

Heritage desktop study with regard to proposed development of a new school on Portion 54 of Farm 397-JR, in Midrand, Gauteng Province.

Report prepared by

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Introduction

The report is a preliminary assessment of potential palaeontological and archaeological impact with regard to proposed development of a new school on Portion 54 of Farm 397-JR, in Midrand, Gauteng Province. The affected area covers approximately 9ha and is located next to the Blue Valley Golf Estate about 1 km east of the R55 provincial road (**Fig. 1 & 2**).

General Site Coordinates: 25°56'8.86"S 28° 6'25.85"E

Methodology

The assessment was carried out in accordance with National Heritage Resources Act 25 of 1999 with the aim to assess the potential impact on heritage resources that may result from the proposed development. The heritage significance of the affected areas were evaluated through a desktop study and carried out on the basis of existing field data, maps, database information and published literature. As such, the assessment provided within this report is based upon a desktop study without the benefit of a site visit.

Background

According to the 1:1 Ma scale geological map of SA and 1:250 000 scale geological map 2528 Pretoria, the site is underlain by Archaean metamorphic rocks capped by a residual soil veneer (**Fig. 3**). Open site Stone Age localities in the region include sites on the Hennops River and at Zwartkops, Glenferness, Pietkloof and Zevenfontein, while multiple Iron Age sites are known from the Magaliesberg valley west of Pretoria, including a large complex on the south bank of the Hartbeespoort Dam at Broederstroom, located about 25 km northwest of the study area (**Fig. 4**). Other Iron Age sites previously recorded around Northcliff,

Melville and Bruma are all located within a 30 km radius of the study area. Palaeontologically sensitive cave breccias are not anticipated as opposed to the Malmani dolomites, which hosts the paleontologically significant Sterkfontein Valley near Krugersdorp, located about 40 km to the southwest of the study area, where local karst conditions resulted in the formation of several late Cenozoic, fossil-rich breccia caves.

Impact Statement & Recommendation

The site is underlain by metamorphic rocks considered to be of no palaeontological significance. The overlying Quaternary component (geologically recent superficial sediments/residual soils) is also regarded as of low palaeontological significance mainly because of extensive terrain (Google Earth) degradation and a lack of suitable alluvial, spring or pan deposits in the area. There is no record of archaeologically or historically significant structures situated within the proposed development footprint. Google Earth images indicate that development will be conducted in an area that has already been altered by modern activities (**Fig. 2**). Several structures located within the footprint have been demolished between 2013 and 2016 (**Fig. 5 & 6**). An existing road is providing access to the site.

As far as the palaeontological heritage is concerned, the proposed development may proceed with no further palaeontological assessments required. Given the degraded terrain, impact on potentially *in situ* archaeological remains, rock art localities, graves, prehistoric or historically significant structures within the study area is considered unlikely. The proposed development footprint is assigned a site rating of Generally Protected C (GP.C).

References

McCarthy, T.S.. 2006. **The Witwatersrand Supergroup** In: Johnson, M.R, Anhaeusser, C.R. and Thomas, R.J. (Eds.) *The geology of South Africa*, pp. 155-186. Geological Society of South Africa. Johannesburg & the Council for Geoscience, Pretoria.

Mason, R. 1986. *Origins of Black people of Johannesburg and the southern western central Transvaal AD 350 – 1880*. Archaeological Research Unit. Johannesburg. Occasional Paper 16.

SAHRIS PalaeoSensitivity Map 2017 (<http://www.sahra.org.za/sahris/map/palaeo>).

DECLARATION OF INDEPENDENCE

I, Lloyd Rossouw, declare that I act as an independent specialist consultant. I do not have or will not have any financial interest in the undertaking of the activity other than remuneration for work as stipulated in the terms of reference and have no interest in secondary or downstream developments as a result of the authorization of this project.

A handwritten signature in black ink, appearing to read 'L Rossouw', written in a cursive style.

