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**REPORT ON A PHASE 1 HERITAGE ASSESSMENT
FOR THE PROPOSED VRYBURG EXT. 29 & HUHUDI EXT.1
TOWNSHIP DEVELOPMENTS ON VARIOUS ERVEN IN THE
VRYBURG/HUHUDI AREA AS WELL AS A PORTION OF THE R/E OF
PORTION 8 OF THE FARM ROSENDAL 673IN
VRYBURG, NORTHWEST PROVINCE**

For:

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REPORT: APAC018/51

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SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions (Pty) Ltd to undertake a Phase 1 HIA for the proposed Vryburg Extension 29 & Huhudi Extension 1 Township developments in the Vryburg/Huhudi area in the Northwest Province.

The development is located in the Naledi Local Municipality, and the project is done under instruction from King & Associates (Pty) Ltd. Vryburg Extension 29 is located on a Portion of the Remaining Extent of Erf 506, Vryburg, while Huhudi Extension 1 is situated on the following land parcels:

Portion of Erf 4835, Huhudi

Portion of the Remaining Extent of Erf 506, Vryburg

Erf 3455, Huhudi

Erf 4377, Huhudi

Remaining Extent of Erf 4378, Huhudi

Portion of the Remaining Extent of Portion 8 of the farm Rosendal No. 673-IN

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel, while some were identified in the study area during the assessment. The report will discuss the results of the desktop and field assessment and provide recommendations on the way forward at the end of the document.

From a Cultural Heritage point of view the development actions can continue, taking into consideration the mitigation measures proposed in the report.

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1. INTRODUCTION

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A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel, while some were identified in the study area during the assessment.

The client indicated the location and boundaries of the Project Area, and the assessment focused on this.

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 above-mentioned 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 palaeontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, palaeontological, 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. An 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 10 000 m²
- e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

Section 34 (1) of the mentioned 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 this 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 palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological 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 palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological 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 is 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 detailed 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

APelser Archaeological Consulting (APAC) was appointed by Maxim Planning Solutions (Pty) Ltd to undertake a Phase 1 HIA for the proposed Vryburg Extension 29 & Huhudi Extension 1 Township developments in the Vryburg/Huhudi area in the Northwest Province's Naledi Local Municipality.

Vryburg Extension 29 is located on a Portion of the Remaining Extent of Erf 506, Vryburg, while Huhudi Extension 1 is situated on a Portion of Erf 4835, Huhudi; a Portion of the Remaining Extent of Erf 506, Vryburg; Erf 3455, Huhudi; Erf 4377, Huhudi; the Remaining Extent of Erf 4378, Huhudi and a Portion of the Remaining Extent of Portion 8 of the farm Rosendal No. 673-IN

The topography of the area is basically flat and open, although grass and shrub cover was fairly dense in some section which made visibility difficult. There are no rocky ridges and outcrops present and tree cover is also fairly sparse. The study areas are surrounded by existing urban residential developments including housing, roads and other urban infrastructure such as commercial/industrial areas. The defunct Vryburg Airfield formed part of the study and is located in between Areas A, B & E that comprises the proposed Vryburg Extension 29 Township. Parts of the proposed Huhudi Extension 1 development contain informal housing already. Informal refuse & building material dumping is also evident throughout the study areas, while old ploughing furrows are visible on Area B (Vryburg Extension 29). The impacts of the above activities on the original natural and archaeological/historical landscape have therefore been fairly extensive.

