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CK 2006/014630/23 **VAT NO.: 4360226270**

**PHASE 1 HIA REPORT FOR TOWNSHIP ESTABLISHMENT
ON VARIOUS PORTIONS OF THE FARM NAAUWPOORT 335JS
EMAHLAHLANI LOCAL MUNICIPALITY, MPUMALANGA**

For:

Labesh Environmental

REPORT: **APAC021/56**

by:

A.J. Pelser
Accredited member of ASAPA

June 2021

P.O.BOX 73703
LYNNWOOD RIDGE
0040
Tel: 083 459 3091
Fax: 086 695 7247
Email: apac.heritage@gmail.com

Member: AJ Pelser BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

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SUMMARY

APelser Archaeological Consulting (APAC) was appointed by Labesh Environmental to conduct a Phase 1 Heritage Impact Assessment for Township Establishment on various portions of the Farm Naauwpoort 335 JS. A PIA Desktop Study formed part of the assessment. The development and study area is located in the Emalahleni Local Municipality, Nkangala District Municipality, Mpumalanga.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. Besides a recent historical grave site, no other cultural heritage (archaeological and/or historical) sites, features or material 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 required mitigation measures at the end.

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

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1. INTRODUCTION

APelser Archaeological Consulting (APAC) was appointed by Labesh Environmental to conduct a Phase 1 Heritage Impact Assessment for Township Establishment on various portions of the Farm Naauwpoort 335 JS. A PIA Desktop Study formed part of the assessment. The development and study area is located in the Emalahleni Local Municipality, Nkangala District Municipality, Mpumalanga.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. Besides a recent historical grave site, no other cultural heritage (archaeological and/or historical) sites, features or material were identified in the study area during the field assessment.

The client indicated the location and boundaries of the study area and the assessment concentrated on this. A Paleontological Desktop study was also requested and the resultant report PIA Desktop Report will be submitted as a separate document.

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; and
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), as amended.

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.)

An 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 300 m in length
- b. The construction of a bridge or similar structure exceeding 50 m in length
- c. Any development or other activity that will change the character of a site and exceed 5 000 m² 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 National Heritage Resources 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 National Heritage Resources 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 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 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

The study & proposed Township Establishment area is situated in the Emalahleni Local Municipality, Nkangala District Municipality of the Mpumalanga Province. It is located on Portions 562, 563, 565 and the Remainder of Portion 25 of the farm Naauwpoort 335JS.

The topography of the study area is in parts generally flat and open, although there are some rocky ridges and outcrops present in other sections. Vegetation cover during the assessment was not that dense and visibility and access on the ground was not limited. The areas would have been used for agricultural purposes (ploughing/crop growing) in the past, while large parts of it has been extensively disturbed through quarrying (for sand/building material) in recent times. If any archaeological and/or historical sites did exist here it would have been extensively disturbed or destroyed as a result of these activities. Although there are some structures (related to the quarrying and other activities in the area) present in the area these have a recent origin and does not have any cultural heritage significance. The only site of any significance recorded was a single grave site containing a double grave. This site and the required mitigation measures will be discussed in the next section.

