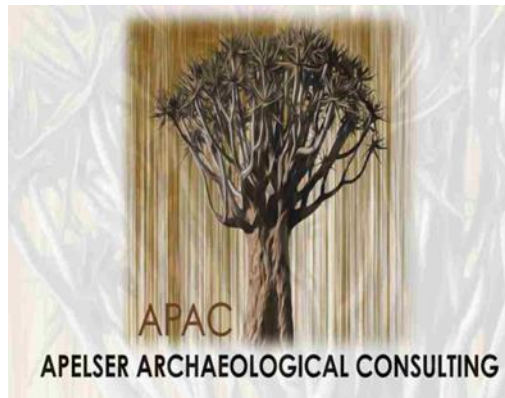


Licebo Environmental and Mining (Pty) Ltd
Reg. Number: 2009/022180/07; VAT Number: 4170262838
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ANNEXURE H

HERITAGE IMPACT ASSESSMENT



Comprehensive and Professional Solutions for all Heritage Related Matters

CK 2006/014630/23

VAT NO.: 4360226270

**PHASE 1 HIA REPORT FOR THE EMALAHLENI TERTIARY HOSPITAL
ERF 1 OF TSWELOPELE JUNCTION TOWNSHIP, LOCATED IN WARD 34
EMALAHLENI LOCAL MUNICIPALITY**

For:

Licebo Environmental & Mining (Pty) Ltd

P.O.Box 20519

Del Judor Extension 4

1044

REPORT: **APAC021/70**

by:

A.J. Pelsler

Accredited member of ASAPA

August 2021

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DISCLAIMER:

Although all efforts are made to identify all sites of cultural heritage (archaeological and historical) significance during an assessment of study areas, the nature of archaeological and historical sites are as such that it is always possible that hidden or subterranean sites, features or objects could be overlooked during the study. APELSER Archaeological Consulting can't be held liable for such oversights or for costs incurred as a result thereof.

Clients & Developers should not continue with any development actions until SAHRA or one of its subsidiary bodies has provided final comments on this report. Submitting the report to SAHRA is the responsibility of the Client unless required of the Heritage Specialist as part of their appointment and Terms of Reference

A handwritten signature in black ink, appearing to be 'A. Pelser', is centered on the page.

SUMMARY

The Mpumalanga Province Department of Public Works, Roads and Transport (DPWRT) is intending to construct a 400 beds (200 tertiary beds and 200 regional beds) tertiary hospital on Erf 1 of Tswelopele Junction Township, located in Ward 34 of eMalahleni Local Municipality (ELM). The proposed project will be constructed on 35 hectares of a portion of the remainder of portion 121 of the farm Zeekoewater 311 JS. Activities to be undertaken will include construction of Medical Wards, Surgical Theatres, Radiology Department, Pathology Lab, Paediatrics Ward, Maternity Wards, Surgical Wards, Medical laboratory, High Care Wards, Emergency or Casualty Unit and Short Stay Ward, Stormwater Management System and Temporary Waste Storage Facilities.

APelser Archaeological Consulting (APAC) was appointed by Licebo Environmental and Mining (Pty) Ltd to conduct a Phase 1 HIA for the eMalahleni Tertiary Hospital Project. The development and study area is located in eMalahleni in Mpumalanga.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. No cultural heritage (archaeological and/or historical) sites, features and material resources were identified in the study area during the field assessment. This report discusses the results of both the background research and physical assessment and provides recommendations on the way forward at the end.

From a Cultural Heritage perspective, it is recommended that the proposed development should be allowed to continue taking the measures provided at the end into consideration.

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1. INTRODUCTION

The Mpumalanga Province Department of Public Works, Roads and Transport (DPWRT) is intending to construct a 400 beds (200 tertiary beds and 200 regional beds) tertiary hospital on Erf 1 of Tswelopele Junction Township, located in Ward 34 of eMalahleni Local Municipality (ELM). The proposed project will be constructed on 35 hectares of a portion of the remainder of portion 121 of the farm Zeekoewater 311 JS. Activities to be undertaken will include construction of Medical Wards, Surgical Theatres, Radiology Department, Pathology Lab, Paediatrics Ward, Maternity Wards, Surgical Wards, Medical laboratory, High Care Wards, Emergency or Casualty Unit and Short Stay Ward, Stormwater Management System and Temporary Waste Storage Facilities.

