

Our ref: 1415-C2-NCE-2556-GB
Your ref: 2/1/1/2/3/1 – K148

10 August 2016

South African Heritage Resources Agency
Ditsong Museum
432 Paul Kruger Street
Pretoria

Attention Mr Andrew Salomon & Mrs. Itumeleng Masiteng

CONTRACT: DRT 09/02/2014

CONSULTING ENGINEERING SERVICES FOR THE PRELIMINARY DESIGN REVIEW, FULL SURVEY, FULL ENVIRONMENTAL IMPACT ASSESSMENT, DETAIL DESIGN CONTRACT DOCUMENTATION, AND SITE SUPERVISION FOR ROAD K148 PHASE 1 BETWEEN K146 AND K133 (INCLUDING N3/K148 INTERCHANGE) (APPROXIMATELY 6 KM)

HORIZONTAL ALIGNMENT AT GRAVE SITE

The horizontal alignment of K148 was established in the route determination performed by the PWV Consortium in the late 1980's. The aim was to create a continuous east-west route through the Witwatersrand without impacting on the then planned, now implemented mines, on the farm Roodekraal.

The route as indicated in Route Determination Report 408D was further developed in the preliminary design performed in October 1990 and documented in Preliminary Design Report No. 1519. The road reserve determined was declared as a future highway (K-route) and protected from future development.

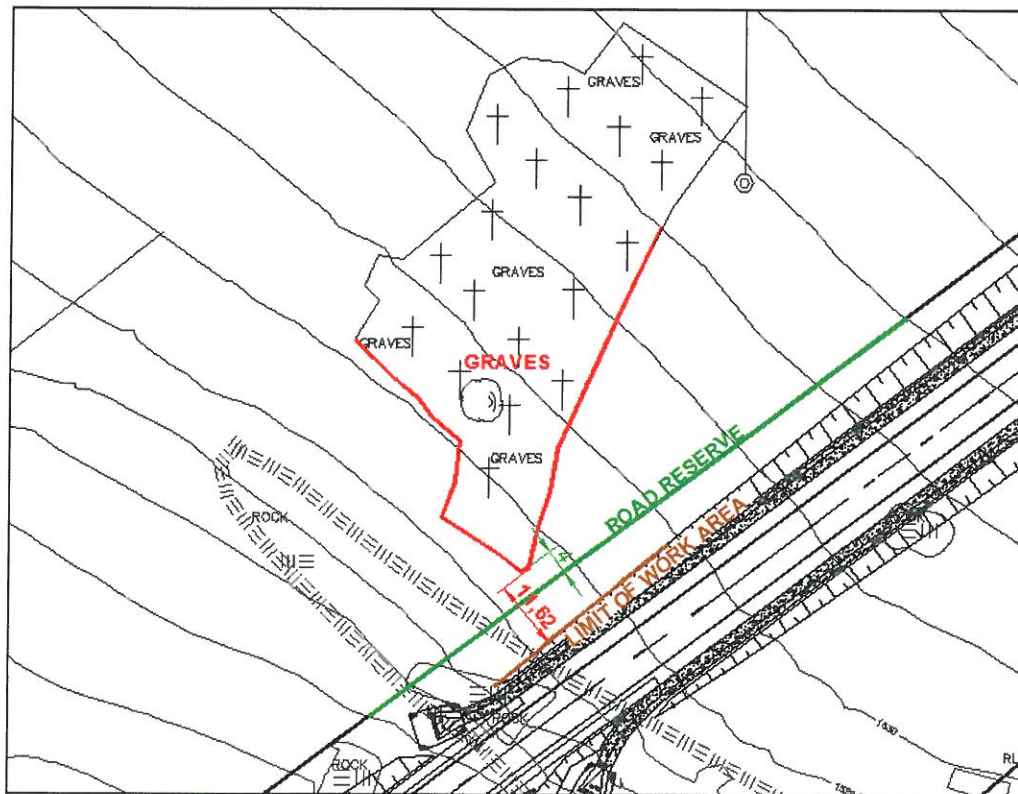
Subsequently two Petrol Ports were developed within the originally planned interchange of the K148 with the N3. Addendum Report No. 1519A was prepared in 2004 to document slight adjustments on the alignments for the ramps to accommodate the filling station. The alignment of K148 was left unadjusted.

There are also development plans on 4 properties along the K148 between K146 and K133 which are based on the K148 reserve as established in 1990.

During the review of the preliminary design it was found that the proposed route crosses a grave yard at approximately km 3.940. These graves, although quite visible were not identified during the original investigation and it might be that they were only established later.

The decision was made to alter the alignment of K148 at the position of the grave site in order for the alignment to run past it. To achieve this the alignment was shifted by up to 69m from the original documented one.

The current proposed alignment should not have an impact on the grave site, but the work that needs to take place for the establishment of the road formation will at one point be as close as 11 m from the graves. See Figure below indicating the grave site relative to the plan alignment.



**GRAVES POSITION RELATIVE TO
ROAD RESERVE AND WORK AREA**

This does not adhere to SAHRA's 30 m buffer requirement for new developments close to grave sites.

It is not advisable to move the alignment further away from the grave site as Road K148 will be a Class 2 road, which is a high mobility road requiring the highest geometric standards. Further alterations to the alignment will compromise the functionality and the safety of the road. It will also have a knock-on impact on the already planned developments along the route for a distance of approximately 4 km.

It's herewith requested that a relaxation in the 30 m buffer be allowed and other viable mitigation measure be considered to protect the integrity of the grave site.

Please contact the undersigned if you have any queries.

Regards,

GC Broekman (Pr Eng)
Pr. Eng