

Archaetnos Culture & Cultural Resource Consultants BK 98 09854/23

A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE NORTHWEST GATEWAY PROJECT, ON THE FARM HARTEBEESTFONTEIN 445 JQ, NORTH-WEST PROVINCE

For:

Landscape Dynamics PO Box 947 Groenkloof 0027

REPORT NO.: AE01822V

By:

Prof. A.C. van Vollenhoven (L.AKAD.SA.) Accredited member of ASAPA (Accreditation number: 166) Accredited member of SASCH (Accreditation number: CH001)

25 April 2018 (revised 23 April 2019)

Archaetnos P.O. Box 55 GROENKLOOF 0027 Tel: 083 291 6104 Fax: 086 520 4173 E-mail: antonv@archaetnos.co.za

Member: AC van Vollenhoven BA, BA (Hons), DTO, NDM, MA (Archaeology) [UP], MA (Culture History) [US], DPhil (Archaeology) [UP], Man Dip [TUT], D Phil (History) [US]

SUBMISSION OF REPORT

Please note that the South African Heritage Resources Agency (SAHRA) or one of its subsidiary bodies needs to comment on this report.

It is the client's responsibility to do the submission to the relevant heritage authority.

Clients are advised not to proceed with any action before receiving the necessary comments from this authority.

DISCLAIMER

Although all possible care is taken to identify all sites of cultural importance during the survey of study areas, the nature of archaeological and historical sites is as such that it always is possible that hidden or subterranean sites could be overlooked during the study. Archaetnos and its personnel will not be held liable for such oversights or for costs incurred as a result thereof.

Should it be necessary to visit a site again because of the above mentioned, an additional appointment is required.

Reasonable editing of the report will be done upon request by the client if received within 60 days of the report date. However, editing will only be done once, and clients are therefore requested to send all possible changes in one request. Any format changes or changes requested due to insufficient or faulty information provided to Archaetnos on appointment, will only be done by additional appointment.

Any changes to the scope of a project will require an additional appointment.

©Copyright Archaetnos

The information contained in this report is the sole intellectual property of Archaetnos CC. It may only be used for the purposes it was commissioned for by the client.

EXECUTIVE SUMMARY

Archaetnos cc was requested by Landscape Dynamics to conduct a cultural heritage impact assessment (HIA) for the proposed Northwest Gateway Project. This is on the remainder of portion 151, and portions 221, 233, 234, 235, 236 and 237 of the farm Hartebeestfontein 445 JQ, in the North-West Province. The site is located towards the west of Pretoria and the south of Brits.

The development consists of a mixed development, including residential units, a hotel, hospital and retail area. The HIA study forms part of an Environmental Authorisation. The client indicated the areas to be surveyed and the survey was confined to these. It was done via foot.

The methodology for the study includes a survey of literature and a field survey. The latter was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed. The survey was undertaken by doing a physical survey via off-road vehicle and on foot and covered as much as possible of the area to be studied. Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage.

All sites, objects, features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities were determined by means of the Global Positioning System (GPS). The information was added to the description in order to facilitate the identification of each locality.

During the survey eight sites and one site feature of cultural heritage significance were identified. Mitigation measures are proposed. After the implementation of these, the proposed development may continue.

The following is recommended:

- A small grave yard (site no. 2) was identified, and graves are always regarded as having a **high** cultural significance. The field rating thereof is Local Grade III B. It should be included in the heritage register but may be mitigated.
- Two possibilities exist. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the development activities.
- The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly

affected by the development activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA.

- It is necessary that once the vegetation is cleared, the number of graves must be verified by a qualified archaeologist. The proposed cemetery erf size should be enlarged if necessary, to include all graves with an appropriate buffer.
- The type of development makes it possible to keep the graves *in situ*. The developer indicated that they will zone an area of 225 m² around the graves as a cemetery site (for existing graves only) and that it will be fenced in. It is therefore recommended that it be included in the development planning and that Option 1 be implemented. This means that a management plan for the sustainable utilisation and preservation of the site needs to be drafted.
- These remains of three stone and clay houses (Sites 1, 3 and 4) are those of workers dwellings. These are regarded as having a field rating of Local Grade IIIB. The sites should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority.
- This means that the sites may be demolished, but only after it had been documented. This documentation includes doing test excavations and drawing a site map. Since there are three of these structures, it would be sufficient to mitigate only one. It is suggested that no. 1 be mitigated due to its close association with the graves.
- Sites no. 5, 6 and 7 are the remains of large temporary storage buildings. These sites are regarded as having a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.
- The farm yard (Site 8) is regarded as having a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.
- The heritage feature (aquaduct) is regarded as having a field rating of Local Grade IIIB. It should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority. In this particular case it could be used as part of the stormwater management plan of the township.

- The development may only continue after receiving the necessary comments from the BGG Unit of SAHRA and the North-West Provincial Heritage Resources Authority and implementing their decision.
- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. It may only become known later on. Therefore, operating controls and monitoring should be introduced, aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

It is also important to take cognizance that it is the client's responsibility to do the submission of this report to the relevant Heritage Resources Agency. No work on site may commence before receiving the necessary comments from them.

