HERITAGE IMPACT ASSESSMENT: PROPOSED HELDERBERG COASTAL SEWER, HEARTLAND (AECI) AND DENEL PROPERTIES, SOMERSET WEST, WESTERN CAPE PROVINCE

In terms of section 38.8 of the National Heritage Resources Act (1999).

Prepared for
Doug Jeffery Environmental Consultants on behalf of the client: City of Cape Town: Tygerberg Administration, Director: Water Services

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SUMMARY

The ACO (Archaeology Contracts Office) was appointed by Doug Jeffery Environmental Consultants to conduct a Heritage Impact Assessment of the proposed Helderberg Coastal Sewer which transects Heartland and Denel properties, Somerset West.

The study area was inspected by the ACO team who are familiar with much of the area, having already completed a survey of the Heartland property in 1996 prior closure of AECI operations.

The study has revealed that the potential impacts to heritage that will result from the proposed activity are highly localized and fully mitigateable. These are:

1. Impacts to a small shell midden (pre-colonial) that lies on the proposed route near the Lourens River Mouth. The impact is considered to be of low significance and can be ameliorated by local adjustment of the proposed route or archaeological sampling prior to development.

2. Possible impacts to potentially fossiliferous calcretes on a short stretch of the route in western edge of the Denel property may be ameliorated by monitoring of the development activity to collect any material that may be exposed and record its contextual information.

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1 INTRODUCTION

The Archaeology Contracts Office (ACO) of the University of Cape Town was appointed by Doug Jeffery Environmental Consultants on behalf of the City of Cape Town to undertake a Heritage Impact Assessment of the proposed Helderberg Coastal Sewer (Figure 1). It is envisaged that the sewer which will be built by the City of Cape Town will run across the Heartland (AECI) property from the Lourens River pump station (east) to the most westerly extent of the Denel property where the sewer will link with the Macassar Waste Water Treatment Works. The route lies inland of the coastal fore-dunes running roughly parallel with the coast. There is a junction close to the western side of the Heartland Property (F16) where a second sewer is to join a pump station (Figure 1) to be located at this point after crossing Heartland farm land in a north south direction from the N2. (F16 – F26) The properties involved are owned by AECI, being previously the farm Paardevlei – an early VOC land grant which was subdivided multiple times until reconsolidation by Cecil John Rhodes in the late 19th century. The land was used to establish the De Beers Explosives Factory (Halkett and Hart 1996). Production of explosives continued for the entire 20th century until AECI (Pty) Ltd effectively ceased production on the site in the late 1990's. Military ordinance is produced by Denel who occupy the westerly portion.

1.1 Description of the affected environment

Steady development pressure in the Somerset West – Strand area has put continued pressure on aging services which need repairs or upgrading. The proposed Helderberg Coastal Sewer is required in order to not only cater for future needs of the area, but also in the shorter term, to divert waste water from older services that need to be shut down and repaired. The proposed new sewer involves mainly the Heartland property – formerly the site of the historic AECI explosives factory. The factory has been closed down and the land will be redeveloped in the near future. At present the site has been largely cleared of factory buildings (other than historic structures and sites). The landscape is flat and vegetated with grasses and plantations of exotic trees (Eucalyptus). A prominent coastal foredune runs along the edge of the sandy beach. On the landward side of this are relict wetlands (now drained). Being an industrial site for more than 100 years, the landscape is characterised by numerous interventions, leveling events and disturbances to accommodate an extensive network of both standard and narrow gauge railway lines, which linked mixers, magazines and the factory works (all which relied on gravity feed for transportation of nitro-glycerin). At present the site is being rehabilitated for future mixed development purposes. The environment of the Denel property is similar, but possibly slightly less disturbed along the coast. The Denel property continues to function as industry.

1.2 Background research.

In 1995-1996 the ACO was appointed by AECI to make an inventory of all conservation-worthy sites and structures on the property. The team spent a year on the AECI site recording all identifiable heritage (Hart and Halkett 1996). The work has now been incorporated into preparations for the development phase by Ms Melanie Atwell (built environment heritage consultant) who is conducting the necessary heritage impact

assessments. Since the proposed sewer is to be a sub-surface facility, this assessment has been carried out by archaeologists.

1.3 Study method

The study was subject to a field inspection by archaeologists Tim Hart (MA archaeology) Erin Finnegan (MA archaeology), Liesbet Schietecatte (M.phl, MSC archaeology) over a period of two days. The proposed route (approximately 5km) was partially driven, partially inspected on foot. Apart from the Denel section of the route, the general area is very well known to the ACO having been subject to a highly detailed heritage study at the close of the explosive works in 1996. Information from this previous work is included in this report.

