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**A PHASE 1 HIA & REPORT FOR THE
PROPOSED RIETVLEI EXTENSION 24 TOWNSHIP DEVELOPMENT
LOCATED ON PORTION 712
OF THE FARM DOORKLOOF 391JR
TSHWANE METROPOLITAN AREA, GAUTENG**

For:

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REPORT: **APAC021/66**

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SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Bokamoso Landscape Architects & Environmental Consultants CC to conduct a Phase 1 Heritage Impact Assessment (HIA) for the proposed Rietvlei Extension 24 Township Development located on Portion 712 of the farm Doornkloof 391JR, Tshwane Metropolitan Area, Gauteng.

Background research indicates that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls, as well as on some of the properties bordering the proposed development. During the July 2021 field assessment no sites, features or material of cultural heritage origin or significance were identified in the study area and proposed development footprint.

Subsequent to this, comments by Interested & Affected Parties and information on possible heritage sites that could be negatively impacted by the proposed development being located in the study and development area, a second field assessment was undertaken in December 2021. This report discusses the results of both the background research and the physical assessments conducted and provide recommendations on the way forward at the end.

From Cultural Heritage perspective it is recommended that the proposed Rietvlei Extension 24 Township Development be allowed to continue taking into consideration the recommendations & mitigation measures put forward at the end of the report.

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1. INTRODUCTION

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The client indicated the location and boundaries of the study area and the assessment focused on this delineation.

2. TERMS OF REFERENCE

The Terms of Reference for the study was to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the portion of land that will be impacted upon by the proposed development;
2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value;
3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions;
4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources;
5. Review applicable legislative requirements;

3. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two Acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

3.1. The National Heritage Resources Act

According to the Act the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

The National Estate includes the following:

- a. Places, buildings, structures and equipment of cultural significance
- b. Places to which oral traditions are attached or which are associated with living heritage
- c. Historical settlements and townscapes
- d. Landscapes and features of cultural significance
- e. Geological sites of scientific or cultural importance
- f. Sites of Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. An Archaeological Impact Assessment (AIA) only looks at archaeological resources. A HIA must be done under the following circumstances:

- a. The construction of a linear development (road, wall, power line, canal etc.) exceeding 300m in length
- b. The construction of a bridge or similar structure exceeding 50m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000m² or involve three or more existing erven or subdivisions thereof

- d. Re-zoning of a site exceeding 10 000m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34(1) of the Act states that no person may demolish any structure or part thereof which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.

A structure means any building, works, device or other facility made by people and which is fixed to land, and includes any fixtures, fittings and equipment associated therewith.

Alter means any action affecting the structure, appearance or physical properties of a place or object, whether by way of structural or other works, by painting, plastering or the decoration or any other means.

Archaeology, palaeontology and meteorites

Section 35(4) of the Act deals with Archaeology, Palaeontology and Meteorites. The Act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial)

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or paleontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or paleontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and paleontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency (SAHRA). In order to demolish such a site or structure, a destruction permit from SAHRA will also be needed.

Human remains

Graves and burial grounds are divided into the following:

- a. ancestral graves
- b. royal graves and graves of traditional leaders

- c. graves of victims of conflict
- d. graves designated by the Minister
- e. historical graves and cemeteries
- f. human remains

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position of otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated to) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

3.2. The National Environmental Management Act

This Act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

Environmental management should also take the cultural and social needs of people into account. Any disturbance of landscapes and sites that constitute the nation's cultural heritage should be avoided as far as possible and where this is not possible the disturbance should be minimized and remedied.

4. METHODOLOGY

4.1. Survey of literature

A survey of available literature was undertaken in order to place the development area in an archaeological and historical context. The sources utilized in this regard are indicated in the bibliography.

4.2. Field survey

The field assessment section of the study was conducted according to generally accepted HIA practices and aimed at locating all possible objects, sites and features of heritage significance in the area of the proposed development. The location/position of all sites, features and objects is determined by means of a Global Positioning System (GPS) where possible, while detail photographs are also taken where needed.

4.3. Oral histories

People from local communities are sometimes interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all circumstances. When applicable, the information is included in the text and referred to in the bibliography.

4.4. Documentation

All sites, objects, features and structures identified are documented according to a general set of minimum standards. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

5. DESCRIPTION OF THE AREA

The study and proposed development area is located in the Irene/Doornkloof area, on Portion 712 of the farm Doornkloof 391JR, in the Greater Tshwane Municipal area of Gauteng.

The topography of the area is relatively flat and open, although there are some sections with rocky ridges and outcrops of dolerite. Patches of dense vegetation and trees (Bluegum/Black Wattle and Thorn) are present as well, but did not limit access and visibility on the ground. The area is bordered by urban settlement and other developments, while Eskom Powerline servitudes and pylons have also impacted on the area. The Jan Smuts House Museum is located to the north and bordering the development area, while River Meadow Manor with a number of historical structures is situated to the west and bordering the area. In the past the area would have been utilized for small-scale agricultural purposes as well. If any cultural heritage resources were located here in the past it would have been

disturbed or destroyed as a result of this and other activities recently. Some informal dumping of building rubble does occur in some sections of the area as well.