CONTENTS

Page

SUMMARY
CONTENTS
CIRRICULUM VITAE OF SPECIALIST
1. INTRODUCTION9
2. TERMS OF REFERENCE12
3. CONDITIONS AND ASSUMPTIONS12
4. LEGISLATIVE REQUIREMENTS13
5. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARDS FOR CULTURAL HERITAGE 16
6. METHODOLOGY17
7. DESCRIPTION OF THE ENVIRONMENT
8. HISTORICAL CONTEXT23
9. DISCUSSION OF SITES FOUND DURING THE SURVEY25
10. PUBLIC CONSULTATION
11. CONCLUSIONS AND RECOMMENDATIONS41
12.REFERENCES43
APPENDIX A – DEFENITION OF TERMS
APPENDIX B – DEFINITION/ STATEMENT OF SIGNIFICANCE45
APPENDIX C – SIGNIFICANCE AND FIELD RATING
APPENDIX D – PROTECTION OF HERITAGE RESOURCES
APPENDIX E – HERITAGE MANAGEMENT IMPACT ASSESSMENT PHASES

CURRICULUM VITAE Prof Anton Carl van Vollenhoven

PERSONAL INFORMATION

- Born: 20 January 1966, Pretoria, RSA
- Address: Archaetnos, PO Box 55, Groenkloof, 0027
- Cell phone: 083 291 6104
- Nationality: RSA
- E-mail: antonv@archaetnos.co.za

TERTIARY EDUCATION

- BA 1986, University of Pretoria
- BA (HONS) Archaeology 1988 (cum laude), University of Pretoria
- MA Archaeology 1992, University of Pretoria
- Post-Graduate Diploma in Museology 1993 (cum laude), University of Pretoria
- Diploma Tertiary Education 1993, University of Pretoria
- DPhil Archaeology 2001, University of Pretoria.
- MA Cultural History 1998 (cum laude), University of Stellenbosch
- Management Diploma 2007 (cum laude), Tshwane University of Technology
- DPhil History 2010, University of Stellenbosch

EMPLOYMENT HISTORY

- 1988-1991: Fort Klapperkop Military Museum Researcher
- *1991-1999:* National Cultural History Museum. Work as Archaeologist, as well as Curator/Manager of Pioneer Museum (1994-1997)
- *1999-2002:* City Council of Pretoria. Work as Curator: Fort Klapperkop Heritage Site and Acting Deputy Manager Museums and Heritage.
- 2002-2007: City of Tshwane Metropolitan Municipality. Work as Deputy Manager Museums and Heritage.
- August 2007 present Managing Director for Archaetnos Archaeologists.
- *1988-2003*: Part-time lecturer in Archaeology at the University of Pretoria and a part-time lecturer on Cultural Resources Management in the Department of History at the University of Pretoria.
- 2014-2015: Part-time lecturer for the Honours degree in Museum Sciences in the Department of History and Heritage Studies at the University of Pretoria
- *Since 2015*: Extraordinary Professor of History at the Mafikeng campus of the Northwest University

OTHER

- Has published 79 articles in scientific and popular journals on archaeology and history.
- Has been the author and co-author of over 845 unpublished reports on cultural resources surveys and archaeological work.
- Has published books on the Military Fortifications of Pretoria and Heritage Guidelines.
- Contributed to a book on Mapungubwe.
- Has delivered more than 66 papers and lectures at national and international conferences.
- Member of SAHRA Council for 2003 2006.

- Member of the South African Academy for Science and Art.
- Member of Association for South African Professional Archaeologists.
- Member of the South African Society for Cultural History (Chairperson 2006-2008; 2012-2014).
- Has been editor for the SA Journal of Cultural History 2002-2004.
- Member of the Provincial Heritage Resources Agency, Gauteng's Council.
- Member of Provincial Heritage Resources Agency, Gauteng's HIA adjudication committee (Chairperson 2012-2015).

A list of reports can be viewed on <u>www.archaetnos.co.za</u>.

DECLARATION OF INDEPENDENCE

I, Anton Carl van Vollenhoven from Archaetnos, hereby declare that I am an independent specialist within the field of heritage management.

Abllacher

Date: 25 April 2018

Signed:

LIST OF ACRONYMS:

- AIA Archaeological Impact Assessment
- AMP Archaeology, Meteorites and Palaeontology Unit at SAHRA

CMP - Cultural Management Plan

- EAP Environmental Assessment Practitioner
- EIA Environmental Impact Assessment

HIA – Heritage Impact Assessment

PIA – Palaeontological Impact Assessment

SAHRA – South African Heritage Resources Agency

1. INTRODUCTION

Archaetnos cc was requested by Landscape Dynamics to conduct a cultural heritage impact assessment (HIA) for the proposed Northwest Gateway Project. This is on the remainder of portion 151, and portions 221, 233, 234, 235, 236 and 237 of the farm Hartebeestfontein 445 JQ, in the North-West Province. The site is located towards the west of Pretoria and the south of Brits (Figure 1-3).

The development consists of a mixed development, including residential units, a hotel, hospital and retail area. The HIA study forms part of an Environmental Authorisation. The client indicated the areas to be surveyed and the survey was confined to these. It was done via foot.



FIGURE 1: LOCATION OF THE SITE IN THE NORTH-WEST PROVINCE. NORTH REFERENCE IS TO THE TOP.



FIGURE 2: DETAILED VIEW OF THE SITE.



FIGURE 3: SITE DEVELOPMENT PLAN.