1.3.1 Limitations

In places dense grass cover obscured the ground surface however this was not considered a major limitation as due to the fact that the AECI site had been previously surveyed and heritage material mapped during summer months when either the land had been ploughed or grass cover was low. Gates to the "no-mans land" area at the mouth of the Lourens River were locked so archaeological sites found during the 1996 survey of the site could not be revisited.

2 IMPACTS

For the main part, the proposed route is considered to be satisfactory. Impacts to heritage sites are infrequent and highly localised. The most sensitive stretch lies on the eastern side on the Heartland property (between F1 and F4). Here the route has to negotiate its way between two graveyards and three shell middens. Minor changes to the proposed alignment are suggested. These are described in detail in the relevant sections below.

2.1 The built environment

No structures that have been identified as worthy of protection or protected under the general protections of the NHRA are affected by the proposed activity. No impacts will result.

2.2 Cultural landscape and landscape features

The proposed sewer will be buried underground which means that impacts to the landscape and sense of place will be limited to the construction period only. Once trenches are backfilled and re-vegetated, the sewer route will not be immediately apparent. Impacts are considered to be of very low significance and short duration.

2.3 Archaeological sites

2.3.1 Calcrete deposits, Denel property.

The proposed route will intersect calcrete deposits at the extreme western end of the route where the sewer exits Denel property before linking with the Macassar Waste Water Treatment Works. Calcrete deposits are potentially fossiliferous and therefore have heritage significance from a palaeontological and early archaeological perspective. While no fossil material was actually noted during the course of the survey, it is possible that it may exist below surface. There is a slight chance that some form of impact may occur during construction. It is suggested that construction work in the calcrete landforms (between points F22 and F26) be monitored by an archaeologist during the construction phase.

2.3.2 Late Stone Age middens

During the 1996 survey, three Late Stone Age middens were identified in the dunes close to the mouth of the Lourens River. The locations of these are indicated on Figure 2.

Site 1 is a small scatter of artefacts and midden material exposed on a dune situated close to a redundant watch tower. Artefactual material noted includes a silcrete adze and flakes of quartz, quartzite and silcrete. Associated shell consists of various limpets as well as black mussel. The site is probably less than 2000 years old – possibly the result of a small temporary camp of Khoekhoen or San who wanted to be close to the river mouth.

Sites 2 and 3 contain similar material as well as cape coastal pottery, however the firebreak and general disturbance of the area has decreased their heritage value.

The proposed route will result in direct impacts to Site 1. Excavation of the trench will effectively destroy this small but intact archaeological site. Adjustment of the route to avoid the site will effectively mitigate any potential harmful impacts.

2.3.3 Graveyards

The proposed route passes along the “main drain”. The route will not directly impact either the “staff” or “native” graveyards.

There is always a remote possibility that unmarked graves (both colonial and pre-colonial) may accidentally be disturbed during construction. This event would trigger obtaining an emergency exhumation permit from SAHRA (South African Heritage Resources Agency), temporary cessation of works while the find is respectfully removed.

2.4 Mitigation of impacts

2.4.1 Lourens River shell middens – Alternative route proposal

1. The proposed route makes a 90 degree turn at point F4 to avoid the staff graveyard before continuing via points F3 - F2 - F1, Unfortunately by taking this route, the sewer is likely to impact a shell midden (site 1) that lies between F3 and F1(Figure 2). An inspection of the staff graveyard has shown that grave markers do not extend all the way towards the main drain which means that there may enough space to position the route immediately adjacent to the main drain and thus avoid resulting impacts to the shell midden (site 1). This action will require trial excavations just outside the boundary of the staff graveyard to make sure that no human remains will be impacted.

2. If it is not possible to alter the route of the sewer, archaeological sampling of Site 1 will have to take place. This involves obtaining a permit from HWC (Heritage Western Cape) to physically remove representative samples of material from the site for curation and storage. Once this is achieved destruction of the site by development activities may proceed. The disadvantage of this option is that government storage space for archaeological samples has become extremely limited, and furthermore the process of sampling the site by a team of trained archaeologists can be costly.

2.4.2 Calcretes, Denel property

The proposed route will intersect calcrete deposits on the western edge of the Denel property. The fact that the possibility of an impact taking place is fairly low does not warrant any changes to the route. It is suggested that an archaeologist be appointed during the construction phase to check open trenches to record, and where possible remove any fossiliferous material.

3 CONCLUSION

The proposed route of the Helderberg Coastal Sewer is largely satisfactory. It will not impact on the landscape qualities of the area or any of the protected built environment identified on the Heartland site to date. There is a possibility that a shell midden in the Lourens River Mouth area may be impacted, however this can be fully ameliorated through adjustment of the route or if need be, archaeological sampling.