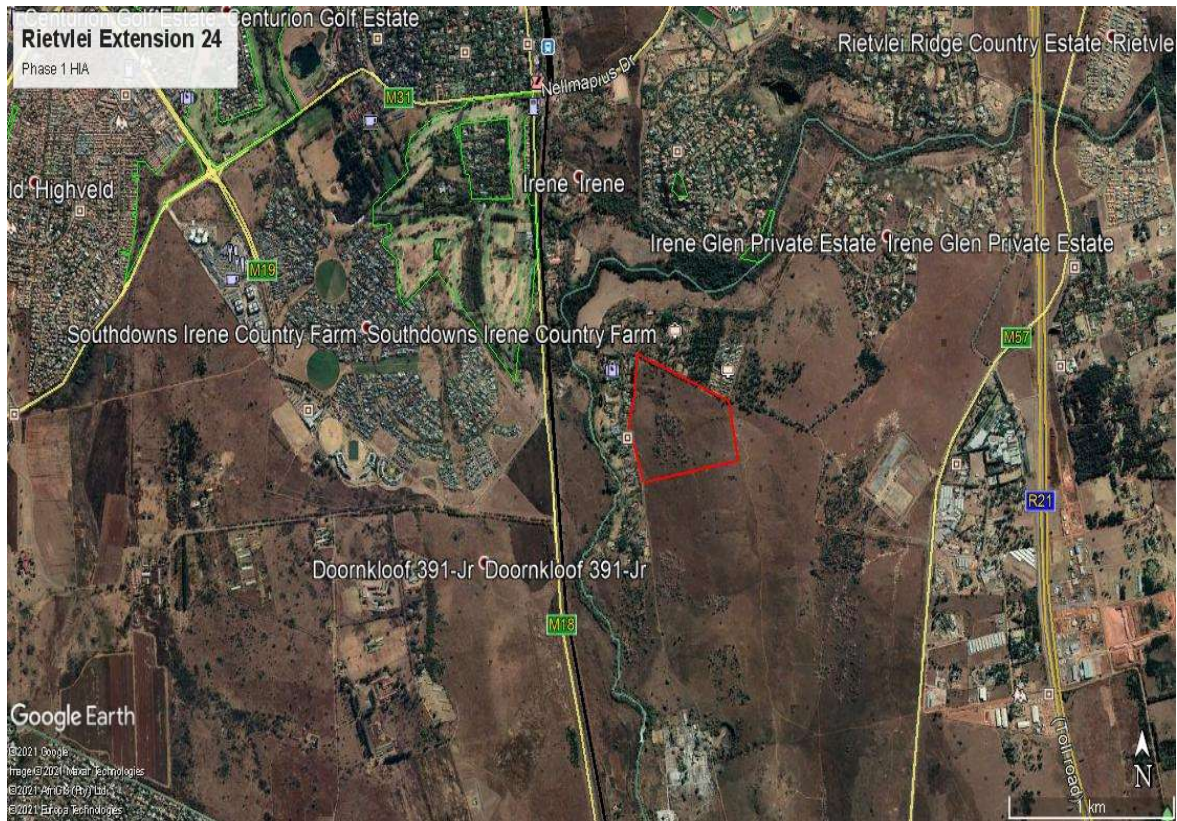


Figure 1: General location of study & proposed development area (Google Earth 2021).



Figure 2: Closer view of study area & proposed development footprint (Google Earth 2021).