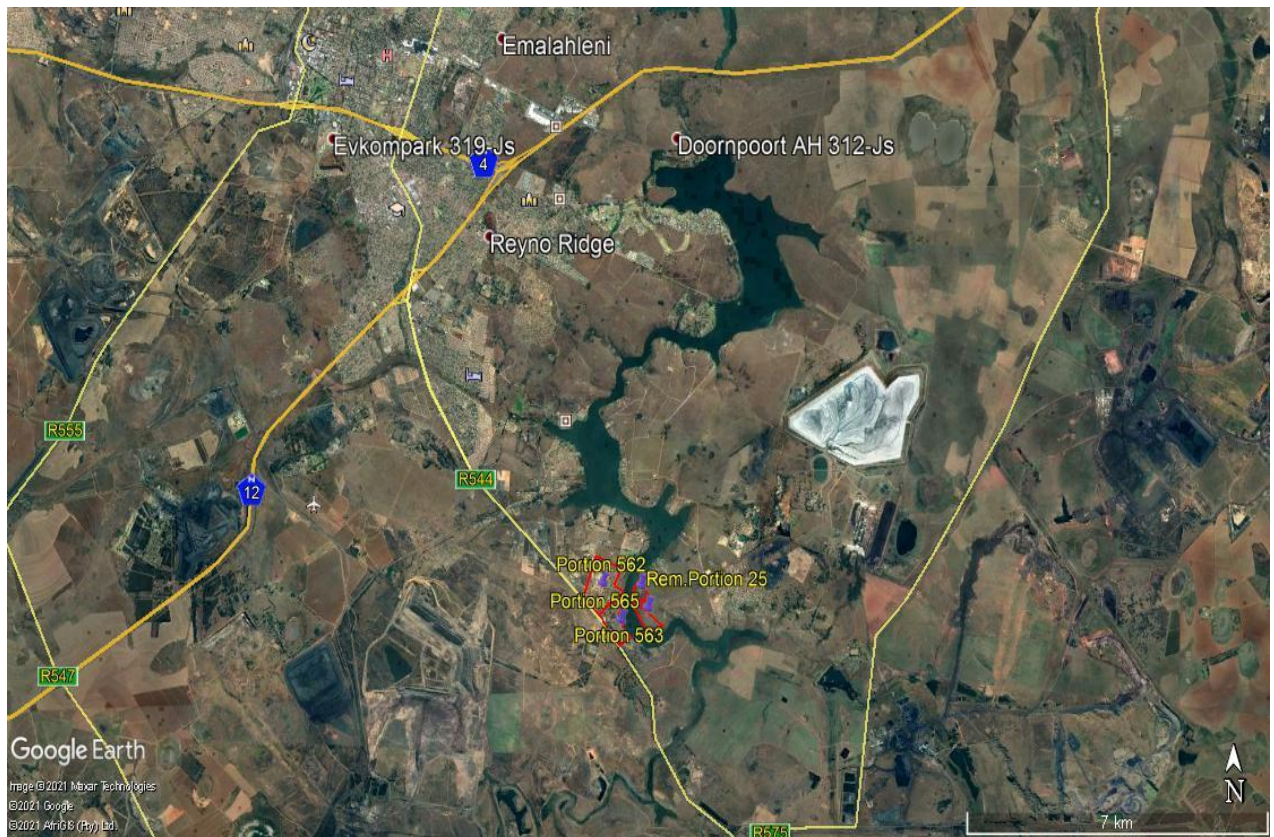


Figure 1: General location of the study and proposed development area (Google Earth 2021).



Figure 2: Closer view of the study area & development areas footprint (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 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 – 2 000 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 June 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).