2. TERMS OF REFERENCE

The Terms of Reference for the survey were to:

- 1. Identify objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
- 2. Document the found cultural heritage sites according to best practice standards for heritage related studies.
- 3. Study background information on the area to be developed.
- 4. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
- 5. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
- 6. Recommend suitable mitigation measures to minimize possible negative impacts on the cultural resources by the proposed development.
- 7. Review applicable legislative requirements.

3. CONDITIONS & ASSUMPTIONS

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

- Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity (Appendix A). These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
- 2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.
- 3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors

such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix C).

- 4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
- 5. All recommendations are made with full cognizance of the relevant legislation.
- 6. It must be mentioned that it is almost impossible to locate all the cultural resources in a given area, as it will be very time consuming. Developers should however note that the report should make it clear how to handle any other finds that might occur.
- 7. In this particular case the vegetation cover varied between open and dense as well as low and high. This had an influence on coverage.

4. LEGISLATIVE REQUIREMENTS

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. The first of these are the National Heritage Resources Act (Act 25 of 1999) which deals with the cultural heritage of the Republic of South Africa. The second is the National Environmental Management Act (Act 107 of 1998) which inter alia deals with cultural heritage as part of the Environmental Impact Assessment process.

4.1 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 or scientific or technological value.

The national estate (see Appendix D) 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. Archaeological and paleontological importance
- g. Graves and burial grounds
- h. Sites of significance relating to the history of slavery
- i. Movable objects (e.g. archaeological, paleontological, meteorites, geological specimens, military, ethnographic, books etc.)

A Heritage Impact Assessment (HIA) is the process to be followed 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 only looks at archaeological resources and can only be done by a professional archaeologist.

A Palaeontological Impact Assessment (PIA) is an assessment of palaeontological heritage. Palaeontology is a different field of study, and although also sometimes required by the South African Heritage Resources Agency (SAHRA)¹, should be done by a professional palaeontologist.

The different phases during the HIA process are described in Appendix E. 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

<u>Structures</u>

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.

¹ Please consult SAHRA to determine whether a PIA is necessary.

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 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). To demolish such a site or structure, a destruction permit from SAHRA will also be needed.

<u>Human remains</u>

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

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.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

Human remains that are less than 60 years old are subject to provisions of the **National Health Act (Act 61 of 2003)** 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) before exhumation can take place. Human remains can only be handled by a registered undertaker or an institution declared under the **National Health Act (Act 61 of 2003)**.

4.2 The National Environmental Management Act

This act (Act 107 of 1998) 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.

5. THE INTERNATIONAL FINANCE CORPORATIONS' PERFORMANCE STANDARD FOR CULTURAL HERITAGE

This standard recognizes the importance of cultural heritage for current and future generations. It aims to ensure that clients protect cultural heritage in the course of their project activities. This is done by clients abiding to the law and having heritage surveys done to identify and protect cultural heritage resources via field studies and the documentation of such resources. These need to be done by competent professionals (e.g. archaeologists and cultural historians).

Possible chance finds, encountered during the project development, also need to be managed by not disturbing such finds and by having them assessed by professionals. Impacts on the cultural heritage should be minimized. This include the possible maintenance of such sites in situ, or when impossible, the restoration of the functionality of the cultural heritage in a different location. When cultural historical and archaeological artifacts and structures need to be removed is should be done by professionals and by abiding to the applicable legislation. The removal of cultural heritage resources may however only be considered if there are no technically or financially feasible alternatives. In considering the removal of cultural resources, it should be outweighed by the benefits of the overall project to the effected communities. Again, professionals should carry out the work and adhere to the best available techniques.

Consultation with affected communities should be engaged in. This entails that access to such communities should be granted to their cultural heritage if this is applicable. Compensation for the loss of cultural heritage should only be given in extra-ordinary circumstances.

Critical cultural heritage may not be impacted on. Professionals should be used to advise on the assessment and protection thereof. Utilization of cultural heritage resources should always be done in consultation with the effected communities in order to be consistent with their customs and traditions and to come to agreements with relation to possible equitable sharing of benefits from commercialization.

6. METHODOLOGY

6.1 Survey of literature

A survey of literature was undertaken to obtain background information regarding the area. Sources consulted in this regard are indicated in the bibliography.

6.2 Field survey

The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. One regularly looks a bit wider than the demarcated area, as the surrounding context needs to be taken into consideration.

If required, the location/position of any site was determined by means of a Global Positioning System (GPS)², while photographs were also taken where needed. The survey was undertaken by doing a physical survey on foot and with an off-road vehicle and covered as much as possible of the area to be studied (Figure 4).

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The size of the surveyed area is approximately 100 Ha. The survey took 4 hours to complete.

6.3 Oral histories

People from local communities are interviewed in order to obtain information relating to the surveyed area. It needs to be stated that this is not applicable under all

² A Garmin Oregon 550 with an accuracy factor of a few meters.

circumstances. When applicable, the information is included in the text and referred to in the bibliography.



FIGURE 4: GPS TRACK OF THE SURVEYED AREA. NORTH REFERENCE IS TO THE TOP.

6.4 Documentation

All sites, objects, features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Coordinates of individual localities were determined by means of the Global Positioning System (GPS). The information was added to the description to facilitate the identification of each locality.

