CULTURAL HERITAGE IMPACT ASSESSMENT OF THE PROPOSED N8 RING ROAD NEAR BLOEMFONTEIN.



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Frans received his MA (Archaeology) from the University of Stellenbosch and is presently a PhD candidate on social anthropology at UKZN. His PhD research topic deals with indigenous San perceptions and interactions with the rock art heritage of the Drakensberg.

Frans was employed as a junior research associate at the then University of Transkei, Botany Department in 1988-1990. Although attached to a Botany Department he conducted a palaeoecological study on the Iron Age of northern Transkei - this study formed the basis for his MA thesis in Archaeology. Frans left the University of Transkei to accept a junior lecturing position at the University of Stellenbosch in 1990. He taught mostly undergraduate courses on World Archaeology and research methodology during this period.

From 1991 – 2001 Frans was appointed as the head of the department of Historical Anthropology at the Natal Museum, Pietermaritzburg. His tasks included academic research and publication, display conceptualization, and curating the African ethnology collections of the Museum. He developed various displays at the Natal Museum on topics ranging from Zulu material culture, traditional healing, and indigenous classificatory systems. During this period Frans also developed a close association with the Departments of Fine Art, Psychology, and Cultural and Media Studies at the then University of Natal. He assisted many post-graduate students with projects

relating to the cultural heritage of South Africa. He also taught post-graduate courses on qualitative research methodology to honours students at the Psychology Department, University of Natal. During this period he served on the editorial boards of the South African Journal of Field Archaeology and Natalia.

Frans left the Natal Museum in 2001 when approached by a Swiss funding agency to assist an international NGO (Working Group for Indigenous Minorities) with the conceptualization of a San or Bushman museum near Cape Town. During this period he consulted extensively with various San groupings in South Africa, Namibia and Botswana. He also made major research and conceptual contributions to the Kamberg and Didima Rock Art Centres in the Ukhahlamba Drakensberg World Heritage Site.

Between 2003 and 2007 Frans was employed as the Cultural Resource Specialist for the Maloti Drakensberg Transfrontier Project – a bilateral conservation project funded through the World Bank. This project involved the facilitation with various stakeholders in order to produce a cultural heritage conservation and development strategy for the adjacent parts of Lesotho and South Africa. Frans was the facilitator for numerous heritage surveys and assessments during this project. This vast area included more than 2000 heritage sites. Many of these sites had to be assessed and heritage management plans designed for them. He had a major input in the drafting of the new Cultural Resource Management Plan for the Ukahlamba Drakensberg World Heritage site in 2007/2008. A highpoint of his career was the inclusion of Drakensberg San indigenous knowledge systems, with San collaboration, into the management plans of various rock art sites in this world heritage site. He also liaised with the tourism specialist with the drafting of a tourism business plan for the area.

During April 2008 Frans accepted employment at the environmental agency called Strategic Environmental Focus (SEF). His main task was to set-up and run the cultural heritage unit of this national company. During this period he also became an accredited heritage impact assessor and he is rated by both Amafa and the South African Heritage Resources Agency (SAHRA). He completed almost 50 heritage impact assessment reports nation-wide during an 18th month period.

Frans left SEF and started his own heritage consultancy called "Active Heritage cc" in July 2009. Although mostly active along the eastern seaboard his clients also include international companies such as Royal Dutch Shell through Golder Associates, and UNESCO. He has now completed almost 600 heritage conservation and management reports for various clients since the inception of "Active Heritage cc". Amongst these was a heritage study of the controversial fracking gas exploration of the Karoo Basin and various proposed mining developments in South Africa and proposed developments adjacent to various World Heritage sites. Apart from heritage impact assessments (HIA's) Frans also assist the National Heritage Council (NHC) through Haley Sharpe Southern Africa', with heritage site data capturing and analysis for the proposed National Liberation Route World Heritage Site and the national intangible heritage audit. In addition, he is has done background research and conceptualization

of the proposed Dinosaur Interpretative Centre at Golden Gate National Park and the proposed Khoi and San Interpretive Centre at Camdeboo, Eastern Cape Province. During 2009 he also produced the first draft dossier for the nomination of the Sehlabathebe National Park, Lesotho as a UNESCO inscribed world heritage site.

Frans was appointed as temporary lecturer in the department of Heritage and Tourism, UKZN in 2011. He is also a research affiliate at the School of Cultural and Media Studies in the same institution.

