacts were the hominid type known as *Homo erectus/ergaster* who are believed to have been hunter gatherers and possibly scavengers. Although the population of these hominids would have been relatively small, the sheer depth of time over which they roamed the landscape has resulted in large numbers of artefact scatters being preserved in widely differing ecological zones from the coast to the mountainous regions and the interior plains beyond. Very few early ESA sites have been found in stratified contexts or caves that provide archaeologists with sequential information. For this reason the study of this earlier period in human history is extremely difficult.



## 4. FINDINGS

Two ESA sites were located in the vicinity of the proposed road alignment between km 17 and 18 (SV 17000 - SV 19000). Both are associated with large silcrete outcrops (sometimes known as surface quartzites). Both outcrops were impacted when the existing road was built with the result that the associated archaeological material has already suffered some damage.

### 4.1 Site KH 1

This consists of a silcrete outcrop on either side of a small road cutting. The area is strewn with silcrete boulders that have been moved out of the path of the existing road by earthmoving machinery. Artefactual material is visible on the road embankment and probably also exists in the surrounding agricultural land. The stone artefacts consists of waste fragments that have resulted from quarrying of the silcretes by prehistoric people. No formal tools were seen on the site although it is likely that they do exist here.

**Importance:** *Medium.* The site has the potential to contain information about raw material collection by early hominids.

**Impacts:** *High negative.* The site has already been impacted by the existing road. Realignment of the road as indicated on the plan will have a negative impact as it will cut close to the outcrop thereby dispersing the remaining material.

**Mitigation:** An un-selected collection of material should be made. The material will need to be sorted and curated, and a report produced on the findings.

### 4.2 Site KH 2

This is an extensive scatter of ESA material associated with a large silcrete outcrop. Part of the site has already been impacted by the existing road. Many large silcrete boulders have been bulldozed off the existing alignment into the surrounding land. Despite this, there are large areas of the site that have not been damaged. There is an extensive artefact scatter that extends between the road and the farm dam down slope. Parts of this area have not been plowed with the result that there is a good chance that stratified deposits may exist here. There are also silcretes exposed on the surface that have been subject to extensive prehistoric quarrying judging by the presence of negative flake scars and percussion cones. Not only are there extensive waste scatters but there are also formal artefacts on the site. Acheulian handaxes, cores, retouched flakes were also observed.

**Importance:** *High.* The site has a diversity of artefact forms as well as the potential to produce sequential information.

**Impact:** *High negative.* The proposed new road alignment is routed directly through the area between the existing road and the dam which is the least disturbed part of the site. This will damage the worked silcrete boulders, destroy and disperse artefacts and stratified deposits.

**Mitigation:** This would involve setting up an archaeological salvage operation. A suitable area of undisturbed land should be delineated and subject to unselected collection. Furthermore, the area of the road alignment will need to be subject to sub-surface testing and if necessary, controlled excavation. The resulting material will need to be sorted and curated, and a report on the findings produced. An alternative option would involve re-aligning the road through a less sensitive area. However, as archaeological salvage of the ESA material is not expected to cost more than R35 000 (for both sites) at current rates, this may not be an economical option.