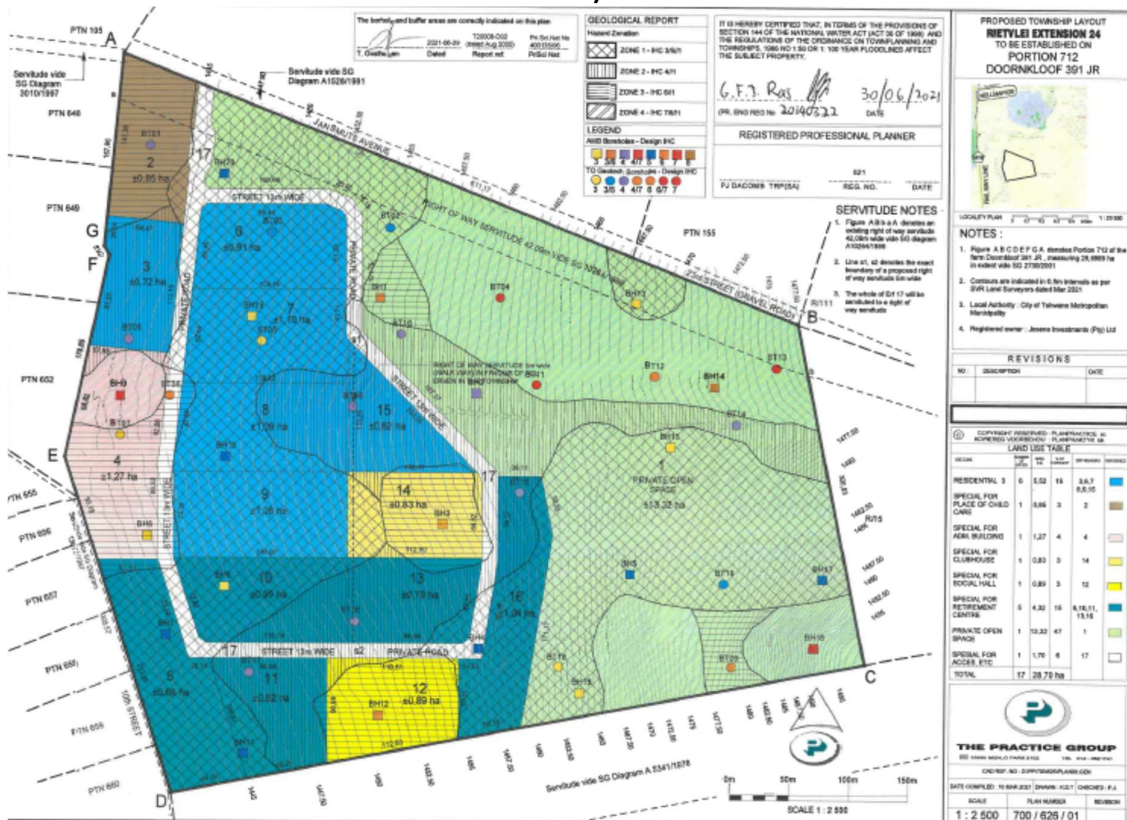


Figure 3: Proposed Development Layout Plan (provided by Bokamoso Landscape Architects & Environmental Consultants CC, courtesy of The Practice Group).



Figure 4: A 2004 aerial image showing some small-scale agricultural plots in the north-western section of the area (Google Earth 2021).

6. DISCUSSION

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided in basically into three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago

Middle Stone Age (MSA) less than 300 000 – 20 000 years ago

Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

No known Stone Age sites or artifacts are present in the study area. The closest known Stone Age sites are those of the well-known Early Stone Age site at Wonderboompoort, a Later Stone Age site known as Fort Troje near Cullinan and a number of sites in the Magaliesberg Research Area (Bergh 1999: 4). Stone Age people occupied the larger area since earliest times. Middle Stone Age material has also been identified at Erasmusrand and the Groenkloof Nature Reserve (Van Vollenhoven 2006: 183). At the Erasmusrand cave some Late Stone Age tools were also identified as well as at Groenkloof (Van Vollenhoven 2006: 184). LSA material was also found at Zwartkops and Hennops River (Bergh 1999: 4). This last phase of the Stone Age is associated with the San people.

There are no known Stone Age sites in the study area and none were identified during the survey. If any Stone Age artifacts are to be found in the area then it would more than likely be single, out of context, stone tools. Urbanization over the last 150 years or so would have destroyed any evidence if indeed it did exist.

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts. In South Africa it can be divided in two separate phases (Bergh 1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D

Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.

Middle Iron Age (MIA) 900 – 1300 A.D.

Late Iron Age (LIA) 1300 – 1840 A.D.

No Early Iron Age sites are known in the larger geographical area of Pretoria, while Later Iron Age sites do occur in the Pretoria area (Bergh 1999: 7). The closest known LIA sites are at Silver Lakes and near Mamelodi on the farm Hatherley (Van Schalkwyk et.al 1996). These sites are related to the Manala Ndebele (Bergh 1999: 10) who was present in the area at the time when the first Europeans arrived here during the mid-19th century. No Early Iron Age sites are known in the larger geographical area of Pretoria, while Later Iron Age sites do occur in the Pretoria area (Bergh 1999: 7). These sites are related to the Manala Ndebele (Bergh 1999: 10) who was present in the area at the time when the first Europeans arrived here during the mid-19th century. Late Iron Age sites have been identified close to the Rietvlei Dam Nature Reserve at Groenkloof and Erasmusrand (Van Vollenhoven 2006: 188). According to Delius (1983: 12) and Horn (1996: 23) LIA people moved into the Pretoria area after 1600 A.D.

Iron Age occupation of the area did not start much before the 1500s. By that time, groups of Tswana and Ndebele speaking people were moving into the area, occupying the different hills and outcrops, using the ample resources such as grazing, game and metal ores. During the early decades of the 19th century, the Tswana- and Ndebele-speakers were dislodged by the Matabele of Mzilikazi. Internal strife caused Mzilikazi, a general of King Shaka, and his followers to move away from the area between the Thukela and Mfolozi River (KwaZulu-Natal). Eventually, after a sojourn in the Sekhukhuneland area, followed by a short stay in the middle reaches of the Vaal River, they settled north of the Magaliesberg. One of three main settlements established by them, eKungwini, was on the banks of the Apies River, just north of Wonderboompoort. However, no remains of this settlement have ever been identified. It was during the Matabele's stay along the Apies River that the first white people entered the area: travelers and hunters such as Cornwallis Harris and Andrew Smith, traders Robert Schoon and Andrew McLuckie, and missionaries James Archbell and Robert Moffat.

