

## **EXECUTIVE SUMMARY**

As we know from legislation the surveying, capturing and management of heritage resources is an integral part of the greater management plan laid down for any major development or historic existing operation. With the proclamation of the National Heritage Resources Act 1999 (Act 25 of 1999) this process has been laid down clearly. This legislation aims to underpin the existing legislation, which only addresses this issue at a glance, and gives guidance to developers and existing industries to the management of their Heritage Resources.

The importance of working with and following the guidelines laid down by the South African Heritage Resources Agency cannot be stressed enough.

This document forms part of the Environmental Management Program for the proposed Imbani Coal Mining Operations near Carolina, Mpumalanga.

During the survey twenty-four sites of importance were found along the proposed opencast mining area.

The following section gives an outline of the sites found and the proposed mitigation measures.

### **IM001**

Although the site falls outside the mining area Matakoma Consultants evaluated this site as well. The site is an African cemetery consisting of 26 graves, most of which are stone packed.

The grave present, in the absence of any dates it must be assumed as graves that are older than sixty years until it could be proven otherwise.

The current development might have direct impact on the cemetery. In the case that the mining might impact on the graves mitigating measures must be taken

In the case of relocation, the correct grave relocation procedure must be followed and handled by an accredited archaeologist.

If the graves are not to be impacted, it is advisable that the site be fenced to ensure proper management within the mining area.

## **IM002**

The site consists of a main farmhouse and numerous outbuildings and sheds. The most significant is the farmhouse and the associated sheds all built with sandstone.

The house can be classified as historical and falls under the 60-year ruling of the Act.

If possible, the farmstead must be preserved and possibly be utilised as site office. However this would probably not be the case and thus the site must be documented in its entirety and a destruction permit must be obtained before any buildings are demolished.

## **IM003**

The site is characterised by a farm cemetery consisting of a stone walled section containing 4 graves and a further six graves situated to the south of the stonewall.

The cemetery being the original farm cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

The cemetery is just outside the mining area but is indicated due to its significance to the farmstead and close proximity to the mining area.

Preserve the cemetery *in situ* and close off with fence.

## **IM004-IM006**

The site is that of the sheep dip trough and associated sheep kraal and built water dam.

The significance lies in the association with the total farm layout of the original Steyn farm.

No further mitigation required.

## **IM007**

The site is that of three stone packed graves aligned east west. There was no sign of the graves being cared for or that they have been visited recently.

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### **IM008**

The site is situated on the Remaining Extent of the Farm Haarlem 39 IT and is that of a single grave.

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### **IM009**

The site is situated on the Remaining Extent of the Farm Haarlem 39 IT. It is an old farmstead consisting of a main house, shed of clay brick as well as two mud brick ruins close by the house.

The site will be impacted on by opencast mining.

Document the structures and apply for destruction permit after completion of documentation report.

### **IM010**

The site is situated on the Remaining extent of the farm Haarlem 39 IT and consists of a single stone packed structure that is possibly a grave

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated. A test excavation must be conducted to verify the existence of graves on the site.

In the event that the investigation shows the presence of graves, the process of relocating the graves must be started by a qualified and competent person.

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future. A test excavation must be conducted to verify the existence of graves on the site.

In the event that the investigation shows the presence of graves, the process of relocating the graves must be started by a qualified and competent person.

### **IM011-012**

The sites consist of a stone build house dating to the early 1900's as well as an associated kraal layout of which only the foundations are visible.

The site is situated inside the area on Paardeplaats earmarked for mining. It is envisaged that the whole farmstead will be demolished during mining.

If possible, the farmstead must be preserved. However, this would probably not be the case and thus the site must be documented in its entirety and a destruction permit must be obtained before any buildings are demolished.

### **IM013**

The site, a family cemetery, is situated on Portion 2 of the Farm Paardeplaats 12 IT. The cemetery consists of 25 graves ranging in age from 1905 to 2002. The families represented in the cemetery are the Becking's, De Bruin's and Versveld's. The cemetery is still tended to by the living relatives currently on the farm.

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

#### **IM014**

The site consists of a stone walled cemetery with 5 graves. Two family names are associated with the cemetery that of Immelman and Van Niekerk.

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

#### **IM015**

The site consist of a cemetery with 18 stone packed graves all aligned east-west.

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

#### **IM016**

The site consists of a single stone structure that could possibly be a grave.

The grave falls within the opencast mining area and will be impacted on. The grave can be relocated.

The management of the graves *in situ* must always be considered. However, it will be possible to investigate the existence of a grave and if needed relocate these grave to a new position in future. A test excavation must be conducted to verify the existence of graves on the site.

In the event that the investigation shows the presence of graves, the process of relocating the graves must be started by a qualified and competent person.

### **IM017**

The site is situated on Portion 8 of the Farm Groenvallei 40 IT and is that of a single grave.

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### **IM018**

The site is most probably that of an late 1800's or early 1900's farmstead. The site consists of at least seven structures that could have been houses or structures such as storerooms having roofs. Two structures are small livestock kraals.

One possible grave also present on site.

The site falls within the development area and will be demolished.

The site must be documented, before destruction and the application for a demolition permit.

### **IM019**

The site consists of a single rectangular stone structure that could possibly have been a house.

The site falls within the development area and will be demolished.

The site might possibly be documented, pending outcome of consultation with Historical Architect.

### **IM020**

The site consists of a single rectangular stone structure with two rooms that could possibly have been a house.

The site falls within the development area and will be demolished.

The site might possibly be documented, pending outcome of consultation with Historical Architect.

### **IM021**

The site consists of cemetery with sixteen stone packed graves all aligned east-west.

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### **IM022**

The site consists of a single stone structure that might be a grave.

The site falls within the development area and will be demolished.

Investigate and if a grave relocate it.

### **IM023**

The site consists of a single round stone structure with constructed with the double walled building technique.

The structure might be classified Iron Age however no other remains were discovered *in situ*. Significance will only be pinned down after further investigation as needed for a destruction permit.

Document and apply for destruction permit.

## **IM024**

The site is most probably that of an late 1800's or early 1900's farmstead. The site consists of at least three structures that could have been houses or structures such as storerooms having roofs. Three structures are small livestock kraals.

The site falls within the development area and will be demolished.

The site might possibly be documented, pending outcome of consultation with Historical Architect.

### ***Conclusion***

It is further recommended that during construction in the areas where sites were discovered, an archaeologist be appointed to conduct a watching brief to identify and mitigate possible find not found during the survey or mitigated before the start of the project.

If any archaeological sites are recovered, they will necessitate further investigation and research in the case of possible development in their vicinity.

Further recommendations made in section 8 of the report must be addressed to facilitate responsible management of the heritage resources in the study area.



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## **1. INTRODUCTION**

Matakoma Consultants was contracted by Digby Wells and Associates to conduct a Heritage Scoping for inclusion in the Environmental Management Program for the proposed Imbani Coal Mining Operations near Carolina, Mpumalanga.

The aim of the study is to identify all heritage sites, document and assess their importance within local, provincial and national context. From this we aim to assist the developer in managing the discovered heritage resource in a responsible manner to protect, preserve and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999).

The report outlines the approach and methodology utilised before and during the survey, which includes in Phase 1: Physical surveying of the area on foot and vehicle; and Phase 2: Reporting the outcome of the study.

During the survey, sites of cultural significance were identified. These sites were recorded by means of photos, GPS location and description. Possible impacts were identified and mitigation measures are proposed in the following report.

This report must also be submitted to SAHRA's provincial office for scrutiny.

## **2. APPROACH AND METHODOLOGY**

The aim of the study is to cover extensively all data available to compile a background history of the area this was done by means of the following phases. Due to the study only being a Heritage Scoping no Archival Research was conducted and only physical surveying of the mining area was conducted.

Due to the nature of cultural remains, the majority that occur below surface, a detailed survey of the study area was conducted.