6.5 Evaluation of Heritage sites

The evaluation of heritage sites is done by giving a field rating of each (see Appendix C) using the following criteria:

- The unique nature of a site
- The integrity of the archaeological deposit
- The wider historic, archaeological and geographic context of the site
- The location of the site in relation to other similar sites or features
- The depth of the archaeological deposit (when it can be determined or is known)
- The preservation condition of the site
- Uniqueness of the site and
- Potential to answer present research questions.

7. DESCRIPTION OF THE ENVIRONMENT

The area that was surveyed is shows signs of disturbance. However, certain sections seem to be in a pristine natural state. Disturbance include roads, various buildings (some still in use), illegal dumping activities and telephone lines (Figure 5-9).

The natural vegetation consists of two sections. In the southern part of the surveyed area the vegetation is very dense and high resulting in both the horizontal as the vertical archaeological visibility being influenced negatively (Figure 10). Weeds and other pioneer plant species indicate that certain sections were disturbed in the past (Figure 11). The northern section of the surveyed area is more open, consisting of dense low grass and trees (Figure 12).

A drainage line runs from west to east through the surveyed area. Along this stream the vegetation is extremely dense. This in fact is the remains of an old aquaduct that can be seen on the 1:50 000 topographic map. The topography falls from north and south towards the drainage line which is more or less central in the area. The overall topography falls from west to east, towards the Crocodile River.



FIGURE 5: RETAIL AREA IN THE SOUTH-WESTERN CORNER OF THE PROPOSED DEVELOPMENT.



FIGURE 6: CORRUGATED IRON BUILDING IN THE SURVEYED AREA.



FIGURE 7: HOUSE AND OTHER STRUCTURES STILL IN USE IN THE STUDY AREA.



FIGURE 8: ILLEGAL DUMPING IN THE STUDY AREA.



FIGURE 9: TELEPHONE LINES IN THE SYUDY AREA.



FIGURE 10: VIEW OF DENSE VEGETATION IN THE SURVEYED AREA.



FIGURE 11: PIONEER PLANT SPECIES AND REGROWTH IN THE SURVEYED AREA ALONG THE OLD AQUADUCT.



FIGURE 12: GENERAL VIEW OF VEGETATION TOWARDS THE NORTH IN THE SURVEYED AREA.

8. HISTORICAL CONTEXT

Eight sites of cultural heritage significance were located during the survey. One other feature of heritage significance was noted. Some background information is however given to place the surveyed area and the sites found in a historical context and to contextualize possible finds that could be unearthed during construction activities.

Two previous heritage reports were done on this farm. Unfortunately, the one (Küsel 2012) could not be accessed through SAHRIS. It was however done on other portions of the farm (SAHRIS database). The second (Pistorius 2014) was never submitted to SAHRA but was provided by the client.

In the latter, two sites were identified. Both these sites were again identified during the current survey and therefore is discussed under section 9.

8.1 Stone Age

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

Early Stone Age (ESA) 2 million – 150 000 years ago Middle Stone Age (MSA) 150 000 – 30 000 years ago Late Stone Age (LSA) 40 000 years ago – 1850 - A.D. The closest known Stone Age in the vicinity of the farm Hartebeestfontein is known as the Magaliesberg Research Area. It consists of nine sites including rock shelters in the Magaliesberg Mountain. These date back to the Middle and Late Stone Age (Bergh 1999: 4; Korsman & Meyer 1999: 94-95).

The surveyed area does not contain shelters or any other indication of living areas. One can therefore assume that Stone Age people would have stayed somewhere in the Magaliesberg Mountain and would have passed this area during their hunting and gathering activities.

8.2 Iron Age

The Iron Age is the name given to the period of human history when metal was mainly used to produce metal artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (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.

Previous research indicates that one of the few Early Iron Age sites that have been properly researched, are situated at Broederstroom (Bergh 1999: 6). The site is dated to 350 AD and apart from hut remains indications of iron smelting was also found (Van der Ryst & Meyer 1999: 98).

Late Iron Age sites have been identified in the area around the town of Brits. In a band stretching roughly from Brits in the east to Zeerust in the west many Iron Age sites have been discovered previously (Bergh 1999: 7-8). Many such sites were also identified during heritage surveys on the farm Hartebeespoort 410 JQ (SAHRIS Database).

Again, the presence of water and natural grass cover may have contributed to people settling in the surveyed area during the Iron Age. However, no sites were found during this survey.

8.3 Historical Age

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.

During earlier times and in the 19th century different Tswana groups, including the Po, Kwena and Kgatla, inhabited the area (Bergh 1999: 10-11). During the

Difaquane these people moved further to the north and northwest and this area was then inhabited by the Ndebele of Mzilikazi (Bergh 1999: 11).

Early travelers have moved through this part of the Northwest Province. This included David Hume in 1825, Robert Scoon and William McLuckie in 1829 and Dr Robert Moffat and Reverend James Archbell in 1829 (Bergh 1999: 12, 117-119). In 1830 the area was again visited by David Hume. The expedition of Dr Andrew Smith traveled through this area in 1835 and William Cornwallis Harris in 1836. The well-known explorer Dr David Livingston passed through this area in 1847 (Bergh 1999: 13, 119-122). The Voortrekkers moved into this area in the 1830's (Bergh 1999: 15).

The Magaliesberg area was extensively utilized during the Anglo-Boer War (1899-1902) as both Boer and British troops moved through the area. The nearest battlefield to the surveyed area is the Battle of Silkaatsnek which took place on 11 July 1900 (Bergh 1999: 51, 54).