It is known from oral history the Robert Schoon sent Mzilikazi huge quantities of glass trade beads, rather than the guns that the latter coveted so much (Van Schalkwyk 2013: 7-8).

No Iron Age sites, features or cultural material was identified during the assessment of the study area.

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. The first Europeans to move through and into the area were the groups of Schoon and McLuckie and the missionaries Archbell and Moffat in 1829 (Bergh 1999: 12). They were followed by others such as Andrew Smith (1835), Cornwallis Harris (1836) and David Livingstone in 1847 (Bergh 1999: 13). These groups were closely followed by the Voortrekkers after 1844 and Pretoria was established in 1855 (Bergh 1999: 14-17). White settlers started to occupy huge tracts of land, claiming it as farms after the late 1840s. Of these, some of the earliest were Lucas Bronkhorst (Groenkloof), David Botha (Hartebeestpoort – Silverton) and Doors Erasmus (Wonderboom). With the establishment of Pretoria (1850) services such as roads, started to develop. An increase in population also demanded more food, which stimulated development of farming on the alluvial soils on the banks of the Apies River, close to the water (Van Schalkwyk 2013: 8). The larger area within which the study area is located also played a role during the Anglo-Boer War (1899-1902) and specifically during the Battle of Donkerhoek/Diamond Hill in June 1900 (Bergh 1999: 53-54).

The section following comes from a HIA Report by Gaiger done in 2012 (See References)

In 1841 the Erasmus family arrived and settled in the area that would later become Centurion. Daniel Jacobus Erasmus settled on the farm Zwartkop, Daniel Elardus Erasmus on the farm Doornkloof and Rasmus Elardus Erasmus developed the farm Brakfontein. Several of the suburbs like Erasmia, Elardus Park, Zwartkop and Doornkloof were named after the original owners of the land and their properties. In 1849 Rev Andrew Murray visited the farm Doornkloof and christened 129 babies, heard the confession of their faith of 29 new members of the Reformed Church and the next day, 29 December 1849, celebrated Holy Communion. In the battle for Rooihuiskraal took place in 1881 at the place where the existing historical terrain is situated. A commando under the leadership of DJ Erasmus Jnr. defeated Col Gildea, the Officer Commanding of the Pretoria Garrison.

Eight years later Alois Hugo Nelmapius bought the northern and north-eastern portions of the farm Doornkloof and named it after his daughter Irene, who died 1961. During the Anglo-South African War the Irene Concentration Camp was established in 1901 on the farm Doornkloof, north of the Hennops River. The Irene Primary School was also established in the camp. The town of Irene was established in 1902 when Van der Bijl laid out 337 erven on the farm. Dr. E. G. Jansen, later Governor General of South Africa, bought the house in which he lived.

The farm also has a close relationship with a former Prime Minister of South Africa, Gen. J. C. Smuts. Centurion developed from the initial Lyttelton Township that was marked out on the farm Droogegrond in 1904. Lyttelton Manor Extension 1 was established in 1942. These

two townships initially resorted under the Peri Urban Board in Pretoria. They acquired a Health Committee consisting of six members in 1950 and in 1955 a town committee was elected. City Council status was awarded to the town in 1962 and this council had control over an area of 777 ha. After the inclusion of a number of townships and farming areas, the area over which the city council exerted legal control grew to 6 220 ha and in 1973 this area was enlarged to 20 000 ha. Lyttelton was renamed after the former Prime Minister, Hendrik Verwoerd, to become the City of Verwoerdburg in 1967. After the elections of 1994 the Verwoerdburg City Council and the Rantesig local area committee were disbanded and a new local authority consisting of Verwoerdburg, Rantesig, Erasmia, Laudium, Christoburgh and Claudius came into being. The name Centurion was accepted in 1995 by the City Council.

The Doornkloof farms and associated townships have a strong historic character which is reflected in the buildings and other infrastructure of the area. The Smuts House Museum is located not far from the River Meadow Manor and was home to General Jan Smuts for over 40 years. This is a unique museum that reveals much about the life and the spirit of this great statesman. Soldier, scholar, statesman and philosopher, General Jan Christiaan Smuts was one of South Africa's most remarkable leaders, an enigmatic and multifaceted person who was never fully understood by his countrymen. But despite his fame and many talents, Smuts was at heart a simple man who yearned for peace and simplicity. It was at Doornkloof, a modest wood-and-iron farmhouse in the veld outside the village of Irene, that he found the tranquility he craved; a place where, surrounded by his many children and grandchildren, he could indulge his passionate interest in botany.