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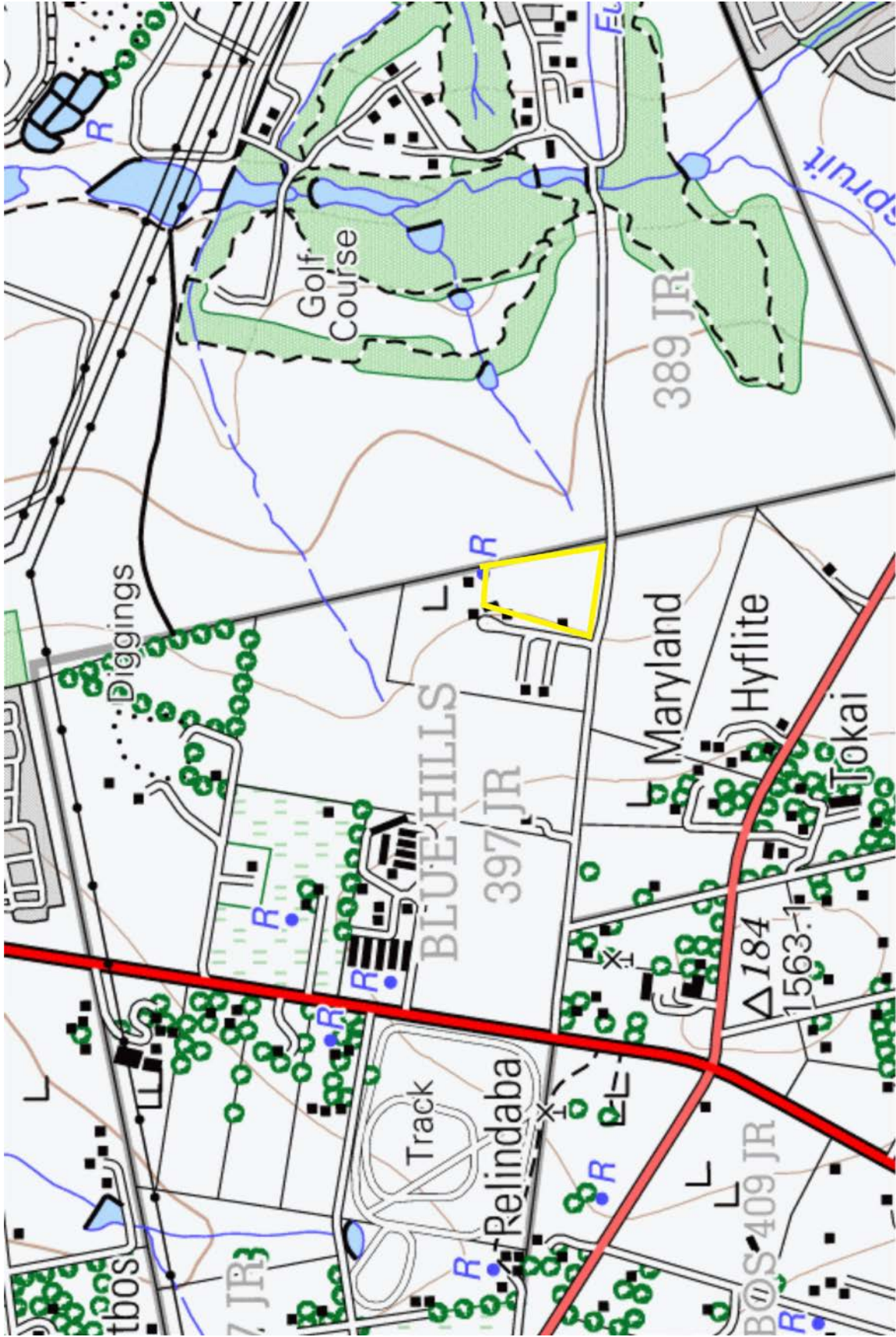


Figure 1. Map of the proposed development footprint (portion of 1:50 000 scale topographic 2528CC Centurion).



Figure 2. Aerial view of the study area.