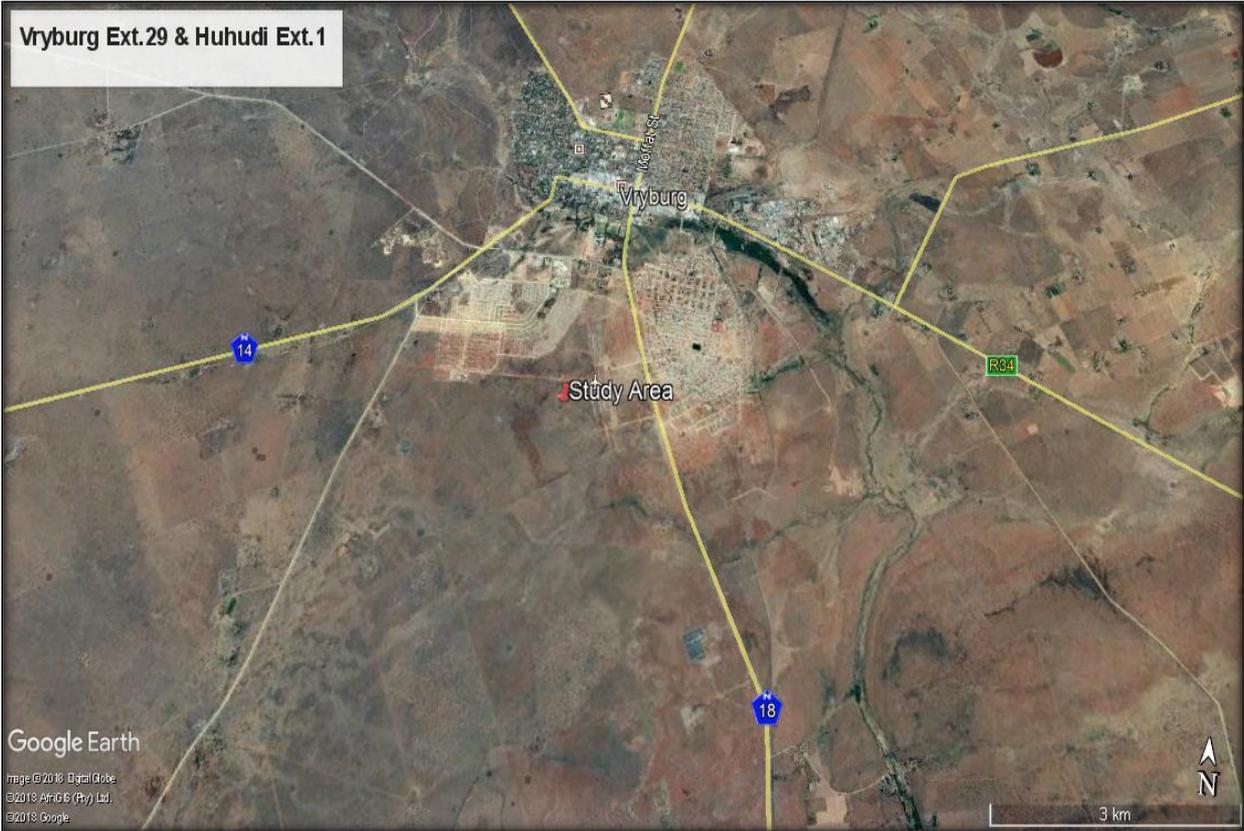


Fig.1: General location of study area (Google Earth 2018).

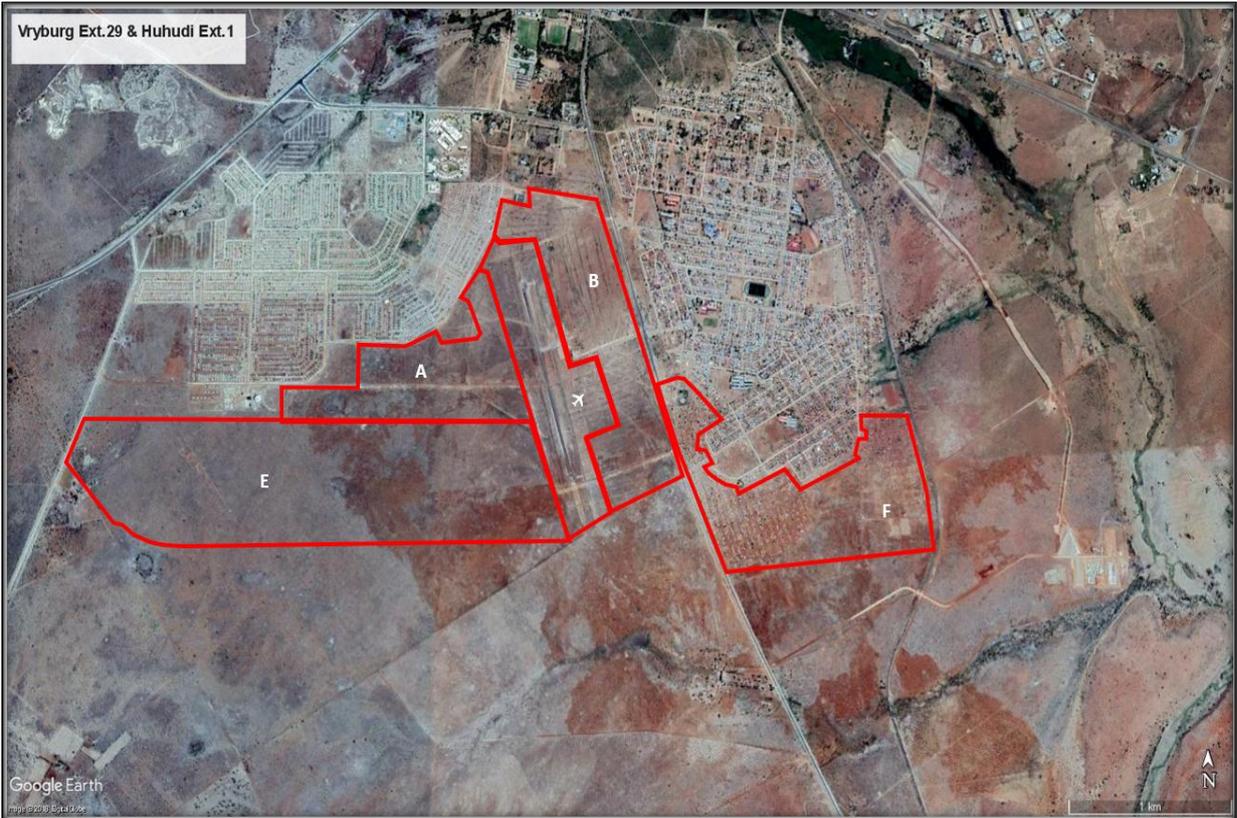


Fig.2: Closer view of location and developments layout (Google Earth 2018).