Supporting infrastructure to be constructed includes:

- Management Offices
- Doctors' suites and medical personnel offices
- Waste management storage yard
- Furnaces and Boilers
- Incinerator
- Security guardhouse
- Parking space
- Sport facilities including soccer fields
- Stormwater management infrastructure
- Internal road infrastructure
- Pump station for sewer reticulation (To connect to the existing municipal sewer reticulation system)

The power supply for the hospital will be from the Doornpoort substation, an overhead 22kV power line will be constructed from Doornpoort substation to New Tertiary Hospital. The Modelpark substation will be used as a backup supply power, an overhead 22kV power line shall be constructed from Modelpark substation to New Tertiary Hospital.

APelser Archaeological Consulting (APAC) was appointed by Licebo Environmental and Mining (Pty) Ltd to conduct a Phase 1 HIA for the eMalahleni Tertiary Hospital Project. The development and study area is located in eMalahleni in Mpumalanga.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. No cultural heritage (archaeological and/or historical) sites, features and material resources were identified in the study area during the field assessment. This report discusses the results of both the background research and physical assessment and provides recommendations on the way forward at the end.

The client indicated the location and boundaries of the study area and the assessment concentrated on this portion. Representatives of the client accompanied the Heritage Specialist during the field work.

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. Graveyards 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 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; and
- f. Human remains.

In terms of Section 36 (3) of the National Heritage Resources Act (Act 25 of 1999), no person may without a permit issued by the relevant heritage resources authority:

- a. Destroy, damage, alter, exhume or remove from its original position or 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 development and study area is situated in eMalahleni in the province of Mpumalanga. The study area is located on on Erf 1 of Tswelopele Junction Township in Ward 34 of eMalahleni Local Municipality (ELM). The proposed project will be constructed on 35 hectares of a Portion of the Remainder of Portion 121 of the farm Zeekoewater 311 JS.

The topography of the study area is relatively flat and open with no dense vegetation (grass cover and trees) limiting access or visibility during the assessment. There are some small sections of rocky outcrops present. The area is surrounded and bordered by various urban residential and retail developments (including the Higveld Mall on its northern boundary) and the N4 Toll Road forming part of its eastern boundary. Past agricultural activities also impacted on the area. If any archaeological and/or historical sites or features were present in the area in the recent past these would have been extensively disturbed or destroyed as a result of these activities.