The original River Meadow Manor house was built in 1926 and was a wedding gift by Genl. Jan Smuts to his oldest daughter Eirene (www.centurionkids.co.za).

No historical sites, features or material was identified in the study area during the July 2021 field assessment. Subsequent to this assessment, information provided by I&AP's on archaeological and historical sites & features in the study and development area prompted a 2nd field assessment in December 2021. This amended version of the initial report discusses the results of this assessment, adding the new information to the report.

Results of the July 2021 Heritage Assessment

As mentioned earlier no sites, features or material of cultural heritage (archaeological and/or historical) origin or significance were found in the study area and proposed development footprint during the July 2021 field assessment.

The closest known Cultural Heritage Resources (Historical Sites) to the proposed new development is the Smuts House Museum terrain, as well as the River Meadow Manor historical house with its relationship with Jan Smuts as well. Although there will be no direct impact on these resources by the proposed new Rietvlei Extension 24 Township Development, there could be some indirect impacts such as Visual Impacts & Traffic Impacts (with more vehicular traffic). The proposed new development will have to take this into consideration and any development activities should be done in sympathy with the

Historical Sense of Place of the Smuts House Museum terrain and River Meadow Manor. These sites and the Doornkloof farm have a direct historical and intrinsic link with Jan Smuts – one of South Africa’s, and arguably the world’s, greatest political figures and Statesmen during the late 19th and 20th centuries. As such the Public Participation Process should include detailed consultation with the Smuts House Museum and River Meadow Manor as Conservation Bodies and Interested & Affected Parties.



Figure 5: Aerial view showing the development footprint in relation to the Smuts House Museum & River Meadow Manor (Google Earth 2021).



Figure 6: View of a section of the study area.



Figure 7: Vegetation cover in general was limited but some patches were more densely covered like seen here.



Figure 8: Another general view of part of the area taken from its southern boundary towards the north.



Figure 9: Another section. Note the dumped building rubble.



Figure 10: General view from the eastern boundary towards the west. Note the generally flat and open nature of the area.



Figure 11: View of part of the area taken from the northern boundary towards the south.



Figure 12: Another general view showing the generally open nature of the area.



Figure 13: View down the northern boundary towards the west.



Figure 14: View of area from the northern boundary towards the south.

Based on the July 2021 assessment it was recommended that the proposed Rietvlei Extension 24 Township Development on Portion 712 of the farm Doornkloof 391JR be allowed to continue taking into consideration the recommendations made.

Information received in December 2021 from Dr. Marika van der Walt, a volunteer at the Smuts House Museum, there are a number of archaeological/paleontological and historical sites and features located in the study and development footprint area that would potentially be negatively impacted by the proposed development (van der Walt 2021: 3-7). These sites and features include remains of structures/dwellings associated with laborers that worked on lime extraction in the area, a grave site possibly associated with these works, Voortrekker graves and caves with an archaeological/paleontological association. In addition to this there is also military memorial lane (London plane trees) which commemorates the 1916 Delville Wood Battle South African casualties that was planted by MOTH (Memorable Order of the Tin Hats) in 1966. There are currently 52 trees in the one lane which runs on the southern side of the Jan Smuts Avenue that forms the northern boundary of Portion 712 of Doornkloof 391 JR where the proposed development will take place. The 8th of December 2021 assessment focused on these sites and features.

The 1st assessed was the so-called Voortrekker graves. The site is located next to a grove of Bluegum trees that according to the information provided was planted there around 1845. The exact age of the graves or details on who were buried there is not clear. According to the information this (the trees and graves?) are confirmation that Doornkloof was called

“Kerkplaats/Church Place” before Pretoria was established. The validity of this information cannot be confirmed however.

Approximate GPS Coordinates for the Voortrekker Grave Site: S25 53 28.98 E28 14 06.23.

The December 2021 field assessment did not find any graves with formal or informal headstones at the site, except for a few stone heaps/cairns, remnants of a of wire fence and a cement marker. The dumping of building material and other refuse also occurred on the site, possibly obscuring the graves if they were located there. A wider area around the site was also inspected for the presence of these Voortrekker graves, but no evidence could be found.



Figure 15: The location of the possible Voortrekker Grave Site. Note the remnants of the wire fence (post & stone boundary) and cement marker.



Figure 16: One of the stone heaps/cairns that could represent one of the Voortrekker graves. Some modern cement/concrete has been dumped here as well.



Figure 17: Another stone heap/cairn on the site that could represent a grave.



Figure 18: A third stone heap/cairn on the site.

As graves always carry a High Significance Rating from a Cultural Heritage perspective, care should be taken not to negatively impact on them as a result of any development activities. The following options are available to mitigate the possible negative impacts on the site:

Option 1

The 1st and preferred option will be to leave the site and graves on it intact. This will entail demarcating the site with a proper boundary fence and providing an entrance gate for potential visitors (descendants/family members of the deceased/other visitors). The site would also have to be sign-posted as a Grave Site and will have to be cleaned and each grave marked, numbered and included in a Graves Register. A Graves Management Plan will have to be drafted and implemented as part of the Development. A 20m buffer zone (from the outside boundary fence of the site) will also have to be adhered to, with no development allowed in this exclusion zone.

Option 2

The 2nd Option available is the exhumation and relocation of the graves from the site. This entails the following:

- a. Detailed social consultation/public participation in the form of Newspaper Advertisements, the erection of site notices and possibly Radio Announcements. This is in order to try and trace any possible descendants of the deceased buried here and to obtain their consent for the exhumation and relocation work. These

advertisements and notices need to be run for 60 days before permit applications to various government and local authorities can be undertaken. This includes SAHRA, Department of Health, the Municipality and the SAP.

- b. Only once the permits have been issued can the physical work be undertaken. A registered undertaker also needs to be contracted to be part of the process.

It needs to be noted that the costs involved with Option 2 can be high and that the time-delays can be quite long. However, with Option 1 the commitment to preserving the site and the graves on it is ongoing and could lead to conflict with family members in terms of site visits/access and possible security issues.

In this case, if there are indeed Voortrekker Graves located on the site, the significance of the site is obviously very High, and it is clear that the site will be impacted by the proposed development in some way. However, with a lack of clear evidence for the assumed graves being situated here, it is furthermore recommended that the Interested & Affected Parties from the Smuts House Museum assist the Heritage Specialist in locating the exact position of the graves and the site during a field visit so that a final decision on this matter can be made.

The second site/heritage feature is the Lane of Trees on Jan Smuts Avenue. The site is on the southern side of the Jan Smuts Avenue that forms the northern boundary of Portion 712 of Doornkloof 391 JR where the proposed development will take place. The site includes the a MOTH Memorial Plaque, Jan Smuts' 100 Year Commemorative Triangle, historical bridge built by Issie Smuts in 1920 and the blue gum lane next to and east of Twin Rivers. As these are clearly Historically Significant sites and form part of the Historical Landscape associated with the area there should be a concerted effort to preserve these features intact as far as is possible. The following is recommended:

1. Leaving the Historical Memorial Tree Lane/s and associated features intact and including them in a Cultural Heritage Resources Management Plan.
2. If the total Historical Landscape cannot be keep in situ that sections of it be kept and properly memorialized.

Detailed Social Consultation with Interested and Affected Parties regarding this aspect needs to be undertaken prior to any development activities commencing so that the best possible solution can be decided on.



Figure 19: A view of the Lane of Trees running along Jan Smuts Avenue. Taken from the possible Voortrekker Grave Site location.



Figure 20: Another view of the Plane Tree Lane (taken in July 2021).



Figure 21: A view of the lane of Blue Gum trees next to Twin Rivers (taken in July 2021).

The next site assessed in December 2021 is a cave situated on Portion 711. According to the information provided this cave forms part of a system of dolomitic caves in the Irene area and that these are mentioned in a book by Genl. Jan Smuts' son J.C. Smuts. Apparently, the Grootboom Cave is across the railway line to the West of the development. It bears proof of the existence of dolomitic caves. According to the information provided in the report by Dr. van der Walt the cave on Portion 711 could contain the remains of BaKwena people, and that the site and caves might require paleontological investigations.

GPS Location of Cave Site: S25 53 37.68 E28 14 03.48.

The site could be located during the 8th of December 2021 field assessment. Although fairly dense vegetation on and around the cave "entrance" hampered visibility and entering the cavity, it is clear that the site could represent one of the caves mentioned in the information above. However, assessing the site in detail to see if there is any cultural material or features here that could associate it with the BaKwena was not possible. No stone-walling at or in the vicinity of the site that would be indicative of Late Iron Age settlement was identified as well.

It is the opinion of the Heritage Specialist that this could be a dolomitic sinkhole rather than a cave per say, and/or that the site could be the remnant of a historical limestone mine/quarry. Without any detailed studies of the site done or possible at this stage, the archaeological/paleontological/historical significance of the site cannot be determined. However, if possible the site should be avoided by any proposed development activities – more so for the possible risk of sinkholes than for its Cultural Heritage Significance – until a

detailed assessment of the site has been undertaken. The significance of the site on Portion 711 is also slightly diminished by the existence of the known Grootboom Cave west of the development, as this cave could be seen as a “control” research area for the other sites in the Irene area.



Figure 22: A view of the “cave” site.



Figure 23: Another view of the site. The soil spoil heap in front seems to indicate the quarrying of the site in recent historical times.

The possible laborer graves and site was the next one that the December 2021 field assessment aimed at locating and recording. According to the information provided these graves could be associated with people that used to work at various lime works companies operated in the area, and who had lived and died here. The graves were apparently seen prior to 201 in the grove of Bluegum trees that are situated roughly in the center of the study and development area. The number of graves, as well as their physical descriptions (such as demarcations/headstones), were not provided.

Approximate GPS Coordinates for Grave Site: S25 53 33.33 E28 13 52.66.

The approximate location of the grave site was inspected for the presence of any possible graves. No physical evidence could be traced however, with no stone heaps/cairns or any other markers that were visible in the area. As a result a wider area around and in the grove of trees were physically assessed, but no evidence of any graves could be found. It needs to be mentioned here that the very dense vegetation in the area during the field work limited visibility on the ground and if these graves were originally marked by low packed stone heaps it is fairly possible that these would be obscured from view. However, the fact that these possible graves could not be located during the recent assessment does not mean that they are not present there. The following is therefore recommended:

As graves always carry a High Significance Rating from a Cultural Heritage perspective, care should be taken not to negatively impact on them as a result of any development activities. The following options are available to mitigate the possible negative impacts on the site:

Option 1

The 1st and preferred option will be to leave the site and graves on it intact. This will entail demarcating the site with a proper boundary fence and providing an entrance gate for potential visitors (descendants/family members of the deceased/other visitors). The site would also have to be sign-posted as a Grave Site and will have to be cleaned and each grave marked, numbered and included in a Graves Register. A Graves Management Plan will have to be drafted and implemented as part of the Development. A 20m buffer zone (from the outside boundary fence of the site) will also have to be adhered to, with no development allowed in this exclusion zone.

Option 2

The 2nd Option available is the exhumation and relocation of the graves from the site. This entails the following:

- a. Detailed social consultation/public participation in the form of Newspaper Advertisements, the erection of site notices and possibly Radio Announcements. This is in order to try and trace any possible descendants of the deceased buried here and to obtain their consent for the exhumation and relocation work. These advertisements and notices need to be run for 60 days before permit applications to

various government and local authorities can be undertaken. This includes SAHRA, Department of Health, the Municipality and the SAP.

- b. Only once the permits have been issued can the physical work be undertaken. A registered undertaker also needs to be contracted to be part of the process.

It needs to be noted that the costs involved with Option 2 can be high and that the time-delays can be quite long. However, with Option 1 the commitment to preserving the site and the graves on it is ongoing and could lead to conflict with family members in terms of site visits/access and possible security issues.

In this case, if there are indeed Lime Works Laborer Graves located on the site, the significance of the site is obviously very High, and it is clear that the site will be impacted by the proposed development in some way. However, with a lack of clear evidence for the assumed graves being situated here, it is furthermore recommended that the Interested & Affected Parties from the Smuts House Museum assist the Heritage Specialist in locating the exact position of the graves and the site during a field visit so that a final decision on this matter can be made.



Figure 24: A view of the approximate location of the Grave Site. Note the dense vegetation cover.



Figure 25: Another view of the general area where the graves could be located.



Figure 26: Another section of the area. The dense vegetation is again evident.

The last site assessed is the location of the remains of structures that according to the provided information could be associated with various lime works companies that operated here and with the laborers that worked at these companies. In the report by Dr. van der

Walt it is indicated that “*according to legend black people lived and died here before 1950*” and that it explains the presence of their graves here (see above site). Also, the information provided state that it is difficult to say exactly where they lived, but that they probably lived on the border next to all the visible buildings.

Approximate GPS Coordinates for the site: S25 53 28.09 E28 13 47.67.

The December assessment of the site located some building rubble that could be associated with these possible living quarters or laborer settlement, but it is difficult to determine if this material is associated with historical settlement or recent informal dumping of rubble. Dense grass cover and other vegetation also made visibility difficult. If there was any historical settlement located here it would more than likely only be foundations remaining and be of low significance. The following is recommended:

1. If any substantial remains are found in the area once the vegetation cover has reduced, then the site should be re-assessed and its significance and extent determined.



Figure 27: The approximate location of the site. Note the dense vegetation cover.



Figure 28: Some building rubble at the site.



Figure 29: More building rubble at the site that could be associated with the laborer settlement in the area.



Figure 30: Location & distribution of sites in the study & development area (Google Earth 2021).

It should be noted that although all efforts are made to cover a total area during any assessment and therefore to identify all possible sites or features of cultural (archaeological and/or historical) heritage origin and significance, that there is always the possibility of something being missed. This will include low stone-packed or unmarked graves. This aspect should be kept in mind when development work commences and if any sites (including graves) are identified then an expert should be called in to investigate and recommend on the best way forward.

7. CONCLUSIONS AND RECOMMENDATIONS

APelser Archaeological Consulting (APAC) was appointed by Bokamoso Landscape Architects & Environmental Consultants CC to conduct a Phase 1 Heritage Impact Assessment (HIA) for the proposed Rietvlei Extension 24 Township Development located on Portion 712 of the farm Doornkloof 391JR, Tshwane Metropolitan Area, Gauteng.

Background research indicates that there are some cultural heritage (archaeological & historical) sites and features in the larger geographical area within which the study area falls, as well as on some of the properties bordering the proposed development. During the July 2021 field assessment no sites, features or material of cultural heritage origin or significance were identified in the study area and proposed development footprint.