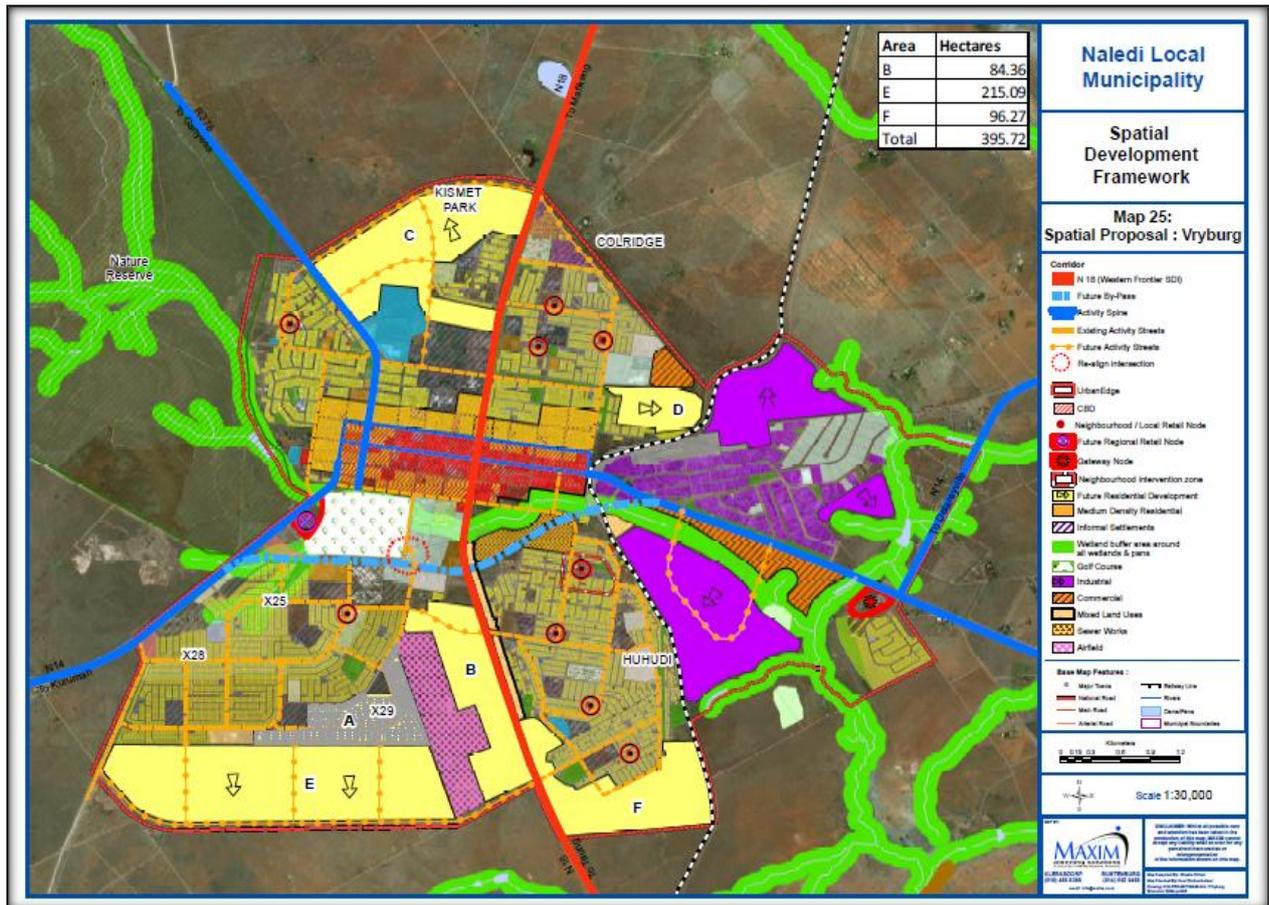


Fig.3: Spatial Development Framework Plan. Areas A, B, E (including the Airfield) represents Vryburg Ext.29 and Area F represents Huhudi Ext.1 (provided by Maxim Planning Solutions).



Fig.4: A view of the area around the Airfield.



Fig.5: Another view around the old airstrip.



Fig.6: A general view of Area A.



**Fig.7: General view around Area B.
Note the old ploughing furrows.**



Fig.8: View towards section of Area E.



Fig.9: Another view around Area B & the old Airfield.



Fig.10: A view around Area F.



Fig.11: Informal dumping in Area F.



Fig.12: Another general view of Area F.



Fig.13: Informal housing has encroached onto a section of Area F in the northwest of it.



Fig.14: A view of the residential areas bordering Areas A, B & E.

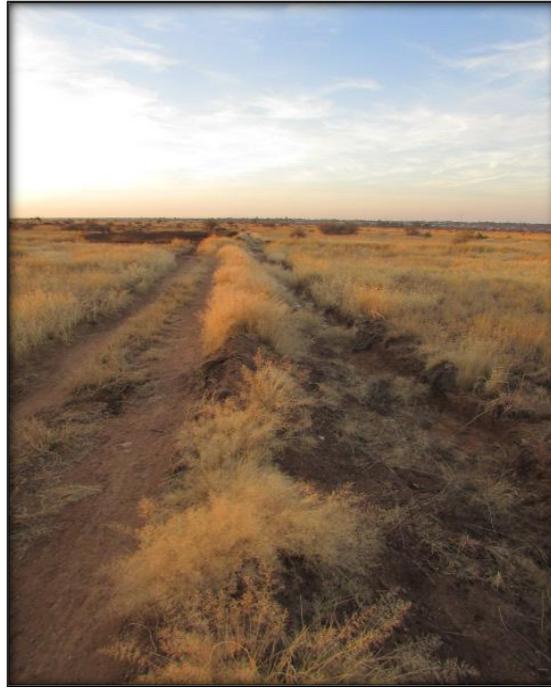


Fig.15: A pipeline runs through a section of Area B next to the old airfield.