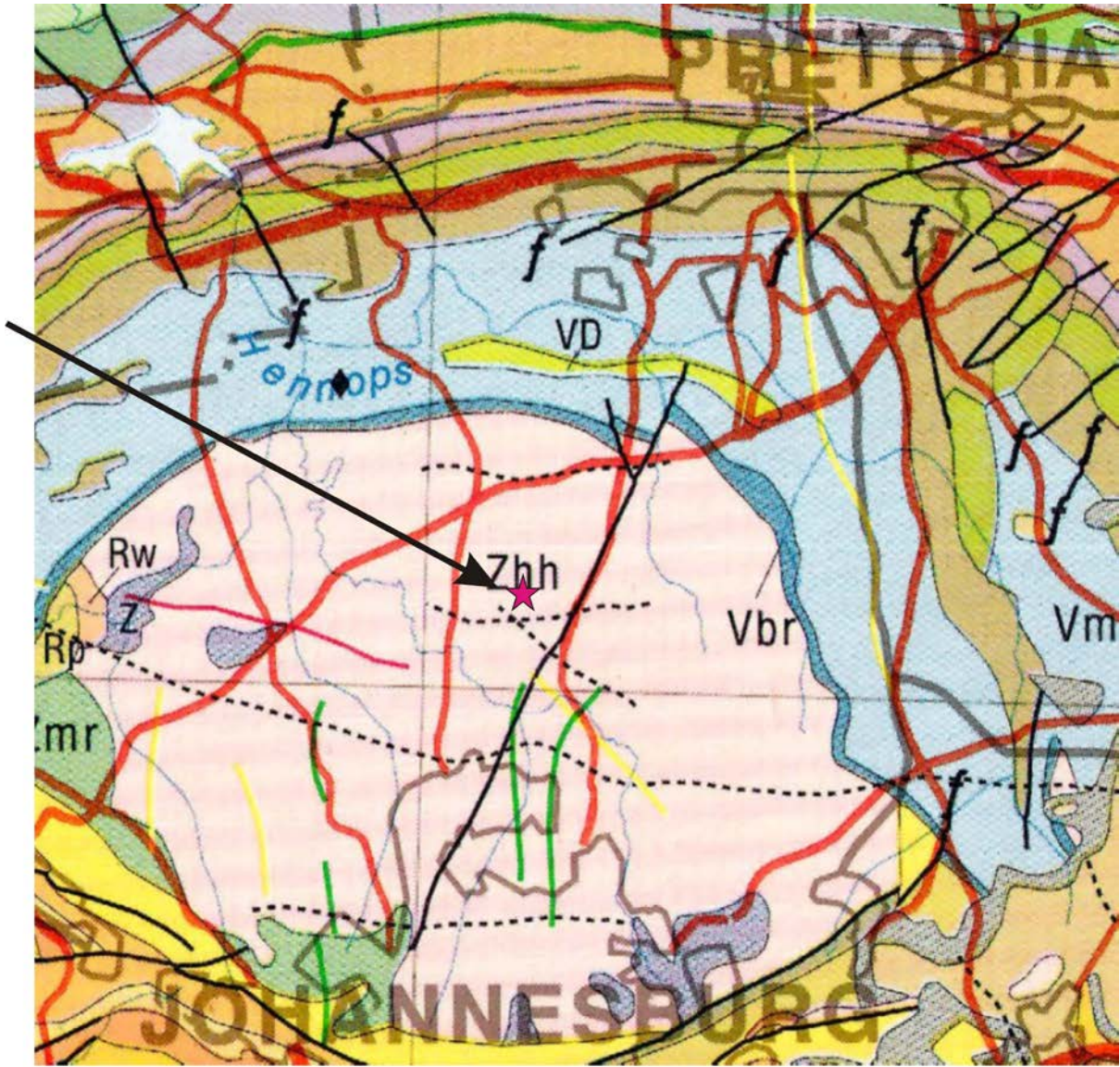


Figure 3. The proposed development footprint is underlain by palaeontologically insignificant metamorphic rocks (portion of 1: 1 Ma scale geological map, pink area)

