

**PROPOSED ESKOM PLATREEF POWER LINE AND SUBSTATION
PROJECT WITHIN MOGALAKWENA LOCAL MUNICIPALITY,
WATERBERG DISTRICT IN LIMPOPO PROVINCE:
ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSESSMENT
REPORT.**

Prepare by: Nzumbululo Heritage Solutions

Prepared For: **ESKOM**

Final A/HIA Report

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Document information


TITLE:	PROPOSED ESKOM PLATREEF POWER LINE AND SUBSTATION PROJECT WITHIN MOGALAKWENA LOCAL MUNICIPALITY, WATERBERG DISTRICT IN LIMPOPO PROVINCE. ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSEMENT REPORT.		
PURPOSE OF SCOPE: The purpose of this document is to describe the cultural values and heritage factors that may be impacted on by the proposed installation of the proposed Platreef powerline and substation development. The proposed Platreef Substation and Powerline development is located in Limpopo Province.			
DOCUMENT VERIFICATION			
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ENDOSED Client Project Responsible Officer to sign off.			
Signature		Position	
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A	Accountable: the person who has to answer for quality assurances
C	Consulted: those who are consulted before the document is finalised
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Issue	Date	Reason For Issue	Responsible	Accountable
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Nzumbululo Reference	Platreef Substation and Powerline
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Caveat

PROPOSED PLATREEF POWERLINE PROJECT IN MOGALAKWENANA LOCAL MUNICIPALITY, WATERBERG DISTRICT IN LIMPOPO PROVINCE: ARCHAEOLOGICAL AND HERITAGE IMPACT ASSESSEMENT REPORT.

Authorship: This Report has been prepared by Dr. M. Murimbika (Principal Investigator & Professional Archaeologist) assisted by Mr T Mlilo. The report is for the review of the Heritage Resources Agency (PHRA).

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Geographic Co-ordinate Information: Geographic co-ordinates in this report were obtained using a hand-held Garmin Global Positioning System device. The manufacturer states that these devices are accurate to within +/- 5 m.

Maps: Maps included in this report use data extracted from the NTS Map and Google Earth Pro.

Disclaimer: The Author is not responsible for omissions and inconsistencies that may result from information not available at the time this report was prepared.

The Archaeological and Heritage Impact Assessment Study was carried out within the context of tangible and intangible cultural heritage resources as defined by the SAHRA Regulations and Guidelines as to the authorisation proposed Powerline development Project being proposed by the Mogalakwena Local Municipality of Limpopo Province.

Signed by Principle Investigator:



McEdward Murimbika (Ph.D.),

July 2012

AUTHOR IDENTIFICATION

Dr. M. Murimbika (Principal Archaeologist & Heritage Consultant) & T Mlilo conducted the HIA study and prepared this Report.

ACKNOWLEDGEMENTS

The author acknowledges Nzumbululo Heritage Solutions, and Eskom for their assistance with information, and the associated project BID as well as responding to technical queries related to the project.

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EXECUTIVE SUMMARY

Nzumbululo Heritage Solutions has been commissioned by Eskom Distribution (Northern Region) to conduct an Archaeological and Heritage Impact Assessment (AIA/HIA) Study for the proposed Platreef powerline development. The proposed Platreef powerline route and substation site is situated within the Mogalakwena Local Municipality area of Limpopo Province. This report includes an impact study on potential archaeological and cultural heritage resources that may be associated with the proposed substation and powerline development project area. The findings of this report have been informed by desktop data review, field survey 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 proposed development consists of:

- Construction of an 8km Loop In and Loop Out (LILO) power line from the new proposed Borutho Potgietersrus 132kV power line to the new proposed substation.
- Construction of a new 3 x 40MVA and a 100m x 100m Platreef Substation.
- Construction of a 26km 132kv Kingbird line from the new Borutho MTS station to the new Platreef substation.

Analysis of the archaeological, cultural heritage, environmental and historic contexts of the study area predicted that archaeological sites, cultural heritage sites, burial grounds or isolated artefacts were likely to be present on the affected landscape. The field survey was conducted to test this hypothesis and verify this prediction within the proposed Platreef Substation and Powerline area. The proposed site of interest is located in the north west of Mokopane. The residential areas in the area include Mahwereleng and Ga Marishane. The level of disturbance in most of these areas is such that it is unlikely that large significant archaeological or physical heritage sites remain intact or well preserved in situ over most of the affected land portions.

The report makes the following observations:

- The project area is generally accessible. Platreef Substation and powerline routes are situated on generally accessible sites on previously disturbed land parcels. However, some portions of the proposed Platreef powerline site of interest were not accessible because of thick vegetation cover.
 - The study identified recent historic homestead remains on different portions of the Platreef powerline site of interest. However, none of the heritage sites are likely to be directly affected by the proposed Platreef powerline development. This is especially clear from the observation that most of the proposed Platreef Substation and powerline routes are severely degraded from existing developments such as bulk water pipelines, mining infrastructure and access roads.
 - The study identified three burial sites in vicinity of the proposed loop in and out powerline servitudes. The burial sites are located close to each other and are unlikely to be interfered with during the proposed development.
-

- Although the possibility of archaeological or historical sites associated with the general project area is valid from a contextual studies perspective, no medium to high significance archaeological, heritage landmark or monument were recorded during this study.

The Report makes the following recommendations:

- The heritage authorities should approved the preferred Substation development site and the preferred powerline servitude. These preferred site are situated within a contemporary degraded cultural landscape with some sections covered with existing densely built up settlements and associated infrastructures. The Platreef powerline construction works will have minor disturbance within the earmarked Platreef Substation and powerline servitudes given the fact that this will be an in situ development.
- The proposed Platreef powerline development may be approved by PHRA to proceed as planned subject to heritage monitoring measures being incorporated into the project construction EMP.
- Should construction work commence for this project:
 - The Platreef powerline construction teams should be inducted on the significance of the possible archaeological resources that may be encountered during subsurface construction work before they work on the area in order to ensure appropriate treatment and course of action is afforded to any chance finds.
 - If archaeological materials are uncovered, work should cease immediately and the SAHRA be notified and activity should not resume until appropriate management provisions are in place.
- The findings of this report, with approval of the SAHRA, may be classified as accessible to any interested and affected parties within the limits of the laws.

The conclusion of the HIA is that the impacts of the proposed development of the cultural environmental values are not likely to be significant if the EMP includes recommended safeguard and mitigation measures identified in this report.

ABBREVIATIONS

AIA	Archaeological Impact Assessment
C	Contractor
CECO	Construction Environmental Conservation Officer
EAP	Environmental Assessment Practitioner
ECO	Environmental Conservation Officer
EIA	Environmental Impact Assessment
EM	Environmental Manager
EMP	Environmental Management Plan
HIA	Heritage Impact Assessment
LIA	Late Iron Age
NHRA	Nation Heritage Resources Act, Act 25 of 1999
PM	Project Manager
SM	Site Manager
SAHRA	South African Heritage Resources Agency

Definitions

The following terms used in this A/HIA 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.

Chance Finds Archaeological artefacts, 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 earth moving activities such as water pipeline trench excavations.

Cultural Heritage Resources Same as Heritage Resources as defined and used in the National Heritage Resources Act (Act No. 25 of 1999). Refer to physical cultural properties such as archaeological and palaeontological sites; historic and prehistoric places, buildings, structures and material remains; cultural sites such as places of ritual or religious importance and their associated materials; burial sites or graves and their associated materials; geological or natural features of cultural importance or scientific significance. Cultural Heritage Resources also include intangible

resources such as religion practices, ritual ceremonies, oral histories, memories and indigenous knowledge.

Cultural Significance The complexities of what makes a place, materials or intangible resources of value to society or part of, customarily assessed in terms of aesthetic, historical, scientific/research and social values.

Grave A place of interment (variably referred to as burial), including the contents, headstone or other marker of such a place, and any other structure on or associated with such place. A grave may occur in isolation or in association with others where upon it is referred to as being situated in a cemetery.

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.

In Situ material Material culture and surrounding deposits in their original location and context, for example an archaeological site that has not been disturbed by farming.

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

Material culture Buildings, structure, features, tools and other artefacts that constitute the remains from past societies.

Site A distinct spatial cluster of artefacts, structures, organic and environmental remains, as residues of past human activity

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

Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations.

Fabric means all the physical material of the place including components, fixtures, contents and objects.

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

Use means the functions of a place, as well as the activities and practices that may occur at the place.