Many blockhouses (British fortifications) were also erected in the area. Information about these is limited as it was mostly destroyed since the War. Blockhouses close to the surveyed area includes some at Kalkheuwel, Hekpoort and Broederstroom to the south of Ifafi, at Pampoennek, Kommandonek, Nooitgedacht and Breedtsnek to the west of the surveyed area, at Silkaatsnek to the east and one at Ifafi called the Rietfontein fort (Van Vollenhoven 1999: 23-24). The one at Ifafi was most likely called the Rietfontein blockhouse as it is situated on the farm Rietfontein, the same one that the survey has been done on, but further to the west. Here ammunition from the War was excavated during 2002 (Van Vollenhoven & Van der Walt 2002: 63-64).

Historical buildings and structures as well as graves were identified during previous surveys in the vicinity (SAHRIA Database; Archaetnos' Database).

9. DISCUSSION OF SITES FOUND DURING THE SURVEY

Eight sites of cultural heritage importance were identified as well as one other feature. These all is date to the Historical Age.

9.1 Site 2 – graves

This is a site containing at least 5 graves, but dense vegetation makes it difficult to determine if there are more (Figure 13). The graves are all stone packed and only one has a headstone, made from granite. The date of death indicated on this grave is 1980. The surname is Mpofu.

It means that two of the three categories of graves were identified, being those younger than 60 years and those without a date of death (called unknown graves). Unknown graves are handled similarly to heritage graves (older than 60 years).

GPS: 25°43' 20.5"S 27°50'20.9"E



FIGURE 13: SOME OF THE GRAVES AT SITE NO. 2.

Cultural	significance Table
Ountaria	Signification rubic

A place is considered to be part of the national estate if it has cultural significance because of -	or not	Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	Y	Н
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	-
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	N	-
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	Н
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a	N	-

particular period		
Its strong or special association with a particular community or	Y	Н
cultural group for social, cultural or spiritual reasons		
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
Reasoned assessment of significance using appropriate indicators outlined above:		6 – High

Integrity scale:

- 1 Bad state of preservation, but no contextual information
- 2 Bad state of preservation and includes contextual information
- 3 Reasonable state of preservation, but no contextual information
- 4 Reasonable state of preservation and includes contextual information
- 5 Good state of preservation, but no contextual information
- 6 Good state of preservation and includes contextual information
- 7 Excellent state of preservation, but no contextual information
- 8 Excellent state of preservation and includes contextual information

Field-rating = Cultural significance x Integrity

= 5 (High) x 4 = 20

Graves are always regarded as having a **high** cultural significance. The field rating thereof is Local Grade III B. It should be included in the heritage register but may be mitigated.

Two possibilities exist. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the development activities.

The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly affected by the development activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA.

The type of development makes it possible to keep the graves *in situ*. It is therefore recommended that it be included in the development planning and that Option 1 be implemented.

9.2 Sites 1, 3 and 4 – historical house remains

These houses are all built from stone and clay and likely are the remains of farm worker dwellings. In fact, number 1 is closely associated with the graves (Site 2). The remaining walls vary in height, but at most is about 1 m high (Figure 14-16). Each consists of at least 3 rooms and the sizes vary between 6 x 12 and 8 x 10 m. Due to the dense vegetation it was not possible to obtain better information.

GPS co-ordinates:

Number 1 - 25°43'21.5"S; 27°50'20.8"E Number 3 - 25°43'19.0"S; 27°50'13.9"E Number 4 - 25°43'20.3"S; 27°50'09.7"E



FIGURE 14: REMAINS OF HOUSE NUMBER 1.



FIGURE 15: REMAINS OF HOUSE NUMBER 2.



FIGURE 16: REMAINS OF HOUSE NUMBER 3.

Cultural	significance Table	
Guillurai	Significance rable	

	•	
A place is considered to be part of the national estate if it has cultural significance because of -	or not	Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's		LM

history		
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	-
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	L
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	Y	L
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	Y	Μ
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
Reasoned assessment of signi appropriate indicators outlined a	-	3,25 – Low-Medium

Integrity scale:

- 1 Bad state of preservation, but no contextual information
- 2 Bad state of preservation and includes contextual information
- 3 Reasonable state of preservation, but no contextual information
- 4 Reasonable state of preservation and includes contextual information
- 5 Good state of preservation, but no contextual information
- 6 Good state of preservation and includes contextual information
- 7 Excellent state of preservation, but no contextual information
- 8 Excellent state of preservation and includes contextual information

Field-rating = Cultural significance x Integrity

= 3,25 (Low-Medium) x 3 = 9,75

These sites are therefore regarded as having a field rating of Local Grade IIIB. The sites should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority.

This means that the sites may be demolished, but only after it had been documented. This documentation includes doing test excavations and drawing a site map. Since there are three of these structures, kit would be sufficient to mitigate only one. It is suggested that no. 1 be mitigated due to its close association with the graves.

9.3 Sites 5, 6 and 7- cement slabs/ floors

These cement slabs used to be the floor for corrugated iron buildings as the waveshape of corrugated iron marking are visible. The slabs vary in size with the largest being approximately $20 \times 2 \text{ m}$ (Figure 17). It was likely used as storage buildings.