Aerial photographs and 1:50 000 maps of the area were consulted and literature of the area were studied before undertaking the survey. The purpose of this was to identify topographical areas of possible historic and pre-historic activity. The proposed mining area was surveyed over a four days, by means of extensive vehicle surveys by an archaeologist. All sites discovered both inside and bordering the proposed development area were plotted on 1:50 000 maps and their GPS coordinates noted. 35mm photographs on digital film were taken at all site and site sketches made.

Also note that only the sites situated in or on the boundary of the opencast areas is listed in this report.

### 3. WORKING WITH LEGISLATION

It is very important that cultural resources be evaluated according to the National Heritage Recourse Act. In accordance with the Act, we have found the following:

- These sites are classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999) section 3 (3). (Refer to Section 9 of this document for assessment)
- This site should be managed through using the National Heritage Recourses Act 1999 (Act No 25 of 1999) sections 4,5 and 6 and sections 39-47.
- Please refer to Section 8 for Management Guidelines.

### 4. ASSESSMENT CRITERIA

This chapter describes the evaluation criteria used for the sites listed below.

The significance of archaeological sites was based on five main criteria:

- **site integrity** (i.e. primary vs. secondary context),
- **amount of deposit, range of features** (e.g., stonewalling, stone tools and enclosures),
- **uniqueness** and
- **potential** to answer present research questions.

Management actions and recommended mitigation, which will result in a reduction in the impact on the sites, will be expressed as follows:

A - No further action necessary;

B - Mapping of the site and controlled sampling required;

C - Preserve site, or extensive data collection and mapping of the site; and

D - Preserve site

Impacts on these sites by the development will be evaluated as follows

#### 4.1 Impact

The potential environmental impacts that may result from mine activities.

#### ***4.1.1 Nature and existing mitigation***

Natural conditions and conditions inherent in the project design that alleviate (control, moderate, curb) impacts. All management actions, which are presently implemented, are considered part of the project design and therefore mitigate against impacts.

### **4.2 Evaluation**

#### ***4.2.1 Significance***

The significance rating scale is as follows:

*HIGH:* Impacts of a substantial order. In the case of negative impacts, mitigation and/or remedial activity would be feasible but difficult, expensive, time-consuming or some combination of these. In the case of positive impacts, other means of achieving this benefit would be feasible, but these would be more difficult, expensive, time-consuming or some combination of these.

*MODERATE:* Impact would be real but not substantial within the bounds of those, which could occur. In the case of negative impacts, mitigation and/or remedial activity would be both feasible and fairly easily possible. In the case of positive impacts, other means of achieving these benefits would be about equal, cost and effort.

*LOW:* Impact would be of low order and with little effect. In the case of negative impacts, mitigation and/or remedial activity would be either easily achieved or little would be required, or both. In case of positive impacts, alternative means of achieving this benefit would likely be easier, cheaper, more effective, less time-consuming, or some combination of these.

*VERY LOW:* Impact would be negligible. In the case of negative impacts, almost no mitigation and/or remedial activity would be needed, and any minor steps, which might be needed, would be easy, cheap and simple. In the case of positive impacts, alternative means would be almost all likely to be better, in one or a number of ways, than this means of achieving the benefit.

*NO EFFECT:* There would be no impact at all - not even a very low impact on the system or any of its parts.

#### ***4.2.2 Certainty***

*DEFINITE:* More than 90% sure of a particular fact. Substantial supportive data exist to verify the assessment.

*PROBABLE:* Over 70% sure of a particular fact, or of the likelihood of impact occurring.

*POSSIBLE:* Only over 40% sure of a particular fact or of the likelihood of an impact occurring.

*UNSURE:* Less than 40% sure of a particular fact or likelihood of an impact occurring.

#### **4.2.3 Duration**

*SHORT TERM:* 0 to 5 years

*MEDIUM:* 6 to 20 years

*LONG TERM:* more than 20 years

*DEMOLISHED:* site will be demolished or is already demolished

Example

*Evaluation*

	Significance	Certainty	Duration	Mitigation
	high negative	> 90% sure	long: > 20 years	A

## 5. SITES OF SIGNIFICANCE

The following section outlines the sites identified in the development area, and evaluate them according to the evaluation criteria of the National Heritage Resources Act.

### 5.1 IM001

#### *5.1.1 The identification and mapping of all heritage resources in the affected area*

The site is situated on Portion 5 of the Farm Haarlem 39 IT. Although the site falls outside the mining area Matakoma Consultants evaluated this site as well. The site is an African cemetery consisting of 26 graves, most of which are stone packed. One identifiable name is that of *'Samuel Mahlangu, Died 30.1.56'*.



Figure 1 – Cemetery

**5.1.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).**

The grave present, in the absence of any dates it must be assumed as graves that are older than sixty years until it could be proven otherwise.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

Section 3(3)(g) – its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons

**5.1.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development.**

The current development might have direct impact on the cemetery. In the case that the mining might impact on the graves mitigating measures must be taken

**Impact Evaluation**

Impact	Significance	Certainty	Duration	Mitigation
Negative	High	Possible	Long Term	C

**5.1.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

No community reference was made to this cemetery.

**5.1.5 If heritage resources will be affected by the proposed development, the consideration of alternatives**

The relocation of the cemetery might be considered after determining the exact impact on the site.

### ***5.1.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

In the case of relocation, the correct grave relocation procedure must be followed and handled by an accredited archaeologist.

If the graves are not to be impacted, it is advisable that the site be fenced to ensure proper management within the mining area.

## **5.2 IM002**

### ***5.2.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 4 of the farm Haarlem 39 IT. The site consists of a main farmhouse and numerous outbuildings and sheds. The most significant is the farmhouse and the associated sheds all built with sandstone.

The farmhouse is unoccupied now and consists of a central main structure constructed of sandstone blocks. Through the years, the house has been extended and the extension was mainly done with red claybricks to the southeast of the house.

The front view of the house is characterised by the large bay window on the left, built completely from carved sandstone blocks and pillars.



**Figure 2 – Bay window**



The rest of the original house is visible in the large arch windows and arched doorway with double door opening on to the porch. The Red brick porch was later added. Running the whole length of the original house is the original sandstone porch.



**Figure 3 – Site viewed from east**

Other original décor visible from the outside of the house is the fireplace containing the original grid and tile pattern.



**Figure 4 – Fireplace**

Added on the house is a section that was the back porch closed of with red claybricks and a corrugated iron roof.



**Figure 5 – Addition to original house**

The house in its original form most probably dates from the 1900' s as the associated cemetery at IM003 indicates the earliest graves to date from 1879.



**Figure 6 – Sandstone shed**

Associated with the original house is the sandstone sheds situated some 15 meters to the north of the house. Additional buildings were later constructed as the farm expanded.

***5.2.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).***

The house can be classified as historical and falls under the 60-year ruling of the Act.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

Section 3(3)(a) – its importance in the community, or pattern of South Africa's history.

Section 3(3)(d) – its importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.

Section 3(3)(g) - its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

***5.2.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The site is situated inside the area on Haarlem earmarked for mining. It is envisaged that the whole farmstead will be demolished during mining.

**Impact Evaluation**

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

**5.2.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

No one could give further indication of any information of the site

**5.2.5 If heritage resources will be affected by the proposed development, the consideration of alternatives**

If possible, the farmstead must be preserved and possibly be utilised as site office. However this would probably not be the case and thus the site must be documented in its entirety and a destruction permit must be obtained before any buildings are demolished.

**5.2.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development**

If possible, the farmstead must be preserved and possibly be utilised as site office. However this would probably not be the case and thus the site must be documented in its entirety and a destruction permit must be obtained before any buildings are demolished.

**5.3 IM003**

**5.3.1 The identification and mapping of all heritage resources in the affected area**

The site is characterised by a farm cemetery consisting of a stone walled section containing 4 graves and a further six graves situated to the south of the stonewall.

The only marked grave is that of a double grave containing the following inscriptions:

*' Cecilia Maria Steyn (Geb De Clerq) 1879; Johannes Petrus Steyn (Generaal Steyn 1880-1881 – in Anglo Boer War) 1887'*. This headstone was erected in 1957 by the family.



**Figure 7 –Cemetery**

***5.3.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The cemetery being the original farm cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.3.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery is just outside the mining area but is indicated due to its significance to the farmstead and close proximity to the mining area.

### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
High	High	Possible	Long term	C

#### ***5.3.4. The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Cemetery was indicated to the field surveyors by the farm caretaker.

#### ***5.3.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

Preserve the cemetery *in situ* and close of with fence.

#### ***5.3.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Preserve the cemetery *in situ* and close of with fence.

### **5.4 IM004-IM006**

#### ***5.4.1 The identification and mapping of all heritage resources in the affected area***

The site is that of the sheep dip trough and associated sheep kraal and build water dam.



**Figure 8 – Dip trough**



**Figure 9 – Sheep kraal and dam**

**5.4.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)**

The significance lies in the association with the total farm layout of the original Steyn farm.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

**5.4.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development**

**Impact Evaluation**

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

**5.4.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

Not in the scope of work

**5.4.5 If heritage resources will be affected by the proposed development, the consideration of alternatives**

No alternatives required

**5.4.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development**

No further mitigation required.



## 5.5 IM007

### ***5.5.1 The identification and mapping of all heritage resources in the affected area***

The site is that of three stone packed graves aligned east west situated on the Remaining Extent of the Farm Haarlem 39 IT. There was no sign of the graves being cared for or that they have been visited recently.



**Figure 10 – Three graves**

### ***5.5.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.5.3 An assessment of the impact of the development on such heritage resources and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

***5.5.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in the scope of work.

***5.5.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

***5.5.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

## 5.6 IM008

### *5.6.1 The identification and mapping of all heritage resources in the affected area*

The site is situated on the Remaining Extent of the Farm Haarlem 39 IT and is that of a single grave.



Figure 11 – Single grave

### *5.6.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)*

The cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.6.3 An assessment of the impact of the development on such heritage resources and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

***5.6.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in the scope of work.

***5.6.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

***5.6.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

**5.7 IM009**

***5.7.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on the Remaining Extent of the Farm Haarlem 39 IT. It is an old farmstead consisting of a main house, shed of clay brick as well as two mud brick ruins close by the house.



Figure 12 – Old farmhouse



Figure 13 – Shed

**5.7.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25of 1999)**

The site is not very important but is still protected by law due to the 60-year clause.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25of 1999)

- Section 3(3)(c) its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;

**5.7.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development**

The site will be impacted on by opencast mining.

**Impact Evaluation**

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Definite	Long term	B

**5.7.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

Not in scope of work

**5.7.5 If heritage resources will be affected by the proposed development, the consideration of alternatives**

Document the structures and apply for destruction permit after completion of documentation report.

***5.7.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Document the structures and apply for destruction permit after completion of documentation report.

**5.8 IM010**

***5.8.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on the Remaining extent of the farm Haarlem 39 IT and consists of a single stone packed structure that is possibly a grave



**Figure 12 – Possible grave**

***5.8.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.8.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated. A test excavation must be conducted to verify the existence of graves on the site.

In the event that the investigation shows the presence of graves, the process of relocating the graves must be started by a qualified and competent person.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

***5.8.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in the scope of work.

***5.8.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future. A test excavation must be conducted to verify the existence of graves on the site.

In the event that the investigation shows the presence of graves, the process of relocating the graves must be started by a qualified and competent person.



***5.8.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

**5.9 IM011-012**

***5.9.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 2 of the Farm Paardeplaats 12 IT. The sites consist of a stone build house dating to the early 1900's as well as an associated kraal layout of which only the foundations are visible.



**Figure 13 – Vertical Shaft**

The house consists of 5 rooms of which at least one on the northern side has been added on later.



**Figure 14 – Stone kraal foundations**

***5.9.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999).***

The house can be classified as historical and falls under the 60 year ruling of the Act.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

Section 3(3)(a) – its importance in the community, or pattern of South Africa's history.

Section 3(3)(d) – its importance in demonstrating the principle characteristics of a particular class of South Africa's natural or cultural places or objects.

Section 3(3)(g) - its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.

***5.9.3 An assessment of the impact of the development on such heritage resources and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The site is situated inside the area on Paardeplaats earmarked for mining. It is envisaged that the whole farmstead will be demolished during mining.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

***5.9.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

It was indicated to the field surveyors that the old house was part of the original postal service from Lydenburg to Ermelo in the early 1900's.

***5.9.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

If possible, the farmstead must be preserved. However, this would probably not be the case and thus the site must be documented in its entirety and a destruction permit must be obtained before any buildings are demolished.

***5.9.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

If possible, the farmstead must be preserved. However, this would probably not be the case and thus the site must be documented in its entirety and a destruction permit must be obtained before any buildings are demolished.

## 5.10 IM013

### ***5.10.1 The identification and mapping of all heritage resources in the affected area***

The site, a family cemetery, is situated on Portion 2 of the Farm Paardeplaats 12 IT. The cemetery consists of 25 graves ranging in age from 1905 to 2002. The families represented in the cemetery are the Becking's, De Bruin's and Versveld's. The cemetery is still tended to by the living relatives currently on the farm.



**Figure 15 – Family Cemetery**

### ***5.10.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.10.3 An assessment of the impact of the development on such heritage resources and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

***5.10.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in the scope of work.

***5.10.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

***5.10.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

**5.11 IM014**

***5.11.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 6 of the Farm Groenvallei 40 IT. It consists of a stone walled cemetery with 5 graves. Two family names are associated with the cemetery that of Immelman and Van Niekerk.



**Figure 16 – Cemetery**

***5.11.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.11.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

***5.11.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in the scope of work.

***5.11.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

***5.11.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

**5.12 IM015**

***5.12.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 7 of the Farm Groenvallei 40 IT. The site consist of a cemetery with 18 stone packed graves all aligned east-west.



**Figure 17 – Cemetery**

***5.12.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.12.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.



**Impact Evaluation**

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

**5.12.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

Not in the scope of work.

**5.12.5 If heritage resources will be affected by the proposed development, the consideration of alternatives**

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

**5.12.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development**

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

**5.13 IM016**

**5.13.1 The identification and mapping of all heritage resources in the affected area**

The site is situated on Portion 7 of the Farm Groenvallei 40 IT. The site consists of a single stone structure that could possibly be a grave.



**Figure 18 – Possible Grave**

***5.13.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

In the case that it is a grave, it does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.13.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The grave falls within the opencast mining area and will be impacted on. The grave can be relocated.

**Impact Evaluation**

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

**5.13.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

Not in the scope of work.

**5.13.5 If heritage resources will be affected by the proposed development, the consideration of alternatives**

The management of the graves *in situ* must always be considered. However, it will be possible to investigate the existence of a grave and if needed relocate these grave to a new position in future. A test excavation must be conducted to verify the existence of graves on the site.

In the event that the investigation shows the presence of graves, the process of relocating the graves must be started by a qualified and competent person.

**5.13.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development**

Relocate the grave by following the correct exhumation and reinterment procedures as required by law.

**5.14 IM017**

**5.14.1 The identification and mapping of all heritage resources in the affected area**

The site is situated on Portion 8 of the Farm Groenvallei 40 IT and is that of a single grave.



Figure 11 – Single grave

***5.14.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.14.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

**Impact Evaluation**

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

**5.14.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

Not in the scope of work.

**5.14.5 If heritage resources will be affected by the proposed development, the consideration of alternatives**

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

**5.14.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development**

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

**5.15 IM018**

**5.15.1 The identification and mapping of all heritage resources in the affected area**

The site is situated on Portion 9 of the Farm Twyfelaar 11 IT. The site is most probably that of an late 1800's or early 1900's farmstead. The site consists of at least seven structures that could have been houses or structures such as storerooms having roofs. Two structures are small livestock kraals.

One possible grave also present on site.

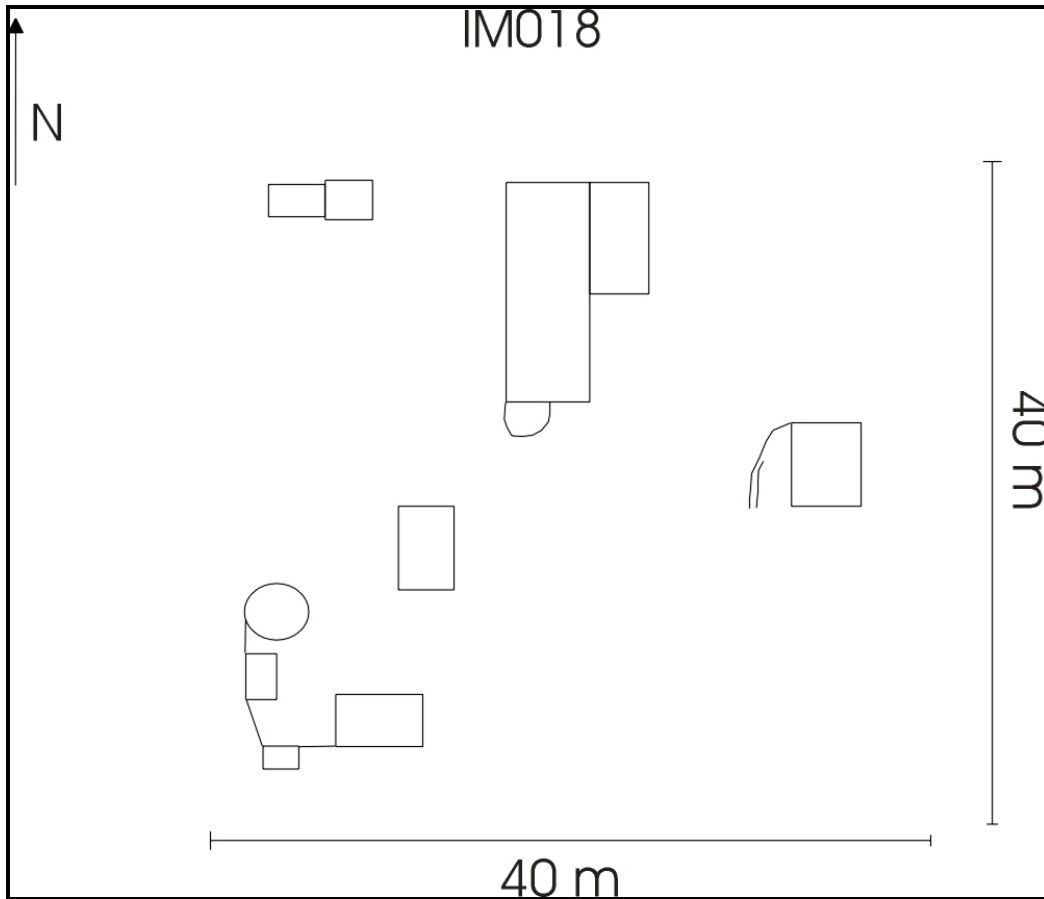


Figure 19 – Layout of farmstead



Figure 20 – Stone structure



**Figure 21 – Possible grave**

***5.15.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

As the site probably contains important information on the conditions on farms in the area around the turn of the century, it would be prudent to consult a specialist historical architect for documentation of the site.

A test excavation must be conducted to verify the existence of a grave on the site.

In the event that the investigation shows the presence of a grave, the process of relocating the graves must be started by a qualified and competent person.

***5.15.3 An assessment of the impact of the development on such heritage resources and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The site falls within the development area and will be demolished.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Probable	Long term	C

***5.15.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in scope of work

***5.15.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

Consultation with Historical Architect and documentation of site.

***5.15.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

The site must be documented, before destruction and the application for a demolition permit.

**5.16 IM019**

***5.16.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 9 of the Farm Twyfelaar 11 IT. The site consists of a single rectangular stone structure that could possibly have been a house.





Figure 22 – Ruin of house

***5.16.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Resources Act 1999 (Act No 25 of 1999)***

It would be prudent to consult a specialist historical architect for a second opinion on the site.

***5.16.3 An assessment of the impact of the development on such heritage resources and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The site falls within the development area and will be demolished.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Probable	Long term	B

***5.16.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in scope of work

***5.16.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

Consultation with Historical Architect

***5.16.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

The site might possibly be documented, pending outcome of consultation with Historical Architect.

**5.17 IM020**

***5.17.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 9 of the Farm Twyfelaar 11 IT. The site consists of a single rectangular stone structure with two rooms that could possibly have been a house.



**Figure 23 – Ruin of house**

**5.17.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)**

It would be prudent to consult a specialist historical architect for a second opinion on the site.

**5.17.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development**

The site falls within the development area and will be demolished.

**Impact Evaluation**

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Probable	Long term	B

**5.17.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources**

Not in scope of work.

**5.17.5 If heritage resources will be affected by the proposed development, the consideration of alternatives**

Consultation with Historical Architect

**5.17.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development**

The site might possibly be documented, pending outcome of consultation with Historical Architect.

## 5.18 IM021

### ***5.18.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 9 of the Farm Twyfelaar 11 IT. The site consists of cemetery with sixteen stone packed graves all aligned east-west.



**Figure 24 – Ruin of house**

### ***5.18.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The cemetery does represent great importance to some community or group of families because the remains of family members buried at the site.

This site is classified as important based on evaluation of the National Heritage Recourses Act 1999 (Act No 25 of 1999)

- Section 3(3)(a) – its importance in the community, or pattern of South Africa's history

***5.18.3 An assessment of the impact of the development on such heritage resources and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

***5.18.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in the scope of work.

***5.18.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

***5.18.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

**5.19 IM022**

***5.19.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 9 of the Farm Twyfelaar 11 IT. The site consists of a single stone structure that might be a grave.



Figure 25 – Possible grave

***5.19.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

Significance will only be identified after investigation into the possibility of the structure being a grave.

***5.19.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The site falls within the development area and will be demolished.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Probable	Long term	B

***5.19.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in scope of work

***5.19.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

Investigate and if a grave relocate it.

***5.19.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Investigate and if a grave relocate it.

**5.20 IM023**

***5.20.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 3 of the Farm Twyfelaar 11 IT. The site consists of a single round stone structure with constructed with the double walled building technique.



**Figure 26 – Stone Structure**

***5.20.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The structure might be classified Iron Age however no other remains were discovered *in situ*. Significance will only be pinned down after further investigation as needed for a destruction permit.

***5.20.3 An assessment of the impact of the development on such heritage recourses and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The site falls within the development area and will be demolished.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Probable	Long term	B



***5.20.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in scope of work

***5.20.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

Apply for destruction permit after documentation has been completed.

***5.20.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

Document and apply for destruction permit.

**5.21 IM024**

***5.21.1 The identification and mapping of all heritage resources in the affected area***

The site is situated on Portion 3 of the Farm Twyfelaar 11 IT. The site is most probably that of an late 1800's or early 1900's farmstead. The site consists of at least three structures that could have been houses or structures such as storerooms having roofs. Three structures are small livestock kraals.

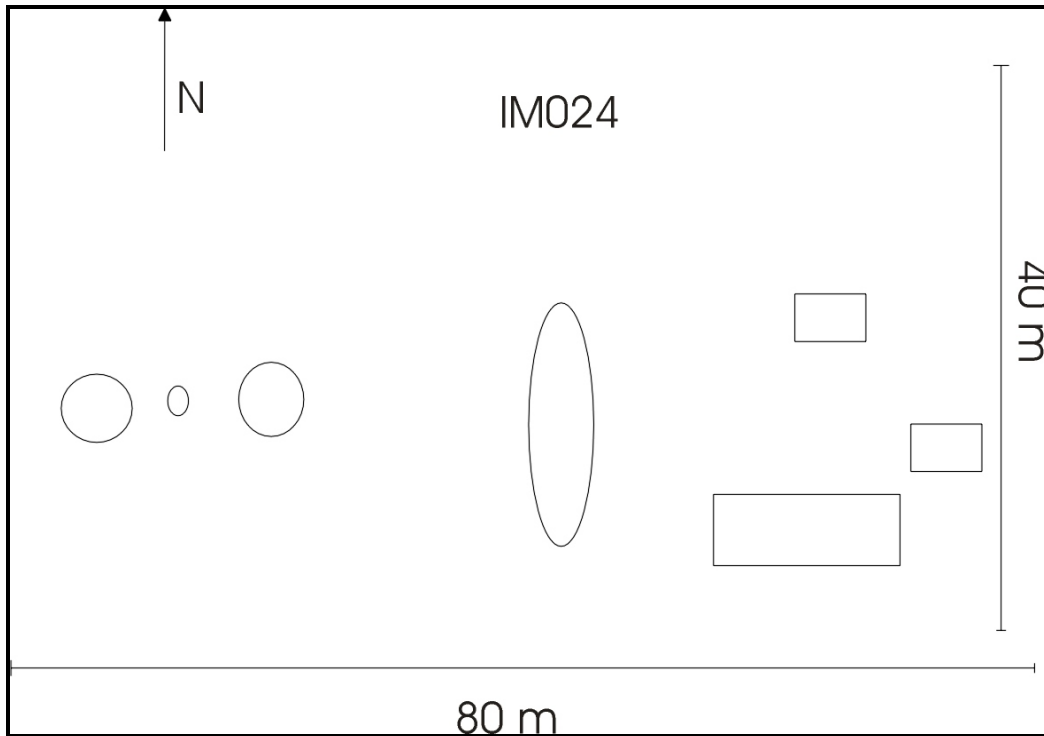


Figure 27 – Layout of farmstead



Figure 28 – Structures on site



Figure 29 – Stone work on main house

***5.21.2 An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 3(3) of the National Heritage Recourses Act 1999 (Act No 25 of 1999)***

The site is significant as it may contain information on the conditions and situation of farming around the turn of the century.

***5.21.3 An assessment of the impact of the development on such heritage resources and an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development***

The site falls within the development area and will be demolished.

***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Possible	Long term	C

***5.21.4 The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources***

Not in scope of work

***5.21.5 If heritage resources will be affected by the proposed development, the consideration of alternatives***

Preserve site in situ.

***5.21.6 Plans for mitigation of any adverse effects during and after the completion of the proposed development***

The site might possibly be documented, pending outcome of consultation with Historical Architect.

## **6. ASSUMPTIONS AND LIMITATIONS**

Due to the nature of cultural remains that occur, in most cases, below surface, the possibility remains that some cultural remains may not have been discovered during the survey. Although Matakoma Consultants surveyed the area as thorough as possible, it is incumbent upon the developer to inform the relevant heritage agency should further cultural remains be unearthed or laid open during the process of development.

The scope of work made provision for the investigation of areas identified by Digby Wells and Associates and the survey of the whole development area by vehicle in the scope of four days.

## **7. LEGAL AND POLICY REQUIREMENTS**

In areas where there has not yet been a systematic survey to identify conservation worthy places, a permit is required to alter or demolish any structure older than 60 years. This will apply until a survey has been done and identified heritage resources are formally protected.

Archaeological and palaeontological sites, materials, and meteorites are the source of our understanding of the evolution of the earth, life on earth and the history of people. In the new legislation, permits are required to damage, destroy, alter or disturb them. People who already possess material are required to register it.

The management of heritage resources are integrated with environmental resources and this means that before development takes place heritage resources are assessed and, if necessary, rescued.

In addition to the formal protection of culturally significant graves, all graves, which are older than 60 years and are not in a cemetery (such as ancestral graves in rural areas), are protected. The legislation protects the interests of communities that have interest in the graves: they may be consulted before any disturbance takes place.

The graves of victims of conflict and those associated with the liberation struggle will be identified, cared for, protected and memorials erected in their honour.

Anyone who intends to undertake a development must notify the heritage resource authority and if there is reason to believe that heritage resources will be affected, an impact assessment report must be compiled at the developer's cost. Thus developers will be able to proceed without uncertainty about whether work will have to be stopped if a heritage resource is discovered.

According to the National Heritage Act (Act 25 of 1999 section 32) it is stated that:

An object or collection of objects, or a type of object or a list of objects, whether specific or generic, that is part of the national estate and the export of which SAHRA deems it necessary to control, may be declared a heritage object, including –

- objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects, meteorites and rare geological specimens;
- visual art objects;
- military objects;
- numismatic objects;
- objects of cultural and historical significance;
- objects to which oral traditions are attached and which are associated with living heritage;
- objects of scientific or technological interest;
- books, records, documents, photographic positives and negatives, graphic material, film or video or sound recordings, excluding those that are public records as defined in section 1 (xiv) of the National Archives of South Africa Act, 1996 ( Act No. 43 of 1996), or in a provincial law pertaining to records or archives; and
- any other prescribed category.

If it is necessary to refer to any of the above-mentioned objects, the National Heritage Act (Act 25 of 1999 Sections 31-38) are included in Appendix 2.

Under the new National Heritage Resources Act (Act No. 25 of 1999), provisions are made that deal with, and offer protection, to all historic and pre-historic cultural remains, including graves and human remains.

- Graves younger than 60 years fall under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the Office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning, or in some cases the MEC for Housing and Welfare. Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. In order to handle and transport human remains the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).
- Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act) as well as the Human Tissues Act (Act 65 of 1983) and are the jurisdiction of the South African Heritage Resource Agency (SAHRA). The procedure for Consultation Regarding Burial Grounds and Graves (Section 36(5) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in the category located inside a formal cemetery administrated by a local authority will also require the same authorisation as set out for graves younger than 60 years over and above SAHRA authorisation. If the grave is not situated inside a formal cemetery but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws set by the cemetery authority must be adhered to.

Refer to **Annexure A** for further information on legislation.

## 8. ASSESSMENT AND RECOMMENDATIONS

*All the sites identified during the survey are mapped on the map provided in **Annexure B**.*

*A list of coordinates of the sites is provided in **Annexure C**.*

### 8.1 IM001

The current development might have direct impact on the cemetery. In the case that the mining might impact on the graves mitigating measures must be taken

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	High	Possible	Long Term	C

In the case of relocation, the correct grave relocation procedure must be followed and handled by an accredited archaeologist.

If the graves are not to be impacted, it is advisable that the site be fenced to ensure proper management within the mining area.

### 8.2 IM002

The site is situated inside the area on Haarlem earmarked for mining. It is envisaged that the whole farmstead will be demolished during mining.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

If possible, the farmstead must be preserved and possibly be utilised as site office. However this would probably not be the case and thus the site must be documented in its entirety and a destruction permit must be obtained before any buildings are demolished.

### 8.3 IM003

The cemetery is just outside the mining area but is indicated due to its significance to the farmstead and close proximity to the mining area.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	High	Possible	Long term	C

Preserve the cemetery *in situ* and close of with fence.

### 8.4 IM004-IM006

The significance lies in the association with the total farm layout of the original Steyn farm.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

No further mitigation required.

### 8.5 IM007

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.



### 8.6 IM008

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### 8.7 IM009

The site is not very important but is still protected by law due to the 60-year clause.

The site will be impacted on by opencast mining.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Definite	Long term	B

Document the structures and apply for destruction permit after completion of documentation report.

### 8.8 IM010

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future. A test excavation must be conducted to verify the existence of graves on the site.

In the event that the investigation shows the presence of graves, the process of relocating the graves must be started by a qualified and competent person.

### 8.9 IM011-012

The site is situated inside the area on Paardeplaats earmarked for mining. It is envisaged that the whole farmstead will be demolished during mining.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

If possible, the farmstead must be preserved. However, this would probably not be the case and thus the site must be documented in its entirety and a destruction permit must be obtained before any buildings are demolished.

### 8.10 IM013

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### 8.11 IM014

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### 8.12 IM015

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### 8.13 IM016

The grave falls within the opencast mining area and will be impacted on. The grave can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to investigate the existence of a grave and if needed relocate these grave to a new position in future. A test excavation must be conducted to verify the existence of graves on the site.

In the event that the investigation shows the presence of graves, the process of relocating the graves must be started by a qualified and competent person.

### 8.14 IM017

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### 8.15 IM018

The site falls within the development area and will be demolished.

#### *Impact Evaluation*

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Probable	Long term	C

The site must be documented, before destruction and the application for a demolition permit. However, it will be possible to investigate the existence of a grave and if needed relocate these grave to a new position in future. A test excavation must be conducted to verify the existence of graves on the site.

### 8.16 IM019

The site falls within the development area and will be demolished.

#### *Impact Evaluation*

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Probable	Long term	B

Consultation with Historical Architect.

The site might possibly be documented, pending outcome of consultation with Historical Architect.

### 8.17 IM020

The site falls within the development area and will be demolished.

#### *Impact Evaluation*

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Probable	Long term	B

Consultation with Historical Architect

The site might possibly be documented, pending outcome of consultation with Historical Architect.

### 8.18 IM021

The cemetery falls within the opencast mining area and will be impacted on. The cemetery can be relocated.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Definite	Long term	C

The management of the graves *in situ* must always be considered. However, it will be possible to relocate these graves to a new position in future.

Relocate the graves by following the correct exhumation and reinterment procedures as required by law.

### 8.19 IM022

The site falls within the development area and will be demolished.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Probable	Long term	B

Investigate and if a grave relocate it.

### 8.20 IM023

The site falls within the development area and will be demolished.

#### ***Impact Evaluation***

Impact	Significance	Certainty	Duration	Mitigation
Negative	Low	Probable	Long term	B

Apply for destruction permit after documentation has been completed.

## 8.21 IM024

The site falls within the development area and will be demolished.

### *Impact Evaluation*

Impact	Significance	Certainty	Duration	Mitigation
Negative	Medium	Possible	Long term	C

The site might possibly be documented, pending outcome of consultation with Historical Architect.

## 8.22 List of Sites

Site No	Type	Impact	Significance	Certainty	Duration	Mitigation
IM001	Cemetery	Negative	High	Possible	Long Term	C
IM002	Historic	Negative	Medium	Definite	Long term	C
IM003	Cemetery	Negative	High	Possible	Long term	C
IM004	Historic	Negative	Medium	Definite	Long term	C
IM005	Historic	Negative	Medium	Definite	Long term	C
IM006	Historic	Negative	Medium	Definite	Long term	C
IM007	Cemetery	Negative	Medium	Definite	Long term	C
IM008	Grave	Negative	Medium	Definite	Long term	C
IM009	Historic	Negative	Low	Definite	Long term	B
IM010	Grave	Negative	Medium	Definite	Long term	C
IM011	Historic	Negative	Medium	Definite	Long term	C
IM012	Historic	Negative	Medium	Definite	Long term	C
IM013	Cemetery	Negative	Medium	Definite	Long term	C
IM014	Cemetery	Negative	Medium	Definite	Long term	C
IM015	Cemetery	Negative	Medium	Definite	Long term	C
IM016	Grave	Negative	Medium	Definite	Long term	C
IM017	Grave	Negative	Medium	Definite	Long term	C
IM018	Historic	Negative	Medium	Probable	Long term	C
IM019	Historic	Negative	Low	Probable	Long term	B
IM020	Historic	Negative	Low	Probable	Long term	B
IM021	Cemetery	Negative	Medium	Definite	Long term	C

IM022	Grave	Negative	Medium	Probable	Long term	B
IM023	Iron Age	Negative	Low	Probable	Long term	B
IM024	Historic	Negative	Medium	Possible	Long term	C

If during construction any possible finds are made, the operations must be stopped and a qualified archaeologist be contacted for an assessment of the find.

A heritage resources management plan outline is provided for managing the resources during construction. This includes basic training for construction staff on possible finds, action steps for mitigation measures, surface collections, excavations and communication routes to follow in the case of a discovery.

Refer to **Annexure D** for an outline of the proposed archaeological watching brief that is recommended for this project.

The definition of an archaeological watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposit may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

This definition does not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains *in situ*.

The purpose of a watching brief is:

- To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works
- To provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.
- A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.



- The objective of a watching brief is to establish and make available information about the archaeological resource existing on a site.

Matakoma Consultants can be contacted on the way forward in this regard.

## 9. LIST OF PREPARES

Wouter Fourie, BA (Hon) Archaeology

## 10. REFERENCES

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Willemsse, J. 2002. Bewaar gister vir die nageslag. Rapport, 16 June 2002. S.A.

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## **ANNEXURE A**

### Legislation extracts

#### [36]36 Burial grounds and graves

(1) Where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

(2) SAHRA must identify and record the graves of victims of conflict and any other graves which it deems to be of cultural significance and may erect memorials associated with the grave referred to in subsection (1), and must maintain such memorials.

(3) (a) No person may, without a permit issued by SAHRA or a provincial heritage resources authority-

(a) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;

(b) destroy, damage, alter, exhume, 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 equipment, or any equipment which assists in the detection or recovery of metals.

(4) SAHRA or a provincial heritage resources authority may not issue a permit for the destruction or damage of any burial ground or grave referred to in subsection (3) (a) unless it is satisfied that the applicant has made satisfactory arrangements for the exhumation and re-interment of the contents of such graves, at the cost of the applicant and in accordance with any regulations made by the responsible heritage resources authority.

(5) SAHRA or a provincial heritage resources authority may not issue a permit for any activity under subsection (3) (b) unless it is satisfied that the applicant has, in accordance with regulations made by the responsible heritage resources authority-

(a) made a concerted effort to contact and consult communities and individuals who by tradition have an interest in such grave or burial ground; and

(b) reached agreements with such communities and individuals regarding the future of such grave or burial ground.

(6) Subject to the provision of any other law, any person who in the course of development or any other activity discovers the location of a grave, the existence of which was previously unknown, must immediately cease such activity and report the discovery to the responsible heritage resources authority which must, in co-operation with the South African Police Service and in accordance with regulations of the responsible heritage resources authority-

(a) carry out an investigation for the purpose of obtaining information on whether or not such grave is protected in terms of this Act or is of significance to any community; and

(b) if such grave is protected or is of significance, assist any person who or community which is a direct descendant to make arrangements for the exhumation and re-interment of the contents of such grave or, in the absence of such person or community, make any such arrangements as it deems fit.

(7) (a) SAHRA must, over a period of five years from the commencement of this Act, submit to the Minister for his or her approval lists of graves and burial grounds of persons connected with the liberation struggle and who died in exile or as a result of the action of State security forces or agents provocateur and which, after a process of public consultation, it believes should be included among those protected under this section.

(b) The Minister must publish such lists as he or she approves in the Gazette.

(8) Subject to section 56 (2), SAHRA has the power, with respect to the graves of victims of conflict outside the Republic, to perform any function of a provincial heritage resources authority in terms of this section.

(9) SAHRA must assist other State Departments in identifying graves in a foreign country of victims of conflict connected with the liberation struggle and, following negotiations with the next of kin, or relevant authorities, it may re-inter the remains of that person in a prominent place in the capital of the Republic.

[37]37 Public monuments and memorials

Public monuments and memorials must, without the need to publish a notice to this effect, be protected in the same manner as places which are entered in a heritage register referred to in section 30.

[38]38 Heritage resources management

(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-

- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- (b) the construction of a bridge or similar structure exceeding 50m in length;
- (c) any development or other activity which will change the character of a site-
  - (i) exceeding 5 000m<sup>2</sup> in extent; or
  - (ii) involving three or more existing erven or subdivisions thereof; or
  - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
  - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- (d) the re-zoning of a site exceeding 10 000m<sup>2</sup> in extent; or
- (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,

must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

(2) The responsible heritage resources authority must, within 14 days of receipt of a notification in terms of subsection (1)-

(a) if there is reason to believe that heritage resources will be affected by such development, notify the person who intends to undertake the development to submit an impact assessment report. Such report must be compiled at the cost of the person proposing the development, by a person or persons approved by the responsible heritage resources authority with relevant qualifications and experience and professional standing in heritage resources management; or

(b) notify the person concerned that this section does not apply.

(3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2) (a): Provided that the following must be included:

(a) The identification and mapping of all heritage resources in the area affected;

(b) an assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6 (2) or prescribed under section 7;

(c) an assessment of the impact of the development on such heritage resources;

(d) an evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;

(e) the results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;

(f) if heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and

(g) plans for mitigation of any adverse effects during and after the completion of the proposed development.

(4) The report must be considered timeously by the responsible heritage resources authority which must, after consultation with the person proposing the development, decide-

(a) whether or not the development may proceed;

- (b) any limitations or conditions to be applied to the development;
- (c) what general protections in terms of this Act apply, and what formal protections may be applied, to such heritage resources;
- (d) whether compensatory action is required in respect of any heritage resources damaged or destroyed as a result of the development; and
- (e) whether the appointment of specialists is required as a condition of approval of the proposal.

(5) A provincial heritage resources authority shall not make any decision under subsection (4) with respect to any development which impacts on a heritage resource protected at national level unless it has consulted SAHRA.

(6) The applicant may appeal against the decision of the provincial heritage resources authority to the MEC, who-

- (a) must consider the views of both parties; and
- (b) may at his or her discretion-
  - (i) appoint a committee to undertake an independent review of the impact assessment report and the decision of the responsible heritage authority; and
  - (ii) consult SAHRA; and
- (c) must uphold, amend or overturn such decision.

(7) The provisions of this section do not apply to a development described in subsection (1) affecting any heritage resource formally protected by SAHRA unless the authority concerned decides otherwise.

(8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act, 1989 (Act 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environment Affairs and Tourism, or the Minerals Act, 1991 (Act 50 of 1991), or any other legislation: Provided that the consenting

authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of subsection (3), and any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent.

(9) The provincial heritage resources authority, with the approval of the MEC, may, by notice in the Provincial Gazette, exempt from the requirements of this section any place specified in the notice.

(10) Any person who has complied with the decision of a provincial heritage resources authority in subsection (4) or of the MEC in terms of subsection (6) or other requirements referred to in subsection (8), must be exempted from compliance with all other protections in terms of this Part, but any existing heritage agreements made in terms of section 42 must continue to apply

## **ANNEXURE B**

### Maps of sites



**ANNEXURE C**

TABLE WITH SITE DESCRIPTION, STATUS AND COORDINATES

Site	Type	Impact	Significance	Certainty	Duration	Mitigation	LATDD	LONDD	Y_COORD_LO29	X_COORD_LO29
IM001	Cemetery	Negative	High	Possible	Long Term	C	-26.1060155	30.1694924	117086.9256448	-2888706.3131743
IM002	Historic	Negative	Medium	Definite	Long term	C	-26.1222268	30.1983476	119957.1932551	-2890528.7614933
IM003	Cemetery	Negative	High	Possible	Long term	C	-26.1244959	30.1964271	119762.7730140	-2890778.4096393
IM004	Historic	Negative	Medium	Definite	Long term	C	-26.1239327	30.1964325	119763.8839462	-2890716.0060011
IM005	Historic	Negative	Medium	Definite	Long term	C	-26.1238898	30.1973444	119855.1501924	-2890712.0908032
IM006	Historic	Negative	Medium	Definite	Long term	C	-26.1233319	30.1970172	119822.9865422	-2890649.9752371
IM007	Cemetery	Negative	Medium	Definite	Long term	C	-26.1183483	30.2182710	121954.1961301	-2890117.5537134
IM008	Grave	Negative	Medium	Definite	Long term	C	-26.1193837	30.2202237	122148.4533300	-2890234.0985580
IM009	Historic	Negative	Low	Definite	Long term	B	-26.1253113	30.2144247	121562.2259914	-2890885.4462077
IM010	Grave	Negative	Medium	Definite	Long term	C	-26.1275805	30.2101654	121133.8264762	-2891132.8913920
IM011	Historic	Negative	Medium	Definite	Long term	C	-26.0422594	30.1818573	118388.0801890	-2881653.5084031
IM012	Historic	Negative	Medium	Definite	Long term	C	-26.0412885	30.1810259	118305.8236960	-2881545.1754072
IM013	Cemetery	Negative	Medium	Definite	Long term	C	-26.0399903	30.1816159	118366.1863002	-2881401.8757060
IM014	Cemetery	Negative	Medium	Definite	Long term	C	-26.0809905	30.1446605	114627.0208181	-2885911.5364712
IM015	Cemetery	Negative	Medium	Definite	Long term	C	-26.0557617	30.1408464	114269.8423028	-2883112.9327395
IM016	Grave	Negative	Medium	Definite	Long term	C	-26.0563464	30.1406157	114246.1882669	-2883177.5152333
IM017	Grave	Negative	Medium	Definite	Long term	C	-26.0468675	30.1489037	115084.9638803	-2882134.5762468
IM018	Historic	Negative	Medium	Probable	Long term	C	-26.0251094	30.1998121	120202.8143680	-2879769.7523844
IM019	Historic	Negative	Low	Probable	Long term	B	-26.0236771	30.1979882	120021.6731942	-2879609.3804176
IM020	Historic	Negative	Low	Probable	Long term	B	-26.0233606	30.1984227	120065.4971748	-2879574.7127786
IM021	Cemetery	Negative	Medium	Definite	Long term	C	-26.0225130	30.2017272	120397.1922546	-2879483.8467859
IM022	Grave	Negative	Medium	Probable	Long term	B	-26.0223467	30.2021563	120440.3272901	-2879465.8174069
IM023	Iron Age	Negative	Low	Probable	Long term	B	-26.0231835	30.2038729	120611.3332225	-2879560.1221038
IM024	Historic	Negative	Medium	Possible	Long term	C	-26.0219068	30.2054018	120765.7030788	-2879420.0774470

**ANNEXURE D**

**OUTLINE GUIDE FOR AN ARCHAEOLOGICAL WATCHING BRIEF**

## **STANDARD AND GUIDANCE - for an Archaeological Watching Brief**

### **1. DEFINITION OF AN ARCHAEOLOGICAL WATCHING BRIEF**

The definition of an archaeological watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposit may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

This definition does not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains in situ.

### **2. PURPOSE OF A WATCHING BRIEF**

The purpose of a watching brief is:

- To allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works
- To provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.
- A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.
- The objective of a watching brief is to establish and make available information about the archaeological resource existing on a site.
- An archaeologist shall only undertake a watching brief, which is governed by a written and agreed specification or project design prepared in advance of work commencing.
- The specification or project design must identify the objectives, scope, geographical area, and means of dissemination of the results of the watching brief, and incorporate a method statement and work programme. The specification or project design should conform to the brief/project outline if one has been set, and must in any case be approved in advance by the planning archaeologist or curator.

The specification or project design should contain, as a minimum, the following elements:

- Non-technical summary

- Site location (including map) and descriptions
- Context of the project
- Geological and topographical background
- Archaeological and historical background
- General and specific aims of fieldwork
- Reference to relevant legislation
- Field methodology
- Collection and disposal strategy for artefacts and ecofacts
- Arrangement for immediate conservation of artefacts
- Post-fieldwork methodology
- Report preparation (method)
- Publication and dissemination proposals
- Copyright
- Archive deposition
- Timetable
- Staffing
- Health & safety considerations
- Monitoring procedures
- Contingency arrangements (if appropriate)

### **3. FIELDWORK**

3.1 All relevant parties must agree to the specification and/or project design before work commences. All work must conform to the agreed specification or project design. All relevant parties must agree to any variations in writing.

3.2 Sufficient and appropriate resources (staff, equipment, accommodation etc) must be used to enable the project to achieve its aims, the desired quality and timetable, and comply with all statutory requirements. Any contingency elements must be clearly identified and justified. It is the role of the archaeologist undertaking the work to define appropriate staff levels.

3.3 All techniques used must comply with relevant legislation and be demonstrably fit for the defined purpose(s).

3.4 All staff, including subcontractors, must be suitably qualified and experienced for their project roles, and employed in line with relevant legislation and IFA by-laws (see Appendix 6). The site director and/or manager should preferably be a Principal Inspector with the Cultural Resources Management Section of the South African Association of Archaeologists (CRM Section of SA3).

3.5 All staff, including subcontractors, must be fully briefed and aware of the work required under the specification, and must understand the aims and methodologies of the project. All equipment must be suitable for the purpose and in sound condition and comply with Health and Safety regulations and recommendations.

3.6 Sufficient and appropriate resources (staff, equipment, accommodation etc) must be used to enable the project to achieve its aims, the desired quality and timetable, and to comply with all statutory requirements. Any contingency elements must be clearly identified and justified. It is the role of the archaeologist undertaking the work to define appropriate staff levels.

3.7 Full and proper records (written, graphic, electronic and photographic as appropriate) should be made for all work, using pro forma record forms and sheets as applicable. Digital records created, as part of the project should comply with specified data standards. An archaeologist must ensure that digital information, paper and photographic records should be stored in a secure and appropriate environment, and be regularly copied or backed up, and copies stored in a separate location.

3.8 Artefact and environmental data collection and discard policies, strategies and techniques must be fit for the defined purpose, and understood by all staff and subcontractors

3.9 Health and Safety regulations and requirements cannot be ignored no matter how imperative the need to record archaeological information; hence Health and Safety will take priority over archaeological matters. All archaeologists undertaking fieldwork must do so under a defined Health and Safety Policy.

3.10 Archaeologists undertaking fieldwork must observe safe working practices; the Health and Safety arrangements must be agreed and understood by all relevant parties before work commences

3.11 Archaeologists must liaise closely with the principal contractor and comply with specified site rules. Archaeologists are advised to note the onerous responsibilities of the role of planning supervisor.

3.12 The archaeologist undertaking a watching brief must ensure that he or she has adequate insurance policies, public and employer's liability and some relevant form of civil liability indemnity or professional indemnity.

3.13 On arrival on site, the archaeologist should report to the site manager or other identified representative of the principal contractors or developers, and conform to their arrangements for notification of entering and leaving site.

3.14 Where the archaeologist has by instruction or agreement the power to suspend development work, he or she shall, in exercising such power, follow procedures previously agreed with the other contractors on the site. Within the constraints of the nature of the archaeological resource, the archaeologist shall not cause unreasonable disruption to the maintenance of the work schedules of other contractors.

- 3.15 An archaeologist should keep a record of the date, time and duration of all visits, the number of staff concerned and any actions taken.

#### **4. POST-FIELDWORK ANALYSES AND REPORTS**

- 4.1 Suitably qualified and experienced staff, who must be apprised of the project design before commencing work, and who should understand the work required of them, must carry out all assessment and analytical work.
- 4.2 The level of recording and analysis of artefacts and ecofacts should be appropriate to the aims and purpose of the project.
- 4.3 All data generated as a result of assessment and/or analysis should be included in the project archive.
- 4.4 All reports must address the aims and purposes of the project design and/or specification.
- 4.5 All reports should be written in a clear, concise and logical style; technical terms should be explained if the report is for a non-archaeological audience. Consideration should be given during the preparation of the report to the requirements of public inquiries and courts of law if appropriate.
- 4.6 Subject to any contractual requirements on confidentiality, copies of the report must be submitted to the appropriate Provincial Heritage Resources Agency (PHRA) within six months of completion of report.
- 4.7 As a minimum, a site summary or data structure report should be submitted to the appropriate PHRA.

#### **5. MONITORING**

- 5.1 All work must be monitored by the archaeological contractor undertaking the project, and if appropriate by the PHRA, the Cultural Resources Management Section of the South African Association of Archaeologists (CRM Section of SA3), or their nominated representatives. The guidance below is directed in general at monitors from outside the organisation undertaking the work, but many of the points apply equally to internal monitors or managers.
- 5.2 A monitor should be suitably experienced and qualified, or have access to appropriate specialist advice.
- 5.3 Monitoring must be undertaken against the written specification and/or project design.
- 5.4 Monitors, where not representing the commissioning body, should bear in mind the need for flexibility, within the stated parameters, in contractual matters such as staff numbers, budgets or timetable.
- 5.5 All monitoring visits must be documented, and agreed by each party.

5.6 Non-compliance with the agreed specification or project design must be pointed out by the monitor to the archaeologist undertaking the work, and their client if appropriate, at the earliest opportunity.

5.7 Monitors should be aware of their professional and moral duties regarding Health and Safety, in particular reporting and advising against bad and unsafe practice.

5.8 All monitoring arrangements must be agreed at the outset of the project; the archaeologist undertaking fieldwork must inform the planning archaeologist or other monitor of the commencement of work with reasonable notice.

5.9 Although monitors may choose to visit at any time, they should normally inform the archaeologist undertaking the work of any intended visits in advance. Monitors must respect reasonable requests from the client commissioning the work to attend only at prearranged times and, if necessary, in the company of the client's representative.

5.10 Any costs for monitoring to be charged by the planning archaeologist or other monitor must be agreed in writing at the outset of the project.

## **6. REPORT CONTENTS**

The specific requirements of any report will necessarily vary according to the scope of works, the nature of the results or other factors. However, the following sections will occur in most

### **Non-technical summary**

This should outline in plain, non-technical language the principal reason for the work, its objectives and main results. It should include reference to authorship and commissioning body.

### **Introductory statements**

These could include acknowledgements, circumstances of the project such as planning background, the archaeological background, an outline nature of work, the site description (including size, geology and topography, location), when the project was undertaken and by whom.

### **Aims and objectives**

These should reflect or reiterate the aims set out in the project design or specification.

### **Methodology**

The methods used, including the detail of any variation to the agreed project design or specification should be set out carefully, and explained as appropriate. These should be set out as a series of summary statements, organised clearly in relation to the methods used, and describing structural data, associated finds and/or environmental data recovered. Descriptive material should be clearly separated from interpretative statements. Technical terminology (including dating or period references) should be explained where necessary if the report is aimed at a largely non-archaeological audience. The results should be amplified where necessary

by the use of drawings and photographs; and by supporting data contained in appendices (below).

### **Conclusions**

It is appropriate to include a section, which sums up and interprets the results and puts them into context (local, national or otherwise). Other elements should include a confidence rating on techniques used, or on limitations imposed by particular factors (eg weather or problems of access).

### **Archive location**

The final destination of the archive (records and finds) should be noted in the report.

### **Appendices**

These should contain essential technical and supporting detail, including for example lists of artefacts and contexts or details of measurements, gazetteers etc. It may also be appropriate to include the project design or specification for ease of reference.

### **Illustrations**

Most reports will need the inclusion of one or more illustrations for clarity; as a minimum a location plan should be included. Any plans or sections should be clearly numbered and easily referenced to the National Grid and related to the specified area.

### **References and bibliography**

A list of all sources used should be appended to the report.

### **Other**

Contents list, disclaimers.

## **7. REFERENCES**

The Institute of Field Archaeologists, 2001. STANDARD AND GUIDANCE - for an archaeological watching brief. United Kingdom