



Setjo Sesho Consultants

# HERITAGE IMPACT ASSESSMENT

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FOR THE PROPOSED  
TOWNSHIP ESTABLISHMENT  
ON THE REMAINDER OF  
FOURIESBURG FARM NO. 228  
RD IN THE DIHLABENG LOCAL  
MUNICIPALITY, OF THABO  
MOFUTSANYANA DISTRICT  
MUNICIPALITY, FREE  
STATE PROVINCE.

# Phase 1 Heritage Impact Assessment

## Report

FOR THE PROPOSED TOWNSHIP ESTABLISHMENT ON THE  
REMAINDER OF FOURIESBURG FARM NO. 228 RD IN THE  
DIHLABENG LOCAL MUNICIPALITY, OF THABO  
MOFUTSANYANA DISTRICT MUNICIPALITY, FREE STATE  
PROVINCE.

Prepared by:



**Setjo Sesho** Consultants

Prepared for:



December 2021

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## **EXECUTIVE SUMMARY**

The executive summary aims to communicate the information in this report in a format suited to produce specific results quickly and facilitate management decisions. The summary does not repeat all the information in the report in shorthand but rather states its decision-making results.

This study focuses on the proposed township establishment on the remainder of Fouriesburg farm NO. 228 RD in the Dihlabeng local municipality, of Thabo Mofutsanyane district municipality, Free State province of South Africa.

This study comprises of the heritage impact investigation. A preliminary layout has been supplied to lead this phase of the study.

## **SCOPE OF WORK**

A Heritage Impact Assessment study was conducted to determine the impacts on heritage resources within the study area. The following objectives structured the assessment:

- To produce a desk-top investigation in the area.
- To complete a site inspection of the proposed area of development.
- To identify possible archaeological, cultural and historical sites within the proposed area of development.
- To evaluate the potential impacts of construction and operation of the proposed development on archaeological, cultural, built and historical sites within the proposed area and,
- To recommend mitigation measures to alleviate any negative impacts on areas of archaeological, cultural, built and historical importance.

The study's primary purpose is to determine the possible occurrence of cultural heritage significance within the proposed study area. It is based on archival and document searches combined with fieldwork investigations.

## **FINDINGS**

Field survey of the area yielded no archaeological materials on the surface of the

earth. The general area is however rich of archaeological materials. Few meters away from the proposed development, there is a town name on the wall that was built in the 1800s. This wall is not impacted by the proposed development as it is further away, and no mitigation is recommended.

## RECOMMENDATIONS

Since, no archaeological materials were discovered on site, Setjo Sesho Consultants recommend that the proposed development is given the go ahead by the Free-State Heritage Resource Authority (FSHRA).

**Table 1: Requirements for specialist reports, as detailed in the NEMA Act No. 25 of 2014.**

<b>NEMA Regulation (2014)</b>	<b>Relevant section in the report</b>
Details of the specialist who prepared the report	Page (vii) of the report- Project management
The expertise of that person to compile a specialist report, including a curriculum vitae	Section 1.5
A declaration that the person is independent in a form as may be specified by the competent authority	Page (vi) of the report
An indication of the scope of, and the purpose for which the report was prepared	Section 1.4
The date and season of the site investigation and the relevance of the season to the outcome of the assessment	Section 4.3

A description of the methodology adopted in preparing the report or carrying out the specialized process	Section 4
The specific identified sensitivity of the site related to the activity and its associated structures and infrastructure	Not applicable
An identification of any areas to be avoided, including buffer	Section 5

A map superimposing the activity including the associated structures and infrastructure on the environmental sensitivities of the site including areas to be avoided, including buffers;	Section 5
A description of any assumptions made and any uncertainties or gaps in knowledge	Section 3
Any mitigation measures for inclusion in the EMPr	Section 5
Any conditions for inclusion in the environmental authorization	Section 11
Any monitoring requirements for inclusion in the EMPr or environmental authorization	None

A reasoned opinion as to whether the proposed activity or portions thereof should be authorized and	Section 11
If the opinion is that the proposed activity or portions thereof should be authorized, any avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan	
A description of any consultation process that was undertaken during the course of carrying out the study	Section 8
A summary and copies if any comments that were received during any consultation process	None Formal consultation was conducted by the Environmental consultants and the heritage aspects were covered. No comments were made by the public
Any other information requested by the competent authority	None

### **Declaration of Independence**

I, **Jennifer Mokakabye**, declare that –

- I act as the independent heritage practitioner in this application
- I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favorable to the applicant
- I declare that there are no circumstances that may compromise my objectivity in performing such work;

- I have expertise in conducting heritage impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity
- I will comply with the Act, Regulations, and all other applicable legislation.
- I will consider, to the extent possible, the matters listed in section 38 of the NHRA when preparing the application and any report relating to the application
- I have no, and will not engage in, conflicting interests in the undertaking of the activity.
- I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority.
- I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;
- I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favorable to the applicant or not
- All the particulars furnished by me in this form are true and correct;
- I will perform all other obligations as expected from a heritage



practitioner in terms of the Act and the constitutions of my affiliated professional bodies; and

- I acknowledge that a false declaration is an offence in terms of regulation 71 of the Regulations and is punishable in terms of section 24F of the NEMA.

### **Disclosure of Vested Interest**

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the regulations;

## PROJECT MANAGEMENT

**Site name and location:** Proposed township establishment on the remainder of Fouriesburg farm NO. 228 RD in the Free State province of South Africa.