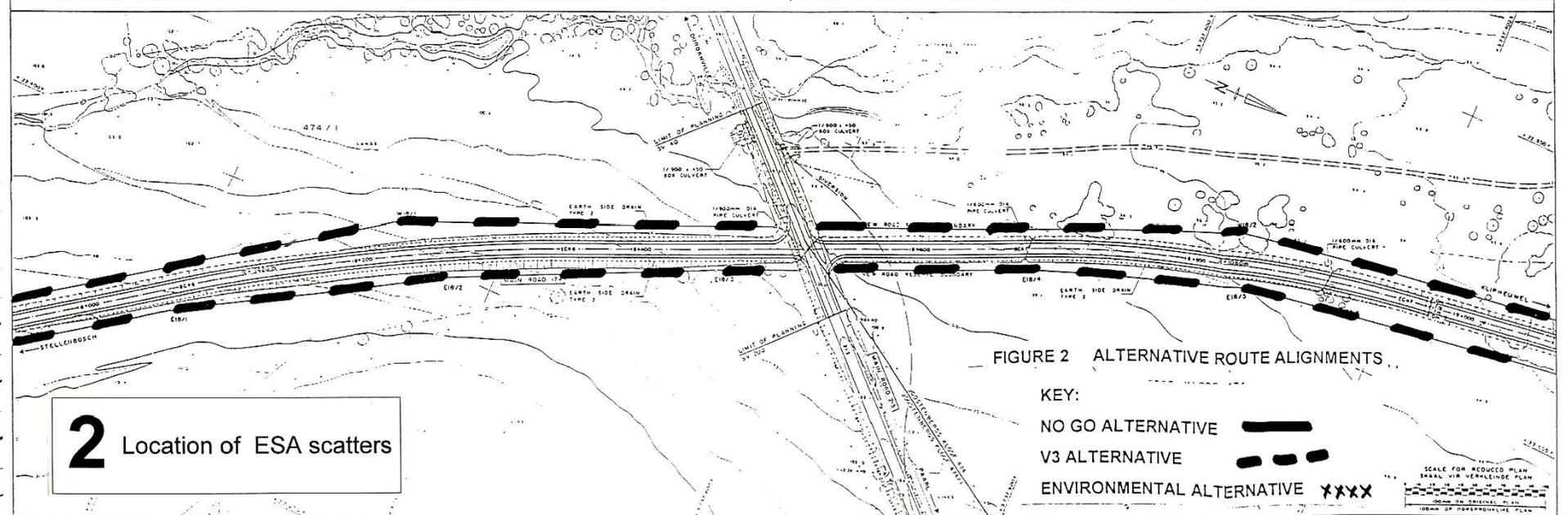
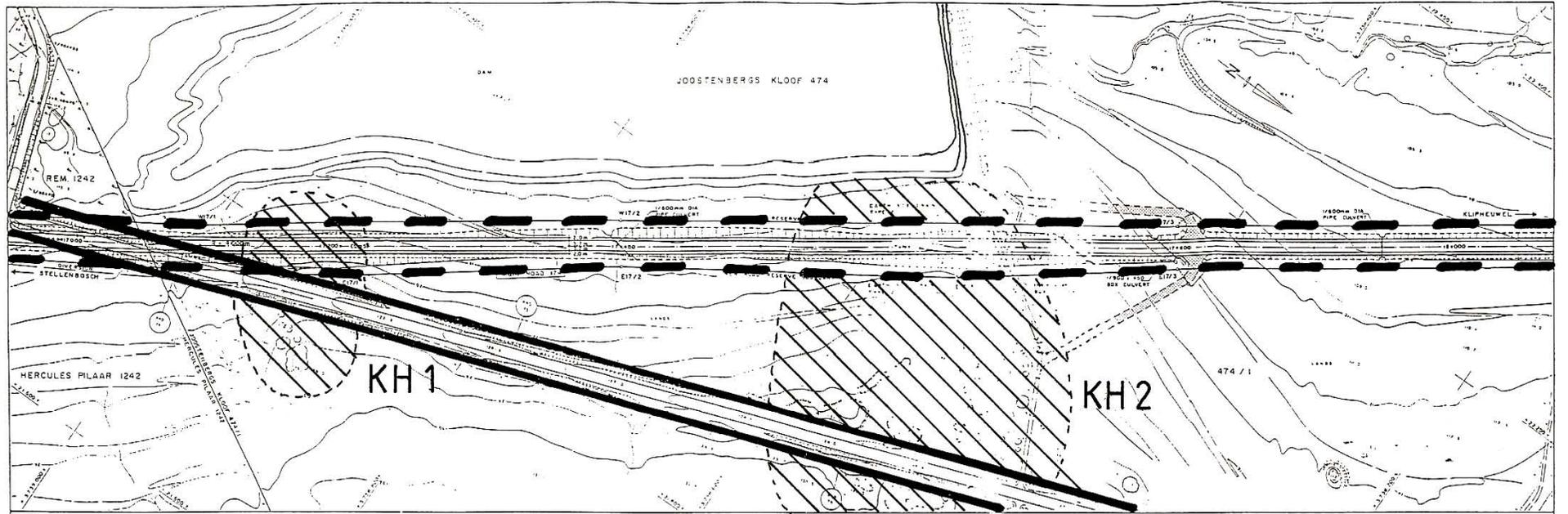


FIGURE 2 ALTERNATIVE ROUTE ALIGNMENTS

KEY:  
 NO GO ALTERNATIVE   
 V3 ALTERNATIVE   
 ENVIRONMENTAL ALTERNATIVE

**2** Location of ESA scatters

NO.	DATE	REVISION/DESCRIPTION	BY	CHKD

Jonathan Van der Westhuizen & Vannote/Partners Consulting Engineers  
 10224 000 P 2 001  
 10224 000 P 2 001  
 10224 000 P 2 001

Checked: G.J.S.  
 Drawn: G.J.S.  
 Checked: G.J.S.  
 Approved: G.J.S.

KAAPSE PROVINSIALE ADMINISTRASIE  
 TAK FASE EN VERKEERSADMINISTRASIE  
 CAPE PROVINCIAL ADMINISTRATION  
 ROADS AND TRAFFIC ADMINISTRATION BRANCH

CONTRACT C406 - PHASE 3  
 MAIN ROAD 174  
 NI TO KLIPHEUWEL

LAYOUT PLAN  
 SV 17 000 - SV 19 000  
 PRELIMINARY DESIGN

SCALE FOR REDUCED PLAN  
 SKAAL VIR VERLEENDE PLAN  
 1:1000  
 DATE: JUNE 1992  
 DRAWN BY: G.J.S.  
 CHECKED BY: G.J.S.  
 PROJECT NO: KP 3593/L/4

### **4.3 Discussion**

Early Stone Age people had no knowledge of working any form of metal and were completely reliant on artefacts made from stone, bone and wood for their every-day existence. Some form of basic knowledge of the characteristics of different kinds of stone was essential to their survival. They understood the fracturing properties of rocks and were extremely accomplished at working stone into artefacts. Silcrete was greatly favoured as a raw material by people on account of its fine grained quality, its hardness and conchoidal fracturing properties. Evidence to date indicates that outcrops of rock that were good for making stone artefacts were greatly prized and good quarry sites were visited consistently over thousands of years. In some instances, this activity was so intense that outcrops that originally took the form of small hills were virtually quarried down to ground level (Halkett, Hart and Parkington 1994). It is highly likely that in the past the outcrop associated with site KH 2 was a lot more prominent than it is at present.

### **5. RECOMMENDATIONS**

1. Proposed locations of borrow pits should be assessed for archaeological potential.
2. An unselected collection of artefactual material should be made at site KH 1. Site visits should be made to check the impact of earthmoving machinery when construction activities reach vicinity of site KH 1.
3. Site KH 2 will need to be subject to unselected collection of surface archaeological material, test excavations in the road alignment, and if necessary, controlled archaeological excavation. Thereafter, site visits should be made to check the impact of earthmoving machinery when construction activities reach vicinity of site KH 2.
4. A copy of this report should be sent to the National Monuments Council as sites such as this are protected by the existing National Monuments Act of 1969 (as amended). Any excavation or disturbance of the site must take place under the auspices of a permit issued by the National Monuments Council or that organisation's future equivalent.

### **6. REFERENCES**

- Halkett, D.J., Hart, T.J.G & Parkington, J.E. 1994. Phase 2 archaeological excavations at the Namakwa Sands Project (first phase), Vredendal district, Namaqualand. Unpublished report prepared for Namakwa Sands. University of Cape Town: Archaeology Contracts Office.
- Péringuey, L. 1902. Stone implements from Paarl and Stellenbosch. Transactions of the South African Philosophical Society 11(4).
- Péringuey, L. 1911. The Stone Ages of South Africa as represented in the collection of the South African Museum. Annals of the South African Museum 8:180-201.
- Sampson, C.G. 1974. Stone age archaeology of southern Africa. New York Academic Press.

### **7. PROFESSIONAL TEAM**

Fieldwork and report:

Tim Hart  
Dave Halkett