**Fig.16: Another general view of Area A/B.
The general landscape/topography of the study areas
are fairly homogenous.**

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 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. According to David Morris of the McGregor Museum in Kimberley the archaeology of the Northern Cape [**which included Vryburg in the recent past**] is rich and varied, covering long spans of human history. The Karoo is particularly bountiful. Some areas are richer than others, and not all sites are equally significant. The significance of sites encountered in the study area may be assessed against previous research in the region and subcontinent. The region's remoteness from research institutions accounts for a relative lack of archaeological research in the area. The area has probably been relatively marginal to human settlement for most of its history, yet it is in fact exceptionally rich in terms of Stone Age sites and rock art, as a relatively few but important studies have shown (Morris 2006).

Stone Age sites are known to occur in the larger geographical area, including the well-known Wonderwerk Cave in the Kuruman Hills, Tsantsabane, an ancient specularite working on the eastern side of Postmasburg, Doornfontein, another specularite working north of Beeshoek and a cluster of important Stone Age sites near Kathu. Additional specularite workings with associated Ceramic Later Stone Age material and older Fauresmith sites (early Middle Stone Age) are known from Lylyfeld, Demaneng, Mashwening, King, Rust & Vrede, Paling, Gloucester and Mount Huxley to the north. Rock engraving sites are known from Beeshoek and Bruce (Morris 2005: 3).

According to Van Schalkwyk habitation of the larger geographical area took place since Early Stone Age times. The largest legacy dating to the Stone Age are the numerous sites with rock engravings found in the region. Some of the farms in the Vryburg region known to have rock engravings are Bernauw, Content, Gemsbok Laagte, Klipfontein, Kinderdam, Melalarig, Schatkist, Verdwaal Vlake and Wonderfontein, to mention but a few (Van Schalkwyk 2008: 10).

A number of individual ESA/MSA stone tools and some scatters of tools were identified in the study area during the recent July 2018 assessment and will be discussed in the next section.

The Iron Age is the name given to the period of human history when metal was mainly used to produce 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) indicates that a Middle Iron Age should be included. His dates, which are 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.

The expansion of early farmers, who, among other things, cultivated crops, raised livestock, made ceramic containers (pots), mined ore and smelted metals, occurred in this area between AD 400 and AD 1100 and brought the Early Iron Age (EIA) to South Africa. They settled in semi-permanent villages (De Jong 2010: 35).

While there is some evidence that the EIA continued into the 15th century in the South African Lowveld, on the escarpment it had ended by AD1100. The Highveld became active again from the 15th century onwards due to a gradually warmer and wetter climate. From here communities spread to other parts of the interior. This later phase, termed the Late Iron Age (LIA), was accompanied by extensive stonewalled settlements, such as the Thlaping capital Dithakong, 40 km north of Kuruman (De Jong 2010: 35-36).

Sotho-Tswana and Nguni societies, the descendants of the LIA mixed farming communities, found the region already sparsely inhabited by the Late Stone Age (LSA) Khoisan groups, the so-called 'first people'. Most of them were eventually assimilated by LIA communities and only a few managed to survive, such as the Korana and Griqua. This period of contact is sometimes known as the Ceramic Late Stone Age and is represented by the Blinkklipkop specularite mine near Postmasburg and finds at the Kathu Pan (De Jong 2010: 36).

Van Schalkwyk indicated in 2008 that as yet, no sites dating to the Early Iron Age have been reported from the region and most sites date to the Late Iron Age. According to Breutz (1959) stone walled sites dating to the Late Iron Age and which can be linked to the Tswana occupation of the area, are found on a number of farms in the region, e.g. Waai Hoek and Brul Pan. However, the historic most important one, named Dithakong, is located some distance to the north-west. This site was first visited by early travellers such as Lichtenstein and John Campbell in the early part of the 19th century (Van Schalkwyk 2008: 10).

Factors such as population expansion, increasing pressure on natural resources, the emergence of power blocs, attempts to control trade and penetration by Grikwas, Korana and white communities from the south-west resulted in a period of instability in Southern Africa that began in the late 18th century and effectively ended with the settlement of white farmers in the interior. This period, known as the *difaqane* or *mfecane*, also affected the Northern Cape Province, although at a relatively late stage compared to the rest of Southern Africa.

Here, the period of instability, beginning in the mid-1820s, was triggered by the incursion of displaced refugees associated with the Tlokwa, Fokeng, Hlakwa and Phuting tribal groups. The *difaqane* coincided with the penetration of the interior of South Africa by white traders, hunters, explorers and missionaries. The first was PJ Truter's and William Somerville's journey of 1801, which reached Dithakong at Kuruman. They were followed by Cowan, Donovan, Burchell and Campbell and resulted in the establishment of a London Mission Society station near Kuruman in 1817 by James Read. The Great Trek of the Boers from the Cape in 1836 brought large numbers of Voortrekkers up to the borders of large regions known as Bechuanaland and Griqualand West, thereby coming into conflict with many Tswana groups and also the missionaries of the London Mission Society. The conflict between Boer and Tswana communities escalated in the 1860s and 1870s when the Korana and Griqua communities became involved and later also the British government. The conflict

mainly centered on land claims by various communities. For decades the western border of the Transvaal Boer republic was not fixed. Only through arbitration (the Keate Arbitration), triggered by the discovery of gold at Tati (1866) and diamonds at Hopetown (1867) was part of the western border finally determined in 1871. Ten years later, the Pretoria Convention fixed the entire western border, thereby finally excluding Bechuanaland and Griqualand West from Boer domination (De Jong 2010: 36).