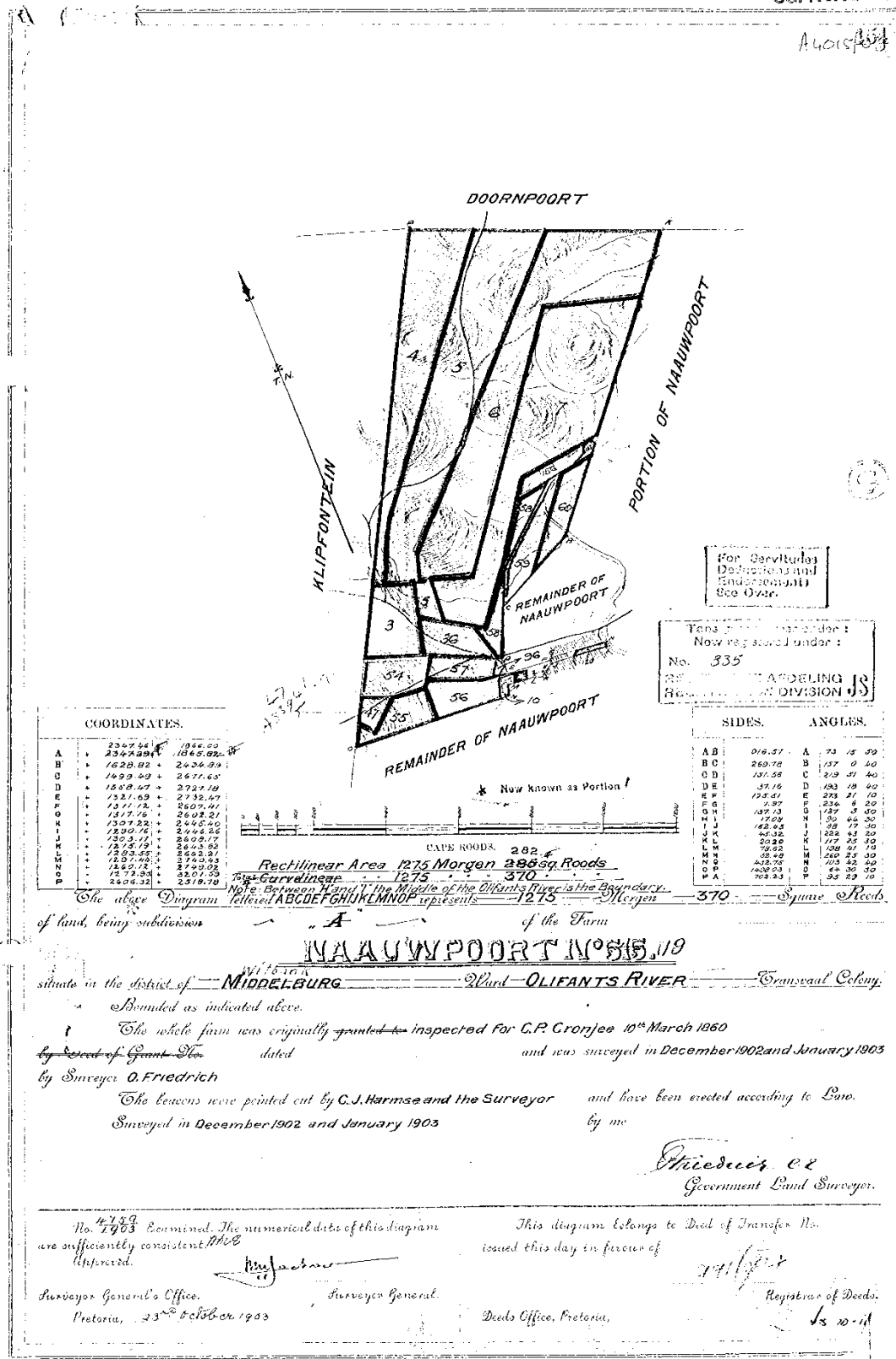
No Iron Age sites, features or material were found in the area during the June 2021 assessment.

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).

Over and above the single grave site identified, no other recent historical sites, features or material were identified in the study area during the June 2021 assessment.

The oldest map for the farm Naauwpoort 335JS that could be obtained from the Chief Surveyor General's database (www.csg.dla.gov.za) dates to 1903 and is for Portion 1 of the farm (CSG Document 10179866). The farm was then numbered as No.515 and was located in the District of Middelburg, Ward of Olifants River in the Transvaal Colony. Originally the whole of the farm was inspected for one C.P. Cronjee on the 10th of March 1860, while it was officially surveyed in December 1902 and January 1903.

August 1903

Figure 3: 1903 map of Portion 1 of the farm Naauwpoort 335JS (www.csg.dla.gov.za).

Results of the June 2021 study area assessment

During the field assessment only one site of any cultural heritage significance was identified and recorded. Due to extensive impacts from recent agricultural and quarrying activities the original natural and historical landscape of the area has been significantly altered, and if any archaeological and/or historical sites did exist here it would more than likely have been disturbed or completely destroyed as a result of these activities. Other impacts include Eskom Powerline servitudes and Pylons.