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

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

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

2. INTRODUCTION

2.1 Background

This Archaeological and Heritage Impact Assessment (A/HIA) Report has been prepared by Nzumbululo Heritage Solutions for the purpose of Environmental Impact Assessment commissioned by Eskom into the development of the proposed Platreef Substation and powerline development in Limpopo Province. Eskom commissioned the study. This report details the field study, results of the study as well as discussion on the anticipated impacts of the proposed development as is required by the National Heritage Resources Act, Act 25 of 1999 Section 38. It focuses on identifying and assessing potential impacts on archaeological resources as well as on other physical cultural properties including historical heritage resources in relation to the proposed Platreef Substation and powerline development. Nzumbululo heritage specialists undertook the assessments, research and consultations required for the preparation of the report comprising archaeological and heritage impacts for the purpose of ensuring that the cultural environmental values are taken into consideration and reported into the EIA processes.

The study was designed to ensure that any significant archaeological or cultural physical property or sites are located and recorded, and site significance is evaluated to assess the nature and extent of expected impacts from the proposed development. The assessment includes recommendations to manage the expected impact of the Platreef Substation and powerline development site. The report includes recommendations to guide heritage authorities in making appropriate decision with regards to approval process for the proposed development. The report concludes with detailed recommendations on heritage management associated with the Platreef Substation and powerline development work. Nzumbululo Heritage Solutions, an independent consulting firm, conducted the assessment, research and consultations required for the preparation of the HIA report in a manner consistent with its obligations set in the NHRA as well as the environmental management legislations.

In line with SAHRA guidelines, this report, not necessarily in that order, provides:

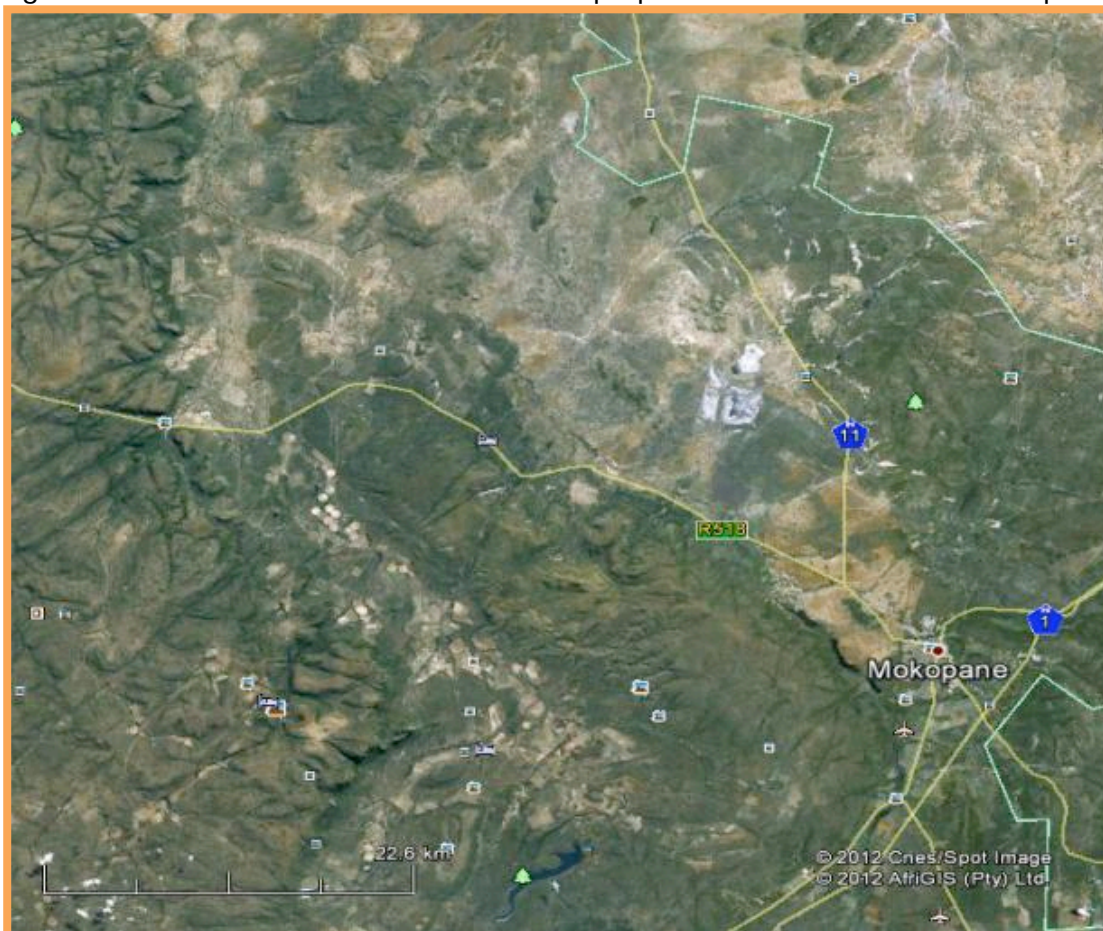
- 1) Management summary
 - 2) Methodology
 - 3) Information with reference to the desktop study
 - 4) Map and relevant geodetic images and data
 - 5) GPS co-ordinates
 - 6) Directions to the site
 - 7) Site description and interpretation of the cultural area where the project will take place
-

- 8) Management details, description of affected cultural environment, photographic records of the project area
- 9) Recommendations regarding the significance of the site and recommendations regarding further monitoring of the site
- 10) Conclusion.

2.2 Location of Activity Area and Impact Area

The geographical area which is the subject of this HIA study (The HIA Area) has been determined by proposed preferred location for the Substation and the powerline servitudes and the related alternatives. The specific area of interest for this study is located within Limpopo Province. The project area falls under the jurisdiction of Mogalakwena Local Municipality within Waterberg District (refer to locality map attached). The proposed powerline is associated with the new proposed Platreef Platinum mine situated 15km North-West of Mokopane Town. The nearest urban areas consist of Mokopane, Lephalale, Polokwane, Modimole, Belabela (Nzumbululo Heritage Solutions BID, 2012). The project area is accessed from the N1 North Highway to N11 West Highway. (Refer to Fig. 1 – Google Site Map).

Figure 1: Site and directions to access to the proposed Platreef Substation and powerline servitude .



2.3 Activity Description

The HIA study was prompted by the proposed:

- Construction of an 8km Loop In and Loop Out (LILO) power line from the new proposed Borutho Potgietersrus 132kV power line to the new proposed substation.
- Construction of a new 3 x 40MVA and a 100m x 100m Platreef Substation.
- Construction of a 26km 132kv Kingbird line from the new Borutho MTS station to the new Platreef substation.

3. STATUTORY REQUIREMENTS

This HIA report is a component of a broader EIA Report and addresses the requirements of the NHRA Act 25 of 1999 Section 38 and EIA Terms of Reference in relation to the assessment of impacts of the proposed development on the cultural and heritage resources associated with the receiving environment. The statutory mandate of heritage impact assessment studies is to encourage and facilitate the protection and conservation of archaeological and cultural heritage sites, in accordance with the provisions of the National Heritage Resources Act, Act 25 of 1999 and auxiliary regulations. Therefore, in pre-development context, heritage impact assessment study is conducted to fulfil the requirements of Section 38 (1) of the National Heritage Resources Act (No 25 of 1999).

The legislations requires that when constructing a linear development exceeding 300m in length or developing an area exceeding 5000 m² in extent, the developer must notify the responsible heritage authority of the proposed development and they in turn must indicate within 14 days whether an impact assessment is required. The NHR Act notes that “any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent”, the heritage authority here being Provincial Authority (PHRA-G).

Both the national legislations and provincial provisions provide protection for the following categories of heritage resources:

Landscapes, cultural or natural;

- Buildings or structures older than 60 years;
 - Archaeological Sites, palaeontological material and meteorites;
 - Burial grounds and graves;
 - Public monuments and memorials;
-

- Living heritage (defined as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships) (Also see Appendix 4).

4. STUDY TERMS OF REFERENCE

The author was asked to conduct an AIA/HIA study addressing the following issues:

- Archaeological and heritage potential of each of the alternative Platreef Substation site and powerline routes including any known data on affected areas;
- Provide details on methods of study; potential and recommendations to guide the PHRA-G provincial authority to make an informed with regards to authorization of the proposed development.



Plate 1: View of proposed Platreef Substation site and communal agriculture fields in the vicinity (Photograph © by Author 2012).



