Archaetnos Culture & Cultural
Resource Consultants
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A REPORT ON A CULTURAL HERITAGE IMPACT ASSESSMENT FOR THE PROPOSED SWARTWATER SOLAR PV POWER FACILITY, CLOSE TO PETRUSVILLE, NORTHERN CAPE PROVINCE

For:

USK Consulting
Northriding
Johannesburg

REPORT NO.: AE01343V

By:

Dr. A.C. van Vollenhoven (L.AKAD.SA.)
Accredited member of ASAPA
Professional member of SASCH

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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 via the SAHRIS System on the SAHRA website.

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

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 are 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.

SUMMARY

Archaetnos cc was requested by USK Consulting Environmental & Waste Engineering (Pty) Ltd to conduct a cultural heritage impact assessment for the proposed Swartwater Solar PV Power Facility. The development is situated close to the town of Petrusville in the Northern Cape Province.

A survey of the available literature was undertaken in order to obtain background information regarding the area. This was followed by the field survey which was conducted according to generally accepted HIA practices, aimed at locating all possible objects, sites and features of cultural significance in the area of the proposed development.

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

During the survey two sites of cultural heritage significance were located. These are discussed and mitigatory measures are recommended. After the implementation of these, the proposed development may continue.

It should be noted however that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. Care should therefore be taken when the development commences further that if any of these are discovered, a qualified archaeologist be called in to investigate.

It is also important to take cognizance that it is the client's responsibility to do the submission of this report via the SAHRIS System on the SAHRA website. No work on site may commence before receiving the necessary comments from SAHRA.

CONTENTS

1. INTRODUCTION

Archaetnos cc was requested by USK Consulting Environmental & Waste Engineering (Pty) Ltd to conduct a cultural heritage impact assessment for the proposed Swartwater Solar PV Power Facility. The development is situated close to the town of Petrusville in the Northern Cape Province (Figure 1-3).

The client indicated the area to be affected by the development. Accordingly the field survey was confined to this area.

Figure 1 Location of the surveyed site in the Northern Cape Province. North reference is to the top.

Figure 2 Location of the site in relation to the town of Petrusville. North reference is to the top.

Figure 3 Google image indicating the farm boundary (green) and the project area (red). North reference is to the top.

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:

1. 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 has to 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. In this particular case a large part of the surveyed area is covered with agricultural field where the maize is currently growing very high. It therefore negatively affected archaeological visibility.

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 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 only looks at archaeological resources. 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 000m^2 or involve three or more existing erven or subdivisions thereof
d. Re-zoning of a site exceeding 10 000 m^2
e. Any other category provided for in the regulations of SAHRA or a provincial heritage authority

Structures

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

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

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

Archaeology, palaeontology and meteorites

Section 35(4) of this act deals with archaeology, palaeontology and meteorites. The act states that no person may, without a permit issued by the responsible heritage resources authority (national or provincial):

a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite;
b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite;

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

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

Human remains

Graves and burial grounds are divided into the following:

a. ancestral graves
b. royal graves and graves of traditional leaders
c. graves of victims of conflict
d. graves designated by the Minister
e. historical graves and cemeteries
f. human remains

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

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

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 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) 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**).

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 in order 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 in order 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)[1], 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 (Figure 4).

Certain factors, such as accessibility, density of vegetation, etc. may however influence the coverage. The size of the surveyed area is 225 HA and the survey took four hours to complete.

[1] A Garmin Oregon 550 with an accuracy factor of a few meters.

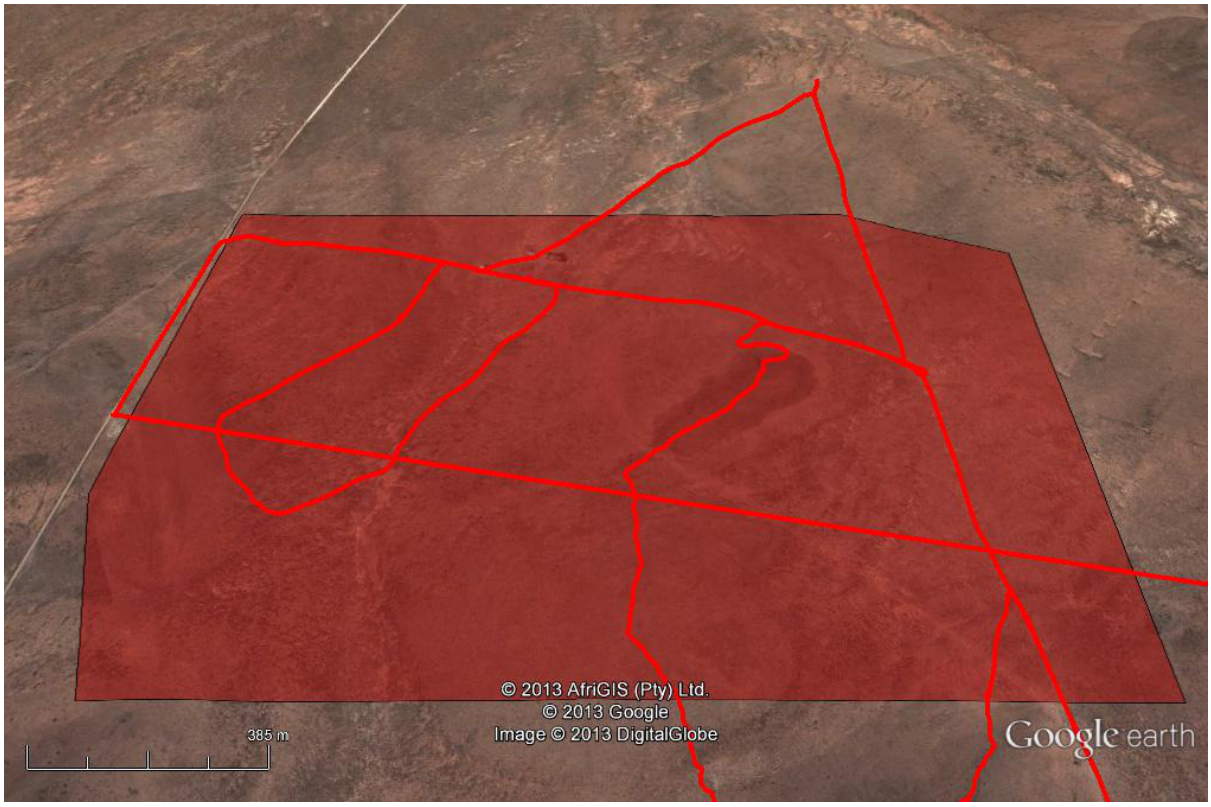

Figure 4 GPS track of the surveyed area[2] respectively. North reference is to the top.

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

6.4 Documentation

All sites, objects features and structures identified were documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates 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.

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:

[2] Two people, who were in radio contact, did the survey. However only one GPS instrument was available and accordingly the map only reflect the movement of one of these people.

• 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 AREA

The topography of the area that was surveyed is reasonably flat. Two low hills are found more or less in the centre thereof as well as another one on the southern edge of the site (Figure 5). No water systems are found nearby.

The vegetation cover is reasonably dense which had a negative effect on archaeological visibility (Figure 6-8). On the other hand the grass was reasonably low which had a positive effect. The ground cover also included many loose stones and a few small trees. In certain areas large patches of soil without any vegetation were visible. It seems that area has mainly been used for grazing in the past as is still the case.

Figure 5 View of one of the low hills in the surveyed area.

Figure 6 General view of the surveyed area.

Figure 7 View of the surveyed area taken from the hill on the southern edge thereof.

Figure 8 View of one of the barren patches in the surveyed area.

8. HISTORICAL CONTEXT

Two sites of cultural heritage significance were located during the survey. In order to understand these and to contextualize possible finds that could be unearthed during construction activities, it is necessary to give a background regarding the different phases of human history.

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.

No Early or Middle Stone Age sites are known from this area (Mitchell 2002: 61, 73). The closest known Late Stone Age sites are found at Abbots Shelter, Jouberts Gif, Driekoppen, Blydefontein, Wilde Als Put, Voightspost, Rose Cottage and Grassridge, much further to the south and north of Swartwater (Mitchell 2002: 110, 127, 138, 228). It is however known that San and Khoi groups did roam around this vicinity (Mitchell 2002: 126, 230).

The lack of Stone Age sites closer to the surveyed area most likely is only an indication of a lack of research in the area and not of these not being present. Although no natural shelters were seen during the survey, some stone tools were identified. It therefore is possible that these people did not stay here for long periods. The lack of water would have prevented long periods of settlement, but the good vegetation in the surrounding area indicated that ample grazing may have been available, making it a prime spot for hunting in the past. Therefore one may assume that Stone Age people probably would have moved through the area.

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.

No Iron Age occurrences are known from this area. This indicates that Iron Age people probably did net settle here in the past, but may have utilized it for grazing purposes. Accordingly no such sites were identified during the 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. This era is sometimes called the Colonial era or the recent past.

Due to factors such as population growth and a decrease in mortality rates, more people inhabited the country during the recent historical past. Therefore and because less time has passed, much more cultural heritage resources from this era have been left on the landscape. It is important to note that all cultural resources older than 60 years are potentially regarded as part of the heritage and that detailed studies are needed in order to determine whether these indeed have cultural significance. Factors to be considered include aesthetic, scientific, cultural and religious value of such resources.

The first known visit by white people to the area was in 1777 when RJ Gordon reached the river and named it the Orange River. In 1803 the party of JW Jansens also reached the river (Schoeman 2003: 154). White farmers called Trekboere, started utilizing the grazing around the river since the 1800's (Venter n.d.: 3).

The Colesberg/ Phillipolis area was already visited by early travelers as early as 1823 when the expedition of Cowan and Donovan passed here. This was followed by the parties of Bain and Biddulph in 1826 and that of Scoon and McLuchie in 1827. The first early traveler who visited the area around Bethulie was the expedition of Dr. Andrew Smith in 1835. He was followed by WC Harris who passed through during 1836. In 1838 Ludwig Krebs also travelled through here (Bergh 1999: 12-13). The London Missionary Society established a mission station at Bethulie in 1828 in order to work with the San (Schoeman 2003: 156).

One may therefore expect to find historical farm buildings, graves and objects linked to the first white farmers here.

9. DISCUSSION OF SITES FOUND DURING THE SURVEY

9.1 Site 1 – graves

Site 1 is a grave yard with at least seven graves (Figure 9). These are all stone packed and none have headstones. The farmer however indicated that two of the graves belong to a former farm worker and his wife, Moos. They were apparently buried here approximately 40 years ago.

This means that two of the three categories of graves are present being those younger than 60 years and those with an unknown date (to be handled as those older than 60 years, called heritage graves).

Figure 9 The graves at site no. 1.

GPS: 30˚12.698'S
24˚31.152'E

Graves always are regarded as having a **high** cultural significance. These graves are of a local significance and are therefore given a field rating of Grade IIIB. It may therefore be mitigated.

There are two options when dealing with graves. The first would be to fence it in and write a management plan for the preservation thereof. This option will come into play if there is no direct impact on the graves. It should be kept in mind that there always is a secondary impact on graves since families may not have access thereto once a mine comes into operation.

The second option is to have the graves exhumed and the bodies reburied. This option is preferred when graves cannot be avoided by the development. Before exhumation can be done a process of social consultation is needed in order to find the associated families and obtain permission from them. For graves younger than 60 years only an undertaker is involved in the process, but for those older than 60 years or with an unknown date of death, an undertaker and archaeologist should be involved. Unknown graves are handled similarly to heritage graves.

Since it is yet unknown what the exact development layout would be, option 1 is recommended. The site can then rather be left in situ and the development planned around it. However, should it not be possible, option 2 will have to be implemented. In order to be able to do this 2 the developer would have to motivate that this is the only available option.

Impact Rating Table:

Nature of impact	Any ground breaking work		
Affected environment	Graves		
Nature of impact	Any ground breaking work		
Consequence	Magnitude/ severity	Medium	2
	Spatial scale/ extent	Medium	2
	Duration	Short term	1
Probability	Probability of impact	Possible	
Significance	With mitigation	Low	5
	Without mitigation	Very Low	3
Confidence		High	

9.2 Site 2 – Late Stone Age occurrence

An occurrence of Late Stone Age material, named Site 2, was found on one of the two hills in the surveyed area. It is no more than a scatter of stone tools and flakes (Figure 10).

GPS: 30°12.932'S
24°31.534'E

The site has a **low** cultural significance. It receives a field rating of General Protection C (IVC). This phase 1 survey is seen as ample mitigation and the site may therefore be demolished. However, there will most likely not be any impact here and therefore the site may just be left in situ.

Figure 10 Late Stone Age tools found at site no. 2.

Impact Rating Table:

Nature of impact	Any ground breaking work		
Affected environment	Late Stone Age occurrence		
Nature of impact	Any ground breaking work		
Consequence	Magnitude/ severity	Low	1
	Spatial scale/ extent	Low	1
	Duration	Short term	1
Probability	Probability of impact	Improbable	
Significance	With mitigation	Very Low	3
	Without mitigation	Very Low	3
Confidence		High	

10. CONCLUSION AND RECOMMENDATIONS

The two sites of cultural importance identified during the survey, is indicated in figure 11. The survey of the indicated area was completed successfully.

Figure 11 Google image indicating the sites found during the survey. North reference is to the top.

The following is recommended:

- Site no. 1 – graves – may be mitigated. There are two options when dealing with graves. The first would be to fence it in and write a management plan for the preservation thereof. This option will come into play if there is no direct impact on the graves. If possible the development could be planned around the graves so that it stays in situ.

- If not possible, option 2 should be implemented. This means that the graves can exhumed and the bodies reburied. Before exhumation can be done a process of social consultation is needed in order to find the associated families and obtain permission from them. For graves younger than 60 years only an undertaker is involved in the process, but for those older than 60 years or with an unknown date of death, an undertaker and archaeologist should be involved. Unknown graves are handled similarly to heritage graves.

- Site no. 2 – Stone Age occurrence - has been sufficiently documented and it may be demolished. However, if possible it should rather be left as it is. It is suspected that there will not be an impact here.

- The proposed development may only continue, after implementation of the mitigation measures indicated in this report.

- It should be noted that the subterranean presence of archaeological and/or historical sites, features or artifacts is always a distinct possibility. 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.

11. REFERENCES

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APPENDIX A

DEFINITION OF TERMS:

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

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

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

APPENDIX B

DEFINITION/ STATEMENT OF HERITAGE SIGNIFICANCE:

Historic value:	Important in the community or pattern of history or has an association with the life or work of a person, group or organization of importance in history.
Aestetic value:	Important in exhibiting particular aesthetic characteristics valued by a community or cultural group.
Scientific value:	Potential to yield information that will contribute to an understanding of natural or cultural history or is important in demonstrating a high degree of creative or technical achievement of a particular period
Social value:	Have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.
Rarity:	Does it possess uncommon, rare or endangered aspects of natural or cultural heritage.
Representivity:	Important in demonstrating the principal characteristics of a particular class of natural or cultural places or object or a range of landscapes or environments characteristic of its class or of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province region or locality.

APPENDIX C

SIGNIFICANCE AND FIELD RATING:

Cultural significance:

- Low — A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.

- Medium — Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.

- High — Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

Heritage significance:

- Grade I — Heritage resources with exceptional qualities to the extent that they are of national significance

- Grade II — Heritage resources with qualities giving it provincial or regional importance although it may form part of the national estate

- Grade III — Other heritage resources of local importance and therefore worthy of conservation

Field ratings:

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

APPENDIX D

PROTECTION OF HERITAGE RESOURCES:

Formal protection:

National heritage sites and Provincial heritage sites – grade I and II
Protected areas - an area surrounding a heritage site
Provisional protection – for a maximum period of two years
Heritage registers – listing grades II and III
Heritage areas – areas with more than one heritage site included
Heritage objects – e.g. archaeological, palaeontological, meteorites, geological specimens, visual art, military, numismatic, books, etc.

General protection:

Objects protected by the laws of foreign states
Structures – older than 60 years
Archaeology, palaeontology and meteorites
Burial grounds and graves
Public monuments and memorials

APPENDIX E

HERITAGE IMPACT ASSESSMENT PHASES

1. Pre-assessment or scoping phase – establishment of the scope of the project and terms of reference.
2. Baseline assessment – establishment of a broad framework of the potential heritage of an area.
3. Phase I impact assessment – identifying sites, assess their significance, make comments on the impact of the development and makes recommendations for mitigation or conservation.
4. Letter of recommendation for exemption – if there is no likelihood that any sites will be impacted.
5. Phase II mitigation or rescue – planning for the protection of significant sites or sampling through excavation or collection (after receiving a permit) of sites that may be lost.
6. Phase III management plan – for rare cases where sites are so important that development cannot be allowed.