GPS co-ordinates:

Number 5 - 25°43'25.8"S; 27°50'00.5"E Number 6 - 25°43'24.9"S; 27°50'08.3"E Number 7 - 25°43'31.2"S; 27°49'58.1"E



FIGURE 17: REMAINS OF ONE OF THE CONCRETE FLOORS.

Cultural significance Table		
A place is considered to be part of the national estate if it has cultural significance because of -	Applicable or not	Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	N	-
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	-
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	L
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	-
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	N	-
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
Reasoned assessment of signi appropriate indicators outlined a		2 – Low

- Integrity scale: 1 Bad state of preservation, but no contextual information 2 Bad state of preservation and includes contextual information 3 Reasonable state of preservation, but no contextual information

- 4 Reasonable state of preservation and includes contextual information
- 5 Good state of preservation, but no contextual information
- 6 Good state of preservation and includes contextual information
- 7 Excellent state of preservation, but no contextual information
- 8 Excellent state of preservation and includes contextual information

Field-rating = Cultural significance x Integrity

= 2 (Low) x 1 = 2

These sites are therefore regarded as having a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.

9.4 Site 8 – farm yard

The buildings here are all likely older than 60 years but has no real heritage significance due to it not being unique (Figure 18).

GPS: 25°43'31.3"S; 27°50'06.1"E



FIGURE 18: BUILDINGS AT THE FARM YARD.

Cultural significance Table		
A place is considered to be part of the national estate if it has cultural significance because of -	Applicable or not	Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High
Its importance in the community or pattern of South Africa's history	Y	Ν
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	N	-
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	N
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	-
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	N	-
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	N	-
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-
Sites of significance relating to the history of slavery in South Africa	N	-
Reasoned assessment of signi appropriate indicators outlined a	-	1 – Negligible

- Integrity scale: 1 Bad state of preservation, but no contextual information 2 Bad state of preservation and includes contextual information 3 Reasonable state of preservation, but no contextual information

- 4 Reasonable state of preservation and includes contextual information
- 5 Good state of preservation, but no contextual information
- 6 Good state of preservation and includes contextual information
- 7 Excellent state of preservation, but no contextual information
- 8 Excellent state of preservation and includes contextual information

Field-rating = Cultural significance x Integrity

= 1 (Negligible) x 3 = 3

This site is therefore regarded as having a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.

9.5 Feature 1 - aquaduct

The aquaduct is merely an earth furrow dug from the river and running through the site. Due to it being totally overgrown it was impossible to take a photograph, but it is indicated on the 1:50 000 topographic map (Figure 19). It has now specific heritage characteristics apart from being associated with the Hartebeestpoort Dam water scheme (Figure 20).

The developers, Du Preez Lombard Town and Regional Planners did survey the aquaduct and it is indicated on the final layout plan (Figure 3). During a meeting with the Department of Water and Sanitation the following was confirmed:

The stormwater run-off from the mountain south of the site is channeled underneath the road into an hand-dug stormwater channel which was built many years ago to accumulate the run-off into the natural water course on the site. It is proposed to maintain and upgrade this as a concrete channel/culvert as part of the stormwater management for the site. The engineers require that a 3,0m wide servitude be registered for this purpose. The length is calculated at approximately 275m before the water would be released into the natural open watercourse. The township layout had to be amended to reflect the correct position and width of the servitude required. Energy dissipating measures would be implemented to prevent erosion at this outlet. Because the stormwater channel was historically described as an "aquaduct", the Department would allow that this portion of the watercourse between the "Natural Watercourse and Riparian Area" and the road to be canalised. The canalised / culvert had to be indicated on the layout plan as a "Channelled Watercourse".

GPS: 25°43'17.3"S; 27°50'23.3"E (eastern side) 25°43'231"S; 27°50'08.6"E (central) 25°43'33.3"S; 27°49'57.4"E (western side)

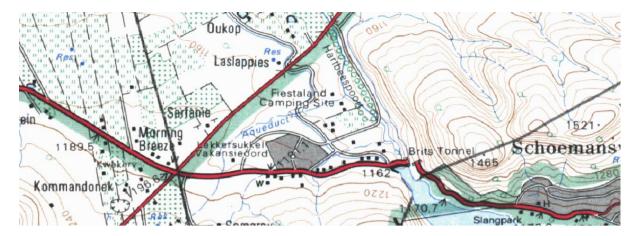


FIGURE 19: NOTE THE AQUADUCT RUNNING MORE OR LESS IN THE CENTRE FROM WEST TO EAST.



FIGURE 20: LOCATION OF THE AQUADUCT. THE SECTION MARKED IN RED IS CLEARLY VISIBLE AND THE SECTION MARKED IN ORANGE RECONSTRUCTED FROM THE REMAINING VISIBLE SECTIONS.