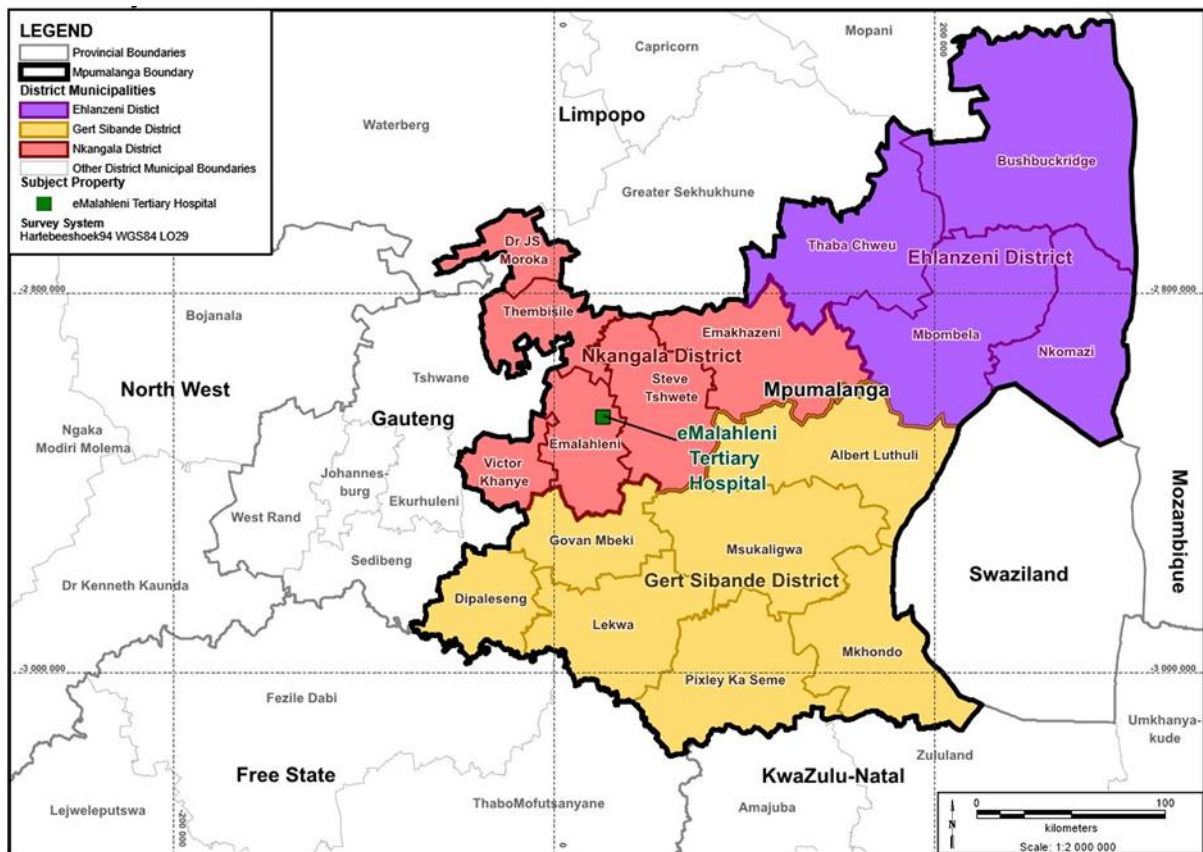


Figure 1: eMalahleni Tertiary Hospital Locality Plan (provided by Licebo).

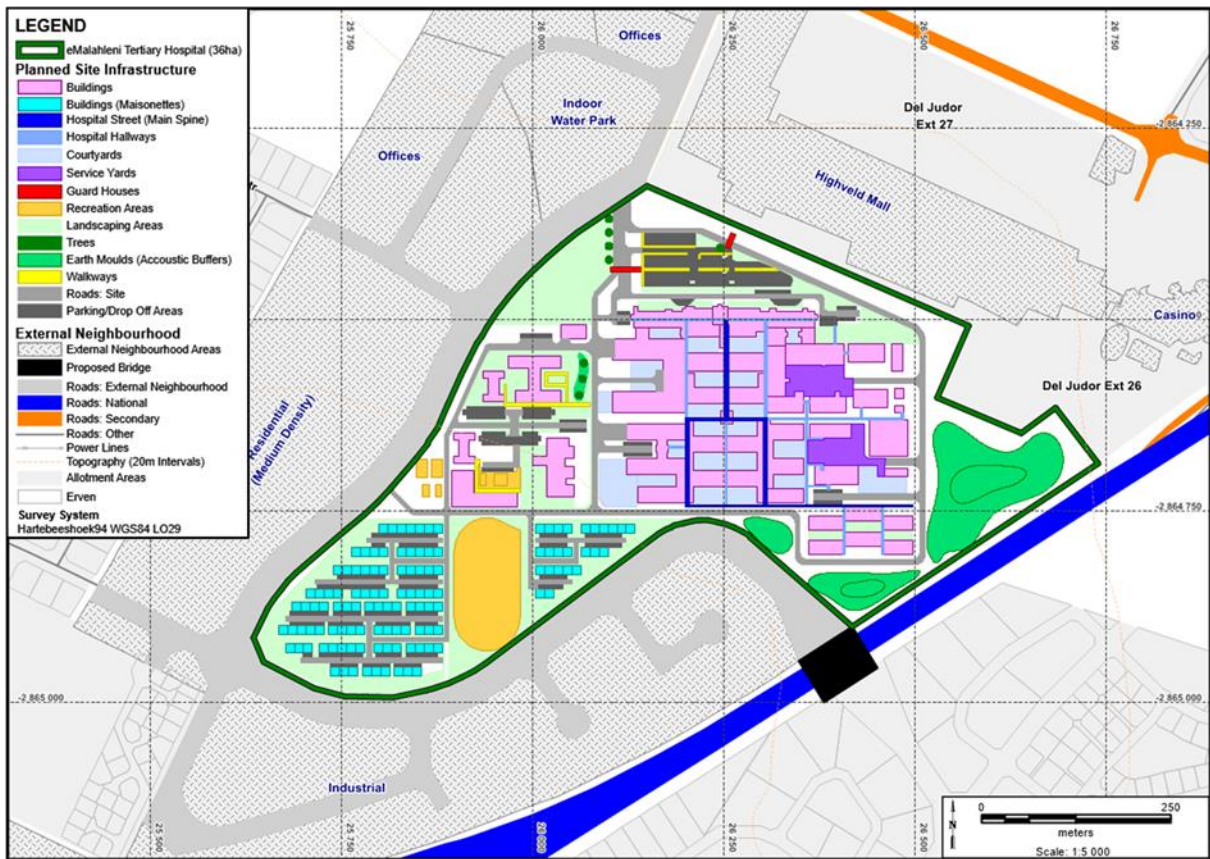


Figure 2: eMalahleni Tertiary Hospital Infrastructure Plan (provided by Licebo).