Plate 2: An unidentified plant growing within the proposed substation site. Note that the plant is growing within an cornfield and is deliberately spared which might suggest that the plant is a marker for some cultural sight (Photograph © by Author 2012).



Plate 3: Typical cultural landscape within the project area (Photograph © by Author 2012).

5. METHODOLOGY

The proposed Platreef Substation and powerline development requires clearance and authorisation from government compliance agencies including the heritage authority of SAHRA. Key A/HIA objectives for this project are to:

Fulfil the statutory requirements of the National Heritage Resources Act, Act 25 of 1999.

- To identify and describe, (in terms of their conservation and / or preservation importance) sites of cultural and archaeological importance that may be affected by the proposed Platreef Substation and powerline project. This study should include where appropriate, identify sites and features of traditional historical, social, scientific, cultural and aesthetic significance within the affected study area; the identification of gravesites.
- Assess the significance of the resources where they are identified.
- Evaluate the impact thereon with respect to the socio-economic opportunities and benefits that would be derived from the proposed development.
- Provide guidelines for protection and management of identified heritage sites and places (including associated intangible heritage resources management that may apply).
- Consult with the affected and other interested parties, where applicable, in regard to the impact on the heritage resources in the project's receiving environment.
- Make recommendations on mitigation measures with the view to reduce specific adverse impacts and enhance specific positive impacts on the heritage resources.

- Take responsibility for communicating with the SAHRA and other authorities in order to obtain the relevant permits and authorization with reference to heritage aspects.

In order to meet the objectives of the A/HIA Phase 1 study, the following tasks were conducted: 1) site file search, 2) limited literature review, 3) consultations with the affected family, 4) completion of a field survey and assessment and 5) analysis of the acquired data and report production. The following tasks were undertaken:

- Preparation of a predictive model for archaeological heritage resources in the study area.
- A review and gap analysis of archaeological, historical and cultural background information, including possible previous heritage consultant reports specific to the affected project area, the context of the study area and previous land use history as well as a site search;
- Field survey of sampled sections of the Platreef powerline route within the study area, in order to test the predictive model regarding that heritage sites in the area;
- Physical cultural property recording of any identified sites or cultural heritage places;
- Identification of heritage significance; and
- Preparation of A/HIA report with recommendation, planning constraints and opportunities associated with the proposed development.

Large settlements, cornfields fields, grazing lands, vegetated river valleys; access and main road infrastructures, mining infrastructure, bulk water pipelines, existing transmission and distribution, residential areas and other auxiliary infrastructures dominate the affected project area. This made detailed surficial inspection of the stretch of the proposed Platreef powerline route and substation very limited. As such, the survey covered judiciously systematic stratified sampled areas across the affected landscape. However, the entire project area was accessible through a network of district roads and village tracks used to access the settlements. Although limited sections of ground surface were covered with grass and thick bushes, this did not impede surficial feature identification of possible archaeological sites in sampled areas particularly those earmarked for the substation and powerline development (Plates 1 to 11).

Geographic coordinates were obtained with a handheld Garmin GPS global positioning unit. Photographs were taken as part of the documentation process during field study.

5.1. Assumptions and Limitations

No existing archaeological or heritage inventory records were accessed for this particular project area. Furthermore, the author does have previous A/HIA study records for the general project area. A

limited literature review was completed to provide the general archaeological and historical context to determine the sensitivity of the cultural landscape. Literature does highlight that the inland Limpopo north west cultural landscape has a significant density of archaeological and historical sites (also Whitelaw 1993; 1994; 1997; Hammond-Tooke, 1993; Huffman, 2007).

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. Some assumptions were made as part of the study and therefore some limitations, uncertainties and gaps in information would apply. It should however, be noted that these do not invalidate the findings of this study in any significant way:

- The proposed Platreef Substation and powerline development will be limited to specific right of way sites and corridors as detailed in the development layout (Figure 2 & 3).
- The construction team to provide link and access to the Platreef powerline development sites and service sites will use the existing access roads and there will be no without any major deviations.
- Given the heavily degraded nature on most affected project area and the level of high existing developments within the affected landscape, most sections of the project area have low potential to yield significant in situ archaeological or physical cultural properties.
- No excavations or sampling were undertaken, since a permit from heritage authorities is required to disturb a heritage resource. As such the results herein discussed are based on superficially observed indicators. However, these surface observations concentrated on exposed sections such as road cuts and clear farmland.
- No palaeontological survey was conducted.
- This study did not include any ethnographic and oral historical studies nor did it investigate the settlement history of the area.

5.2. Consultation

No community consultation was conducted during this phase of the A/HIA study. However, the EIA Public Participation Process invited comments from affected municipalities and other interested parties on any matter related to the proposed development.

6. CULTURE HISTORY BACKGROUND OF THE PROJECT AREA

The project area is located 15km north west of Mokopane town in the Limpopo Province. This town was established by the Voortrekkers and named Potgietersrus after the slain Voortrekker leader Piet Potgieter in the late 1800s. The name was changed to Mokopane in 2003 in honour of King

Mgombane Kekana who resided on the land and ruled the area before he was over-thrown and killed by the Voortrekkers. The project area and the surrounding area is home to the Northern Ndebele speaking people, English, Afrikaans, Northern Sotho, and XiTsonga speakers. Five kingdoms in the vicinity of the town are Kekana (Moshate), Langa (Mapela), Lebelo (Garasvlei) and Langa (Bakenburg).

The area is typical bushveld with many acacia trees and aloes. The Mokopane area is one of South Africa's richest agricultural areas producing wheat, tobacco, cotton, beef, maize, peanuts and citrus. The Zebediela Citrus Estate, 55 km to the southeast, is one of the largest citrus farms in the southern hemisphere. The area is rich in minerals with the mining of platinum, diamonds and granite as chief mineral resources.

The historic and archaeologically significant Makapansgat Caves are situated 15 km north of the town. One of the most notable archaeological and historical sites in the country is found at Makapan's Valley, 15 km north of the town. The sediments, fossils, bones and artefacts found in the caves in the valley preserve a unique record of hominid habitation and evolution dating back 3,3 million years. The valley which has stood at the frontier of palaeontological and archaeological research for much of the twentieth century has been declared a National Heritage Site. The Arend Dieperink Museum portrays the history of the town, from the ape-man at Makapansgat, bushman drawings and early activities in the area up to the Anglo Boer War and recent times.

The economy of Mokopane used to be basically farming, until opening up of Anglo American's platinum mine. Currently the mine is one of the biggest contributor to the economy.

The Mogalakwena area, like most of Limpopo region has potential to yield Stone Age period sites (also see Deacon and Deacon, 1997). However, the specific affected project-receiving environment has low potential for Stone Age sites.

The Iron Age of the Limpopo region dates back to the 5th Century AD when the Early Iron Age (EIA) proto-Bantu-speaking farming communities began arriving in this region, which was then occupied by hunter-gatherers. These EIA communities are archaeologically referred to as the Kwale branch of the Urewe EIA Tradition (Huffman, 2007: 127-9). The Iron Age communities occupied the foot-hills and valley lands introducing settled life, domesticated livestock, crop production and the use of iron (also see Maggs 1984a; 1984b; Huffman 2007). Alongside the Urewe Tradition was the Kalundu Tradition whose EIA archaeological sites have been recorded along the Limpopo region. Limpopo region is known for the famous golden rhino that was recovered from Iron Age settlement site of

Mapungubwe in the Limpopo Shashi Valley, now a UNESCO World Heritage Site. The Limpopo region is also known for the Late Iron Age Great Zimbabwe Culture sites such as Thulamela and Dzata to the northeast, in the modern day Venda region. From about 15 00 AD the region was occupied by new coming groups of Late Iron Age farmers of the Kalundu Tradition (ibid). The region was the centre of immigration and migration of different African groups some of which are ancestors of the contemporary Venda and Tsonga predominant in the region.

Throughout the middle of the 1800s the region witnessed the mfecane migrations and displacements linked to groups such as the Ndebele of Mzilikazi. From the 1840s the Voortrekker began arriving in the flat lands foothills in the regions spreading north east into modern day Limpopo. They spread establishing settlements, which came to be settler towns such as Schoemansdale, Petersburg, and the Louis Trichardt across modern day Limpopo. The Voortrekkers arrived in Limpopo regions in the shadow of the weakened African kingdoms and chiefdoms in the aftermath of the mfecane. This effectively ushered in new era of colonial occupation by succeeding Afrikaans and British colonial administration authorities through the last half of the 1800s and into the last 1900s. By 1850s the region witnessed the influx of more settler communities which triggered settler wars between the African chiefdoms and the incoming Afrikaner settlers. Some of these colonial wars and battles lasted into Anglo-Boer wars of 1899-1902. The later effectively led to complete subjugation of African communities to settler administration starting as part of the ZAR of Transvaal. There after the region was subsequently annexed by the British and effectively placed the majority of African communities under the Union of South Africa in 1910, which eventually ended with the establishment of the new South Africa in 1994.

The proposed Platreef Substation site and powerline route will fall within the Mogalakwena Local Municipality in Limpopo Province. The study area covers the area earmarked for the proposed substation and powerline development. The study area is highly transformed by both formal and informal human habitation typical of Limpopo Province. Numerous access roads, dirt tracks and foot paths cut across the project area. Accidental fires have also resulted in substantial degradation of grasslands. Subsistence farming is a common part of the landscape. (see plates 1 and 12).



Plates 4 and 5: Pictorial view of the Platreef loop in and out powerline route (Left) and bulk water pipeline servitude currently under construction running parallel to the proposed Platreef loop in and out powerline route (Right).



Plates 6 and 7: Existing 132kv powerline running parallel to the preferred Platreef powerline route (Left) and a ZCC Church on the edge of the alternative powerline route (Right) (Photo by Author, 2012).



Plates 8 and 9: Pictorial views of the alternative powerline route cutting through communal agriculture fields (Left) and some eroded sections of the preferred powerline route. Note that a large section of the preferred powerline route will run parallel to the existing 132kv powerline and N11 Road servitude (Right).



Plates 10 and 11: Pictorial views of dilapidated farm infrastructure near alternative Platreef powerline route (Left) and the terminal position of the proposed powerline route at the proposed Borutho Substation site (Right).

7. RESULTS OF THE ARCHAEOLOGICAL/HERITAGE ASSESSMENT STUDY

Location Details

Province: Limpopo

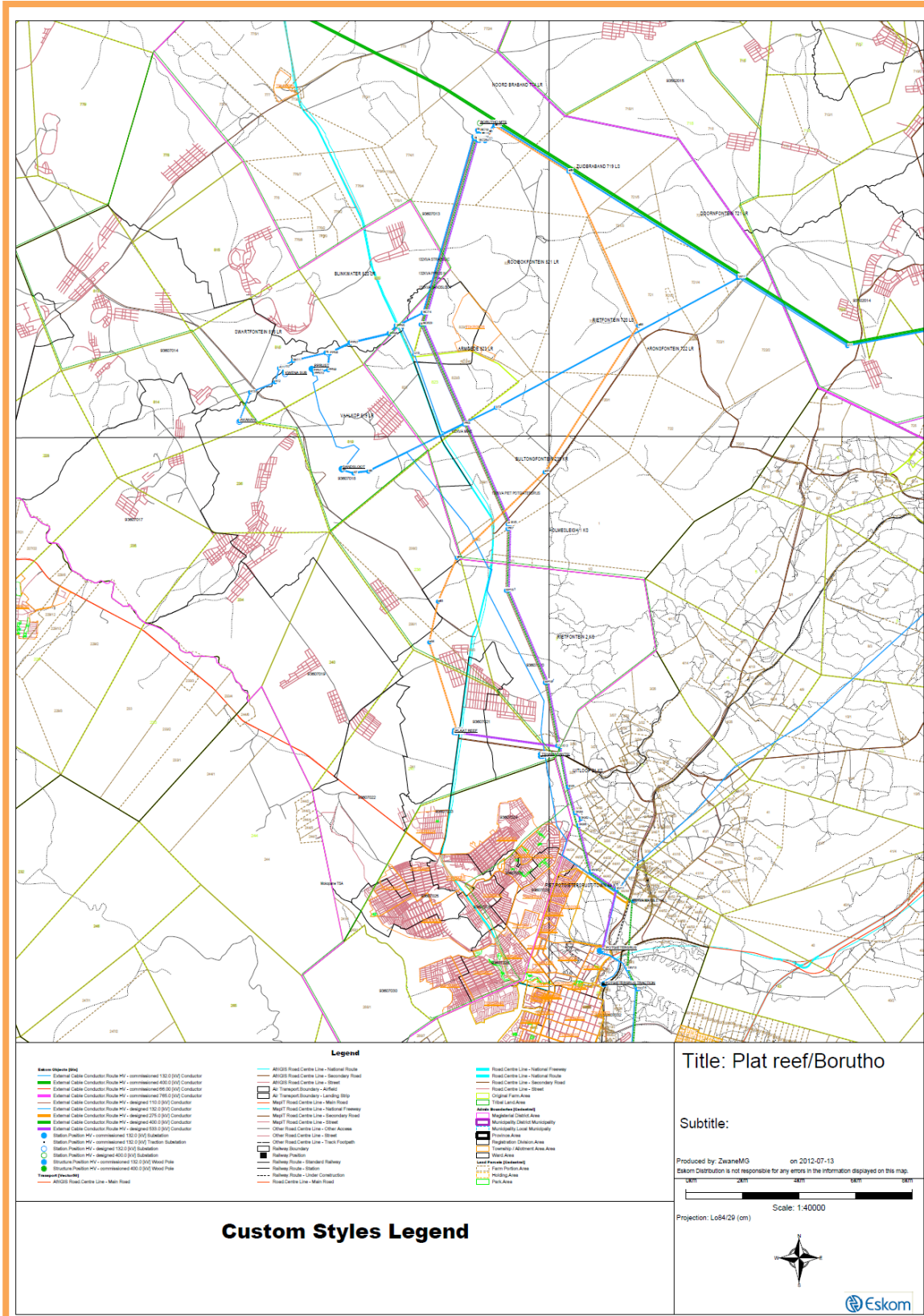
Municipalities: Mogalakwena Local Municipality.

Proposed development: Substation and powerline development.

8. GEOGRAPHICAL CO-ORDINATES

- Proposed Platreef Substation site: $23^{\circ} 54' 11.2''$ S; $28^{\circ} 09' 50.6''$ E (Also see Figure 2 & 3)
(Existing sewerage and water reticulation infrastructure within Platreef powerline route (see Plate 1).
- Terminal position of the powerline route at Barutho: $24^{\circ} 5' 38.9''$ S; $28^{\circ} 9' 67.92''$ E.
- Mid section of the preferred powerline route: $24^{\circ} 1' 41.1''$ S; $28^{\circ} 9' 85.69''$ E
- Burial site 1 near eastern edge of the loop in and out powerline route: $24^{\circ} 05' 55.2''$ S;
 $28^{\circ} 59' 26.3''$ E
- Burial site 2 also near eastern edge of the loop in and out powerline route: $24^{\circ} 05' 54.3''$ S; $28^{\circ} 59' 28.1''$ E
- Burial site 2 near eastern edge of the loop in loop out powerline route: $24^{\circ} 05' 54.4''$ S; $28^{\circ} 59' 28.1''$ E
- Burial site 3 also near eastern edge of the loop in loop powerline route: $24^{\circ} 05' 56.6''$ S; $28^{\circ} 59' 40.5''$ E (see Plate 1).
- ZCC Church near alternative powerline route: $24^{\circ} 04' 09.3''$ S; $28^{\circ} 57' 38.0''$
- Terminal position of the loop in and out powerline: $24^{\circ} 05' 59.4''$ S; $28^{\circ} 59' 57.3''$ E.

1:50 000 map name: 2429BD (Fig. 2).



9. DESCRIPTION OF THE PLATREEF SUBSTATION AND POWERLINE ROUTE

The proposed Platreef Substation site and powerline route are located on vacant land along the N11 West Highway near Mokopane.

- The substation site and proposed powerline route have been established through consideration of biophysical, social, technical and cultural aspects. The Basic Assessment process will aim to provide a final site selection of the proposed substation site and powerline route based on biophysical, social, cultural and technical considerations.

10. PREFERRED POWERLINE ROUTE

10.1. Archaeological and Heritage Site

The preferred powerline route did not yield any confirmable archaeological sites or material. The affected landscaped is heavily degraded from previous and current agricultural land use and from residential property developments. This limited the chances of encountering significant in situ archaeological sites to be preserved on location. The proposed powerline servitude traverses an approximate length of 26km from T-off from the proposed Platreef Substation. The servitude is 32m wide providing the right of way for the distribution lines.

However, three separate locations yielded isolated scatters of potsherds that were recorded along the 26km servitude route. All such scatters were recorded in erosion gullies and were not linked to any discernable archaeological sites. The identified potsherds were not classifiable because none were decorated. As such, it was not possible to estimate whether the potsherds originated from archaeological or contemporary sites. However, it was clear that none of the identified scatters could be recorded as identifiable sites and the potsherds originated from other sites probably outside the powerline corridor

Most of the proposed powerline preferred corridor would traverse through heavily disturbed landscape. There exist residential, subsistence agricultural fields, timber and sugar cane plantations, grazing land and powerlines, roads and other associated infrastructures across the entire project area. As such the proposed powerline installations will be additional to in situ developments already on project area (Figure 2 - 4; also see Plates 1 to 10). The chances of recovering significant archaeological materials in situ in such environment, particularly open settlement sites, were seriously compromised and limited. If such sites existed on this particular project area, they may have been destroyed over the land use history of development and other destructive land use patterns such as deep ploughing, road works, residential and associated infrastructure constructions that already exist on the project area.

Based on the field study results and field observations, it is the considered opinion of the author that the receiving environment for the proposed powerline medium to potential to yield previously unidentified archaeological sites during subsurface excavations and construction work associated with the proposed distribution powerline development. However, the installation of powerline poles and /or lattice towers has limited ground footprint, which in turn reduces the possibility to inflict a wider spatial impact. The nature of powerline construction also reduces the probability to encounter chance finds during proposed development. This opinion is supported by the fact that powerline lattice towers or poles are installed on limited spatial area and the affected landscape has long history physical disturbances.

10.2. Historical and Recent sites

Although the affected general landscape is associated with broader historical events such as white settler migration, colonial wars and the recent African peopling of the region, no listed specific historical sites are on the proposed development sites. Abandoned historic remains of recent homesteads were recorded on portion of the 26km powerline servitude. This specific contemporary site was not surveyed or documented in any details because of dense vegetation cover (see Plate 5).

10.3. Burial grounds and graves

The field survey did not identify any burial site near the preferred powerline servitude. Whether they are known or not on record, from a heritage perspective, burial grounds and gravesites are accorded the highest social significance threshold (see Appendix 3). They have both historical and social significance and are considered sacred. Wherever they exist they may not be tempered with or interfered with during any proposed development. It is important to note that the possibility of encountering human remains during subsurface earth moving works anywhere on the landscape is ever present. Although the possibility of encountering previously unidentified burial sites is low on the distribution powerline project route, should such sites be identified during subsurface construction work, they are still protected by applicable legislations and they should be protected (also see Appendixes for more details).

10.4. Historical Monuments

There are currently no places within the powerline servitude HIA Area on the National Heritage List.

11. THE PREFERRED SUBSTATION SITE

11.1. Archaeological and Heritage Site

The Platreef Substation site did not yield any confirmable archaeological sites or material. The site is situated in a contemporary agricultural field. The site covers approximately 1ha. The immediate vicinity of the HIA Study site consists of existing residential, subsistence agricultural fields, grazing land, mining infrastructure, roads and other associated infrastructures. As such the proposed establishment of Platreef Substation will be additional to in situ developments already on project area (Figure 2 - 4; also see Plates 1 to 10). Given the extent of HIA area degradation, the chances of recovering significant archaeological materials in situ, particularly open settlement sites, were seriously compromised and limited.

Based on the field study results and field observations, it is the considered opinion of the authors that the affected landscape has low to medium potential to yield previously unidentified archaeological sites during subsurface excavations and construction work associated with the proposed establishment of Platreef Substation development.

11.2. Historical and Recent sites

Generically speaking, historic sites are associated with colonial era white settlers, colonial wars, industrialization; recent and contemporary African population settlements, contemporary ritual sites dating to the last hundred years. However, recent historic period sites and features associated with the African communities, settler and commercial farming communities are on record in the general project area environs. Although the affected general landscape is associated with historical events such as white settler migration, colonial wars and the recent African peopling of the region, no listed specific historical sites are on the proposed development sites. The more common functions of places of cultural historical significance may include:

- Domestic
- Recreation & culture
- Commerce & trade
- Agriculture & subsistence
- Social & Health care
- Religion
- Designed landscape
- Funeral (cemeteries, graves and burial grounds)
- Civil and Structural Engineering
- Education
- Defence /Military

11.3. Burial grounds and graves

No burial grounds or grave sites were located on or near the proposed substation development site.

The possibility of encountering human remains during subsurface earth moving works anywhere on the landscape is also an ever present possibility especially where developments take place in previously occupied landscapes. It is common that accidental burial finds are made on construction sites from time to time across the country particularly on historical cultural landscapes similar to the development project area.

Significance valuation for Burial Ground, Historic Cemeteries and Individual Graves

Although the possibility of encountering previously unidentified burial sites is low on the Platreef Substation project site, should such sites be identified during subsurface construction work, they are still protected by applicable legislations and they should be protected (also see Appendixes for more details). The significance of burial grounds and gravesites is closely tied to their age and historical, cultural and social context. Nonetheless, every burial should be considered as of high socio-cultural significance protected by practices, a series of legislations, and ordinances. This applies to the burial sites recorded in vicinity of the proposed powerline servitude.

12. ALTERNATIVE POWERLINE ROUTE

12.1 Archaeological and Heritage Site

The alternative powerline route was assessed alongside the preferred 26km long route. The alternative powerline route did not yield any confirmable archaeological sites or material either. The affected landscaped is similarly degraded from previous and current agricultural land use and from residential property developments. The proposed powerline servitude traverses an approximate length of ±26km from T-off to proposed Borutho Substation. The servitude that was assessed was 32m wide providing the right of way for the powerline. There exist residential, subsistence agricultural fields, timber and sugar cane plantations, grazing land and rail and powerlines, roads and other associated infrastructures across the entire project area. The proposed powerline installations will be additional to in situ developments already on project area (Figure 2 - 4; also see Plates 1 to 10). As such the chances of recovering significant archaeological materials in situ, particularly significant open settlement sites, were seriously compromised and limited.

12.2. Historical and Recent sites

Similar to the preferred powerline route, the affected alternative route landscape is associated with historical events such as colonial era white settler migration, colonial wars and the recent African peopling of the region, however, no listed specific historical sites are on the proposed development sites.

12.3. Burial grounds and graves

The field survey did not yield any burial sites within the alternative powerline servitude. Although the possibility of encountering previously unidentified burial sites is low on the transmission powerline project sites, should such sites be identified during subsurface construction work, they are still protected by applicable legislations and they should be protected (also see Appendixes for more details).

12.4. Historical Monuments

There is no listed monuments on record in the vicinity of the Sites of Interest for the proposed powerline development.

13. LOOP IN AND OUT POWERLINES

Archaeological and Heritage Site

The preferred powerline route did not yield any confirmable archaeological sites or material. The affected landscaped is heavily degraded from previous and current agricultural land use or from residential property developments, for any significant in situ sites to be preserved on location. The proposed powerline servitude traverses an approximate length of 8km from T-off from Platreef Substation. The servitude assesse is 32m wide providing the right of way for the distribution lines. Most of the proposed powerline corridor will traverse through agricultural landscape and ploughed fields. There exist residential, subsistence agricultural fields, timber and, grazing land and powerlines, roads and other associated infrastructures across the entire project area.

Historical and Recent sites

No listed specific historical sites are on the proposed development sites.

Burial grounds and graves

The field survey yielded three burial sites near the loop in and out powerline servitude. The burial sites are not fenced but are easily identifiable. One grave was recorded on Burial Site 1; 13 graves were recorded on Burial Site 2; and 27 graves were recorded at Burial Site 3 (see Plates Below).

SUMMARY OF BURIAL SITES ALONG THE LOOP IN AND OUT POWERLINE ROUTE

Burial site	Tombstone	Cement plaster	Stone piles	Children	Adults	Total

1	0	0	1	0	1	1
2	4	6	3	11	2	13
3	5	1	21	0	27	27



Plates 6 and 7: View of a solitary grave near the proposed loop in and out powerline route (Left) and an active burial site near the proposed loop in and out powerline route (Right). Note that the burial sites are located between the road and pipeline servitude in the vicinity of the powerline route (Right).



Plates 10 and 11: Pictorial view of Burial site 3 near the loop in and out powerline route (L) western section of Burial site 3 in vicinity of the site of interest (Right).

Historical Monuments

No listed monuments are on record in the vicinity of the HIA Study Area.

14. DISCUSSION

Although some light potsherd scatters were recorded within sections of the proposed Platreef powerline route, these could not be confirmed as distinct in situ archaeological sites. Site survey did not locate the original source of the potsherds since the scatter were identified in eroded sections suggesting that they were washed down from another sources. However, the potsherds are only a

possible signatures for potential archaeological sites that may be associated with the broader geographic area within which the proposed Platreef powerline is located. Nonetheless, lack of clearly distinguishable archaeological sites recorded during the current survey is thought to be a result of two primary interrelated factors:

1. That the Platreef powerline route is situated within a heavily degraded area, and have reduced sensitivity for the presence of high significance physical cultural site remains, be they archaeological, historical or burial sites, due to previous earth moving disturbances resulting from developments and other land uses in the project area.
2. That the survey focused on sample sections that had high potential to yield possible archaeological sites. Due to the length of the Platreef powerline route, it was impractical to cover every inch of the project area. As such, there is the possibility that low to medium archaeological sites exist in the project area whereas the sampled sections fell outside sections with potential distinct archaeological sites.
3. Limited ground surface visibility on sections of the Platreef powerline project area that were not cleared at the time of the study may have impeded the detection of other physical cultural heritage site remains or archaeological signatures immediately associated with the Platreef powerline site of interest. This factor is exacerbated by the fact that the study was limited to general survey without necessarily conducting any detailed inspection of specific locations that will be affected by the Platreef powerline establishment.

The absence of confirmable and significant archaeological cultural heritage site is not evidence in itself that such sites did not exist in the project area. It may be that, given the dense development in most sections of the Platreef Substation site and powerline route, if such sites existed before, changing earth-moving activities may have destroyed their surficial evidence. Furthermore, some sections were not accessible due to thick vegetation cover. Significance of the Sites of Interest (proposed Platreef Substation and Powerline route) is not limited to presence or absence of physical archaeological sites. Abandoned contemporary homestead remains were recorded in the vicinity of Platreef powerline route and substation site. This confirms the fact that the project area has several generations of human settlements. These discoveries testify to the significance of the project area as a cultural landscape of note, which has discernable links to local oral history and folk stories, environmental and ethnobotanical aesthetics, popular memories etc. associated with significance emanating from intangible heritage of the region.

15. CULTURAL HERITAGE SITE ASSESSMENT OF SIGNIFICANCE

The appropriate management of cultural heritage resources is usually determined on the basis of their assessed significance as well as the likely impacts of any proposed developments. Cultural

significance is defined in the Burra Charter as meaning aesthetic, historic, scientific or social value for past, present or future generations (Article 1.2). Social, religious, cultural and public significance are currently identified as baseline elements of this assessment, and it is through the combination of these elements that the overall cultural heritage values of the site of interest, associated place or area are resolved.

Not all sites are equally significant and not all are worthy of equal consideration and management. The significance of a place is not fixed for all time, and what is considered of significance at the time of assessment may change as similar items are located, more research is undertaken and community values change. This does not lessen the value of the heritage approach, but enriches both the process and the long-term outcomes for future generations as the nature of what is conserved and why, also changes over time (Pearson and Sullivan 1995:7). This assessment of the Indigenous cultural heritage significance of the Site of Interest as its environments of the study area is based on the views expressed by the Claimant and his community representatives consulted, documentary review and physical integrity.

African indigenous cultural heritage significance is not limited to items, places or landscapes associated with pre-European contact. Indigenous cultural heritage significance is understood to encompass more than ancient archaeological sites and deposits, broad landscapes and environments. It also refers to sacred places and story sites, as well as historic sites, including mission sites, memorials, and contact sites. This can also refer to modern sites with particular resonance to the indigenous community. The site of interest considered in this project falls within this realm of broad significance.

16. ASSESSMENT CRITERIA

The Guidelines to the SAHRA Guidelines and the Burra Charter define the following criterion for the assessment of cultural significance:

Aesthetic Value

Aesthetic value includes aspects of sensory perception for which criteria can and should be stated. Such criteria may include consideration of the form, scale, colour, texture and material of the fabric; sense of place, the smells and sounds associated with the place and its use.

Historic Value

Historic value encompasses the history of aesthetics, science and society, and therefore to a large extent underlies all of the terms set out in this section. A place may have historic value

because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives in situ, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

Scientific value

The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information. Scientific value is also enshrined in natural resources that have significant social value. For example, pockets of forests and bushvelds have high ethnobotany value.

Social Value

Social value embraces the qualities for which a place has become a focus of spiritual, religious, political, local, national or other cultural sentiment to a majority or minority group. Social value also extend to natural resources such as bushes, trees and herbs that are collected and harvested from nature for herbal and medicinal purposes.

17. STATEMENT OF SIGNIFICANCE

Aesthetic Value

The aesthetic values of the HIA Study Area (Platreef powerline site, the {Platreef Substation and associated loop-in and loop-out powerlines) and the overall project area are contained in the valley bushveld environment and landscape typical of this part of the Limpopo Province. The visual and physical relationship between HIA study area and the surrounding historical Cultural Landscape demonstrates the connection of place to the local and oral historical stories of the African communities who populated this region going back into prehistory.

The proposed Platreef powerline development will be situated within an environment and associated cultural landscape, which, although developed by existing settlements, remains representative of the original historical environment and cultural landscape of this part of Limpopo area. The local communities consider the project area a cultural landscape linked to their ancestors and history. However, the proposed developments will not alter this aesthetic value in any radical way since it will add to the constantly changing and developing settlements.

Historic Value

The Indigenous historic values of the Sites of Interest and overall study area are contained in the claim of possible historic homesteads being located on the affected area. The history of generations of the Sotho-Tswana clans is tied to this geographical region. Such history goes back to the pre-colonial period, through the colonial era, the colonial wars and subsequent colonial rule up to modern day Limpopo.

Scientific value

Past settlements and associated roads, mines and other auxiliary infrastructure developments and disturbance within the HIA Study Area associated with the proposed Platreef powerline and substation site has resulted in limited intact landscape with the potential to retain intact large scale or highly significant open archaeological site deposits. Disturbed potential archaeological deposits represented by identified potsherd scatters are present within the project area, but the overall integrity of such archaeological deposits is considered to be low. In the absence of a confirmable archaeological site, the limited archaeological material associated with the potsherd scatter sites recorded during this study have low scientific value since they have no provenance or context. However, should intact archaeological sites be recorded within the Platreef Substation site and Powerline Route and immediate surrounding areas, they may retain scientific evidence that may add value to the local and regional history.

Social Value

The project sites fall within a larger and an extensive Limpopo cultural landscape that is integrated with the wider inland northeast Limpopo region. The overall area has social value for the local community, as is the case with any populated landscape. Literature review suggests that social value of the overall project area is also demonstrated through local history which associates the area with the rise of Shaka's Zulu Kingdom in the early 1800s from the east coast, the subsequent mfecane, the African struggle against settler colonialism in the second half of the 1800s and at the end of the 1800s, the colonial wars of resistance, the century long struggle for democracy that followed colonial subjugation. Several generations of communities originate from the project area and continue to call it home. As such, they have ancestral ties to the area. The land also provides the canvas upon which daily socio-cultural activities are painted. The remains of historic homesteads recorded in the project area testify to the fact of generational homes and settlements. All these factors put together confirms the social significance of the project area. However, this social significance is unlikely to be negatively impacted by the proposed Platreef powerline development especially given the fact that the development will add value to the human settlements and activities already taking place.

Sections of the Platreef powerline site covered in thick bushes and vegetation retain social value as sources of important herbs and traditional medicines. As such, they must be considered as significant social value sites.

18. CONCLUSIONS AND RECOMMENDATIONS

The only significant heritage sites recorded in the HIA study Area are three burial grounds associated the terminal position of the loop in and out powerline. These sites are highly significant and may not be disturbed under any circumstances during the proposed development. As such, should the development be cleared to proceed, the final location of the loop-in and loop-out lines should be at least 50m from the identified graves.

The study did not find any permanent barrier to the proposed Platreef Substation and powerline developments. As such, it is recommended to the heritage authority that the development be cleared to proceed subject to specified recommendations made in the following sections. The following recommendations are based on the results of the A/HIA research, cultural heritage background review, site inspection and assessment of significance.

18.1. Management & Policy Recommendations

Community Advisory

Should community consultations being held through the project EIA PPP refer to any cultural issues associated with the project area, such matters should be addressed adequately. The proposed Platreef Substation and Powerline Routes are associated with existing rural communities and a heritage or cultural aspirations they have that may potentially be affected by the development should be acknowledged should they be identified in the course of the proposed development. To date, the PPP consultation process has not identified cultural heritage contestation to the project.

Recommendation 1

The Project Public Participation Process should ensure that any cultural heritage related matter for this project is given due attention whenever it arises and is communicated PHRA-G throughout the proposed project development. This form of extended community involvement would pre-empt any potential disruptions that may arise from previously unknown cultural heritage matter that may have escaped the attention of this study.

18.2. Indigenous African Cultural Places

The identified abandoned contemporary house requires careful planning during the proposed development should the final site traverse through such sites. Furthermore, there are portions of the Platreef powerline route that are covered by dense vegetation. Such areas retain high social significance associated with ethno-botany, which makes such area potential sources of traditional herbs and medicines.

Recommendation 2

- Location of Platreef powerline infrastructure should be restricted to minimum footprint impact especially where such infrastructure fall within bushy area. Such bushy sections have local ethno-botany significance as sources of traditional herbs and medicines. As such disruption and vegetation clearance should be minimal.
- Preserved bushveld areas should be protected for ethnobotany significance. As such this development should avoid excessive vegetation clearance during the development.

18.3. Archaeological Graves and Burial & Cultural Heritage Sites

No intact surface archaeological heritage deposits were recorded within the study area. Insignificant light potsherd scatters were recorded in eroded sections of the Platreef powerline route. These scatters testify to possibility of identifying in situ archeological sites. Furthermore, the general project area's extensive history of indigenous activity is such that it is possible that remnant or isolated archaeological and historical artifacts or heritage sites may be present in areas that have minor disturbance and development along the proposed Platreef powerline servitude. Therefore no direct conflicts between archaeological sites and the proposed development are anticipated when construction begins.

The three burial sites recorded during the survey are located within close proximity in the receiving environment for the loop-in and loop-out powerlines. These site may be avoided by shifting the powerline route further west of the current route. Alternatively pylon positions may be shifted in such a manner that allows the three burial sites to be preserved and protected in situ.

Recommendation 3

An Archaeologist should be retained to conduct an Archaeological Walk-down survey of the Platreef powerline route once the development has been approved and a final route plan issued. This would be a cautionary measure to ensure that no infrastructure will be positioned on any potential or previously unidentified archaeological sites or material.

Recommendation 4

From a heritage point of view both the preferred route and the alternative route are feasible. However, the proposed Platreef powerline development should be approved to proceed as planned under observation that construction work does not extend beyond the surveyed Platreef substation site and powerline route. The foot print impact of the proposed Platreef powerline development and associated substation infrastructure should be kept to minimal to limit the possibility of encountering chance finds within servitude and surrounded areas around the substation site.

Recommendation 5

- In situations where unpredicted impacts occur (such as accidentally disturbing a previously unknown grave), construction activities should be stopped and the heritage authority notified immediately. In the unlikely event of chance archaeological material or previously unknown human remains being disturbed during subsurface construction, the finds should be left in situ subject to further instruction from the project archaeologist or heritage authorities (refer to Appendixes 1 - 4 for additional details). The overriding objective, where remedial action is warranted, is to minimize disruption in construction scheduling while recovering archaeological and any affected cultural heritage data as stipulated by the PHRA-G and NHRA regulations.
- A professional archaeologist should be retained to monitor all significant earth moving activities that may be implemented as part of the proposed Platreef powerline development. The monitoring process would ensure that should any archaeological or human remains be disturbed during subsurface construction work at the Sites of Interest, immediate remedial rescue and salvage work would be actioned without delay.

The recommended heritage monitoring operations will not stop works but will form part of the proposed project's construction EMP in line with best-practice heritage procedures.

18.4. Interpretation & Active Management Recommendations

The African communities have a long and significant connection with project area. Like any other generational society, there are several other cultural activities that take place within the affected settlement areas associated with the proposed Platreef powerline development.

Recommendation 7

Although the possibility of conflict between the community and the proposed development related to culture heritage is unlikely, PHRA should acknowledge on behalf of the community, that the project area is situated in a culturally significant landscape associated with African local history and cultural activities. PHRA may also acknowledge that such

significance is not tied to physical sites or archaeological sites only, but to intangible heritage such as popular memories, oral history, ancestral remembrance, religious rituals, aesthetic appreciations, living experiences and folklores. As such, the community retains the right to have their constitutionally guaranteed cultural heritage rights respected and protected without being limited to existence of physical evidence such as archaeological sites. Should such issues arise in association with this proposed development, adequate attention should be devoted by the proponent, PHRA and community to address them?

Recommendation 8

Subject to the recommendations herein made, there are no significant cultural heritage resources barriers to the proposed Platreef powerline and substation development in the Limpopo Province. The PHRA may approve the proposed development to proceed as planned with special commendations to implement the recommendations here in made.

19. CONCLUDING REMARKS

The literature review and field research confirmed that the project area is situated within a contemporary cultural landscape dotted with settlements with long local history. Field survey was conducted during which it was established that the affected project area is degraded by existing developments. Although the area is degraded, there is a possibility that the HIA Study Area Site of Interest is part of a wider archaeological and historical site within and significant cultural landscape. Sites with light scatters of potsherds testify to this and these were recorded pointing to the potential of the area to yield archaeological sites. Historical and contemporary cultural sites were recorded. However, all recorded sites either have low significance or are not under direct threat from the proposed development. Nonetheless, the potsherd scatter signatures triggered the necessity to conduct a detailed Archaeological Walk-down survey once the exact location of the proposed Platreef powerline infrastructure is approved. The survey will cover the specific infrastructure positions of each powerline pylon.

This report conclude that the proposed Platreef powerline development may be approved by LIHRA to proceed as planned subject to recommendations herein made which include a conditional walk-down survey of the Platreef powerline site heritage monitoring plan being incorporated into the construction EMP (also see Appendices). The measures are informed by the results of the HIA study and principles of heritage management enshrined in the NHRA, Act 25 of 1999.

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21. APPENDIX 1: HUMAN REMAINS AND BURIALS IN DEVELOPMENT CONTEXT

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Developers, land use planners and professional specialist service providers often encounter difficult situations with regards to burial grounds, cemeteries and graves that may be encountered in development contexts. This may be before or during a development project. There are different procedures that need to be followed when a development is considered on an area that will impact upon or destroy existing burial grounds, cemeteries or individual graves. In contexts where human remains are accidentally found during development work such as road construction or building construction, there are different sets of intervention regulations that should be instigated. This brief is an attempt to highlight the relevant regulations with emphasis on procedures to be followed when burial grounds, cemeteries and graves are found in development planning and development work contexts. The applicable regulations operate within the national heritage and local government legislations and ordinances passed in this regard. These guidelines assist you to follow the legal pathway.

1. First, establish the context of the burial:

A. Are the remains less than 60 years old? If so, they may be subject to provisions of the Human Tissue Act, Cemeteries Ordinance(s) and to local, regional, or municipal regulations, which vary from place to place. The finding of

such remains must be reported to the police but are not automatically protected by the National Heritage Resources Act (Act 25 of 1999).

B. Is this the grave of a victim of conflict? If so, it is protected by the National Heritage Resources Act (Section 36(3a)). (Relevant extracts from the Act and Regulations are included below).

C. Is it a grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority? If so, it is protected by the National Heritage Resources Act (Section 36(3b)).

D. Are the human or hominid remains older than 100 years? If so, they are protected by the National Heritage Resources Act (Section 35(4), see also definition of “archaeological” in Section 2).

2. Second, refer to the terms of the National Heritage Resources Act most appropriate to the situation, or to other Acts and Ordinances:

A. Human remains that are NOT protected in terms of the National Heritage Resources Act (i.e. less than 60 years old and not a grave of a victim of conflict or of cultural significance) are subject to provisions of the Human Tissue Act and to local and regional regulations, for example Cemeteries Ordinances applicable in different Provincial and local Authorities.

B). All finds of human remains must be reported to the nearest police station to ascertain whether or not a crime has been committed.

C). If there is no evidence for a crime having been committed, and if the person cannot be identified so that their relatives can be contacted, the remains may be kept in an

institution where certain conditions are fulfilled. These conditions are laid down in the Human Tissue Act (Act No. 65 of 1983). In contexts where the local traditional authorities given their consent to the unknown remains to be re-buried in their area, such re-interment may be conducted under the same regulations as would apply for known human remains.

3. In the event that a graveyard is to be moved or developed for another purpose, it is incumbent on the local authority to publish a list of the names of all the persons buried in the graveyard if there are gravestones or simply a notification that graves in the relevant graveyard are to be disturbed. Such a list would have to be compiled from the names on the gravestones or from parish or other records. The published list would call on the relatives of the deceased to react within a certain period to claim the remains for re-interment. If the relatives do not react to the advertisement, the remains may be re-interred at the discretion of the local authority.

A. However, it is the responsibility of the developer to ensure that none of the affected graves within the cemetery are burials of victims of conflict. The applicant is also required in line with the heritage legislation to verify that the graves have no social significance to the local communities.

B. It is illegal in terms of the Human Tissue Act for individuals to keep human remains, even if they have a permit, and even if the material was found on their own land.

4. The Exhumations Ordinance (Ordinance No. 12 of 1980 and as amended) is also relevant. Its purpose is “To prohibit the desecration, destruction and damaging of graves in cemeteries and receptacles containing bodies; to regulate the exhumation, disturbance, removal and re-interment of bodies, and to provide for matters incidental thereto”. This ordinance is supplemented and support by local authorities regulations, municipality by-laws and ordinances.

DEFINITIONS AND APPLICABLE REGULATIONS

- 1). A “Cemetery” is defined as any land, whether public or private, containing one or more graves.
- 2). A “grave” includes “(a) any place, whether wholly or partly above or below the level of ground and whether public or private, in which a body is permanently interred or intended to be permanently interred, whether in a coffin or other receptacle or not, and (b) any monument, tombstone, cross, inscription, rail, fence, chain, erection or other structure of whatsoever nature forming part of or appurtenant to a grave.
- 3). No person shall desecrate, destroy or damage any grave in a cemetery, or any coffin or urn without written approval of the Administrator.
- 4). No person shall exhume, disturb, remove or re-inter anybody in a cemetery, or any coffin or urn without written approval of the Administrator.

5). Application must be made for such approval in writing, together with:

- a). A statement of where the body is to be re-interred.
 - b). Why it is to be exhumed.
 - c). The methods proposed for exhumation.
 - d). Written permission from local authorities, nearest available relatives and their religious body owning or managing the cemetery, and where all such permission cannot be obtained, the application must give reasons why not.
- 6). The Administrator has the power to vary any conditions and to impose additional conditions.
- 7). Anyone found guilty and convicted is liable for a maximum fine of R200 and maximum prison sentence of six months.

5. Human remains from the graves of victims of conflict, or any burial ground or part thereof which contains such graves and any other graves that are deemed to be of cultural significance may not be destroyed, damaged, altered, exhumed or removed from their original positions without a permit from the National Heritage Resources Agency. They are administered by the Graves of Conflict Division at the SAHRA offices in Johannesburg.

“Victims of Conflict” are:

- a). Those who died in this country as a result of any war or conflict but excluding those covered by the Commonwealth War Graves Act, 1992 (Act No. 8 of 1992).
- b). Members of the forces of Great Britain and the former British Empire who died in active service before 4 August 1914.

c). Those who, during the Anglo Boer War (1899-1902) were removed from South Africa as prisoners and died outside South Africa, and,

d). Those people, as defined in the regulations, who died in the “liberation struggle” both within and outside South Africa.

6. Any burial that is older than 60 years, which is outside a formal cemetery administered by a local authority, is protected in terms of Section 36(3b) of the National Heritage Resources Act. No person shall destroy damage, alter, exhume or remove from its original position, remove from its original site or export from the Republic any such grave without a permit from the SAHRA.

There are some important new considerations applicable to B & C (above).

SAHRA may, for various reasons, issue a permit to disturb a burial that is known to be a grave of conflict or older than 65 years, or to use, at a burial ground, equipment for excavation or the detection or the recovery of metals.

(Permit applications must be made on the official form Application for Permit: Burial Grounds and Graves available from SAHRA or provincial heritage resources authorities.) Before doing so, however, SAHRA must be satisfied that the applicant:

- a). Has made satisfactory arrangements for the exhumation and re- interment of the contents of such a grave at the cost of the applicant.
- b). Has made a concerted effort to contact and consult communities and individuals who

by tradition have an interest in such a grave and,

c). Has reached an agreement with these communities and individuals regarding the future of such a grave or burial ground.

PROCEDURE FOR CONSULTATION

The regulations in the schedule describe the procedure of consultation regarding the burial grounds and graves. These apply to anyone who intends to apply for a permit to destroy damage, alter, remove from its original position or otherwise disturb any grave or burial ground older than 60 years that is situated outside a formal cemetery administered by a local authority. The applicant must make a concerted effort to identify the descendants and family members of the persons buried in and/or any other person or community by tradition concerned with such grave or burial ground by:

- 1). Archival and documentary research regarding the origin of the grave or burial ground;
- 2). Direct consultation with local community organizations and/or members;
- 3). The erection for at least 60 days of a notice at the grave or burial ground, displaying in all the official languages of the province concerned, information about the proposals affecting the site, the telephone number and address at which the applicant can be contacted by any interested person and the date by which contact must be made, which

must be at least 7 days after the end of the period of erection of the notice; and

4). Advertising in the local press.

The applicant must keep records of the actions undertaken, including the names and contact details of all persons and organizations contacted and their response, and a copy of such records must be submitted to the provincial heritage resources authority with the application.

Unless otherwise agreed by the interested parties, the applicant is responsible for the cost of any remedial action required.

If the consultation fails to reach an agreement, the applicant must submit records of the consultation and the comments of all interested parties as part of the application to the provincial heritage resources authority.

In the case of a burial discovered by accident, the regulations state that when a grave is discovered accidentally in the course of development or other activity:

- a). SAHRA or the provincial heritage resources authority (or delegated representative) must, in co-operation with the Police, inspect the grave and decide whether it is likely to be older than 60 years or otherwise protected in terms of the Act; and whether any further graves exist in the vicinity.
- b). If the grave is likely to be so protected, no activity may be resumed in the immediate vicinity of the grave, without due investigation approved by SAHRA or the provincial heritage resources authority; and
- c). SAHRA or the provincial heritage resources authority may at its discretion modify these

provisions in order to expedite the satisfactory resolution of the matter.

d. Archaeological material, which includes human and hominid remains that are older than 100 years (see definition in section 2 of the Act), is protected by the National Heritage Resources Act (Section 35(4)), which states that no person may, without a permit issued by the responsible heritage resources authority - destroy, damage, excavate, alter or remove from its original site any archaeological or palaeontological material.

The implications are that anyone who has removed human remains of this description from the original site must have a permit to do so. If they do not have a permit, and if they are convicted of an offence in terms of the National Heritage Resources Act as a result, they must be liable to a maximum fine of R100 000 or five years imprisonment, or both.

TREAT HUMAN REMAINS WITH RESPECT

a). Every attempt should be made to conserve graves in situ. Graves should not be moved unless this is the only means of ensuring their conservation.

b). The removal of any grave or graveyard or the exhumation of any remains should be preceded by an historical and archaeological report and a complete recording of original location, layout, appearance and inscriptions by means of measured drawings and photographs. The report and recording should be placed in a permanent archive.

c). Where the site is to be re-used, it is essential that all human and other remains be properly exhumed and the site left completely clear.

d). Exhumations should be done under the supervision of an archaeologist, who would assist with the identification, classification, recording and preservation of the remains.

e). No buried artifacts should be removed from any protected grave or graveyard without the prior approval of SAHRA. All artifacts should be re-buried with the remains with which they are associated. If this is not possible, proper arrangements should be made for the storage of such relics with the approval of SAHRA.

f). The remains from each grave should be placed in individual caskets or other suitable containers, permanently marked for identification.

g). The site, layout and design of the area for re-interment should take into account the history and culture associated with, and the design of, the original grave or graveyard.

h). Re-burials in mass graves and the use of common vaults are not recommended.

i). Remains from each grave should be re-buried individually and marked with the original grave markers and surrounds.

j). Grouping of graves, e.g. in families, should be retained in the new layout.

k). Material from the original grave or graveyard such as chains, kerbstones, railing and should be re-used at the new site wherever possible.

l). A plaque recording the origin of the graves should be erected at the site of re-burial.

m). Individuals or groups related to the deceased who claim the return of human remains in museums and other institutions should be assisted to obtain documentary proof of their ancestral linkages.