Cultural significance Table

	Cultural significance Table		
A place is considered to be part of the national estate if it has cultural significance because of -	or not	Rating: 1 - Negligible/ 2 -Low/ 3 - Low-Medium/ 4 - Medium/ 5 - Medium-High/ 6 - High/ 7 - Very High	
Its importance in the community or pattern of South Africa's history	Y	L-M	
Its possession of uncommon, rare, or endangered aspects of South Africa's natural or cultural history	Y	L-M	
Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage	Y	N	
Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects	N	-	
Its importance in exhibiting particular aesthetic characteristics valued by a community cultural group	N	-	
Its importance in demonstrating a high degree of creative or technical achievement at a particular period	Y	L	
Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons	N	-	
Its strong or special association with the life or work of a person, group or organization of importance in the history of South Africa	N	-	
Sites of significance relating to the history of slavery in South Africa	N	-	
Reasoned assessment of significance using appropriate indicators outlined above:		2,25 – Low	

- Integrity scale: 1 Bad state of preservation, but no contextual information 2 Bad state of preservation and includes contextual information

- 3 Reasonable state of preservation, but no contextual information
- 4 Reasonable state of preservation and includes contextual information
- 5 Good state of preservation, but no contextual information
- 6 Good state of preservation and includes contextual information
- 7 Excellent state of preservation, but no contextual information
- 8 Excellent state of preservation and includes contextual information

Field-rating = Cultural significance x Integrity

= 2,25 (Low) x 3 = 6.75

This site is therefore regarded as having a field rating of Local Grade IIIB. It should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority. In this particular case it will be re-used as a water canal within the proposed development. This should be allowed.

10. PUBLIC CONSULTATION

The application forms part of a Basic Assessment process. Public consultation (Figure 21-23) is handled by the Environmental Impact Assessment Practitioner. Both site and newspaper notices were used.



FIGURE 21: ONE OF THE SITE NOTICES.

Kormorant [

rinda

hers 4

o Let

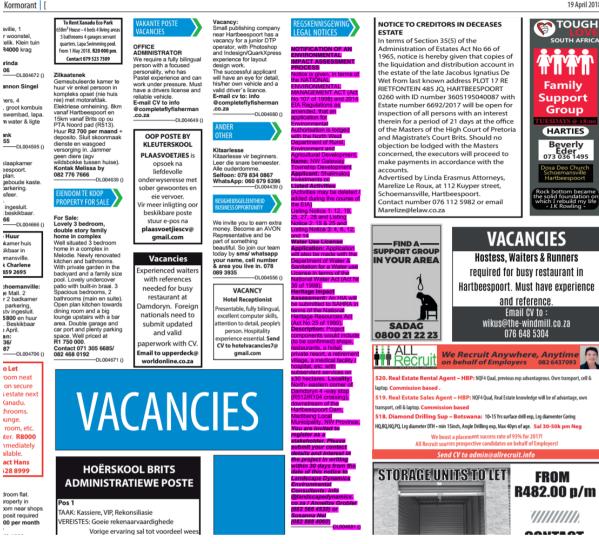


FIGURE 22: NEWSPAPER NOTICE (PURPLE SECTION).

19 April 2018

NOTIFICATION OF AN ENVIRONMENTAL IMPACT ASSESSMENT PROCESS Notice is given, in terms of the NATIONAL ENVIRONMENTAL MANAGEMENT ACT (Act No 107 of 1998) and 2014 EIA Regulations as amended, that an application for Environmental Authorisation is lodged with the North West Department of Rural, Environment and Agricultural Development. Name: NW Gateway Township Development Applicant: Shalimalog Investments cc Listed Activities (Activities may be deleted / added during the course of the EIA) Listing Notice 1: 12, 19, 25, 27, 28 and Listing Notice 2: 15 & 25 and Listing Notice 3: 4, 6, 12, and 14 Water Use License Application: Application will also be made with the Department of Water & Sanitation for a Water use License in terms of the National Water Act (Act Nr 36 of 1998). Heritage Impact Assessment: An HIA will be submitted to SAHRA in terms of the National Heritage Resources Act (Act No 25 of 1999). Description: Project components would include (to be confirmed) shops, restaurants, a hotel, private resort, a retirement village, a medical facility / hospital, etc. with subservient services on ±30 hectares. Locality: North- eastern corner of Damdoryn 4 -way stop (R512/R104 crossing), downstream of the Hartbeespoort Dam, Madibeng Local Municipality, NW Province. You are invited to register as a stakeholder. Please submit your contact details and interest in the project in writing within 30 days from the date of this notice to Landscape Dynamics Environmental Consultants: info @landscapedynamics. co.za / Annelize Grobler (082 566 4530) or Susanna Nel (082 888 4060) -DL004681 ()

\$

FIGURE 23: DETAIL OF NEWSPAPER NOTICE.

11.CONCLUSION AND RECOMMENDATIONS

As indicated eight sites of cultural heritage significance was located in the surveyed area (Figure 24). One heritage feature (an aquaduct), along the green stretch of trees on below map, was identified. The survey of the indicated area was completed successfully.



FIGURE 24: LOCATION OF SITES IDENTIFIED DURING THE SURVEY.

The following is recommended:

- A small grave yard (site no. 2) was identified, and graves are always regarded as having a **high** cultural significance. The field rating thereof is Local Grade III B. It should be included in the heritage register but may be mitigated.
- Two possibilities exist. The first option would be to fence the graves in and have a management plan drafted for the sustainable preservation thereof. This should be written by a heritage expert. This usually is done when the graves are in no danger of being damaged, but where there will be a secondary impact due to the development activities.
- The second option is to exhume the mortal remains and then to have it relocated. This usually is done when the graves are in the area to be directly affected by the development activities. For this a specific procedure should be followed which includes social consultation. For graves younger than 60 years, only an undertaker is needed. For those older than 60 years and

unknown graves an undertaker and archaeologist is needed. Permits should be obtained from the Burial Grounds and Graves unit of SAHRA.