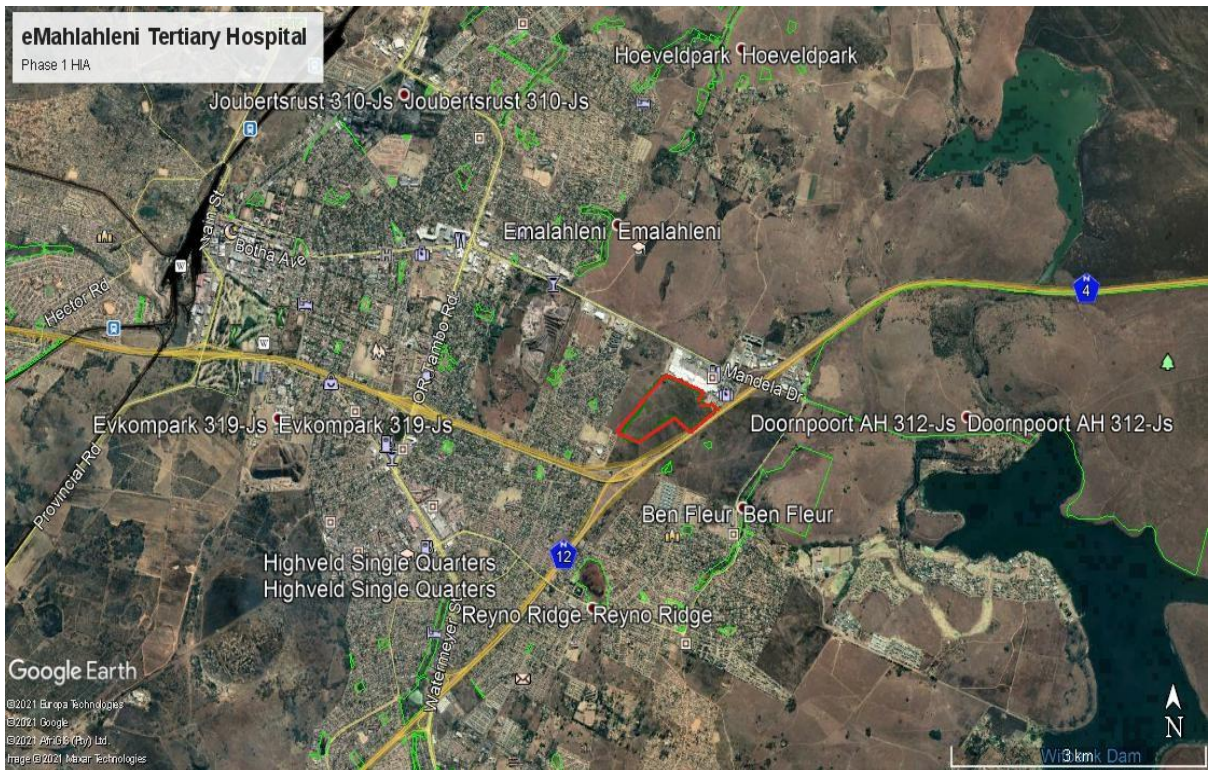


Figure 3: General location of study and Project Area (Google Earth 2021).



Figure 4: Closer view of study and Project 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).

There are no known Stone Age sites in close proximity to the study area, although rock paintings (associated with the Later Stone Age) are known south of Emalahleni (Witbank) near the confluence of the Olifants River and Rietspruit (Bergh 1999:4-5). Heritage surveys have recorded few outstanding Stone Age sites, rock paintings and engravings in the Eastern Highveld - mainly as a result of limited extensive archaeological surveys. Stone tools have however been recorded around some of the pans which occur on the Eastern Highveld (Pistorius 2010:16). Some individual Later Stone Age artifacts were identified in the larger area during a 2007 HIA for Goedgevonden Colliery, but the location of the site is not indicated (De Jong 2007: 19).

No Stone Age sites or material were identified and recorded during the August 2021 field assessment. If any Stone Age material are to be found these would more than likely be single or small scatters of stone tools in open-air contexts.

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.

Based on Tom Huffman's research LIA sites, features or material that could present in the larger area will be related to the Ntsuanatsatsi facies of the Urewe Tradition, dating to between AD 1450 and AD 1650 (Huffman 2007: 167) or the Makgwareng facies of the same dating to between AD 1700 & AD 1820 (Huffman 2007: 179). According to De Jong no Iron Age sites or features were identified during his assessment of the Goedgevonden area and if any did exist here in the past recent farming and mining activities would have disturbed or destroyed any traces (De Jong 2007: 20).