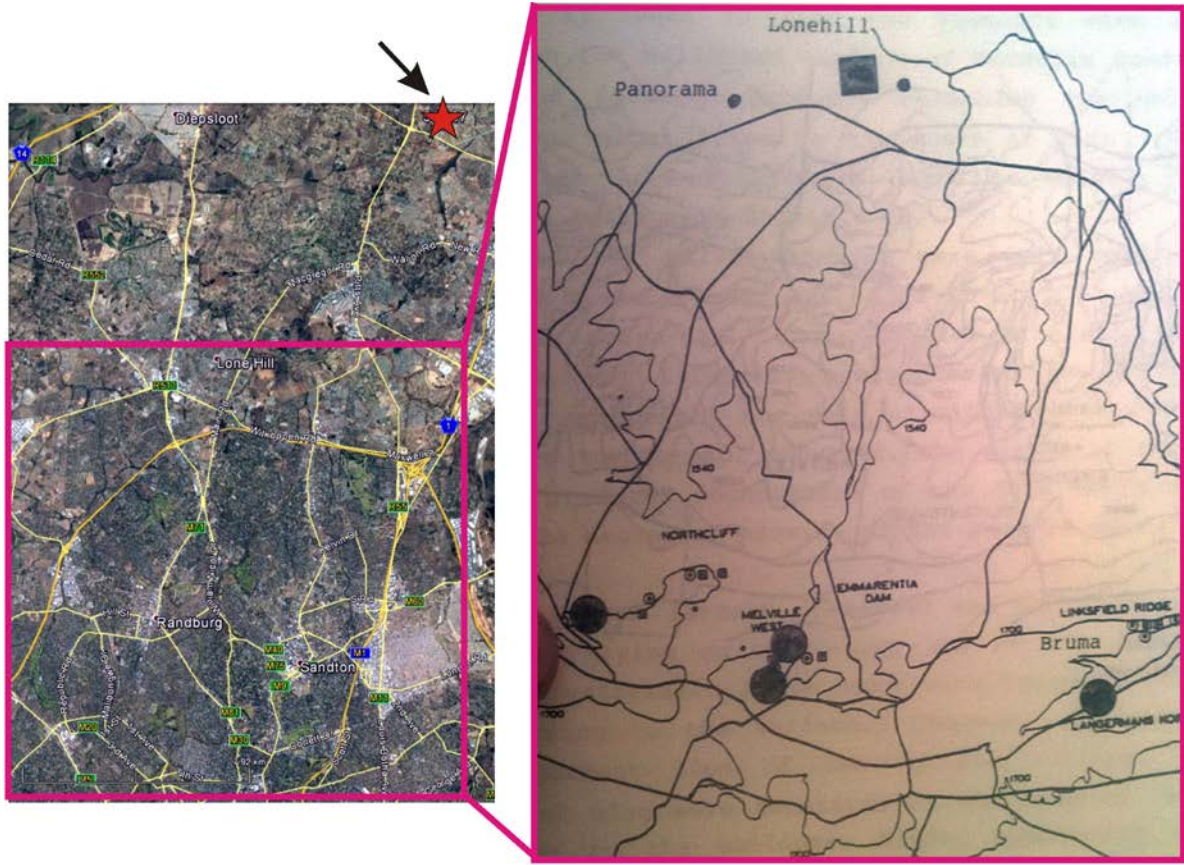


Figure 4. Multiple Iron Age sites are known from the Magaliesberg valley west of Pretoria, including a large complex on the south bank of the Hartbeespoort Dam at Broederstroom (left). According to Mason (1986) Iron Age sites previously recorded around Northcliff, Melville and Bruma are all located within a 30 km radius of the study area (above). Study area indicated by red star.