**Municipal Area:** Dihlabeng local municipality, of Thabo Mofutsanyane district municipality

**Environmental Consultants:** Mang Geoenviro Services

**Contact person:** Phumzile Mahlangu

**Email:** phumzile@manggeoenviro.co.za


**Cell:** 076 025 8684

**Heritage Consultants:** Setjo Sesho Consultants

**Contact Person:** Jennifer Mokakabye

**Email:** [Jennifer@setjosesho.co.za](mailto:Jennifer@setjosesho.co.za)

**Cell:** 076 3821 892

Report authored by	Received by client
Ms. Jennifer Mokakabye	Phumzile Mahlangu
ASAPA 466 (Professional and CRM) AMAFA <b>First Draft</b> 	Environmental Consultant

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## **GLOSSARY OF TERMS**

The following terms used in this Archaeology are defined in the National Heritage Resources Act [NHRA], Act Nr. 25 of 1999, South African Heritage Resources Agency [SAHRA] Policies as well as the Australia ICOMOS Charter (*Burra Charter*):

**Archaeological Material:** remains resulting from human activities, which are in a state of disuse and are in, or on, land and which are older than 100 years, including artefacts, human and hominid remains, and artificial features and structures.

**Artifact:** Any movable object that has been used, modified or manufactured by humans.

**Conservation:** All the processes of looking after a site/heritage place or landscape including maintenance, preservation, restoration, reconstruction, and adaptation.

**Cultural Heritage Resources:** refers to physical cultural properties such as archaeological sites, palaeontological sites, historic and prehistorical places, buildings, structures, and material remains cultural sites such as places of rituals, burial sites or graves and their associated materials, geological or natural features of cultural importance or scientific significance. This includes intangible resources such as religious practices, ritual ceremonies, oral histories, memories indigenous knowledge.

**Cultural landscape:** “the combined works of nature and man” and demonstrate “the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both internal and external”.

**Cultural Resources Management (CRM):** the conservation of cultural heritage resources, management, and sustainable utilization and present

for present and for the future generations

**Cultural Significance:** is the aesthetic, historical, scientific and social value for past, present and future generations.

**Chance Finds:** means Archaeological artifacts, features, structures or historical cultural remains such as human burials that are found accidentally in context previously not identified during cultural heritage scoping, screening and assessment studies. Such finds are usually found during earthmoving activities such as water pipeline trench excavations.

**Compatible use:** means a use, which respects the cultural significance of a place. Such use involves no, or minimal, impact on cultural significance.

**Conservation** means all the processes of looking after a place so as to retain its cultural significance.

**Expansion:** means the modification, extension, alteration or upgrading of a facility, structure or infrastructure at which an activity takes place in such a manner that the capacity of the facility or the footprint of the activity is increased.

**Grave:** A place of interment (variably referred to as burial), including the contents, headstone or other markers of such a place, and any other structure on or associated with such a place.

**Heritage Impact Assessment (HIA):** Refers to the process of identifying, predicting and assessing the potential positive and negative cultural, social, economic and biophysical impacts of any proposed project, plan, Programme or policy which requires the authorization of permission by law and which may significantly affect the cultural and natural heritage resources. The HIA includes recommendations for appropriate mitigation measures for minimizing or avoiding negative impacts, measures enhancing the positive aspects of the proposal and heritage management and monitoring measures.

**Historic Material:** remains resulting from human activities, which are

younger than 100 years, but no longer in use, including artefacts, human remains, and artificial features and structures.

**Impact:** the positive or negative effects on human well-being and/or on the environment.

**In situ material:** means material culture and surrounding deposits in their original location and context, for instance, archaeological remains that have not been disturbed.

**Interested and Affected Parties:** Individuals, communities or groups, other than the proponent or the authorities, whose interests may be positively or negatively affected by the proposal or activity and/ or who are concerned with a proposal or activity and its consequences.

**Interpretation:** means all the ways of presenting the cultural significance of a place.

**Late Iron Age:** this period is associated with the development of complex societies and state systems in southern Africa.

**Material Culture** means buildings, structure, features, tools and other artifacts that constitute the remains from past societies.

**Mitigate** The implementation of practical measures to reduce adverse impacts or enhance beneficial impacts of an action.

**Place:** means site, area, land, landscape, building or other work, a group of buildings or other works, and may include components, contents, spaces, and views.

**Protected Area:** means those protected areas contemplated in section 9 of the NEMPAA and the core area of a biosphere reserve and shall include their buffers.

**Public Participation Process:** A process of involving the public in order to identify issues and concerns and obtain feedback on options and impacts associated with a proposed project, programme or development. Public

Participation Process in terms of NEMA refers to a process in which potential interested and affected parties are given an opportunity to comment on or raise issues relevant to specific matters.

**Setting:** means the area around a place, which may include the visual catchment.

**Significance:** can be differentiated into impact magnitude and impact significance. Impact magnitude is the measurable change (i.e. intensity, duration, and likelihood). Impact significance is the value placed on the change by different affected parties (i.e. the level of significance and acceptability). It is an anthropocentric concept, which makes use of value judgments and science-based criteria (i.e. biophysical, physical cultural, social and economic).

**Site:** a spatial cluster of artifacts, structures, and organic and environmental remains, as residues of past human activity.



## LIST OF ABBREVIATIONS

BP.....	Before Present
EIA.....	Early Iron Age
ESA.....	Early Stone Age
FSHRA.....	Free-State Heritage Resource Authority
GPS.....	Geographic Positioning System
HIA.....	Heritage Impact Assessment
LIA.....	Late Iron Age
LSA.....	Late Stone Age
MYA.....	Million Years Ago
MSA.....	Middle Stone Age
NHRA.....	National Heritage Resources Act no 22 of 1999
SAHRA.....	South African Heritage Resource Agency
S&EIR.....	Scoping & Environmental Impact Reporting

## **1. INTRODUCTION**

Setjo Sesho Consultants was appointed Mang Geoenviro Services on behalf of Dihlabeng local municipality to undertake a Phase 1 Heritage Impact Assessment (HIA) for the proposed township establishment on the remainder of Fouriesburg farm NO. 228 RD in the Dihlabeng local municipality, of Thabo Mofutsanyane district municipality, Free State province of South Africa. The study aims at determining the possible occurrence of cultural heritage resources/materials within the proposed area of development. The result of the study is based on archival, and document searches combined with fieldwork investigations.

In support of the Environmental Impact Assessment, Setjo Sesho Consultants conducted an HIA study in order to comply with section 38(1) of the South African Heritage Resources Act (SAHRA) (25 of 1999) and Section 38(8) of the National Heritage Resource Act, 1999 (Act 25 of 1999) (NHRA), as well as for Mang Geoenviro Services to comply with 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.

### **1.1 Project Background**

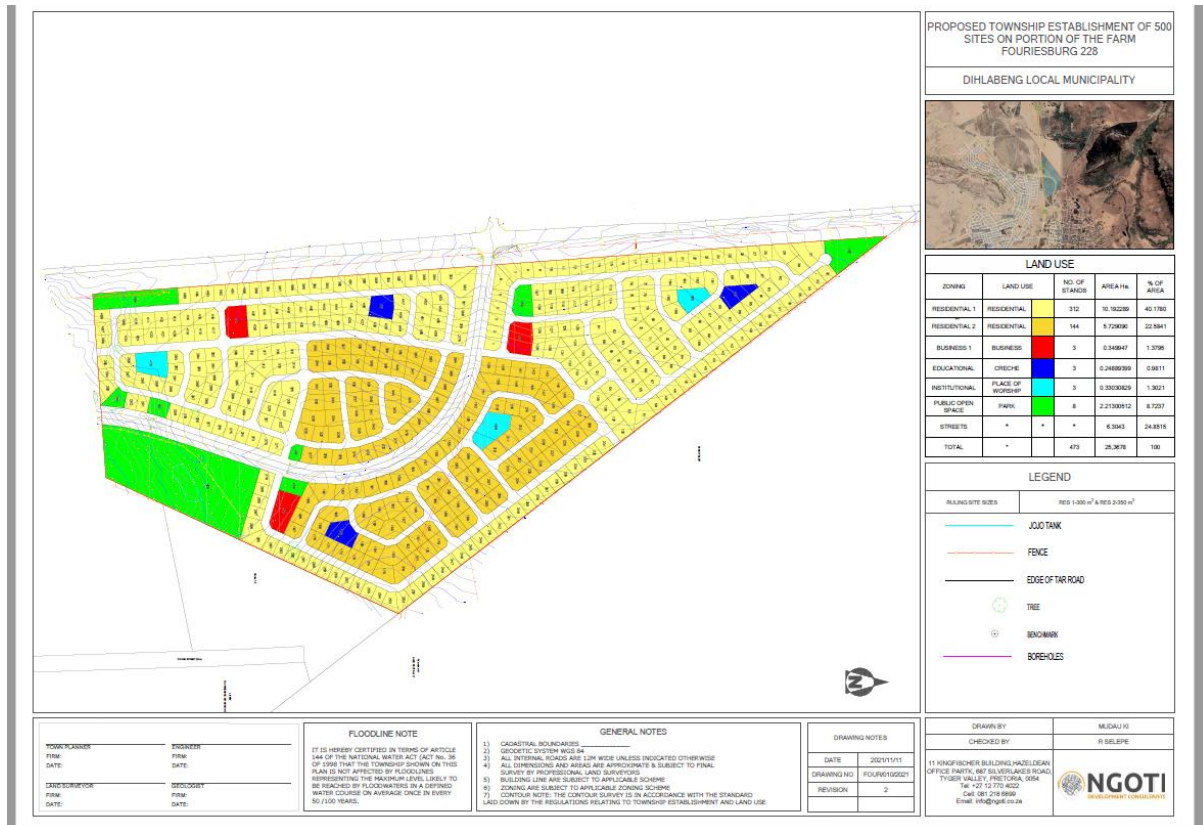
#### **1.1.1 Project Overview**

On the remainder of Fouriesburg Farm, the Dihlabeng local municipality proposes to establish a township of roughly 500 sites on 228 RD in the Free State Province.

Approximately 19.69 hectares of land will be developed for township establishment (Figure 1), with the following infrastructure included:

 312 Residential 1

- 144 Residential 2
- 3 Business 1
- 3 Creche
- 3 Place of Worship
- 8 Public Open Space
- Roads



**Figure 1:** Township layout @ Manga Geoenviron Services

### 1.1.2. Project Location

The proposed Fouriesburg township establishment is situated on the remainder of Fouriesburg farm NO. 228 RD in the Dihlabeng local municipality, of Thabo Mofutsanyana district municipality in Free State province. Visibility and accessibility of the site was easy, however the site was highly covered by dense invading bushes (refer to Figure 3). The proposed site is close to the R26 road and surrounded by the farms on both the far left and right (Figure 4). As one travels further down the road, the site is in close proximity to the farmhouse on the right of the right hand of R26 and the community on the left (Figure 5). It

appears that the area was used for agricultural use.



**Figure 2:** Overview of the proposed developmental area © Setjo Sesho drone pictures





**Figure 3:** View of the invading bushes within the development area © Setjo Sesho drone picture



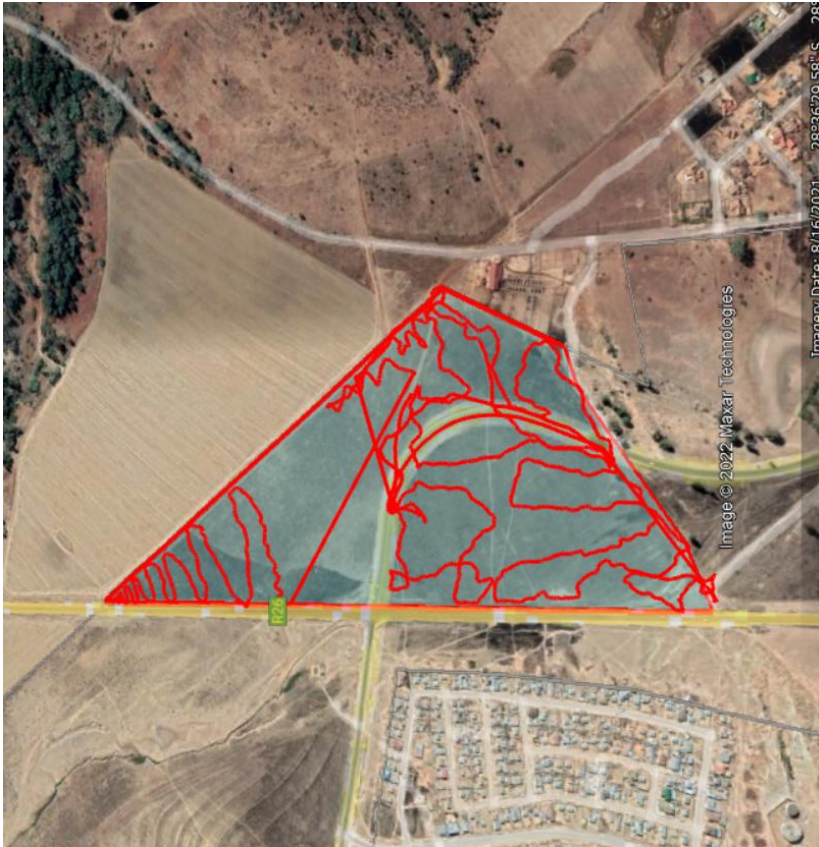
**Figure 4:** The R26 road © Setjo Setjo



**Figure 5:** View of the farmhouse next to the proposed development site © Setjo Sesho drone picture

## **1.2 GPS track path**

GPS track path is used to provide proof of the areas traversed during the field survey. Setjo Sesho personnel extensively traversed the land under consideration, as shown in Figure 6.



**Figure 6:** Map showing the walk path as highlighted in red @Setjo Sesho

### **1.3 Terms of reference**

Mang Geoenviro Services appointed Setjo Sesho Consultants as the specialist heritage practitioners to undertake HIA studies in order to comply with the requirements for section 38(1) of the South African Heritage Resources Act (SAHRA) (25 of 1999) and Section 38(8) of the National Heritage Resource Act, 1999 (Act 25 of 1999) (NHRA). As well as for Mang Geoenviro Services to comply with 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.

## **1.4 Scope of work**

A Heritage Impact Assessment study was conducted to determine the impacts on heritage resources within the study area. Below are the tasks that were conducted as part of the investigation:

- A desk-top investigation of the area.
- A site inspection of the proposed area of development.
- Identification of possible archaeological, cultural and historical sites within the proposed area of development.
- An evaluation of the potential impacts of construction and operation of the proposed development on archaeological, cultural, built and historical sites within the proposed area and
- A recommendation of measures to mitigate any negative impacts on areas of archaeological, cultural, built and historical importance.

## **1.5 Expertise of the Specialist**

Jennifer Mokakabye has over nine years experience in the heritage sector. Previously employed by several consulting companies, she is highly experienced with the process of heritage assessment, archaeological mitigation, grave relocations, rescue excavation and the application of the NHRA section. She holds a Bachelor of Environmental Sciences degree, Bachelor of Arts Honors in Archaeology (*Cum-laude*) and Master of Arts in Ethno-Archaeology, all of which were obtained from the University of Venda. Jennifer also completed various short courses such as Forensic Anthropology and Archaeology from Durham University (2020), How to do Archaeology from DigVentures (2020) and Heritage Resource Management course with the University of Cape Town (2021). She is a published author of over ten peer-reviewed articles and a chapter in a book. She is a professional member of the Association of Southern African Archaeologist (ASAPA), and accredited by the association's Cultural Resources Management (CRM). Jennifer is also affiliated with AMAFA as a professional heritage specialist and is a member of the South African Archaeologist Society, KZN region.



## 2. LEGISLATIVE AND POLICY FRAMEWORK

The identification, evaluation and assessment of any cultural heritage site, artefact or find in the South African context is required and governed by the following legislation:

- National Environmental Management Act (NEMA) Act 107 of 1998
- National Heritage Resources Act (NHRA) Act 25 of 1999
- Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002
- Development Facilitation Act (DFA) Act 67 of 1995

The following sections in each Act refer directly to identifying, evaluating, and assessing cultural heritage resources.

- National Environmental Management Act (NEMA) Act 107 of 1998
  - a. Basic Environmental Assessment (BEA) – Section (23) (2)(d)
  - b. Environmental Scoping Report (ESR) – Section (29) (1)(d)
  - c. Environmental Impacts Assessment (EIA) – Section (32) (2)(d)
  - d. Environmental Management Plan (EMP) – Section (34) (b)
- National Heritage Resources Act (NHRA) Act 25 of 1999
  - a. Protection of Heritage Resources – Sections 34 to 36; and
  - b. Heritage Resources Management – Section 38
- Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002a. Section 39(3)

As per the NHRA, it is prohibited to disturb cultural heritage resources without the permission of the relevant heritage authority. The NHRA states in Section 34 (1) that "no building or part of a building which is older than 60 years may be altered or demolished without a permit from the relevant provincial heritage

authority...". According to the NEMA (Act No 107 of 1998), an integrated EMP should (23: 2 (b)) identify, predict and evaluate the impact on the environment, socio-economic conditions and cultural heritage. In addition to incorporating legislative requirements and EIA rating criteria, the regulations of SAHRA and ASAPA have also been incorporated to ensure a comprehensive, legally compatible HIA report.

### **3. ASSUMPTIONS AND LIMITATIONS**

The limitations and assumptions associated with this heritage impact assessment are as follows:

- It was assumed that the public participation process performed as part of the Basic Assessment process included the Heritage section and, therefore, not repeated in the Heritage Assessment Phase of the study.
- Whilst every attempt was made to obtain the latest available information. The reviewed literature does not represent an exhaustive list of information sources for the various study areas;
- Archaeological materials commonly occur at subsurface levels. The assessors may not adequately record or document these types of materials without destructive and intrusive methodologies. Therefore, the reviewed literature, previously completed assessments, and the field survey results are in themselves limited to surface observations.
- It is assumed that the information provided by the client is correct and up to date.
- Field investigations were executed on foot by an archaeologist from Setjo Sesho Consultants in the proposed development area.
- The site was easily accessed and visibility was good as well.

## **4. METHODOLOGY**

### **4.1 Inventory**

Inventory studies involve the in-field survey and recording of archaeological resources within a proposed development. The nature and scope of this type of study is defined predominantly by the results of the overview study. In the case of site-specific developments, direct implementation of an inventory study may preclude the need for an overview.

There are a number of different methodological approaches of conducting inventory studies. Therefore, in collaboration with the Heritage consultant, the developer must develop an inventory plan for review and approval by the SAHRA prior to implementation.

### **4.2 Evaluating Heritage Impacts**

A combination of document research and the determination of the geographic suitability of areas and the evaluation of aerial photographs determined which areas could and should be accessed. After plotting the site on a GPS, the area was accessed by foot. The site was documented by digital photographs using Canon EOS 1300D, DJI Mavic Air 2 drone and geo-located with GPS reading using GPS application downloaded on an Android phone.

All this information was combined with information from an extensive literature review and the result of archival studies based on SAHRis database. This HIA relies heavily on the analysis of written documents, maps, aerial photographs and other archival sources combined with the results of site investigations.

### **4.3 Fieldwork and Report Compilation**

Fieldwork investigation was conducted on the 18<sup>th</sup> of December 2021 by an archaeologist from Setjo Sesho Consultants. The fieldwork was conducted on foot in the proposed development footprint with the aim of identifying any

heritage and cultural related materials/artifacts. The survey was tracked using GPS and a path tracking app (Figure 6). The study area was surveyed using standard archaeological surveying methods. The gathered information from archival and site surveys was then merged and compiled into a report.

## **5. FIELD FINDINGS**

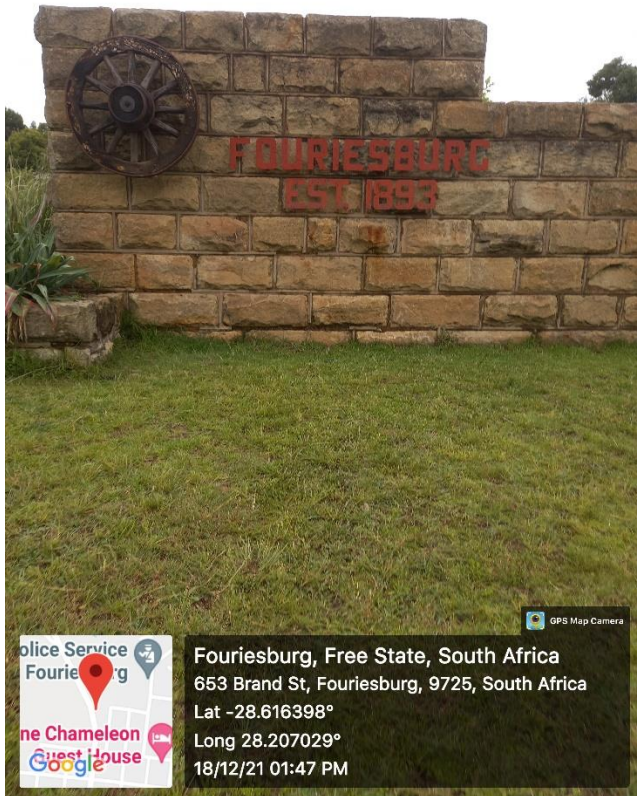
Field survey was only limited to the proposed Fouriesburg township establishment is situated on the remainder of Fouriesburg farm NO. 228 RD in the Dihlabeng local municipality, of Thabo Mofutsanyane district municipality in Free State province. The proposed area of development exhibits signs of farming activities that have been taking place over the years; chances of locating any archaeological materials of significance are lower.

In terms of the archaeological component of Section 35 of the NHRA, no archaeological significant site was recorded in the study area. However, sites of archaeological significance were identified and recorded by other studies conducted in the vicinity of the study area (Dreyer 2006). Due to the age of establishment of the area, there are high chances of archaeological materials in the greater vicinity. No further mitigation prior to construction is recommended in terms of Section 35 for the proposed development to proceed.

In terms of the area's-built environment (Section34), no standing structures older than 60 years occur within the study area. Few meters away from the proposed development is a town name on the wall that was built in the 1800s (Figure 7). The proposed development does not impact this wall as it is further away, and no mitigation is recommended.

In terms of Section 36 of the Act no burial sites were recorded in the study area. However, if any graves are located in the future, they should be relocated according to existing legislation or depending on the Free State Heritage

Resource Authority (FSHRA) advice. Due to the subsurface nature of archaeological remains and the fact that graves can occur anywhere on the landscape, it is recommended that the Environmental consultant implements a chance find procedure.



**Figure 7:** The town signage wall

## **6. APPLICABLE HERITAGE LEGISLATION**

Several legislations provide the legal basis for protecting and preserving both cultural and natural resources. These include the National Environment Management Act (No. 107 of 1998); Mineral Amendment Act (No 103 of 1993); Tourism Act (No. 72 of 1993); Cultural Institution Act (No. 119 of 1998), and the National Heritage Resources Act (Act 25 of 1999). Section 38 (1) of the National Heritage Resources Act requires that where relevant, an Impact Assessment is undertaken in the case where a listed activity is triggered. Such activities include:

- (a) *the construction of a road, wall, powerline, pipeline, canal or other similar forms of linear development or barrier exceeding 300m in length.*

- (b) the construction of a bridge or similar structure exceeding 50 m in length;  
and*
- (c) any development or other activity which will change the character of an area of land, or water -*
  - (i) exceeding 5 000 m<sup>2</sup> in extent.*
  - (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 10 000 m<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.*

Section 3 of the National Heritage Resources Act (25 of 1999) lists a wide range of national resources protected under the act as they are deemed to be a national estate. When conducting Heritage Impact Assessment (HIA) the following heritage resources have to be identified:

- (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 paleontological sites*

*(g) Graves and burial grounds including-*

*(i) ancestral graves*

*(ii) royal graves and graves of traditional leaders*

*(iii) graves of victims of conflict*

*(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 by 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) moveable objects, including -*

*(i) objects recovered from the soil or waters of South Africa, including archaeological and paleontological 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 of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).*

**Other sections of the Act with direct relevance to the AIA are the following:**

**Section 34(1)** No person may alter or demolish any structure or part of a

*structure, which is older than 60 years without a permit issued by the relevant provincial heritage resources authority.*

**Section 35(4)** *No person may, without a permit issued by the responsible heritage resources authority:*

- *destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite*

**Section 36 (3)** *No person may, without a permit issued by SAHRA or a provincial heritage resources authority:*

- *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 formal cemetery administered by a local authority; or*
- *bring onto or use at a burial ground or grave any excavation equipment, or any equipment which assists in detection or recovery of metals.*

## **7. DEGREE OF SIGNIFICANCE**

The Heritage Impact Assessment (HIA) report was compiled by Setjo Sesho Consultants for the proposed township establishment on the remainder of Fouriesburg farm NO. 228 RD in the Dihlabeng local municipality, of Thabo Mofutsanyane district municipality, Free State province of South Africa.

The relevant maps, tables and figures are included, as stipulated in the NHRA (no 25 of 1999) and the National Environmental Management Act (NEMA) (no 107 of 1998). The HIA process consisted of three steps:

- **Literature Review:** The background information to the field survey relies greatly on the Heritage Background Research. This is obtained through SAHRis website, journals, books etc.
- **Physical Survey:** Field survey was conducted on the 18<sup>th</sup> of



December 2021 on foot by an archaeologist from Setjo Sesho personnel throughout the proposed project area. The survey was aimed at locating and documenting sites falling within and adjacent to the proposed development footprint.

- The final step involved the **recording and documentation** of relevant archaeological resources, the assessment of resources in terms of the HIA criteria and report writing, as well as mapping and constructive recommendations.

The significance of identified heritage sites was based on four main criteria:

- Site integrity (i.e., primary vs. secondary context),
- Amount of deposit, range of features (e.g., stonewalling, stone tools, and enclosures),
- Density of scatter (dispersed scatter)
  - ✓ Low - <10/50m<sup>2</sup>
  - ✓ Medium - 10-50/50m<sup>2</sup>
  - ✓ High - >50/50m<sup>2</sup>
- 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 - No-go or relocate development activity position.

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

E - Preserve site.

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

*Site Significance*

Site significance classification standards prescribed by the SAHRA (2006) and approved by the ASAPA for the Southern African Development Community (SADC) region, were used for the purpose of this report.

**Table 2:** Site significance classification standards as prescribed by SAHRA.

FIELD RATING	GRADE	SIGNIFICANCE	RECOMMENDED MITIGATION
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)	Grade 4A	High / Medium Significance	Mitigation before destruction
Generally Protected B (GP.B)	Grade 4B	Medium Significance	Recording before destruction
Generally Protected C (GP. A)	Grade 4C	Low Significance	Destruction

Standard impact assessment methodologies have been used to ensure consistency and to evaluate a wide variety of impacts. In line with the methodology for assessing impacts, the following criteria are considered:

- Significance.
- Spatial scale.
- Temporal scale.
- Probability; and
- Degree of certainty

The impacts of each of the above assessment criteria were described using

a combination of quantitative and qualitative methods. Below is a synopsis of and quantitative rating scale for each of the qualitative descriptors:

**Table 3:** Impact Assessment Criteria

CRITERIA	CATEGORIES	EXPLANATION
Overall nature	<b>Negative</b>	Negative impact on affected biophysical or human environment.
	<b>Positive</b>	Benefit to the affected biophysical or human environment.
Spatial Extent over which impact may be experienced	<b>Site</b>	Immediate area of activity incorporating the 20m zone which extends from the edge of the afforestation area.
	<b>Local</b>	Area up to and/or within 10km of the 'Site' as defined above.
	<b>Regional</b>	Entire community, drainage basin, landscape etc.
	<b>National</b>	South Africa
Duration of impact	<b>Short-term</b>	Impact would last for the duration of the activity – e.g., activities: Land clearing. Quickly reversible.
	<b>Medium-term</b>	Impact would dissipate after the Project activity. E.g., activity: harvesting. Reversible over time.
	<b>Long-term</b>	Impact would persist. E.g., operational period the growth periods between each 'short term' activity.
	<b>Permanent</b>	It would continue to have an impact after the proposed development is complete. The process of harvesting and removing the trees.
Probability of occurrence	<b>Unlikely</b>	<40% probability.
	<b>Possible</b>	40% - 70% probability.
	<b>Probable</b>	>70% probability.
	<b>Definite</b>	>90% probability.
Mitigation Potential [i.e. the ability to manage or	<b>High</b>	Easy and cheap to manage. It is not generally necessary to have specialized equipment or expertise. By implementing management plans or undergoing good housekeeping, the potential impacts can be mitigated. It is necessary to monitor any negative effects regularly in order to maintain appropriate levels. The likelihood of an adverse impact remains low or negligible after mitigation.

mitigate an impact given the necessary resources and feasibility of application]	<b>Moderate</b>	To maintain acceptable levels of impacts, higher levels of expertise and resources are needed. Project design can incorporate mitigation measures. After mitigation, impacts will likely be moderate to low. Possibly impossible to mitigate the effects completely, with a residual impact.
	<b>Low</b>	Will not be possible to mitigate this impact entirely regardless of the expertise and resources applied. The potential to manage the impact may be beyond the scope of the Project.  Management of this impact is not likely to result in a measurable change in the level of significance.
Significance of Impact (preliminary only)	<b>Slight</b>	Largely of HIGH mitigation potential.
	<b>Moderate</b>	Largely of MODERATE mitigation potential.
	<b>Substantial</b>	Largely of LOW mitigation potential.

## 8. CONSULTATION

There are two types of consultations that normally takes place on site during the process of a development which are informal and formal consultation. An informal site survey usually provides an opportunity for discussion with key stakeholders, such as farm managers and employees, by standers on the road and sometimes older citizens of the area. Through this kind of consultation, burial grounds and graves can be identified. This could include informal graveyards or burial grounds without visible markers. Informal consulting can also reveal sacred sites or other places of significance that may otherwise go unnoticed.

Formal consultations include advertisement of the projects and a call for it through newspaper advertisements, site notices, emails, calls, and other formal invitations. This normally happens at an arranged venue and the community, interested, and affected parties are informed of the projects and have a say on it which will be formally recorded.

No informal consultations were conducted on site during the field survey of the

proposed development area. It is assumed that the Environmental consultants conducted the formal consultation.

## **9. SOCIO-CULTURAL AND HISTORICAL BACKGROUND**

This section provides insights into the archaeology and cultural heritage of the receiving environment. Where necessary, reference to archaeology and other heritage resources found within the broader region of Free-State will be added.

Archaeology in Southern Africa is divided into the Stone Age, Iron Age, and the Historical Period. During these periods, diverse groups of people settled on the Southern African landscape. Majority of the research on the culture, archaeology, rock art in Southern Africa has been conducted by Huffman (2002; 2007); Mason (1968; 1982; 1986); Sutton (2012), Kuman & Field (2009) Kuman et al. (1997). Unfortunately, the proposed area of development has not been exhaustively researched. Few HIA reports near the proposed development were conducted by (Dreyer 2004, 2006).

### **Stone Age**

The remnants of Stone Age hunter-gatherer's activities are customarily divided into the Early, Middle and Late Stone Age. According to Klein (2000) and Mitchell (2002), the ESA is comprised of the Oldowan stone tool complex (2 and 1.7-1.5 million years ago), and the Acheulean stone tool complex (1.7-1.5 million years ago and 250-200 thousand years ago). And is characterized by small flakes, flaked cobbles, and percussive tools (Klein 2000; Mitchell 2002; Diez-Martín et al.,2015; De La Torre 2016).

Stone Age sites are usually associated with stone artefacts found scattered on the surface or as part of deposits in caves and rock shelters. No previously recorded Stone Age sites are on record for the study area. No significant Stone Age sites are expected for the study area.

The Early to Middle Stone Age transition includes a change in technology from large stone tools to good quality raw material and bone tools, ochre, beads, and pendants (Clark, 1982; Deacon & Deacon, 1999, Wadley, 2007).

### ***Iron Age***

Using Huffman's (2007) definition, the Iron Age can be divided into Early Iron Age (EIA), Middle Iron Age (MIA), and finally Late Iron Age (LIA). The Iron Age is distinguished by farming communities that domesticated animals, manufactured ceramic vessels, melted iron for weapons, and manufactured tools.

In the Orange Free State, Iron Age archaeology is dominated by theories of stone structures from the early research (cf. Van Riet, Lowe 1927; Laidler 1936; Daubenton 1938), the early missionaries and travellers who made their way into the interior of the Free-State have also mentioned the corbelled huts (Bennie 1956: 11; Stow 1905) and a central highveld prehistory is still attributed to beehive-shaped stone huts in general (Taylor 1986). According to the 1975 excavation conducted by the National Museum, Bloemfontein, no Iron Age site without stone building was found, which indicates that this misconception is derived from the high visibility of stone-built sites. Early narrators mentioned a different form of housing in addition to stone huts at precolonial settlements after Difaqane. The sketches and prescriptions of these perishable material huts are shown in the French Missionary Journals (1846).

Although the specific area of development has no records of Iron Age materials and non was discovered on site, the general vicinity recorded materials belonging to the period. However, field survey conducted by Meyer (2006) recorded a cluster of Late Iron Age walling approximately 10km away from the proposed area of development near the Lesotho boarder. He concluded that the stone walling dated back to the mid-17th century to early 19th century based on comparative radiocarbon dating (Maggs 1976, Dreyer

1992).

### **Early History**

This small town lies along the Lesotho border in Eastern Free State. After Bloemfontein was occupied by the British in March 1900, Fouriesburg became the provisional capital of the Free State. Further, the Boer forces and government were trapped in the Brandwater Basin. During the encirclement, some Boer forces escaped. Approximately 3500 men were under the command of Christiaan de Wet, who led the group over Slabberts Nek on 15 July 1900 toward Bethlehem. The group also included President Steyn and government officials. The appeal court, which was still in session, and some staff members, including the wife of the president, were captured by the British when they occupied the town on 26 July 1900.

## **10. PREVIOUS STUDIES**

The South African Heritage Resources Information System (SAHRIS) search produced numerous studies conducted in the greater study area. Several assessments have been conducted in the greater area, however, only assessments that are of close range to the proposed area of development have been noted herein regardless of what was discovered on site. The proposed area of development falls under Free-State province

- Dreyer. C 2008 (MDA Environmental Consultants)

*First phase archaeological and cultural heritage investigation of the proposed leisure residential development on the farm Dankbaar 294, Fouriesburg*

The field survey recorded no archaeological materials on the surface. The only historical features are an old wagon-house and a rectangle stone-walled kraal, both dating from early European settlement times. There's not much of a cultural significance in the building or walls, as they are in a dilapidated and neglected state. Dreyer recommended the planning of the development to

carry on without any mitigations.

- Dreyer. C 2006 (MDA Environmental Consultants)

*First phase archaeological and cultural heritage investigation of the proposed housing developments on the farm Middenin 333, Fouriesburg.*

The author of the report recorded archaeological remains in the form of circular stone-walled enclosures with associated ash heaps belonging to the early Basotho settlements. The artefacts belonged to the Later Iron Age and dated between mid-17th century to early 19th century. He recommended that the structures should not be disturbed or destroyed and recommend that the development be moved somewhere else in the farm.

- Dreyer. C 2004 (Cebo Environmental Consultants)

*First phase archaeological and historical investigation of the proposed residential development at Fouriesburg, Free State.*

The proposed development area produced no remains of early human occupation, meaning that no archaeological materials were noted during the field survey.

## **11. RECOMMENDATIONS AND CONCLUSIONS**

The proposed area of development was surveyed on foot by an archaeologist from Setjo Sesho Consultants with the aim of identifying and recording all archaeological materials that would be found on site. The survey was only limited to the proposed Fouriesburg township establishment is situated on the remainder of Fouriesburg farm NO. 228 RD in the Dihlabeng local municipality, of Thabo Mofutsanyane district municipality in Free State province.

Since field survey and archival search yielded no significant archaeological materials, Setjo Sesho Consultants recommend that the proposed development be granted the green light to proceed. The field survey documented a town signage which was built in the 1800 just outside the proposed development area. Therefore, it is recommended that the town signage be left as is and not be impacted during the construction phase.



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Setjo Sesho Consultants

# Report Compiled By:

Jennifer Mokakabye

033 396 1269

076 382 1892

11 Greenfield,  
Pietermaritzburg, KZN

[jennifer@setjosesho.co.za](mailto:jennifer@setjosesho.co.za)