No Early or Middle Iron Age sites are known to occur in the study area (Bergh 1999: 6-7). According to Pistorius the Eastern Highveld had probably not been occupied by Early Iron Age communities, but was occupied by Late Iron Age farming communities such as the Sotho, Swazi and Ndebele who established stone walled settlement complexes. Seemingly these sites are more common towards the eastern perimeters of the Eastern Highveld. Small, inconspicuous stone walled sites have been observed along the Olifants River but are an exception and not the rule (Pistorius 2010:16-17).

No Iron Age sites, features or material were found in the area during the August 2021 assessment.

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 earliest European group to move through the larger geographical area close to the study area was that of Schoon in 1836 (Bergh 1999: 13).

Witbank (modern-day Emalahleni) started when the railway line between Pretoria and Lourenço Marques (built in 1894) passed close to where the town is located today. The first Europeans who came to the area noticed the abundance of coal, which was evident on the surface or in stream beds. A stage post for wagons close to a large outcrop of whitish stones (a 'white ridge') gave the town its name. Witbank was established in 1903 on a farm known as Swartbos which belonged to Jacob Taljaard (Pistorius 2010:17). During the Anglo-Boer War (1899-1902) there was a skirmish between the British (under Hamilton) and the Boer (under Wolmarans) on the 11th of January 1902 at Witbank (Bergh 1999:54).

The oldest map for the farm Zeekoewater 311JS that could be obtained from the Chief Surveyor General's database (www.csg.dla.gov.za) dates to 1924 and is for Portion S1 of Portion 1 of the farm (**CSG Document 10282179**). The farm was then numbered as No.14 (old No.520) and was located in the District of Witbank (initially Middelburg), Ward of Steenkoolspruit in the Province of Transvaal. This map relates to a Deed of Transfer in favor of one J.P. Reyneke dated to 3rd of February 1920. This portion was surveyed in February 1924. For Portion 121 earliest map found dates to 1957 (**CSG Document 10288738**). This portion of the farm was surveyed for a Servitude in October 1956.

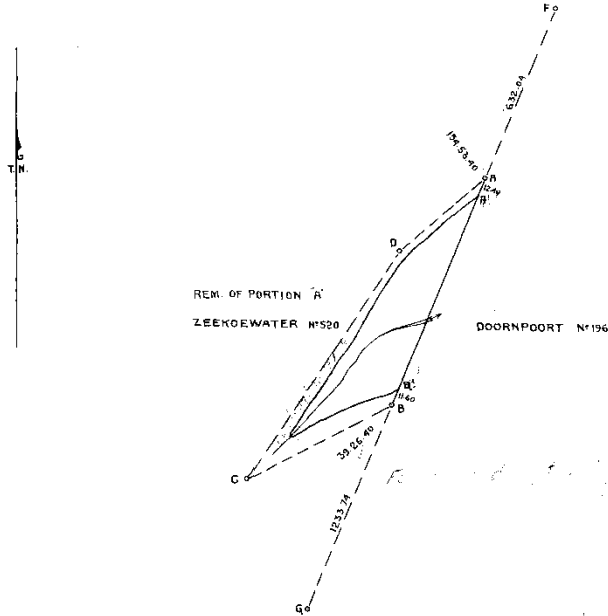
No historical sites or features could be identified on these two maps.

Form B2.—Diagram Form for a Sub-Division of a Farm or portion of a Farm.

A. NO. 544/24

Exam. No. 766 1924

SIDES.		ANGLES.		(T) CO-ORDINATES (X)	
A B	152.273	R	25.06.20	R -	454.70 - 1430.64
B C	99.91	B	140.33.20	B -	595.21 - 1372.05
C D	169.56	C	27.56.30	C -	641.94 - 1293.96
D A	69.75	D	166.23.50	D -	501.60 - 1379.02
				F +	128.65 - 1673.90
				G -	1733.91 - 997.22



The above Figure lettered A B C D along curve B'A' represents
 an area of 490 Morgen 505 Square Rods of land, being Portion 1 of Portion 1
 of the Farm ZEEKOEWATER N°500 1A
 according to Diagram A. No. 479-18 relating to Deed of Transfer No. 1122-1920 dated 3-2-1920 made in favour of
J.P. Reyneke situate in the District of Middelburg Witwaters Province of the Transvaal. Bounded as indicated above.
 The Beacons have been properly erected according to law.