- The type of development makes it possible to keep the graves *in situ*. The developer indicated that they will zone an area of 225 m² around the graves as a cemetery site (for existing graves only) and that it will be fenced in. It is therefore recommended that it be included in the development planning and that Option 1 be implemented. This means that a management plan for the sustainable utilisation and preservation of the site needs to be drafted.
- It is necessary that once the vegetation is cleared, the number of graves must be verified by a qualified archaeologist. The proposed cemetery erf size should be enlarged if necessary, to include all graves with an appropriate buffer.
- These remains of three stone and clay houses (Sites 1, 3 and 4) are those of workers dwellings. These are regarded as having a field rating of Local Grade IIIB. The sites should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority.
- This means that the sites may be demolished, but only after it had been documented. This documentation includes doing test excavations and drawing a site map. Since there are three of these structures, it would be sufficient to mitigate only one. It is suggested that no. 1 be mitigated due to its close association with the graves.
- Sites no. 5, 6 and 7 are the remains of large temporary storage buildings. These sites are regarded as having a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.
- The farm yard (Site 8) is regarded as having a field rating of Local Grade IIIC. The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation.
- The heritage feature (aquaduct) is regarded as having a field rating of Local Grade IIIB. It should be included in the heritage register and may be mitigated. Mitigation is subject to a permit application lodged with the relevant heritage authority. In this particular case it will be used as part of the stormwater management plan of the township as described above.
- The development may only continue after receiving the necessary comments from the BGG Unit of SAHRA and the North-West Provincial Heritage Resources Authority and implementing their decision.

 It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. It may only become known later on. Therefore, operating controls and monitoring should be introduced, aimed at the possible unearthing of such features. Care should therefore be taken when development commences that if any of these are discovered, a qualified archaeologist be called in to investigate the occurrence.

12. REFERENCES

Archaetnos database.

- Bergh, J.S. (red.). 1999. Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies. Pretoria: J.L. van Schaik.
- Coertze, P.J. & Coertze, R.D. 1996. Verklarende vakwoordeboek vir Antropologie en Argeologie. Pretoria: R.D. Coertze.
- Huffman, T.N. 2007. Handbook to the Iron Age: The Archaeology of Pre-Colonial Farming Societies in Southern Africa. Scotsville: University of KwaZulu-Natal Press.
- International Finance Corporation. 2012. Overview of performance standards on Environmental and Social Sustainability. Performance Standard 8, Cultural Heritage. World Bank Group.
- Knudson, S.J. 1978. **Culture in retrospect.** Chicago: Rand McNally College Publishing Company.
- Korsman, S.A. & Meyer, A. 1999. Die Steentydperk en rotskuns. Bergh, J.S. (red.). Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies. Pretoria: J.L. van Schaik.
- Republic of South Africa. 1980. Ordinance on Excavations (Ordinance no. 12 of 1980). The Government Printer: Pretoria.
- Republic of South Africa. 2003. **National Health Act** (Act 61 of 2003). The Government Printer: Pretoria.
- Republic of South Africa. 1999. **National Heritage Resources Act** (No 25 of 1999). Pretoria: The Government Printer.
- Republic of South Africa. 1998. **National Environmental Management Act** (no 107 of 1998). Pretoria: The Government Printer.
- SAHRA's SAHRIS database.
- Van der Ryst, M.M. & Meyer, A. 1999. Die Ystertydperk. Bergh, J.S. (red.).
 - Geskiedenisatlas van Suid-Afrika. Die vier noordelike provinsies. Pretoria: J.L. van Schaik.
- Van Vollenhoven, A.C. 1999. Britse blokhuise in Pretoria gedurende die Anglo-Boereoorlog (1899-1902). **Pretoriana** (112), pp. 20-37.
- Van Vollenhoven, A.C. & Van der Walt, J. 2002. 'n Reddingsondersoek na Anglo-Boereoorlogammunisie, gevind by Ifafi, Noordwes Provinsie. **Suid-Afrikaanse Tydskrif vir Kultuurgeskiedenis** 16 (1), pp. 62-72.

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:

- Negligible The site has no heritage significance, although it may be older than 60 years.
- Low A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings. A site with minimal importance which is decreased by its bad state of decay.
- Low-Medium A site of lesser importance, which is increased by a good state of preservation and contextual importance (e.g. a specific community).
- 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.
- Medium-High A site that has high importance due to its age or uniqueness, but which decreases due to its bad state of decay.
- High Any site, structure or feature regarded as important because of its age or uniqueness. Also, any important object found within a specific context.
- Very High A site of exceptional importance due to its age, uniqueness and good state of preservation.

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:

National Grade I significance: The site should be managed as part of the national estate, should be nominated as Grad I site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score above 50.

Provincial Grade II significance: The site should be managed as part of the provincial estate, should be nominated as Grade II site, should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 40 and 50.

Local Grade IIIA: The site should be included in the heritage register and not be mitigated (high significance), should be maintained in situ with a protected buffer zone and a CMP must be recommended. Score between 36 and 40.

Local Grade IIIB: The site should be included in the heritage register and may be mitigated (high/ medium significance). Mitigation is subject to a permit application lodged with the relevant heritage authority. Score between 6 and 35.

Local Grade IIIC: The description in the phase 1 heritage report is seen as sufficient recording (low significance) and it may be granted destruction at the discretion of the relevant heritage authority without a formal permit application, subjected to the granting of Environmental Authorisation. Score below 5.

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.