Frans's research interests include African Iron Age, paleoecology, rock art research, San ethnography, traditional healers in South Africa, and heritage conservation. Frans has produced more than fourty publications on these topics in both popular and academic publications. He is frequently approached by local and international video and film productions in order to assist with research and conceptualization for programmes on African heritage and culture. He has also acted as presenter and specialist for local and international film productions on the rock art of southern Africa. Frans has a wide experience in the fields of museum and interpretive centre display and made a significant contribution to the conceptual planning of displays at the Natal Museum, Golden Horse Casino, Didima Rock Art Centre and !Khwa tu San Heritage Centre. Frans is also the co-founder and active member of "African Antiqua" a small tour company who conducts archaeological and cultural tours world-wide. He is a Thetha accredited cultural tour guide and he has conducted more than 50 tours to heritage sites since 1992.

Declaration of Consultants independence

Frans Prins is an independent consultant to KSEMS and has no business, financial, personal or other interest in the activity, application or appeal in respect of which he was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances whatsoever that compromise the objectivity of this specialist performing such work.

Frans Prins

EXECUTIVE SUMMARY

A heritage survey of the proposed N8 Ring Road near Bloemfontein, Free State Province, identified no heritage sites or features within 50 m from the proposed development. The area is also not part of any known cultural landscape. There is no archaeological reason why the proposed development may not proceed as planned. Attention is drawn to the National Heritage Resources Act, 1999 (Act No. 25 of 1999) which requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage resources authority.

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LIST OF ABBREVIATIONS AND ACRONYMS

ESA	Early Stone Age	
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country	
IRON AGE Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830		
EIA	Early Iron Age	
LIA	Late Iron Age	
LSA	Late Stone Age	
MSA	Middle Stone Age	
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998) and associated regulations (2010).	
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)	
SAHRA	South African Heritage Resources Agency	
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200	

1 INTRODUCTION

1.1 Background and Brief

The South African National Roads Agency Limited (SANRAL) proposes to develop a complete ring road around the Bloemfontein CBD (Fig 1) which will extend from National Route 8, Section 10 (Haldon Road) to Provincial Road R702 (Dewetsdorp Road) during Phase 1. The project is located adjacent to the National Route 8, Section 10, West of Bloemfontein within the Mangaung Metropolitan Municipality. The co-ordinates for the proposed N8 Ring Road are: Start:29°08'24.65"S 26°06'21.95"E; End: 29°12'24.17"S, 26°16'29.20"E. Kerry Seppings Environmental Consultants (KSEMS) has been appointed as the environmental assessment practitioner to undertake the necessary environmental assessment process for the proposed project. Active Heritage cc was subsequently appointed KSEMS to complete the heritage impact assessment (HIA) for the proposed project. A brief synopsis of the background to this Basic Assessment is provided in Table 1.

Table 1. Background information

Type development:	of	Construction of the N8 Loop Road. The development is situated to the south of Bloemfontein and links the N8 with the R 702.
Rezoning subdivision:	or	Rezoning
Terms reference	of	To carry out a Heritage Impact Assessment (HIA) of the preferred alternative for the proposed N8 Loop Road.
Legislative requirements:		The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999).

1.2. The Study Area

The project is located adjacent to the National Route 8, Section 10, West of Bloemfontein within the Mangaung Metropolitan Municipality. The co-ordinates for the proposed N8 Ring Road are: Start: 29°08'24.65"S 26°06'21.95"E; End: 29°12'24.17"S, 26°16'29.20"E (Fig 1). The proposed road trajectory runs past small holdings, commercial farms, townships and small settlements adjacent to railway lines (Figs 2 & 3).

1.3. Cultural Heritage legislation

According to Section 3 (2) of the NHRA, the heritage resources of South Africa include:

- "a. places, buildings, structures and equipment of cultural significance;
- b. places to which oral traditions are attached or which are associated with living heritage;
- c. historical settlements and townscapes;
- d. landscapes and natural features of cultural significance;
- e. geological sites of scientific or cultural importance;
- f. archaeological and palaeontological sites;
- g. graves and burial grounds, including. ancestral graves;
- ii. royal graves and graves of traditional leaders;
- iii. graves of victims of conflict;

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- iv. graves of individuals designated by the Minister by notice in the Gazette;
- v. historical graves and cemeteries; and
- vi. other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- h. sites of significance relating to the history of slavery in South Africa;
- i. movable objects, including objects recovered from the soil or waters of South Africa, including
- archaeological and palaeontological objects and material, meteorites and rare geological specimens;
- ii. objects to which oral traditions are attached or which are associated with living heritage;
- iii. ethnographic art and objects;
- iv. military objects;
- v. objects of decorative or fine art;
- vi. objects of scientific or technological interest; and
- vii. books, records, documents, photographic positives and negatives, graphic, film or video material 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)."