Surveyed in February 1924 by me

H. H. van der Merwe
 Land Surveyor.

Framed for the purpose of a servitude for reservoir.

Approved
J. P. Reyneke
 17 MAR 1924
 Ag. Surveyor-General.

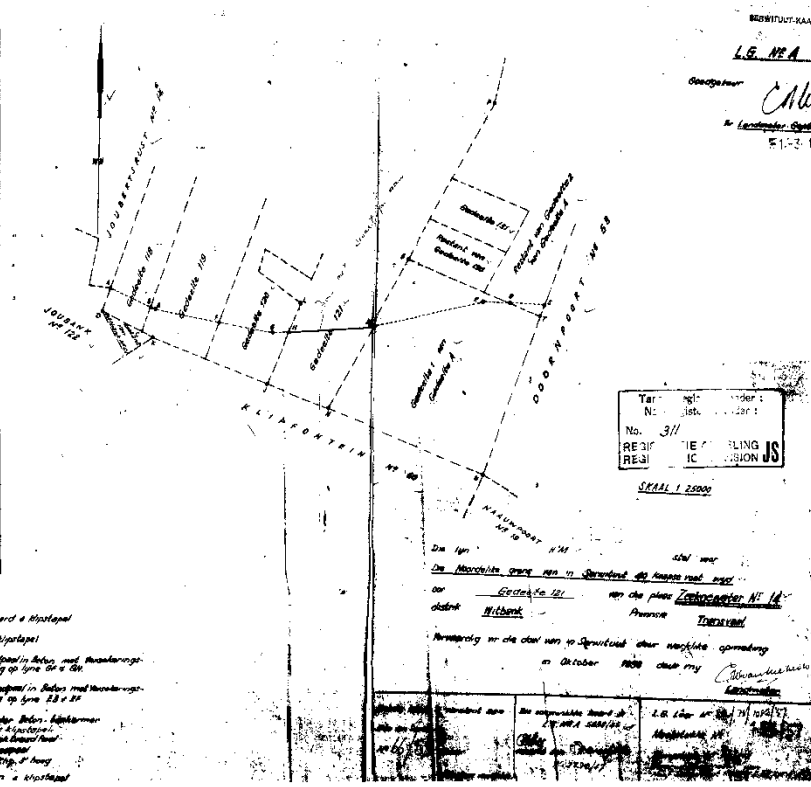
This diagram belongs to Deed of Transfer No. 1122-1920 made this day in favour of

Registrar of Deeds.

Published by authority—Groot & Sherriff, P.O. Box 264, Johannesburg—11/223.

Figure 5: A 1924 map of Portion 1 of the farm Zeekoegat 311JS (www.csg.dla.gov.za).

Point	Coordinates (Easting, Northing)
AB	1487.4, 290 87.00
BC	818.1, 21 29.00
CD	1580.9, 111 28.00
DE	782.5, 201 26.00
EF	150.8, 238 87.00
FG	2380.2, 378 01.20
FH	1929.1, 278 01.20
GH	631.7, 268 38.00
HI	1801.0, 20 09.30
IJ	9378.0, 107 37.88
KA	418.3, 111 39.00
KB	371.5, 206 03.30
KC	4088.2, 206 18.00
KA	1394.0, 22 20.00
KB	3.883.0, 107 37.88
KC	2514.7, 212 28.00
KA	5786.9, 212 28.00
KB	3383.3, 208 11.00
KA	360.7, 30 28.30
KB	4270.0, 78 03.20
KA	1260.1, 270 28.00
KB	386.0, 21 08.00
KA	1182.7, 108 11.00
KB	5282.7, 31 08.00
KA	8205.7, 197 37.88



Beelding van Baken

A F H M & R S 1/4 Bakkenswaard & Klyfontein
C J & M T 1/4 Klyfontein & Klyfontein

1/4 Bakkenswaard in Baken, met Bakkenswaard-
paaie 15' hoog op lyn 28 v 28.

1/4 Bakkenswaard in Baken met Bakkenswaard-
paaie 15' hoog op lyn 28 v 28.

D 1/4 Bakkenswaard & Klyfontein
E 1/4 Bakkenswaard & Klyfontein
F 1/4 Bakkenswaard & Klyfontein
G 1/4 Bakkenswaard & Klyfontein
H 1/4 Bakkenswaard & Klyfontein

Figure 6: A 1957 map of Portion 121 of the farm Zeekoegat 311JS (www.csg.dla.gov.za).

