

TSIMBA



ARCHAEOLOGICAL FOOTPRINTS (PTY) LTD

**HERITAGE & PALEONTOLOGICAL IMPACT ASSESSMENT FOR THE
PROPOSED CONSTRUCTION OF MPUMALANGA SIZAKALA CENTRE.**

MAY 2020

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DOCUMENT INFORMATION

DOCUMENT INFORMATION ITEM	DESCRIPTION
Proposed development and location	The civil, structural, building, mechanical and electrical works of the Sizakala Centre in Mpumalanga, Kwa Zulu Natal Province.
Purpose of the study	To carry out a Heritage Impact Assessment to determine the presence/absence of cultural heritage and the impact of the construction of the centre on the resources.
Topography	Sloping down towards three directions, the main road (thoko Mkhize Dr), towards the Western side and Kunene road.
Coordinates	29°48'14.7"S30°37'56.4"E
Municipalities	eThekweni Municipality
Predominant land use of surrounding area	Urban housing and commercial areas
Applicant	eThekweni Municipality Economic Development Unit
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Heritage Consultant	Tsimba Archaeological Footprints (Pty) Ltd 24 Lawson Mansions 74 Loveday Street, Johannesburg, CBD Gauteng, 2000
Author (s)	Mr. Roy Muroyi (Archaeology and Heritage Specialist)

EXECUTIVE SUMMARY

The Applicant eThekweni Municipality proposes to construct the Mpumalanga Sizakala Centre to provide a place where residents can go for assistance on any council related query to ensure that Mpumalanga residents have easy and equal access to and receive the best possible service from the council. The project was initiated by the eThekweni municipality Economic Development Unit following the development of the Mpumalanga New Town Centre precinct plan. This plan forms part of eThekweni Municipality's urban network strategy, funded through national treasuries, neighbourhood development partnership grant.

This report constitutes a summary of the Cultural Heritage Impact Assessment study completed for the above mentioned project. There are two separate, but interlinked, objectives of the Heritage Impact Assessment Study. Firstly, it is to provide a baseline understanding of the known and potential KwaZulu Natal and historical cultural heritage landscape of the project development area. Secondly, it is to design and set in place a strategy and management regime for cultural heritage that is consistent with the provisions of relevant in terms of the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018). The terminology used and the methodology followed with regards to the compilation of the HIA are explained and the legal framework stated (**see Appendix A**).

An archival and historical desktop study was undertaken which was used to compile a historical layering of the study area within its regional context. The review of a range of cultural heritage information was undertaken, these included KwaZulu-Natal Amafa and Research Institute and the KZN heritage databases, lists and registers, as well as a range of other documented information (including heritage impact assessment reports and a range of ethno-historic and archaeological sources at both local and regional levels). These components indicated that the landscape within which the project area carries a heavy vibration of historical heritage from the Hammarsdale industrial growth, its demise to the history of apartheid – the Bantustands and the political violence from 1985 to 1991.

Conclusions

This Heritage Study concluded that the proposed project is acceptable, Tsimba Archaeological Footprints therefore Requests Amafa Research Institute to exercise their discretion and offer a positive review to the application. The project will benefit the local community through bringing various services close to them. The project will also create employment for the unemployed in the community .Due to the lack of apparent significant heritage resources no further mitigation is required prior to construction. A Chance Find Procedure should be implemented for the project should any sites be identified during the construction process.

Recommendations

- ❖ The value-based management process proposed that the developer should be given the go ahead and continue with the proposed project under a strict periodic monitoring program by an accredited archaeologist.
- ❖ This monitoring exercise will assist in the event that stone tools are identified during the construction phase. A Chance finds procedure (CFP) should also be implemented in the event that stone tools are identified underground (See Appendix 1)
- ❖ A Phase 2 HIA is recommended where burials are reported by the local community within the homesteads along the proposed development footprint.
- ❖ Any additions to the existing study area will have to be surveyed by a suitably qualified heritage specialist.

It is the opinion of the author of this report that in terms of the heritage aspects addressed as part of the defined scope of work of this study and on the condition that the required mitigation measures and recommendations made in this report are undertaken before any development takes place, the development may be allowed to continue.

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ABBREVIATIONS

Acronyms	Description
AIA	Archaeological Impact Assessment
ASAPA	Association of South African Professional Archaeologists
CRM	Cultural Resource Management
DEA	Department of Environmental Affairs
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
ESA	Early Stone Age
GIS	Geographic Information System
GPS	Global Positioning System
HIA	Heritage Impact Assessment
LSA	Late Stone Age
LIA	Late Iron Age
MIA	Middle Iron Age
MSA	Middle Stone Age
SAHRA	South African Heritage Resources Agency
KZNDOT	KwaZulu-Natal Department of Transport
PIA	Paleontological Impact Assessment

GLOSSARY

Achievement	<ul style="list-style-type: none"> ▪ Something accomplished, esp. by valour, boldness, or superior ability
Aesthetic	<ul style="list-style-type: none"> ▪ Relating to the sense of the beautiful or the science of aesthetics.
Community	<ul style="list-style-type: none"> ▪ All the people of a specific locality or country
Culture	<ul style="list-style-type: none"> ▪ The sum total of ways of living built up by a group of human beings, which is transmitted from one generation to another.
Cultural	<ul style="list-style-type: none"> ▪ Of or relating to culture or cultivation.
Diversity	<ul style="list-style-type: none"> ▪ The state or fact of being diverse; difference; unlikeness.
Geological (geology)	<ul style="list-style-type: none"> ▪ The science which treats of the earth, the rocks of which it is composed, and the changes which it has undergone or is undergoing.
High	<ul style="list-style-type: none"> ▪ Intensified; exceeding the common degree or measure; strong; intense, energetic
Importance	<ul style="list-style-type: none"> ▪ The quality or fact of being important.
influence	<ul style="list-style-type: none"> ▪ Power of producing effects by invisible or insensible means.
Potential	<ul style="list-style-type: none"> ▪ Possible as opposed to actual.
Integrity	<ul style="list-style-type: none"> ▪ The state of being whole, entire, or undiminished.
Religious	<ul style="list-style-type: none"> ▪ Of, relating to, or concerned with religion.
Significant	<ul style="list-style-type: none"> ▪ important; of consequence
Social	<ul style="list-style-type: none"> ▪ Living, or disposed to live, in companionship with others or in a community, rather than in isolation.
Spiritual	<ul style="list-style-type: none"> ▪ Of, relating to, or consisting of spirit or incorporeal being.
Valued	<ul style="list-style-type: none"> ▪ Highly regarded or esteemed

1.0 INTRODUCTION

1.1 Project Background

Tsimba Archaeological Footprints (Pty) Ltd was requested by Masithu Consulting & Project Management (Pty) Ltd (Project Managers) to conduct a heritage impact assessment (HIA) of the proposed construction of the Mpumalanga Sizakala Centre. The aim of the survey was to identify and document archaeological sites, cultural resources, sites associated with oral histories (intangible heritage), graves, cultural landscapes, and any structures of historical significance (tangible heritage) that may be affected within the proposed project footprint.

The findings of this report have been informed by desktop data review and impact assessment reporting which include recommendations to guide heritage authorities in making decisions with regards to the proposed project. This study was conducted as part of the specialist input for the Environmental Impact Assessment exercise. The impact assessment study also includes detailed recommendations on how to mitigate and manage negative impacts while enhancing positive effects on the project area.

The appointment of Tsimba Archaeological Footprints is in terms of the National Heritage Resources Act (NHRA), No. 25 of 1999 and the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018). The HIA is completed in accordance to requirements of Section 38 (1) (a) of the NHRA, No. 25 of 1999 :- (c) any development or other activity which will change the character of a site (i) exceeding 5 000 m2 in extent;

1.2 Legislative Frame works used

1. ICOMOS, 1996. International Charter for the Conservation and Restoration of Monuments and sites (the Venice charter).
2. ICOMOS, 1999. The Australia ICOMOS charter for places of cultural significance (the Burra Charter).
3. ICOMOS Charter, Principles for the analysis, conservation and structural restoration of architectural heritage (2003)
4. National Heritage and Resources Act of South Africa No.25 of 1999
5. KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018).

1.3 Scope of works

The Sizakala Centre will serve as a one-stop shop for local government and provincial government services. The centre will accommodate the following eThekweni Municipality Departments: Electricity; Water Regional Centres; Treasury; Housing; Metro Police together these form the Sizakala component of the Thusong Centre. Accommodation is also required for boardrooms, councillor's offices, general waiting and self-help areas, informal trade, as well as a caretaker's accommodation.

Other project components will include;

- Stakeholders: Labour; Home Affairs; Small Enterprise Development Agency (SEDA); South African Police Service; South African Post Office; SASSA (telecentre).
- Social Welfare Office: as a stand-alone building -Future community and youth centres.

2.0 DESCRIPTION OF THE RECEIVING ENVIRONMENT

2.1 Location

The Project is located within the outer West Region of the eThekweni Municipality, approximately 50km north-west of Durban along the MR 385 (Mthoko Mkhize Drive) (see **Figure 1 below**).



Figure 1: Locality map of the proposed development site

2.2 Receiving Environment

The town centre precinct incorporates a new shopping centre and areas proposed for a much –needed future civic services centre, which would include the Mpumalanga Thusong Centre. The site is located in the heart of a growing residential and commercial precinct. It located on public transport routes. It has a north facing slope , and has major arterial on the north (MR385). There is a 20m wetland buffer between the shopping existing shopping centre and site.

3.0 METHODOLOGY

3.1 Literature review

The methodology used in this HIA is based on a comprehensive understanding of the current or baseline situation; the type, distribution and significance of heritage resources as revealed through desk-based study and additional data acquisition, such as archaeological investigations, built heritage surveys, and recording of crafts, skills and intangible heritage. This is systematically integrated by the use of matrices with information on the nature and extent of the proposed engineering and other works to identify potential. The following tasks were also undertaken in relation to the cultural heritage and are described in this report:

The background information search of the proposed development area was conducted following the site maps from the client. Sources used in this study included:

- Published academic papers and HIA and PIA studies conducted in and around the region where the proposed infrastructure development will take place;
- Available archaeological literature covering the Kwa-Zulu Natal province area was also consulted;
- The SAHRIS website and the National Data Base was consulted to obtain background information on previous heritage surveys and assessments in the area; and the Kwa Zulu Natal Heritage Data Base.
- Map Archives - Historical maps of the proposed area of development and its surrounds were assessed to aid information gathering of the proposed area of development and its surrounds.

4.0 LEGISLATIVE FRAMEWORK

This HIA and Desktop Paleontological study is informed and conducted to fulfil the requirements of the National Heritage Resources Act (No 25 of 1999) 38 (a) and the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) Section 41 (1). (c) any development or other activity which will change the character of a site—(i) exceeding 5 000 m² in extent.

Types and ranges of heritage resources as outlined in Section 3 of the National Heritage Resources Act (Act No.25 of 1999): (i) (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens.

A Phase 1 HIA is a pre-requisite for development in South Africa as prescribed by SAHRA and stipulated by legislation. The overall purpose of heritage specialist input is to:

- Identify any heritage resources, which may be affected;
- Assess the nature and degree of significance of such resources;
- Establish heritage informants/constraints to guide the development process through establishing thresholds of impact significance;
- Assess the negative and positive impact of the development on these resources; and
- Make recommendations for the appropriate heritage management of these impacts.

5.0 Assumptions and Limitations

- i. The investigation was influenced by the unpredictability of buried archaeological remains (absence of evidence does not mean evidence of absence) and the difficulty in establishing intangible heritage values. It should be remembered that archaeological deposits (including graves and traces of mining heritage) usually occur below the ground level.
- ii. Should artefacts or skeletal material be revealed at the site during construction, such activities should be halted immediately, and a competent heritage practitioner, Amafa or SAHRA must be notified in order for an investigation and evaluation of the find(s) to take place (see KwaZulu-Natal Heritage Act 4 of 2008 or NHRA (Act No. 25 of 1999), Section 36 (6).
- iii. Recommendations contained in this document do not exempt the developer from complying with any national, provincial, and municipal legislation or other regulatory requirements, including any protection or management or general provision in terms of the NHRA.
- iv. The author assumes no responsibility for compliance with conditions that may be required by Amafa in terms of this report .
- v. The field survey did not include any form of subsurface inspection beyond the inspection of burrows, road cut sections, and the sections exposed by erosion or field ploughing.

6.0 ARCHEOLOGICAL AND HISTORICAL BACKGROUND

Archaeological and heritages studies in the KwaZulu-Natal region indicate that the area is of high pre-historic and heritage significance (Bryant, 1965) . It is in fact a cultural landscape where Stone Age, Iron Age and Historical period sites contribute the bulk of the cultural heritage of the region (see Huffman, 2007). It seems however that, the study area has never been systematically surveyed for archaeological sites in the past. A search for existing archaeological sites by Tsimba Archaeological Footprints through the Amafa Research Institute and national Archaeological data bases did not yield any results. There is a growing trend by CRM practitioners to actually avoid writing about the archaeological background of the study area in their studies.

Archaeologically, Stone Age sites are generally identifiable by stone artefacts found scattered on the ground surface, as deposits in caves and rock shelters as well as in eroded gully or river sections. Archaeological sites recorded in the project region confirms the existence of Stone Age sites that conform to the generic SA periodization split into the Early Stone Age (ESA) (2.5 million years ago to 250 000 years ago), the Middle Stone Age (MSA) (250 000 years ago to 22 000 years ago) and the Late Stone Age (LSA) (22 000 years ago to 300 years ago). Stone Age sites in the region are also associated with rock painting sites. Cave sites also exist on the landscape south west of the project area.

Areas that are on the Southern side of Durban, like most of KwaZulu Natal region has potential to yield Stone Age period sites . The greater Port Shepstone area has been surveyed by archaeologists from the then Natal Museum and Natal Parks Board in the 1970's and 1980's (Prins 2013). Further inland the Paddock and greater Oribi Gorge areas have been more systematically surveyed by archaeologists such as J. H. Cable in the early 1980's (Cable 1984) and later by various archaeologists attached to the Natal Museum (Mazel 1989). Literature in the KwaZulu-Natal Museum, indicates that the greater Paddock and Port Shepstone areas are rich in archaeological sites covering diverse time-periods and cultural traditions. These include Early, Middle and later Stone Age sites, Early Iron Age sites, Later Iron Age sites, and some historical sites (Prins 2013).

6.1 Historical Background of Mpumalanga Township

The township was established, by the local municipality in the late 1960s as a typical apartheid labour reserve. The township of Mpumalanga is situated on the former Methodist mission station 'Peaceville' established by Rev. John Allsopp (**See Figure 2**), on the farms Woody Glen and Geordedale in 1862 (Faith Marches On, 1956). Allsopp created a community of landowning African Christian converts (known as amakholwa or 'believers'), who bought property from the missionaries. Land and ownership were central to the original settlement of Mpumalanga.

Mpumalanga was established "according to regulations laid down by the Department of Bantu Administration, to regulate the large squatter population renting on African-owned freehold land and to facilitate easy access for transport, surveillance and monitoring". The township provided labour to subsidised industries located in Pietermaritzburg, Pinetown, and Durban, given its proximity to these three centres. However, the most important, was the employment afforded by Hammarsdale, an adjacent clothing and textile industrial zone. The Industrial Development Corporation (IDC), which was behind the establishment of Hammarsdale, argued that "a well-established textile industry would have tremendous employment potential for semi-skilled operatives, which meant that it could raise the standard of living of the Bantu".

Apartheid policies facilitated the growth of manufacturing industries such as clothing and textiles, which have become major employers throughout the Province of KwaZulu-Natal. Past Government policies that promoted labour intensive industries through a process of industrial decentralisation led to the development and growth of industrial geographic zones such as Hammarsdale. Indeed, the idea of industrial decentralisation emerged years before the establishment of the townships, in 1940, as part of the Smuts government's import substitution industrialisation programme. By the 1970s, there was a shift of location from reserves to border areas, and in the 1980s the state started to subsidise industrial decentralisation by giving direct cash subsidies instead of tax concessions.



Figure 2: A portrait of Methodist missionary Rev. John Allsopp (Pic Credit National Archives of South Africa -Pretoria)

6.2 History of Apartheid violence in the township

Professor William Beinart has pointed out that violence was a normalised feature of life during apartheid in South Africa (Journal of Southern African Studies, 1992). For several years though, from 1987 to 1991, the KwaZulu-Natal township of Mpumalanga saw political divisions based on disputed views of Zulu social structure transformed into brutal and socially devastating forms of violence. In the period of transition at the end of apartheid under National Party rule to the establishment of democracy, this particular settlement was subject to harrowing killings of unprecedented intensity committed largely by young male political groups within the Inkatha on one hand and UDF/ANC on the other (Bonnin, 2007).

Along with the rest of South Africa, political tensions rose within all sections of Mpumalanga township during the late 1970s and early 1980s, during the final decades of apartheid. From August 1985 a wave of widespread and deadly political violence consumed the township for the next seven years. During that time Zulu nationalists belonging to the Inkatha organisation and linked to the government, engaged in war with members of the progressive United Democratic Front (UDF), which was then effectively a proxy of the banned African National Congress (ANC). Members of other progressive organisations such as Azapo were also targeted by Inkatha and the security forces that colluded with Inkatha.

6.3 Demise of Hammarsdale industrial and small business growth

The first clothing factory, Hammarsdale Clothing, was established in the area in 1957. Within three years Hammarsdale had three textile factories and a manufacturer of sewing machines with a total labour force of 2,135. At the end of 1971 there were 13 factories and 8,500 workers were employed in the area. In the 1980s, nearly every second person was working in one of the factories in Hammarsdale, with a significant number of people continuing to work in clothing and textile factories in Pinetown, Pietermaritzburg and Durban. Hammarsdale became the industrial growth point and main source of employment for the residents of Mpumalanga Township.

As early as 1980, import substitution industrialisation was becoming a less preferred apartheid government economic policy. The post-apartheid government radically took the trend forward. By 1982, many factories started relocating to other places deemed to be cheaper and politically stable. Businesses referred to the political instability and violent history as a prime reason for the need to retrench and relocate. Given their lax or absent trade union rights, homelands became the first “hide-away” places for many clothing and textile factories. Small business establishments closed down in Mpumalanga as a result of limited value chain opportunities demanded by fewer industry in Hammarsdale. Retail sector businesses in Mpumalanga were burnt down during a period of political violence .in the area.

7.0 DISCUSSION OF THE FINDINGS

Our visit to the site noted that no development activities associated with the proposed project had begun at the time, in accordance with National and Provincial heritage legislation, a summary table of the heritage resources assessed, and observed is given below;

Heritage resource type	Observation
Cultural landscapes and Historic buildings	None were identified within the proposed
Living Heritage Shrines and Sites	None were identified within the proposed
Geological and Palaeontological sites of scientific or cultural	None were identified within the proposed
Archaeological sites	None were identified within the proposed
Graves and Burial grounds	None were identified within the proposed
Public Monuments and Memorials	None were identified within the proposed
Battlefields	None were identified within the proposed

Archaeology

During our site visit, we noted that vegetation density is moderate to high on the throughout the of the proposed development area. There is a limited soil surface visibility, however, it is highly unlikely that significant archaeological remains, or other heritage resources such as structures or ancestral graves, are present. We also noted the existence of different plants growing on the site. These may cause floralturbation, - a mechanical mixing of soil by plants, as occurs during root growth and decay, where krotovina-like structures termed root casts are produced and during tree fall, when uprooted trees bring masses of earth to the surface. Of the two processes, treefall is by far the more important. The natural falling of dead trees may leave shallow depressions where roots and adhering rock and soil are torn up; even larger depressions may be left by live, windthrown trees. As the trees decompose, adhering soil and regolith settles to form mounds of low relief, variously called blowdown mounds and tree-tip mounds.

Fines eroded from the soil surface during repeated mantle turnover by treefall may serve to concentrate a veneer of stones at the surface. Such stone pavements resemble landscapes produced by frost action. Ground disturbed by frost action is often sorted into rings, stripes, and polygons of stones, often with slabs standing on end or tilted, often jigsawed together. Soil disturbed by frost action may be crudely sorted in a wide range of geometric forms and features. On the other hand, mixing by treefall results in nonsorted mantle, except for the accumulation of stones on the surface.

Palaeontology

Paleontological, the underlying lithostratigraphy of the study area comprises Quaternary alluviums of sand and calcrete. The study area also carries some low fossil potential. The SAHRIS Palaeo-sensitivity mapping indicates the study area to fall within a blue demarcation and consequently no palaeontological investigations are required.

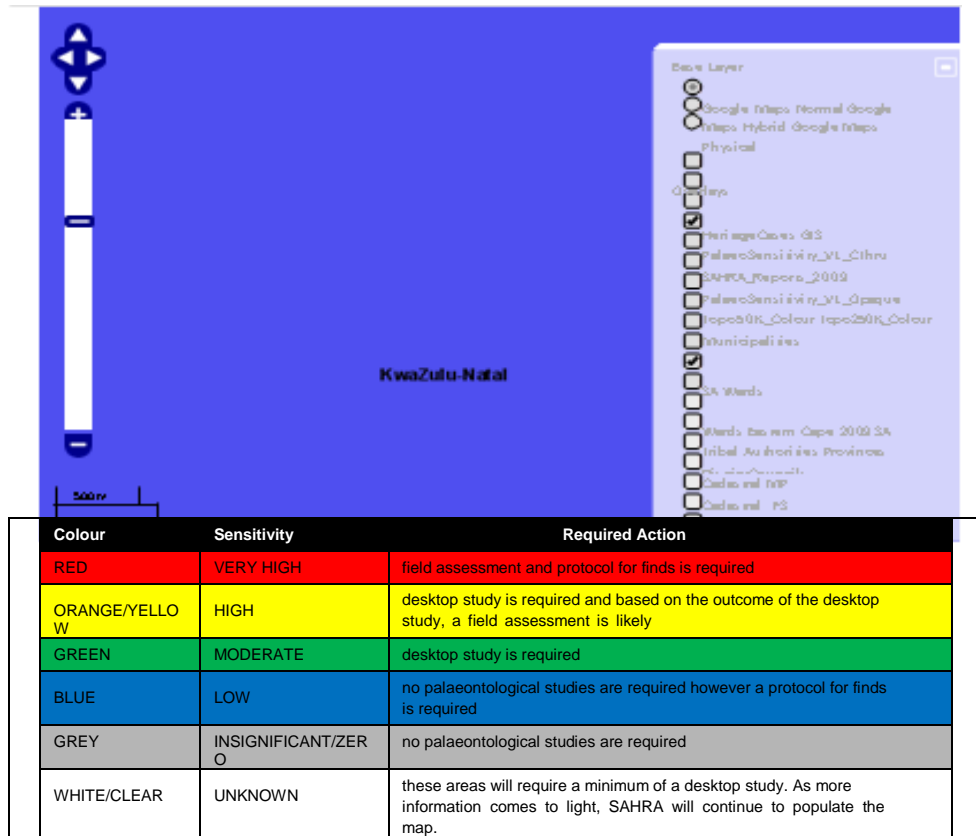


Figure 3: 1 in 250 000 geological formation layers are courtesy of the Council for GeoScience

7.1 Photographic presentation of the proposed development site



Figure 4: Dense grass cover on the western portion of the proposed development site



Figure 5: View of the Gum trees growing just outside the site



Figure 6: A view of the residential areas from the proposed development site



Figure 7: A view of the vegetation cover on site



Figure 8: A section of the site where ground visibility is clear

8.0 HERITAGE ASSESSMENT OF SIGNIFICANCE

Developed for SAT Environmental Consultants Pty (Ltd)

The significance of a site can be modified or added to. Its importance can be increased by communicating the significance to more people through the media or archaeological reports. Site significance classification standards prescribed by SAHRA (2006), and acknowledged by ASAPA for the SADC region, were used for the purposes of this report.

- ❖ The main aim in assessing significance is to produce a succinct statement of significance, which summarises an item's heritage values. The statement is the basis for policies and management structures that will affect the item's future.

Table 1: SAHRA's Site Significance classification minimum standards

Filed Rating	Grade	Classification	Recommendation
National Significance (NS)	Grade 1		Conservation; National Site nomination
Provincial Significance (PS)	Grade 2		Conservation; Provincial Site nomination
Local Significance (LS)	Grade 3A	High Significance	Conservation; Mitigation not advised
Local Significance (LS)	Grade 3B	High Significance	Mitigation (Part of site should be retained)
Generally Protected A (GP.A)		High/ Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)		Medium Significance	Recording before destruction
Generally Protected C (GP.A)		Low Significance	Destruction

Site significance is calculated by combining the following concepts in the given formula.

$$S = (E + D + M) P$$

S = Significance weighting

E = Extent

D = Duration

M = Magnitude

P = Probability

The significance weightings for each potential impact are as follows:

Table 2: The significance weightings for each potential impact

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Aspect	Description	Weight
Probability	Improbable	1
	Probable	2
	Highly Probable	4
	Definite	5
Duration	Short term	1
	Medium term	3
	Long term	4
	Permanent	5
Scale	Local	1
	Site	2
	Regional	3
Magnitude/Severity	Low	2
	Medium	6
	High	8

Table 3: Impact of Significance

<p>It provides an indication of the importance of the impact in terms of both tangible and intangible characteristics. (S) is formulated by adding the sum of numbers assigned to Extent (E), Duration (D), and Intensity (I) and multiplying the sum by the Probability.</p> <p>$S = (E+D+M) P$</p>		
<30	Low	Mitigation of impacts is easily achieved where this impact would not have a direct influence on the decision to develop in the area.
30-60	Medium	Mitigation of impact is both feasible and fairly easy. The impact could influence the decision to develop in the area unless it is effectively mitigated.
>60	High	Significant impacts where there is difficult. The impact must have an influence on the decision process to develop in the area.
<p>Nature: During the construction phase activities resulting in disturbance of surfaces and/or sub-surfaces may destroy, damage, alter, or remove from its original position archaeological material or objects.</p>		
	Without Mitigation	With Mitigation
Extent	Local (1)	Local (1)
Duration	Permanent (5)	Permanent (5)
Magnitude	Low (2)	Low(2)
Probability	Not Probable (2)	Not probable (2)
Significance	Low (16)	Low(16)
Status	Negative	Negative
Reversibility	Not irreversible	Not irreversible
Irreversible loss of resources	No resources were recorded	No resources were recorded
Can impacts be mitigated?	Yes, a chance find procedure should be implemented.	Yes
<p>Mitigation: Impacts are rated as <30 (Low) Mitigation of impacts is easily achieved where this impact would not have a direct influence on the decision to develop in the area.</p> <p>Due to the lack of apparent significant heritage resources no further mitigation is required prior to construction. A Chance Find Procedure should be implemented for the project should any sites be identified during the construction process.</p>		

9.0 Conclusions

This Heritage Study concluded that the proposed project is acceptable, Tsimba Archaeological Footprints therefore Requests Amafa Research Institute to exercise their discretion and offer a positive review to the application. The project will benefit the local community through bringing various services close to them. The project will also create employment for the unemployed in the community .Due to the lack of apparent significant heritage resources no further mitigation is required prior to construction. A Chance Find Procedure should be implemented for the project should any sites be identified during the construction process.

10.0 Recommendations

- ❖ The value- based management process proposed that the developer should be given the go ahead and continue with the proposed project under a strict periodic monitoring program by an accredited archaeologist.
- ❖ This monitoring exercise will assist in the event that stone tools are identified during the construction phase. A Chance finds procedure (CFP) should also be implemented in the event that stone tools are identified underground (See Appendix 1)
- ❖ A Phase 2 HIA is recommended where burials are reported by the local community within the homesteads along the proposed development footprint.
- ❖ Any additions to the existing study area will have to be surveyed by a suitably qualified heritage specialist.

It is the opinion of the author of this report that in terms of the heritage aspects addressed as part of the defined scope of work of this study and on the condition that the required mitigation measures and recommendations made in this report are undertaken before any development takes place, the development may be allowed to continue.

11.0 REFERENCES

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APPENDIX A: DEFINITION OF TERMS ADOPTED IN THIS HIA

🚩 **The terminology adopted in this document is mainly influenced by the NHRA of South Africa (1999) and the Burra Charter (1979).**

Adaptation: Changes made to a place so that it can have different but reconcilable uses.

Artefact: Cultural object (made by humans).

Buffer Zone: Means an area surrounding a cultural heritage which has restrictions placed on its use or where collaborative projects and programs are undertaken to afford additional protection to the site.

Co-management: Managing in such a way as to take into account the needs and desires of stakeholders, neighbours and partners, and incorporating these into decision making through, amongst others, the promulgation of a local board.

Conservation: In relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance as defined. These processes include, but are not necessarily restricted to preservation, restoration, reconstruction and adaptation.

Contextual Paradigm: A scientific approach which places importance on the total context as catalyst for cultural change and which specifically studies the symbolic role of the individual and immediate historical context.

Cultural Resource: Any place or object of cultural significance

Cultural Significance: Means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance of a place or object for past, present and future generations.

Feature: A coincidental find of movable cultural objects (also see Knudson 1978: 20).

Grading: The South African heritage resource management system is based on a grading system, which provides for assigning the appropriate level of management responsibility to a heritage resource.

Heritage Resources Management: The utilization of management techniques to protect and develop cultural resources so that these become long term cultural heritage which are of value to the general public.

Heritage Resources Management Paradigm: A scientific approach based on the Contextual paradigm, but placing the emphasis on the cultural importance of archaeological (and historical) sites for the community.

Heritage Site Management: The control of the elements that make up the physical and social environment of a site, its physical condition, land use, human visitors, interpretation etc. Management may be aimed at preservation or, if necessary at minimizing damage or destruction or at presentation of the site to the public.

Historic: Means significant in history, belonging to the past; of what is important or famous in the past.

Historical: Means belonging to the past, or relating to the study of history.

Maintenance: Means the continuous protective care of the fabric, contents and setting of a place. It does not involve physical alteration.

Object: Artefact (cultural object)

Paradigm: Theories, laws, models, analogies, metaphors and the epistemological and methodological values used by researchers to solve a scientific problem.

Preservation: Refers to protecting and maintaining the fabric of a place in its existing state and retarding deterioration or change, and may include stabilization where necessary. Preservation is appropriate where the

existing state of the fabric itself constitutes evidence of specific cultural significance, or where insufficient evidence is available to allow other conservation processes to be carried out.

Protection: With reference to cultural heritage resources this includes the conservation, maintenance, preservation and sustainable utilization of places or objects in order to maintain the cultural significance thereof.

Place :means a geographically defined area. It may include elements, objects, spaces and views. Place may have tangible and intangible dimensions.

Reconstruction: To bring a place or object as close as possible to a specific known state by using old and new materials.

Rehabilitation: The repairing and/ or changing of a structure without necessarily taking the historical correctness thereof into account (NMC 1983: 1).

Restoration: To bring a place or object back as close as possible to a known state, without using any new materials.

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

Sustainable: Means the use of such resource in a way and at a rate that would not lead to its long-term decline, would not decrease its historical integrity or cultural significance and would ensure its continued use to meet the needs and aspirations of present and future generations of people.

APPENDIX B: PROTOCOL FOR CHANCE FINDS AND MANAGEMENT PLAN

CHANCE FIND PROCEDURE

What is a Chance Finds Procedure.....?

The purpose of Archaeological Chance Find Procedure (CFP) is to address the possibility of cultural heritage resources and archaeological deposits becoming exposed during ground altering activities within the project area and to provide protocols to follow in the case of a chance archaeological find to ensure that archaeological sites are documented and protected as required. A CFP is a tool for the protection of previously unidentified cultural heritage resources during construction and mining. The main purpose of a CFP is to raise awareness of all mine workers on site regarding the potential for accidental discovery of cultural heritage resources and establish a procedure for the protection of these resources.

Chance finds are defined as potential cultural heritage (or paleontological) objects, features, or sites that are identified outside of or after Heritage Impact studies, normally as a result of construction monitoring. Archaeological sites are protected by The National Heritage Resources Act of 1999. They are non-renewable, very susceptible to disturbance and are finite in number. Archaeological sites are an important resource that is protected for their historical, cultural, scientific and educational value to the general public, local communities.

What are the objectives of the CFP....?

The objectives of this "Chance Find Procedure" are to promote preservation of archaeological data while minimizing disruption of construction scheduling. It is recommended that due to the moderate to high archaeological potential of some areas within the project area, all on site personnel and contractors be informed of the Archaeological Chance Find Procedure and have access to a copy while on site.

Where is a CFP applicable.....?

Developments that involve excavation, movement, or disturbance of soils have the potential to impact archaeological materials, if present. Activities such as road construction, land clearing, and excavation are all examples of activities that may adversely affect archaeological deposits. Chance finds may be made by any member of the project team who may not necessarily be an archaeologist or even visitors. Appropriate application of a CFP on development projects has led to discovery of cultural heritage resources that were not identified during archaeological and heritage impact assessments. As such, it is considered to be a valuable instrument when properly implemented. For the CFP to be effective, the mine manager must ensure that all personnel on the proposed mine site understand the CFP and the importance of adhering to it if cultural heritage resources are encountered. In addition, training or induction on cultural heritage resources that might potentially be found on site should be provided. In short, the Chance Find Procedure details the necessary steps to be taken if any culturally significant artefacts are found during mining or construction.

What is the CF Procedure.....?

The following procedure is to be executed in the event that archaeological material is discovered:

- ✚ All construction activity in the vicinity of the accidental find/feature/site must cease immediately to avoid further damage to the site.
- ✚ Briefly note the type of archaeological materials you think you've encountered, its location, and if possible, the depth below surface of the find.
- ✚ Report your discovery to your supervisor or if they are unavailable, report to the project Environmental Control Officer (ECO) who will provide further instructions.
- ✚ If the supervisor is not available, notify the ECO immediately. The ECO will then report the find to the Mine Manager who will promptly notify the project archaeologist and SAHRA.
- ✚ Delineate the discovered find/ feature/ site and provide a 25m buffer zone from all sides of the find.

APPENDIX C: PUBLIC PARTICIPATION PROCESS

Developed for SAT Environmental Consultants Pty (Ltd)