In terms of section 3 (3) of the NHRA, a place or object is to be considered part of the national estate if it has cultural significance or other special value because of:

- "a. its importance in the community, or pattern of South Africa's history;
- b. its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- c. its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- d. its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- e. its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- f. its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- g. its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- h. its strong or special association with the life or work of a person, group or Active Heritage for KSEMS

organisation of importance in the history of South Africa; and i. sites of significance relating the history of slavery in South Africa."

The NHRA regulations of 2000 refer for the most part to the processes allowing for permits to be issued for the alteration, destruction or modification of heritage sites and features. These include the following:

- Protected areas
- Burial grounds and graves
- Wrecks
- Exportation of heritage objects
- Reproduction of national heritage sites
- Archaeological and palaeontological sites
- National heritage sites, provincial heritage sites, provisionally protected place, structures older than 60 years

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF THE AREA

The greater project area, including the southern Free State between Bloemfontein and Colesberg, is home to all three of the known phases of the Stone Age, namely: the Early- $(2.5 \text{ million} - 250\ 000\ \text{years}$ ago), Middle- $(250\ 000\ - 22\ 000\ \text{years}$ ago) and Late Stone Age in this area also contains sites with San rock engravings. Early to Middle Stone Age sites are less common in this area; however rock-art sites and Late Stone Age sites appear to be more abundant.

Early Stone Age sites have been ascribed to *Homo erectus* and *Homo ergaster*. These early hominins were hunters and scavengers. They typically lived near permanent sources of water and that is also where most of these sites occur. Although they could control fire it is debateable to what extent they had symbolic cognitive expressions. It was only much later during the Middle Stone Age, some 200 000 years ago, that anatomically modern people or *Homo sapiens* emerged in Eastern and Southern Africa respectively. Unlike their hominin predecessors they manufactured a wider range of tools, with more advanced technologies that included the spear thrower and even the bow and arrow in some areas. This enabled skilled hunter-gatherer bands to adapt more successfully to different environments. From this time onwards, rock shelters were reoccupied over very long periods of time (Mitchell 2002).

The Late Stone Age, considered to have started some 20 000 to 40 000 years ago, is associated with the predecessors of the Khoisan hunter-gatherers that were encountered by

the first Europeans in southern Africa some 300 years ago. Later Stone Age hunter-gatherers lived well into the 19th century in some places in SA including the greater project area. Stone Age sites most probably occur in many locales in the area. Later Stone Age sites have been systematically recorded in parts of the Karoo system, to the immediate south of the project area, the density of Later Stone Age sites has been postulated to be as much as 16 sites per square kilometer (Smith 2009) with areas such as the Seacow river producing over 16 000 sites. This is however an average number with sites displaying a clustering nature on the whole. A classic Stone Age location such as Smithfield (the original location of the Smithfield Industry) is located adjacent to the greater project area (Mitchell 2002).

The following Stone Age components could occur in this area:

- Early Stone Age sites dating to more than 300 000 years old.
- Middle Stone Age sites dating from approximately 200 000 to 30 000 years ago.
- Later Stone Age (San hunter-gatherer) artefacts dating to within the last 30 000 years.
- The possible presence of Khoikhoi herder sites within the area dating back to the last 1500 years.
- Rock art, in the form of paintings or engravings, dating mainly to the last 10 000 years (see below)

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2.2 Rock Art

The SARADA data base indicates that rock art sites occur in small concentrations in the Southern Free State. This is mostly due to the geographic suitability of some areas, providing protection from the elements in the way of rock shelters, overhangs and caves. These sites are known for rock paintings while rock engravings occur over a larger variety of geological formations. These engravings are found mainly on andesite outcrops, although they also occur occasionally on basalt, dolomite, dolerite, gneiss granite and even on sandstone.

2.3 Iron Age

Although Later Iron Age sites, belonging to Bantu-speaking agropastoralists, are abundant in northern and eastern Free State none are known to occur in the southern Free State (Dreyer 1996; Maggs 1976). The area to the south of Bloemfontein was most probably to dry and not suitable for the dryland cultivation of Iron Age cultigens and crops (Mitchell 2002).

N8 Ring Road

2.4 The Historic Era

The area was already transgressed by trekboers and later by Voortrekkers in the 1830's.

Many farmsteads and associated cemeteries belonging to these early Dutch settlers occur

in the area. Sites belonging to the Anglo-Boer war period of 1899-1901 are also scattered

throughout the southern Free State. None, however, are known from the footprint.