RESULTS OF THE AUGUST 2021 STUDY AREA ASSESSMENT

As indicated earlier the areas around and bordering the study & development area has been heavily impacted by urban related developments such as residential settlement, commercial developments (the Highveld Mall) and infrastructure (such as roads including the N4). Parts of the study & development area itself were utilized for agricultural purposes in the past as well. The informal dumping of refuse and building rubble in the area has also impacted. If any cultural heritage sites, features or material existed here in the past it would have been extensively disturbed or destroyed as a result of these activities.



Figure 7: General view of part of the study & development area.



Figure 8: Some rocky outcrops occur in sections of the area.



Figure 9: General view with the Highveld Mall visible to the north.



Figure 10: Informal dumping of refuse and building rubble occurs throughout the area.

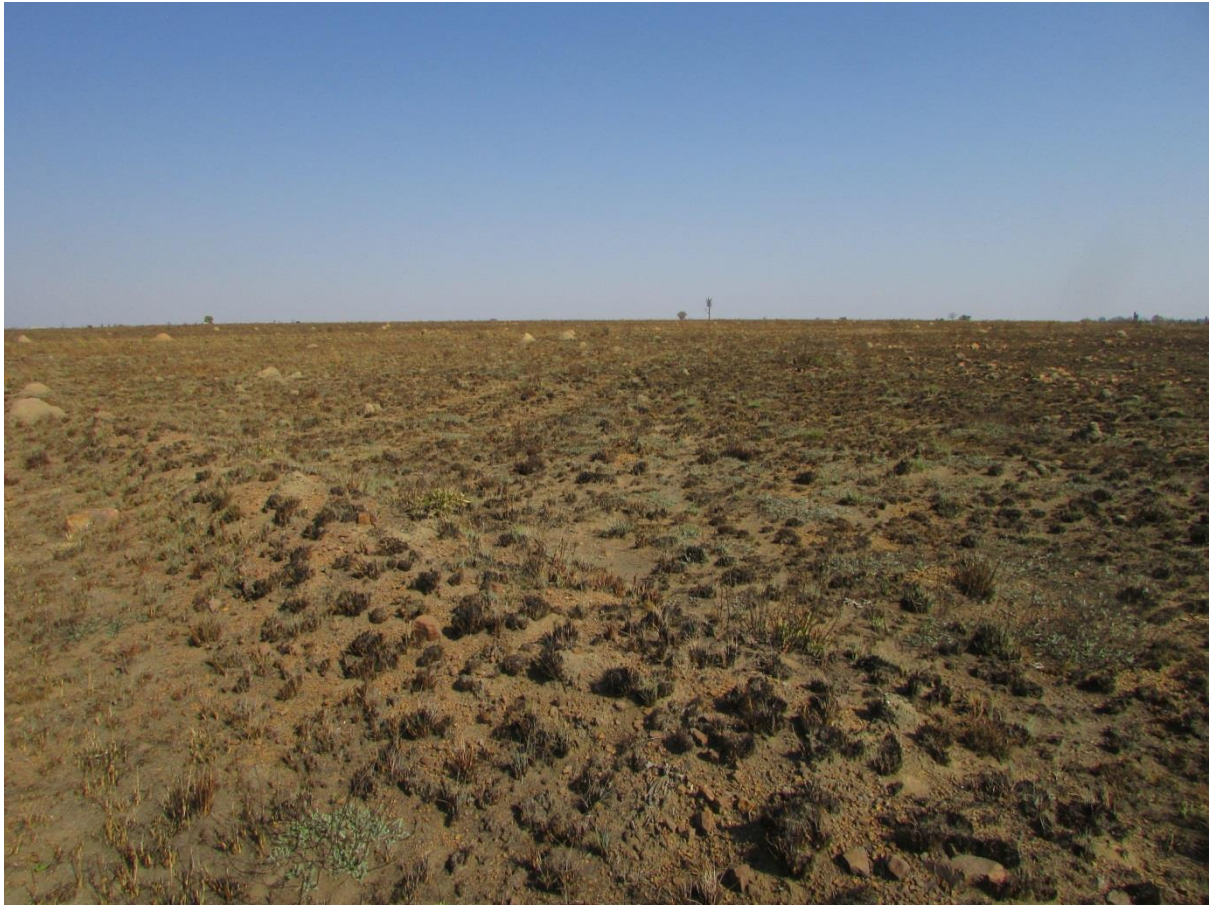


Figure 11: Remnant of agricultural blocks in the area.



Figure 12: View of the western boundary with residential development.



Figure 4: Clumps of trees in the area is scarce. These were investigated for the presence of possible graves. The dumping of building rubble is also evident here again.