Figure 4: View of Portion 562 from Portion 25 showing the extensive quarrying as well as the Eksom Powerlines and Pylons.



Figure 5: General view of a section of Portion 562.



Figure 6: Another part of Portion 562.



Figure 8: Another part of Portion 562 showing the Eskom Powerlines & the extensive quarrying.



Figure 9: General view of another section of Portion 562. The impact of quarrying is very clear.



Figure 10: More evidence of the quarrying activities on Portion 562.



Figure 11: General view of a section of Portion 563.



Figure 12: Another section of Portion 563.



Figure 13: Another general view of Portion 563.



Figure 14: Another section of Portion 563.



Figure 15: View of recent structures on Portion 563.



Figure 16: A view of part of Portion 565, with Portion 563 on the opposite side of the dam.



Figure 17: Another section of Portion 565.



Figure 18: A view of a section of Portion 25.



Figure 19: Another view of part of Portion 25.

The Grave Site recorded during the assessment is located on Portion 563 of Naauwpoort 335JS, and contains a double grave (2 burials) of a husband and wife. The 1st is that of Willem Du Rand (passed away in 1932?) and the 2nd is that of Petronella Margaretha Du Rand (nee Harmse) who passed away in 1947. Both graves are therefore older than 60 years of age and protected by the National Cultural Heritage Resources Act.

GPS Location: **S25 58 34.16 E29 16 48.47**

Graves always carry a High Significance Rating in terms of Cultural Heritage.

Cultural Significance: High

Heritage Significance: Grade III: Other heritage resources of local importance and therefore worthy of conservation.

Field Ratings: Local Grade IIIB: Should be included in the heritage register and may be mitigated (High/Medium significance)

Mitigation: Preserving In Situ and Managing through a Graves Heritage Management Plan OR Exhumation and Relocation after detailed Public Participation and the obtaining of relevant permissions

There are two options (mitigation measures) available in dealing with possible impacts on a Burial Site (Cemetery) from any development. These are as follows:

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). 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.



Figure 20: The Grave Site on Portion 563.



Figure 21: The double grave with granite headstone inside the demarcated Grave Site.



Figure 22: Closer view of the doubl-grave and the headstone.



Figure 23: The location of the Grave Site on Portion 563 (Google Earth 2021).

Based on the assessment the proposed Township Establishment on various portions of Naauwpoort 335JS should be allowed to continue once the recommended mitigation measures related to the Grave Site on Portion 563 have been implemented.

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 Labesh Environmental to conduct a Phase 1 Heritage Impact Assessment for Township Establishment on various portions of the Farm Naauwpoort 335 JS. A PIA Desktop Study formed part of the assessment. The development and study area is located in the Emalahleni Local Municipality, Nkangala District Municipality, Mpumalanga.

Background research indicates that there are some cultural heritage sites and features in the larger geographical area within which the study area falls. During the field assessment only one site of any cultural heritage significance was identified and recorded. Due to

extensive impacts from recent agricultural and quarrying activities the original natural and historical landscape of the area has been significantly altered, and if any archaeological and/or historical sites did exist here it would more than likely have been disturbed or completely destroyed as a result of these activities. Other impacts include Eskom Powerline servitudes and Pylons.

The Grave Site recorded during the assessment is located on Portion 563 of Naauwpoort 335JS, and contains a double grave (2 burials) of a husband and wife. The 1st is that of Willem Du Rand (passed away in 1932?) and the 2nd is that of Petronella Margaretha Du Rand (nee Harmse) who passed away in 1947. Both graves are therefore older than 60 years of age and protected by the National Cultural Heritage Resources Act.

Graves always carry a High Significance Rating in terms of Cultural Heritage and the following Mitigation Measures are recommended:

1. Preserving In Situ and Managing through a Graves Heritage Management Plan OR
2. Exhumation and Relocation after detailed Public Participation and the obtaining of relevant permissions

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 into consideration the mitigation measures provided above.

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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, paleontological, 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, paleontology 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.