The town of Vryburg was founded in 1883 as the capital of the Republic of Stellaland. It attained municipal status in 1896. During the Anglo Boer War (1899-1902) a large concentration camp was established on the outskirts of the town. The Tierkloof Institute, located to the south of Vryburg, on the farm Waterloo, was established in 1904 and served as center for higher education for Tswana-speaking people (Van Schalkwyk 2008: 10).

The name Vryburg comes from the period in the 1882 when Vryburg was established as the capital of Republic of Stellaland. The Republicans called themselves Vryburgers ("free citizens"), and since the Afrikaans word for "citizen" is "burger" and the word for "borough" is "burg" the name of the town followed. Vryburg was founded on September 20, 1882, when a site for a township was selected and named Endvogelfontein. On November 15 the same year, the name was changed to Vryburg. In December that year, newly laid out plots were apportioned to the volunteers by means of a lottery and by February 1883 some 400 farms had been established. On August 16, 1883, Administrator Van Niekerk proclaimed the Republic of Stellaland with Vryburg as capital and himself as President. Stellaland split into two rival factions – those who supported annexation into the Cape Colony as mooted by Cecil Rhodes, and those who preferred independence. In February 1884, the London Convention was signed, making Stellaland a British protectorate, with the Reverend John McKensie appointed Commissioner to British Bechuanaland. Vryburg today is the industrial and agricultural capital of the Bophirima (Western) region. When the Boer Republic of Stellaland was established in 1882, Vryburg ('Fort of Freedom') was established as its capital. The first and only president was G.J. van Niekerk. By 1884 the town consisted of around 20 houses. In 1885, the British seized the town and incorporated the area into British Bechuanaland, which in turn became part of the Cape Colony in 1895. During the Second Boer War, the British built a concentration camp here to house Boer women and children. In 1910, the Cape Colony became the Cape Province, one of the four provinces of the Union of South Africa and later the Republic of South Africa. When nine provinces were established in 1994, it became part of the North West Province (www.wikipedia.co.za).

In 1919 the Royal Air Force built the first airport in Vryburg. It was located to the north of the town and west of the Gert Lubbe Sports Grounds. The area was originally identified by Major Court Treatt as a landing strip for the regular flights between Cairo and Cape Town. At that time the town council rented the terrain to the Royal Air Force for 10 cents a year.

The current airport, which is located south of Vryburg was completed during March 1939. At that stage it could accommodate any existing aircraft type. The airport was used by the South African Department of Defence during the Second World War. After the end of the Second World War the Department of Defence notified the town council that it would no longer require the airport for defence purposes. The town council decided that it would continue the operation of the airport and applied to the Director of Civil Aviation (now the South African Civil Aviation Authority) for an aerodrome license and on 1 November the license application was granted.

Northern Cape Flying Services was granted permission to construct a hangar on 3 August 1946. The first buildings, a fuel bowser and a telephone service followed. On 8 February 1957 the Bechuanaland District Development Agency requested that the Central Government consider upgrading the airport and that a regular air service be implemented. This was however rejected as the airport at that time could not accommodate the Douglas DC-3 Dakota type aircraft. In February 1967 Interstate Air Services initiated an airline between Vryburg, Kuruman, Sishen and Silverstreams. This service was taken over by United Air in the early 1970s but was discontinued temporarily in 1974 due to the deterioration of the runway.

The terminal building at the airport was officially opened by the then Deputy Minister of Home Affairs, Mr. Piet Badenhorst on 14 August 1981 (www.wikipedia.co.za).

The oldest map that could be obtained from the Chief Surveyor General's database (www.csg.dla.gov.za) is for the farm Rosendal 673IN (Portion 0). It shows that the farm was granted by title deed to The Southern Land Company Limited in February 1892 (CSG Document 102KUD01).