3 STUDY APPROACH

3.1 Methodology

The SAHRIS website was consulted to obtain information from previous heritage and

archaeological surveys in the region. In addition, the available archaeological and historical

literature covering the project area was also consulted.

Prior to the ground survey aerial photographs of the study area were studied to indicate any

potential heritage hot spots. A ground survey, following standard and accepted

archaeological procedures, was conducted during the site visit on 20 November 2016. The

footprint was surveyed by foot.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was good.

3.2.2 Disturbance

A couple of abandoned farmsteads occur adjacent to the proposed N8 Ring Road. Those

situated closer than 50m to the proposed road have already been reduced to rubble and do

not have any heritage value.

3.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

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4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: KwaZulu-Natal Town: Bloemfontein

Municipality: Mangaung Metropolitan Municipality

5 HERITAGE SITES AND THEIR SIGNIFICANCE (HERITAGE VALUE)

The desktop survey and existing data bases indicate the existence of various heritage sites in the greater Bloemfontein area (Fig 2). Some of these are provincial heritage sites with a high heritage rating. However, none of these sites are situated closer than 5km to the footprint. They are therefore not threatened by the proposed development.

The ground survey located no heritage sites or features on the footprint and within 50m from the proposed road development. Some abandoned farmsteads occur on the eastern section of the proposed development between the N1 and the R702 (Fig 3). However, these structures have already been reduced to rubble, are younger than 60 years, and are situated more than 50m from the proposed road development (Figs 5-11). The existing structures on or adjacent to the footprint are all younger than 60 years. As such they have no heritage value. Some buildings older than 60 years were observed in the western section of the project area – more specifically the area between the R 706 and the N8.

One building in particular, an old farm labourers cottage, is almost 100 years old – if not older (Figs 4 & 12). It is still in use and covers an area of approximately 5m x 10m. It is rated as locally significant (Table 3). However, this building is situated more than 70m to the south of the proposed road development at S 28° 11′ 57.19″ E 26° 11′ 0.20″ and does not fall within the 50m demarcation zone. It will not be threatened by the proposed development.

No graves were observed on the footprint. The general project area is also not part of any known cultural landscape (Table 2).

Table 2. Evaluation of heritage sites within the 50m demarcation zone.

	Significance criteria in terms of Section 3(3) of the NHRA				
	Significance	Rating			
1.	Historic and political significance - The importance of the cultural heritage in the community or pattern of South Africa's history.	None.			
2.	Scientific significance – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	None.			
3.	Research/scientific significance – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	None.			
4.	Scientific significance – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	None.			
5.	Aesthetic significance – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	None.			
6.	Scientific significance – Importance in demonstrating a high degree of creative or technical achievement at a particular period.	None.			
7.	Social significance – Strong or special association with a particular community or cultural group for social, cultu-ral or spiritual reasons.				
8.	Historic significance – Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa.				
9.	The significance of the site relating to the history of slavery in South Africa.	None.			

5.1 Field Rating

A rating method developed by SAHRA was applied to evaluate the significance of each heritage site (Table 3). However, no heritage sites or features occur on the footprint or within the 50m demarcation zone.

Table 3. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National	Nominated to be declared by SAHRA
	Significance	
Provincial (Grade II)	This site is considered to be of	Nominated to be declared by
	Provincial significance	Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH	The site should be retained as a
	significance locally	heritage site
Local Grade IIIB	This site is considered to be of HIGH	The site should be mitigated, and part
	significance locally	retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before
		destruction
Generally Protected B	Medium significance	The site needs to be recorded before
		destruction
Generally Protected C	enerally Protected C Low significance	
		destruction

6 CONCLUSIONS AND RECOMMENDATIONS

A heritage survey of the proposed N8 Loop Road near Bloemfontein, Mangaung Metropolitan Municipality identified no heritage sites or features within 50m from the proposed development. The area is also not part of any known cultural landscape. There is no need for any mitigation and there is no archaeological reason why the proposed development may not proceed as planned. However, attention is drawn to the National Heritage Resources Act, 1999 (Act No. 25 of 1999) which, requires that operations that expose archaeological or historical remains, including graves, should cease immediately pending evaluation by the provincial heritage resources authority

7 RISK PREVENTATIVE MEASURES ASSOCIATED WITH CONSTRUCTION

Maintain a buffer zone of 20m around the old farm labourers cottage (Figs 4 & 12)."Invisible graves" may be encountered during the construction phase especially in the environs of Kelly's View in the extreme western section of the project area. A phase two heritage impact assessment, including a grave exhumation exercise, may be called for should any grave sites be identified on the footprint (Appendix 1).