Figure 5: View of the Highveld Mall on the northern boundary of the study & development area.

Impact/Risk Assessment

This denotes the impact of the proposed development on possible cultural heritage resources.

SEVERITY CRITERIA

INTENSITY = MAGNITUDE OF IMPACT	RATING
Insignificant: impact is of a very low magnitude	1
Low: impact is of low magnitude	2
Medium: impact is of medium magnitude	3
High: impact is of high magnitude	4
Very high: impact is of highest order possible	5

FREQUENCY = HOW OFTEN THE IMPACT OCCURS	RATING
Seldom: impact occurs once or twice	1
Occasional: impact occurs every now and then	2

Regular: impact is intermittent but does not occur often	3
Often: impact is intermittent but occurs often	4
Continuous: the impact occurs all the time	5

DURATION = HOW LONG THE IMPACT LASTS	RATING
Very short-term: impact lasts for a very short time (less than a month)	1
Short-term: impact lasts for a short time (months but less than a year)	2
Medium-term: impact lasts for the for more than a year but less than the life of operation.	3
Long-term: impact occurs over the operational life of the proposed extension.	4
Residual: impact is permanent (remains after mine closure)	5

EXTENT

EXTENT = SPATIAL SCOPE OF IMPACT/ FOOTPRINT AREA / NUMBER OF RECEPTORS	RATING
Limited: impact affects the development area	1
Small: impact extends to the neighbouring farmers	2
Medium: impact extends to surrounding farmers beyond the immediate neighbours	3
Large: impact affects the area covered by the local municipal area	4
Very Large: The impact affects an area larger than the local municipal area	5

PROBABILITY

PROBABILITY = LIKELIHOOD THAT THE IMPACT WILL OCCUR	RATING
Highly unlikely: the impact is highly unlikely to occur	0.2
Unlikely: the impact is unlikely to occur	0.4
Possible: the impact could possibly occur	0.6
Probable: the impact will probably occur	0.8
Definite: the impact will occur	1

IMPACT SIGNIFICANCE

NEGATIVE IMPACTS

≤1	Very low	Impact is negligible. No mitigation required.
>1≤2	Low	Impact is of a low order. Mitigation could be considered to reduce impacts. But does not affect environmental acceptability.
>2≤3	Moderate	Impact is real but not substantial in relation to other impacts. Mitigation should be implemented to reduce impacts.
>3≤4	High	Impact is substantial. Mitigation is required to lower impacts to acceptable levels.
>4≤5	Very High	Impact is of the highest order possible. Mitigation is required to lower

		impacts to acceptable levels. Potential Fatal Flaw.
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POSITIVE IMPACTS

≤1	Very low	Impact is negligible.
>1≤2	Low	Impact is of a low order.
>2≤3	Moderate	Impact is real but not substantial in relation to other impacts.
>3≤4	High	Impact is substantial.
>4≤5	Very High	Impact is of the highest order possible.

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

The Mpumalanga Province Department of Public Works, Roads and Transport (DPWRT) is intending to construct a 400 beds (200 tertiary beds and 200 regional beds) tertiary hospital on Erf 1 of Tswelopele Junction Township, located in Ward 34 of eMalahleni Local Municipality (ELM). The proposed project will be constructed on 35 hectares of a portion of the remainder of portion 121 of the farm Zeekoewater 311 JS. Activities to be undertaken will include construction of Medical Wards, Surgical Theatres, Radiology Department, Pathology Lab, Paediatrics Ward, Maternity Wards, Surgical Wards, Medical laboratory, High Care Wards, Emergency or Casualty Unit and Short Stay Ward, Stormwater Management System and Temporary Waste Storage Facilities.

APelser Archaeological Consulting (APAC) was appointed by Licebo Environmental and Mining (Pty) Ltd to conduct a Phase 1 HIA for the eMalahleni Tertiary Hospital Project. The development and study area is located in eMalahleni in Mpumalanga.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. The areas around and bordering the study & development area has been heavily impacted by urban related developments

such as residential settlement, commercial developments (the Highveld Mall) and infrastructure (such as roads including the N4). Parts of the study & development area itself were utilized for agricultural purposes in the past as well. The informal dumping of refuse and building rubble in the area has also impacted. If any cultural heritage sites, features or material existed here in the past it would have been extensively disturbed or destroyed as a result of these activities.

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.

Finally, from a Cultural Heritage perspective, it is recommended that the proposed development should be allowed to continue taking the above measures into consideration.

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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.