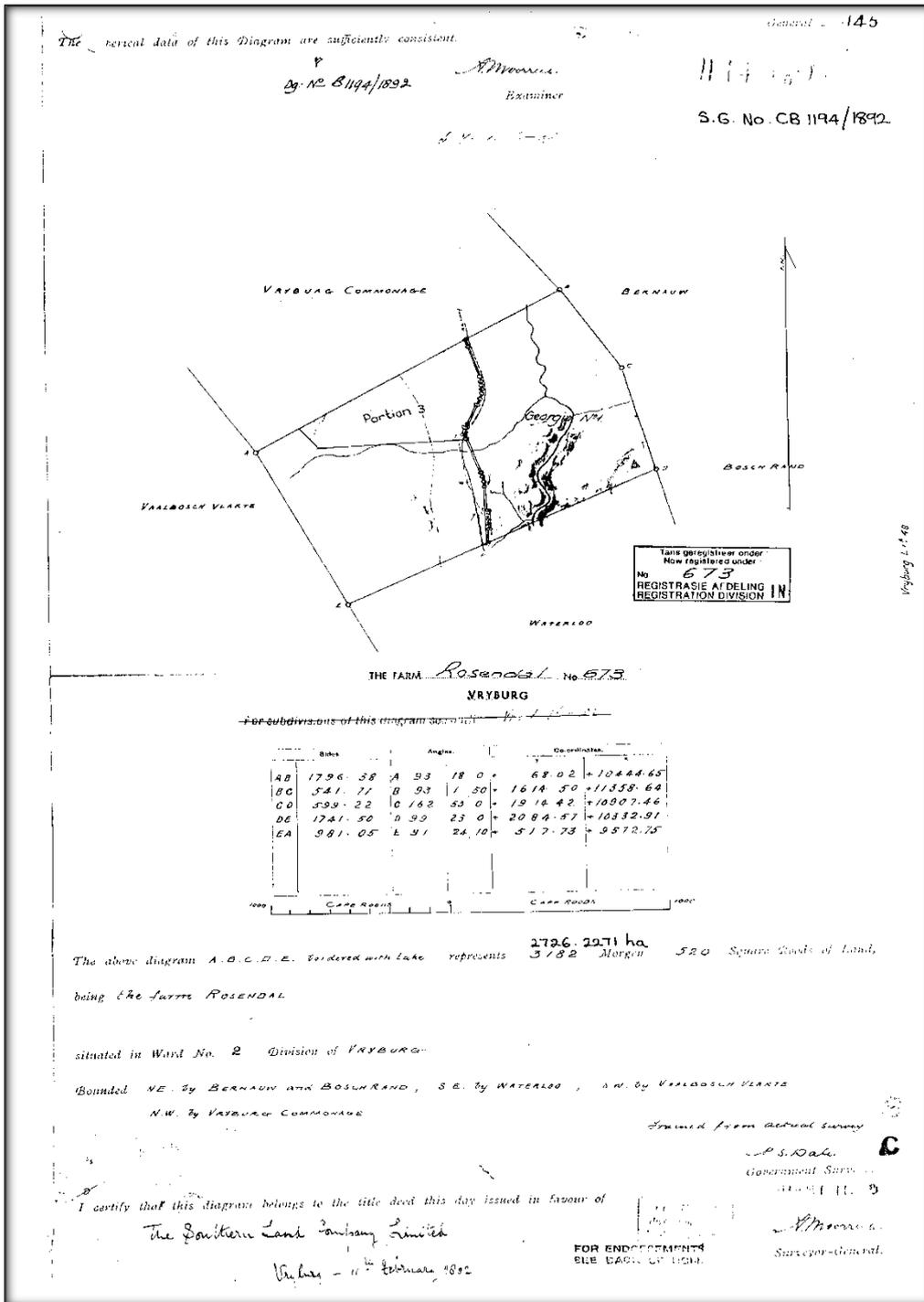


Fig.17: 1892 map of Rosendal 673IN (www.csg.dla.gov.za).

Results of the May 2017 Fieldwork

A number of old (recent) structures associated with the Vryburg Airfield (that formed part of the assessment) were identified during the field survey, but none of the current structures are of historical significance and less than 60 years of age. Some of the structures are in a state of disrepair as well, while some hangars here are in use by the Vryburg Vlieg Klub. No mitigation measures are recommended at this stage.



Fig.18: Main Airfield building.



Fig.19: Sign on hangar building for Vryburg Vlieg Klub.



Fig.20: A view of the hangars at the airfield.

A number of sites with Stone Age tools (individual tools and some denser scatters) were identified in the study area during the assessment. This includes some stone tools to the south of Area F (Huhudi Extension 1). These tools were identified in areas close to sections of disturbances (pipeline excavations) and roads, as well as open patches of soil. Although only a few areas were inspected for the possibility of the presence of archaeological material, these finds do indicate that there is a high likelihood of more sites being present in the total development area. The reason for this interpretation is provided below. Also, based on the findings some recommendations regarding archaeological mitigation measures are also provided.

The first site found contains a number of Earlier & Middle Stone Age core and flake tools scattered around an area of about 50m x 50m. The tools are weathered and patinated and seem to have been exposed to water erosion (rolling) as well. Although only around 10 objects were identified in this area, the section only represents a small fraction of the total land area covered by the study area. It is therefore highly likely that there could be more and denser scatters present in the area.

The 2nd area where stone tools were identified is located to the south of (and therefore outside of the main study area) Area F (Huhudi Extension 1). The ESA/MSA tools identified here are located next to a newly constructed dirt road and within exposed gravels and rocks. The tools include large and smaller core and flake tools, as well as some choppers (Oldowan?). Although not located in the main development area the presence of these tools in the exposed gravels does indicate the high likelihood of more sites and finds located “in situ” below the present surface levels. Sites and artifacts might therefore be exposed during construction work related to the township developments.

The third and fourth sites are located to the east of the airfield airstrip and in the area impacted by a recent pipeline trench. The tools found here consist of possible ESA/early MSA bifacial handaxes and were identified within the loose stones exposed by the pipeline trenching. The natural stratigraphy visible here shows that there is approximately 25cm of grass and topsoil above a layer of gravel/stones that could possibly contain archaeological

material. Furthermore, some scatters of ESA/MSA tools were also identified in the area, away from the pipeline trenching and this again indicates the high possibility that more and even denser scatters of tools could be present in the larger study area.

The following mitigation measures are recommended based on the superficial findings during the Phase 1 assessment:

1. Detailed mapping of the stone tools and possible scatters of material in the study area
2. Surface sampling of representative material from the sites to assist with the dating of the Stone Age archaeology of the area and to interpret it within the Stone Age archaeology of the larger geographical area
3. Test Trenching in selected areas to determine if there is any “in situ” archaeological deposits in areas where township development will be taking place.