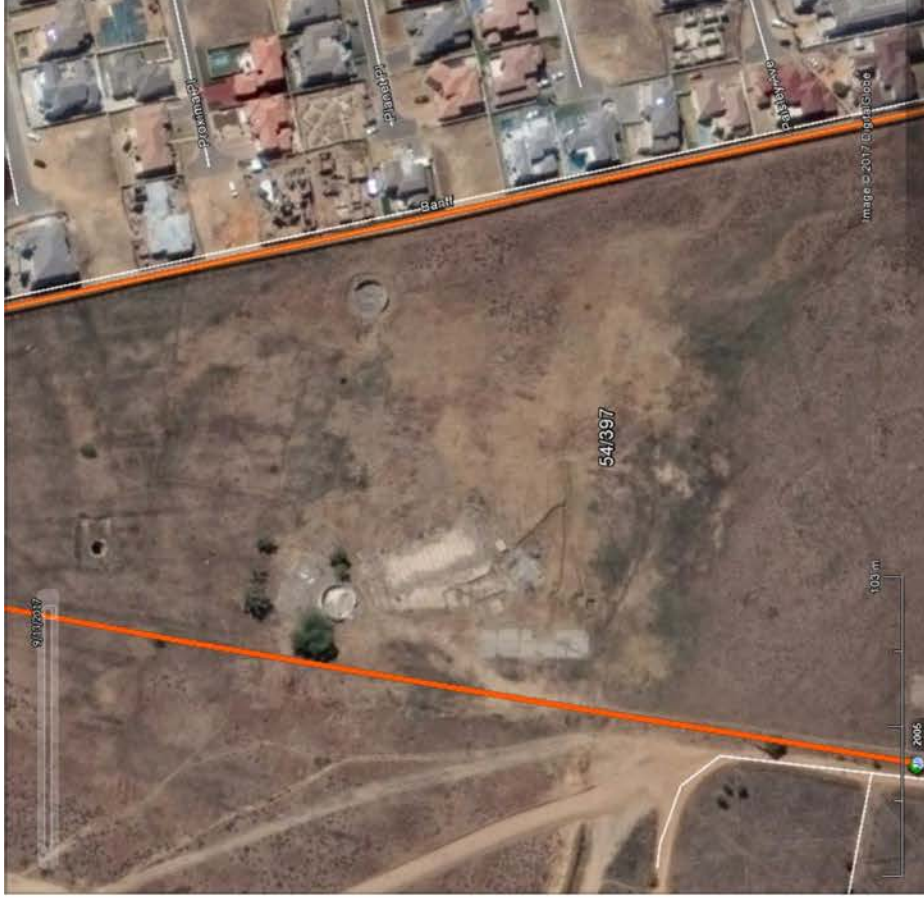


Figure 5. Google Earth images of the site dated January 2005 (left) and September 2017, respectively

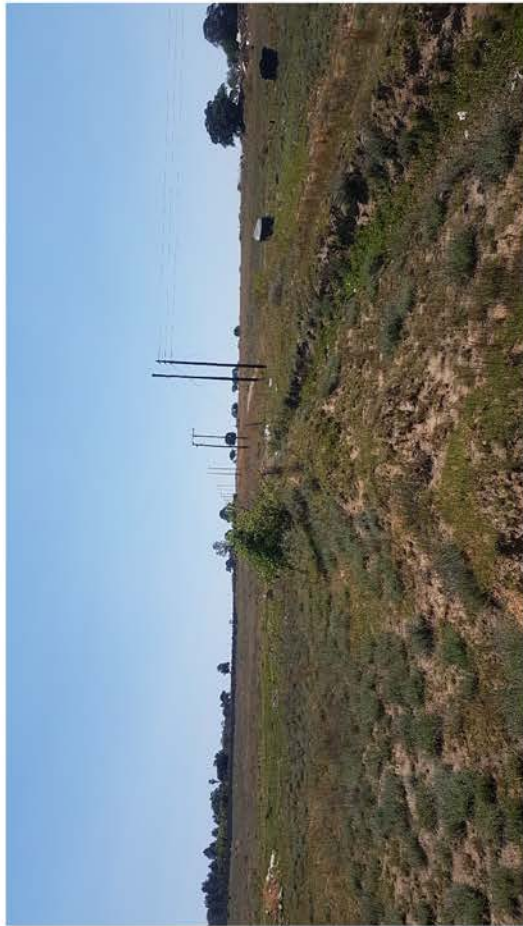


Figure 6. General view of the site, showing evidence of previous construction activities and overall degradation of the terrain.