As a precaution it is suggested that excavations in the calrete-rich deposits close to the western edge of the Denel property be monitored during the construction phase to check for exposures of fossiliferous material,

4 REFERENCES

Halkett, DJ and Hart, TJG 1996. An assessment of heritage resources on the AECI site, Somerset West. Archaeology Contracts Office. Unpublished report prepared for AECI.

Figure 1 The study area with proposed Helderberg Main Sewer routes.

(Information supplied by City of Cape Town)

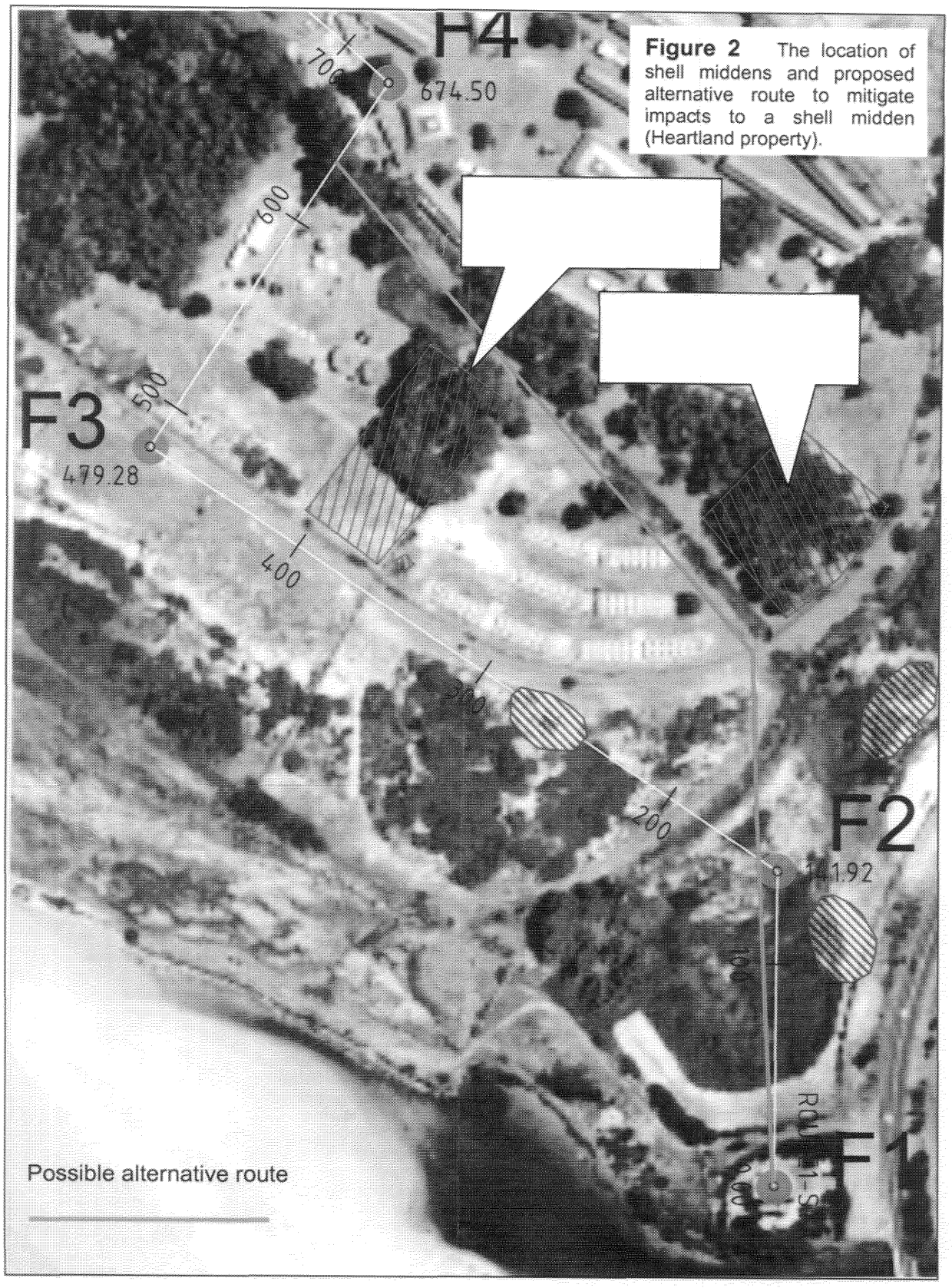

Figure 2 The location of shell middens and proposed alternative route to mitigate impacts to a shell midden (Heartland property).