GPS Location of Stone Age Sites: S26 58 53.40 E24 43 54.80 (ESA/MSA tools Area B); S26 59 46.90 E24 44 40.80 (south of Area F); S26 58 59.20 E24 43 42.50 (Bifacial hand axe); S26 58 59.80 E24 43 42.60 (Bifacial tool)

Cultural Significance: Medium - High.

Heritage Significance: Grade II

Field Rating: General protection A (IV A): Site should be mitigated before destruction (high/medium significance)

Mitigation: See above



Fig.21: MSA flake tool from the first area.



Fig.22: MSA core from the first site.



Fig.23: MSA flake tool.



Fig.24: ESA/MSA tools from the first area.



Fig.25: Weathered MSA tool from the first area.

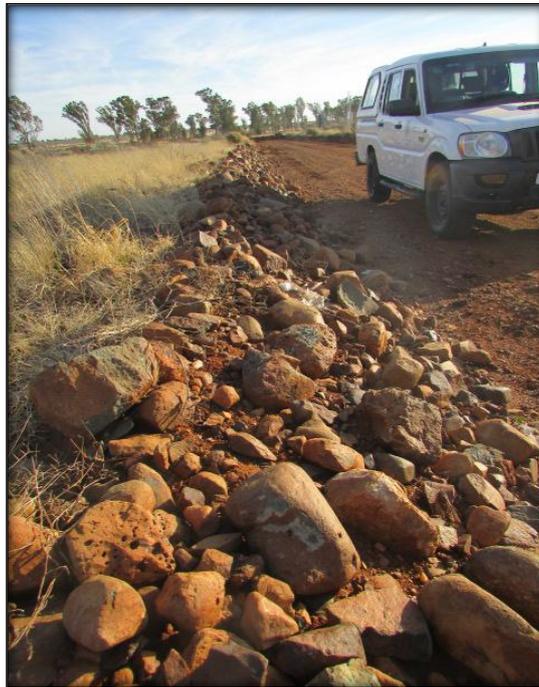


Fig.26: A view of the gravel exposed by the dirt road south of Area F.

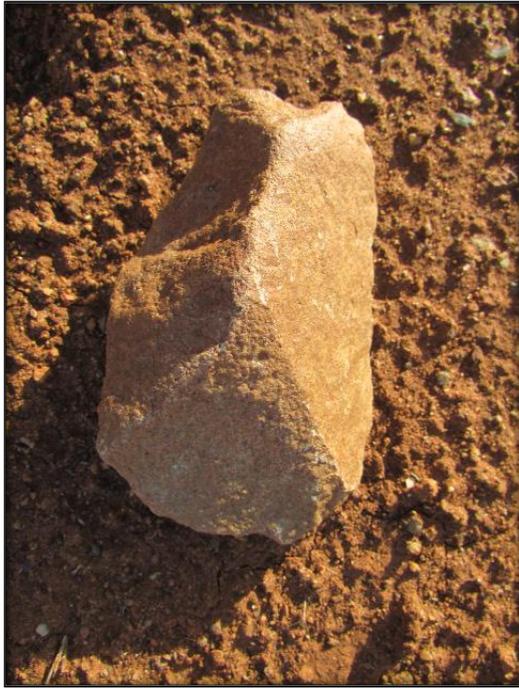


Fig.27: One of the large ESA/MSA tools from the gravels in the road.

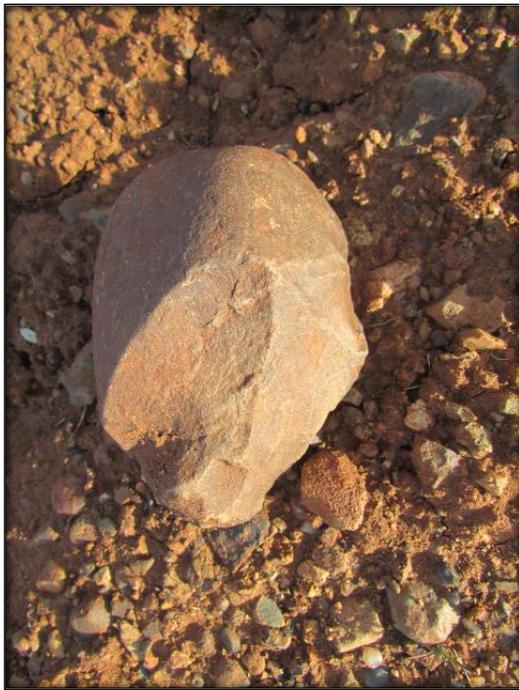


Fig.28: An ESA pebble tool (chopper).



Fig.29: A core from the road site south of Area F.



Fig.30: Another core from the road site.



Fig.31: A bifacial handaxe from the pipeline site in Area B.



**Fig.32: Another bifacial tool from the pipeline site.
ESA cleaver?**



**Fig.33: The natural stratigraphy exposed by the
pipeline trench.**



Fig.34: More ESA/MSA tools found close to the pipeline area.

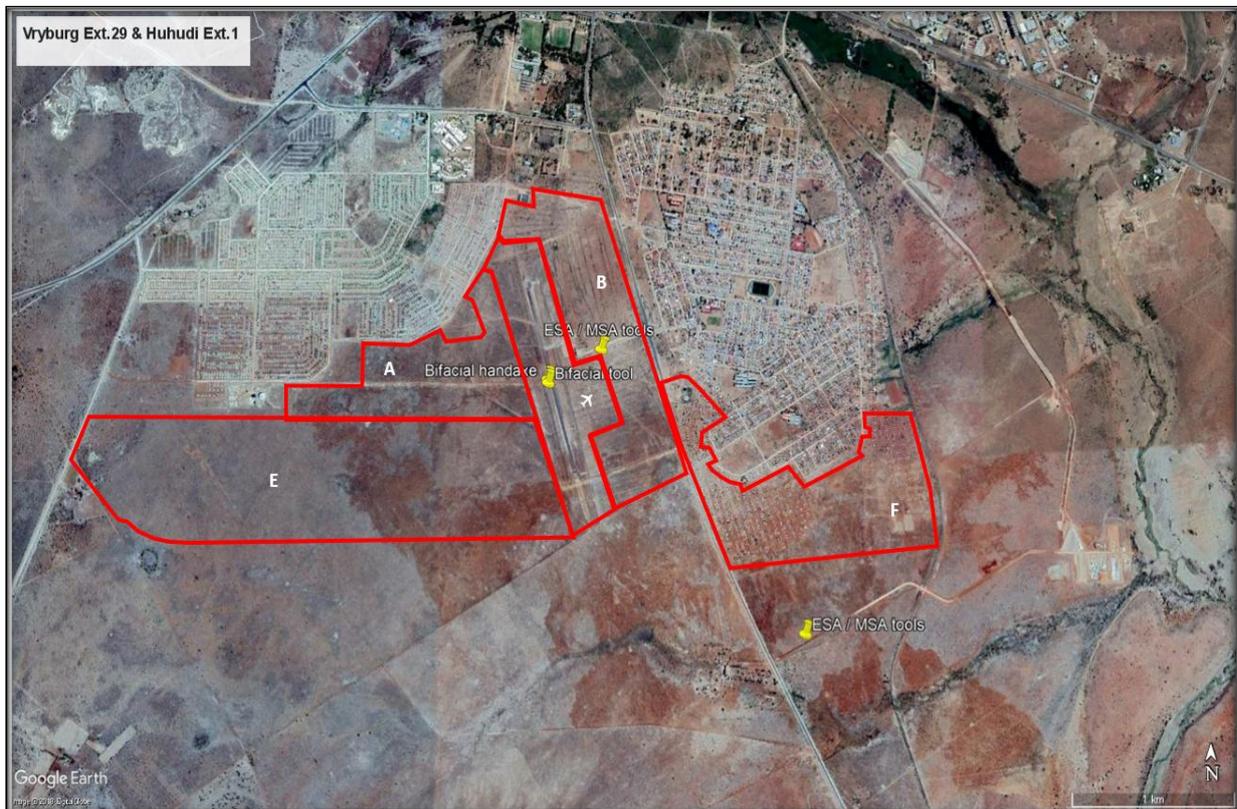


Fig.35: Map showing location of ESA/MSA sites and finds within the development areas (Google Earth 2018).

It should be noted that although all efforts were made to cover the total area 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 (incl. 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 Maxim Planning Solutions (Pty) Ltd to undertake a Phase 1 HIA for the proposed Vryburg Extension 29 & Huhudi Extension 1 Township developments in the Vryburg/Huhudi area in the Northwest Province.

The development is located in the Naledi Local Municipality, and the project is done under instruction from King & Associates (Pty) Ltd. Vryburg Extension 29 is located on a Portion of the Remaining Extent of Erf 506, Vryburg, while Huhudi Extension 1 is situated on the following land parcels:

Portion of Erf 4835, Huhudi

Portion of the Remaining Extent of Erf 506, Vryburg

Erf 3455, Huhudi

Erf 4377, Huhudi

Remaining Extent of Erf 4378, Huhudi

Portion of the Remaining Extent of Portion 8 of the farm Rosendal No. 673-IN

A number of known cultural heritage sites (archaeological and/or historical) exist in the larger geographical area within which the study area falls. There are no known sites on the specific land parcel, although some were identified in the study area during the assessment.

A number of old (recent) structures associated with the Vryburg Airfield (that formed part of the assessment) were identified during the field survey, but none of the current structures are of historical significance and less than 60 years of age. Some of the structures are in a state of disrepair as well, while some hangars here are in use by the Vryburg Vlieg Klub. No mitigation measures are recommended.

A number of sites with Stone Age tools (individual tools and some denser scatters) were identified in the study area during the assessment. This includes some stone tools to the south of Area F (Huhudi Extension 1). These tools were identified in areas close to sections of disturbances (pipeline excavations) and roads, as well as open patches of soil. Although only a few areas were inspected for the possibility of the presence of archaeological material, these finds do indicate that there is a high likelihood of more sites being present in the total development area.

The following mitigation measures are recommended based on the superficial findings during the Phase 1 assessment:

1. Detailed mapping of the stone tools and possible scatters of material in the study area
2. Surface sampling of representative material from the sites to assist with the dating of the Stone Age archaeology of the area and to interpret it within the Stone Age archaeology of the larger geographical area
3. Test Trenching in selected areas to determine if there is any “in situ” archaeological deposits in areas where township development will be taking place.

Finally, 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.

From a cultural heritage point of view the development should be allowed to continue once the recommended mitigation measures have been implemented.

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.