Subsequent to this, comments by Interested & Affected Parties and information on possible heritage sites that could be negatively impacted by the proposed development

being located in the study and development area, a second field assessment was undertaken in December 2021.

The closest known Cultural Heritage Resources to the proposed new development is the Smuts House Museum terrain, as well as the River Meadow Manor historical house with its relationship with Jan Smuts as well. Although there will be no direct impact on these resources by the proposed new Rietvlei Extension 24 Township Development, there could be some indirect impacts such as Visual Impacts & Traffic Impacts. The proposed new development will have to take this into consideration and any development activities should be done in sympathy with the Historical Sense of Place of the Smuts House Museum terrain and River Meadow Manor. These sites and the Doornkloof farm have a direct historical and intrinsic link with Jan Smuts – one of South Africa's, and arguably the world's, greatest political figures and Statesmen during the late 19th and 20th centuries. As such the Public Participation Process should include detailed consultation with the Smuts House Museum and River Meadow Manor as Conservation Bodies and Interested & Affected Parties.

Information received in December 2021 from Dr. Marika van der Walt, a volunteer at the Smuts House Museum, there are a number of archaeological/paleontological and historical sites and features located in the study and development footprint area that would potentially be negatively impacted by the proposed development (van der Walt 2021: 3-7). These sites and features include remains of structures/dwellings associated with laborers that worked on lime extraction in the area, a grave site possibly associated with these works, Voortrekker graves and caves with an archaeological/paleontological association. In addition to this there is also military memorial lane (London plane trees) which commemorates the 1916 Delville Wood Battle South African casualties that was planted by MOTH (Memorable Order of the Tin Hats) in 1966. There are currently 52 trees in the one lane which runs on the southern side of the Jan Smuts Avenue that forms the northern boundary of Portion 712 of Doornkloof 391 JR where the proposed development will take place. The 8th of December 2021 assessment focused on these sites and features.

Although the 2nd assessment conducted on the 8th of December 2021 were able to locate some of the sites mentioned in the report by Dr. Marika van der Walt, two of these (the Voortrekker Graves and Lime Works Laborer Grave Site) could not be confirmed indefinitely. It is recommended that the exact location of these sites be determined during a site visit with Interested and Affected Parties associated with the Smuts House Museum. In terms of these sites, as well as the others discussed in this amended report, the recommended mitigation measures provided should be considered and adhered to before any development actions commence.

It should be noted that although all efforts are made to locate, identify and record all possible cultural heritage sites and features (including archaeological remains) there is always a possibility that some might have been missed as a result of grass cover and other factors. The subterranean nature of these resources (including low stone-packed or unmarked graves) should also be taken into consideration. Should any previously unknown or invisible sites, features or material be uncovered during any development actions then an

expert should be contacted to investigate and provide recommendations on the way forward.

Based on the July 2021 assessment, as well as the 2nd assessment conducted in December 2021, it is however recommended that the proposed Rietvlei Extension 24 Township Development on Portion 712 of the farm Doornkloof 391JR be allowed to continue once the recommended mitigation measures have been implemented and adhered to.

8. REFERENCES

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APPENDIX A: DEFINITION OF TERMS:

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B: DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE

Historic value: Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.

Aesthetic value: Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

Scientific value: Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period

Social value: Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

Rarity: Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.

Representivity: Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C: SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Low: A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium: Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.
- High: Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I: Heritage resources with exceptional qualities to the extent that they are of national significance
- Grade II: Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate
- Grade III: Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

- i. National Grade I significance: should be managed as part of the national estate
- ii. Provincial Grade II significance: should be managed as part of the provincial estate
- iii. Local Grade IIIA: should be included in the heritage register and not be mitigated (high significance)
- iv. Local Grade IIIB: should be included in the heritage register and may be mitigated (high/medium significance)
- v. General protection A (IV A): site should be mitigated before destruction (high/medium significance)
- vi. General protection B (IV B): site should be recorded before destruction (medium significance)
- vii. General protection C (IV C): phase 1 is seen as sufficient recording and it may be demolished (low significance)

APPENDIX D: PROTECTION OF HERITAGE RESOURCES:

Formal protection:

National heritage sites and Provincial heritage sites – Grade I and II

Protected areas - An area surrounding a heritage site

Provisional protection – For a maximum period of two years

Heritage registers – Listing Grades II and III

Heritage areas – Areas with more than one heritage site included

Heritage objects – e.g. Archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

General protection:

Objects protected by the laws of foreign states

Structures – Older than 60 years

Archaeology, palaeontology and meteorites

Burial grounds and graves

Public monuments and memorials

APPENDIX E: HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or Scoping Phase – Establishment of the scope of the project and terms of reference.
2. Baseline Assessment – Establishment of a broad framework of the potential heritage of an area.
3. Phase I Impact Assessment – Identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – If there is no likelihood that any sites will be impacted.
5. Phase II Mitigation or Rescue – Planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III Management Plan – For rare cases where sites are so important that development cannot be allowed.