8 MAPS AND FIGURES

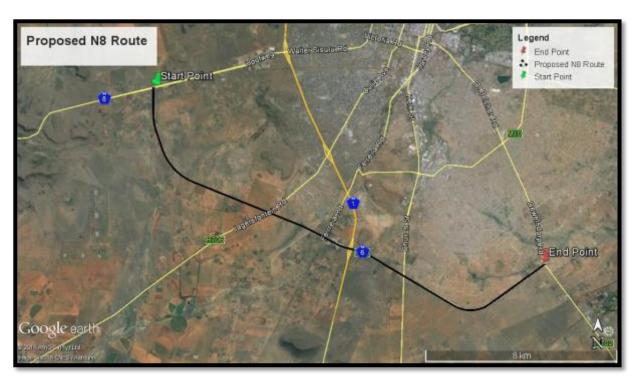


Figure 1. Google aerial photograph showing the locality of the proposed N8 Ring Road (Source: KSEMS).

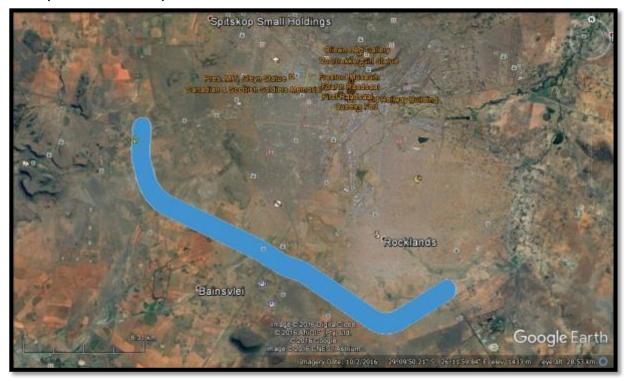


Figure 2. Google aerial photograph showing the location of known heritage sites in the area (indicated by the orange markers). None of them are situated closer than 3km to the proposed development.

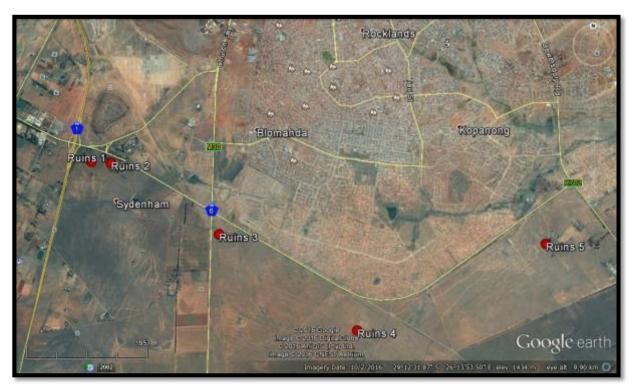


Figure 3. Google aerial photograph showing the location of abandoned and demolished farms steads adjacent to the proposed N8 Ring Road. None of them are situated closer than 50m to the proposed road development.



Figure 4. Google aerial photograph showing the location of the old farm labourers' cottage adjacent to the proposed road development. The cottage is situated approximately 70m from the proposed road development.



Figure 5. Photo of the eastern section of the proposed N8 Ring Road. No heritage features are situated within 50m from the existing road trajectory.



Figure 6. Photograph of the western section of the proposed N8 Ring Road. No heritage features were located in this area.



Figure 7. Photograph of demolished farm stead (Ruin 1) near the N1. S 29° 12" 13.56 E 26° 11' 37.80"



Figure 8. Photograph of demolished farm stead (Ruin 2) near the N1. S 29° 12' 14.27" E 26° 11' 49.69"



Figure 9. Demolished farm stead (Ruin 3) near the N6. S 29° 12' 51.93" E 26° 12' 54.88"



Figure 10. Demolished farm stead (Ruin 4) between the N6 and R702. S 29° 13; 42.72" E 26° 14' 18.16"



Figure 11. Demolished farm stead (Ruin 5) near the R 702. S 2° 12' 57.27" E 26° 16' 112.46"



Figure 12. Old farm labourers cottage situated approximately 70m from the proposed road development near Ferreira Road. S 29° 11' 57.19" E 26° 11' 0.20"

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APPENDIX 1

RELOCATION OF GRAVES

Burial grounds and graves are dealt with in Article 36 of the NHR Act, no 25 of 1999. Below follows a broad summary of how to deal with grave in the event of proposed development.

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.
- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.
- Notices of the intention needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.
- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.
- During this time (60 days) a suitable cemetery need to be identified close to the development area or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account. This is a requirement by law.

- Once the 60 days has passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.
- Once the permit has been received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave