

# **Heritage Impact Assessment**

## **Riemland Institution Development**

Heritage Impact Assessment for the Proposed Riemland Institution Development on the Farm Bornst 107 LS near Mogwadi, Makhado Local Municipality, Limpopo Province.

**Compiled for:**  
Tekplan Environmental

**Survey conducted & Report compiled by:**  
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**15 January 2016**

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# Executive Summary

**Site name and location:** Proposed Riemland Institution development on Portion 4 of the Farm Bornst 107 LS, approximately 15 km north of Mogwadi, in the Makhado Local Municipality, Limpopo Province.

**Local Authority:** Makhado Local Municipality.

**Developer:** Afrikaanse Protestantse Kerk Dendron

**Date of field work:** 03 December 2015.

**Date of report:** 15 January 2016.

**Findings:** Hutten Heritage Consultants was contracted by Tekplan Environmental to conduct a Heritage Impact Assessment (HIA) for the proposed Riemland Institution development on Portion 4 of the Farm Bornst 107 LS, approximately 15km north of Mogwadi, in the Makhado Local Municipality, Limpopo Province.

An archival and historical desktop study was undertaken which was used to compile a historical layering of the study area within its regional context. This component indicated that the landscape within which the project area is located has a rich and diverse history. However, the desktop study did not reveal any historic or heritage sites from within the specific locations of the study area.

The Sahris Palaeontological Sensitivity Map was also consulted and it was found that the palaeontological sensitivity for the study area is insignificant or zero and that no palaeontological studies are required.

The desktop study was followed by a fieldwork component which comprised an inspection of the study area. The study area is largely undisturbed and no sites of heritage value or significance were identified.

As for the proposed site, no site-specific actions or any further heritage mitigation measures are recommended as no heritage resource sites or finds of any value or significance were identified in the indicated study area. The proposed Riemland Institution development on Portion 4 of the Farm Bornst 107 LS, at the indicated area can continue from a heritage point of view.

**Disclaimer:** *Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites and/or graves could be overlooked during the study. Hutten Heritage Consultants and its personnel will not be held liable for such oversights or for costs incurred as a result of such oversights.*

## TABLE OF CONTENTS

<b>1. INTRODUCTION</b> .....	<b>1</b>
<b>2. LEGISLATIVE REQUIREMENTS</b> .....	<b>1</b>
<b>3. PROJECT AREA DESCRIPTION</b> .....	<b>2</b>
<b>4. PROPOSED PROJECT</b> .....	<b>7</b>
<b>5. DESKTOP STUDY FINDINGS</b> .....	<b>10</b>
5.1. PREVIOUS HERITAGE STUDIES .....	<b>ERROR! BOOKMARK NOT DEFINED.</b>
5.2. ARCHAEOLOGICAL & HISTORICAL SEQUENCE.....	<b>ERROR! BOOKMARK NOT DEFINED.</b>
5.3. PALAEOLOGY .....	14
<b>6. ASSESSMENT CRITERIA</b> .....	<b>15</b>
6.1. SITE SIGNIFICANCE .....	16
6.2. IMPACT RATING:.....	16
6.3. CERTAINTY .....	17
6.4. DURATION .....	17
6.5. MITIGATION.....	17
<b>7. METHODOLOGY</b> .....	<b>17</b>
7.1. PHYSICAL SURVEY .....	17
7.2. INTERVIEWS.....	18
7.3. RESTRICTIONS .....	18
7.4. DOCUMENTATION .....	18
<b>8. ASSESSMENT OF SITES AND FINDS</b> .....	<b>20</b>
RIEMLAND INSTITUTION DEVELOPMENT .....	20
<b>9. CONCLUSION AND RECOMMENDATIONS</b> .....	<b>21</b>
RIEMLAND INSTITUTION DEVELOPMENT .....	21
<b>10. REFERENCES</b> .....	<b>22</b>

## TABLE OF FIGURES

Figure 1: View of the ploughed crop circle to the north of the study area. ....	3
Figure 2: View of the typical Bushveld vegetation across the study area. ....	3
Figure 3: View of the cattle tracks a cross the study area. ....	3
Figure 4: View of the large cement dam within the study area. ....	3
Figure 5: View of the borehole and pump on southern side of the study area.....	4
Figure 6: View of the power line adjacent and on the southern side of the study area. ....	4
Figure 7: General topographical map of the proposed study area. ....	5
Figure 8: Satellite image of the proposed study area. ....	6
Figure 9: Proposed location of the Riemland Institution on Portion 4 of the Farm Bornst (Coloured in blue - as supplied by the developer). ....	8
Figure 10: Proposed Riemland Institution development layout plan (as supplied by the developer). ....	9
Figure 11: Palaeontological Sensitivity Map of the study area indicated in blue (Sahris Palaeosensitivity Map). ....	15
Figure 12: Topographic map of the study area with the track log. ... <b>Error! Bookmark not defined.</b>	
Figure 13: Satellite image of the study area with the track log .....	19
Figure 14: View of the typical Bushveld vegetation across the study area. ....	20
Figure 15: View of the large cement dam within the study area. ....	20

## **1. Introduction**

Hutten Heritage Consultants was contracted by Tekplan Environmental to conduct a Heritage Impact Assessment (HIA) for the proposed Riemland Institution development on Portion 4 of the Farm Bornst 107 LS, approximately 15km north of Mogwadi, in the Makhado Local Municipality, Limpopo Province.

The aim of the study was to identify all heritage sites, to document and to assess their significance within Local, Provincial and National context. The report outlines the approach and methodology implemented before and during the survey, which includes in Phase 1: Information collection from various sources and social consultations; Phase 2: Physical surveying of the area on foot and by vehicle; and Phase 3: Reporting the outcome of the study.

This HIA forms part of the Environmental Impact Assessment (EIA) as required by various Acts and Laws as described under the next heading and is intended for submission to the provincial South African Heritage Resources Agency (SAHRA) for peer review.

Minimum standards for reports, site documentation and descriptions are set by the Association of Southern African Professional Archaeologists (ASAPA) in collaboration with SAHRA. ASAPA is a legal body representing professional archaeology in the Southern African Development Community (SADC) region.

The extent of the proposed development site was determined as well as the extent of the areas to be affected by secondary activities (access routes, construction camps, etc.) during the development.

## **2. Legislative Requirements**

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 the identification, evaluation and assessment of cultural heritage resources.

National Environmental Management Act (NEMA) Act 107 of 1998  
Basic Environmental Assessment (BEA) – Section (23)(2)(d)

Environmental Scoping Report (ESR) – Section (29)(1)(d)  
Environmental Impacts Assessment (EIA) – Section (32)(2)(d)  
Environmental Management Plan (EMP) – Section (34)(b)  
National Heritage Resources Act (NHRA) Act 25 of 1999  
Protection of Heritage resources – Sections 34 to 36; and  
Heritage Resources Management – Section 38  
Minerals and Petroleum Resources Development Act (MPRDA) Act 28 of 2002  
Section 39(3)  
Development Facilitation Act (DFA) Act 67 of 1995  
The GNR.1 of 7 January 2000: Regulations and rules in terms of the Development  
Facilitation Act, 1995. Section 31.

### **3. Project Area Description**

The proposed Riemland Institution development will be situated on Portion 4 of the Farm Bornst 107 LS, approximately 15km north of Mogwadi, in the Makhado Local Municipality, Limpopo Province.

The proposed site for the development is situated on the southern extend of the property and adjacent and on the southern side of a ploughed and planted crop circle (figure 1). The proposed area measures approximately 3 hectares in size and will host several facilities for the proposed Riemland Institution.

The site is flat and has typical Bushveld vegetation (figure 2). This part of the property is largely used for the grazing of animals and a few cattle tracks (figure 3) cross the proposed site. The area is largely undisturbed except for a large cement dam (figure 4) in the central part and a borehole and pump (figure 5) on the southern edge of the proposed area. A power line (figure 6) is situated adjacent and along the southern boundary of the proposed area.

The proposed development will be situated on the Vivo 2329 AB 1:50 000 topographical map.



Figure 1: View of the ploughed crop circle to the north of the study area.



Figure 2: View of the typical Bushveld vegetation across the study area.



Figure 3: View of the cattle tracks across the study area.



Figure 4: View of the large cement dam within the study area.





Figure 5: View of the borehole and pump on southern side of the study area.



Figure 6: View of the power line adjacent and on the southern side of the study area.

# Riemland Institution Development

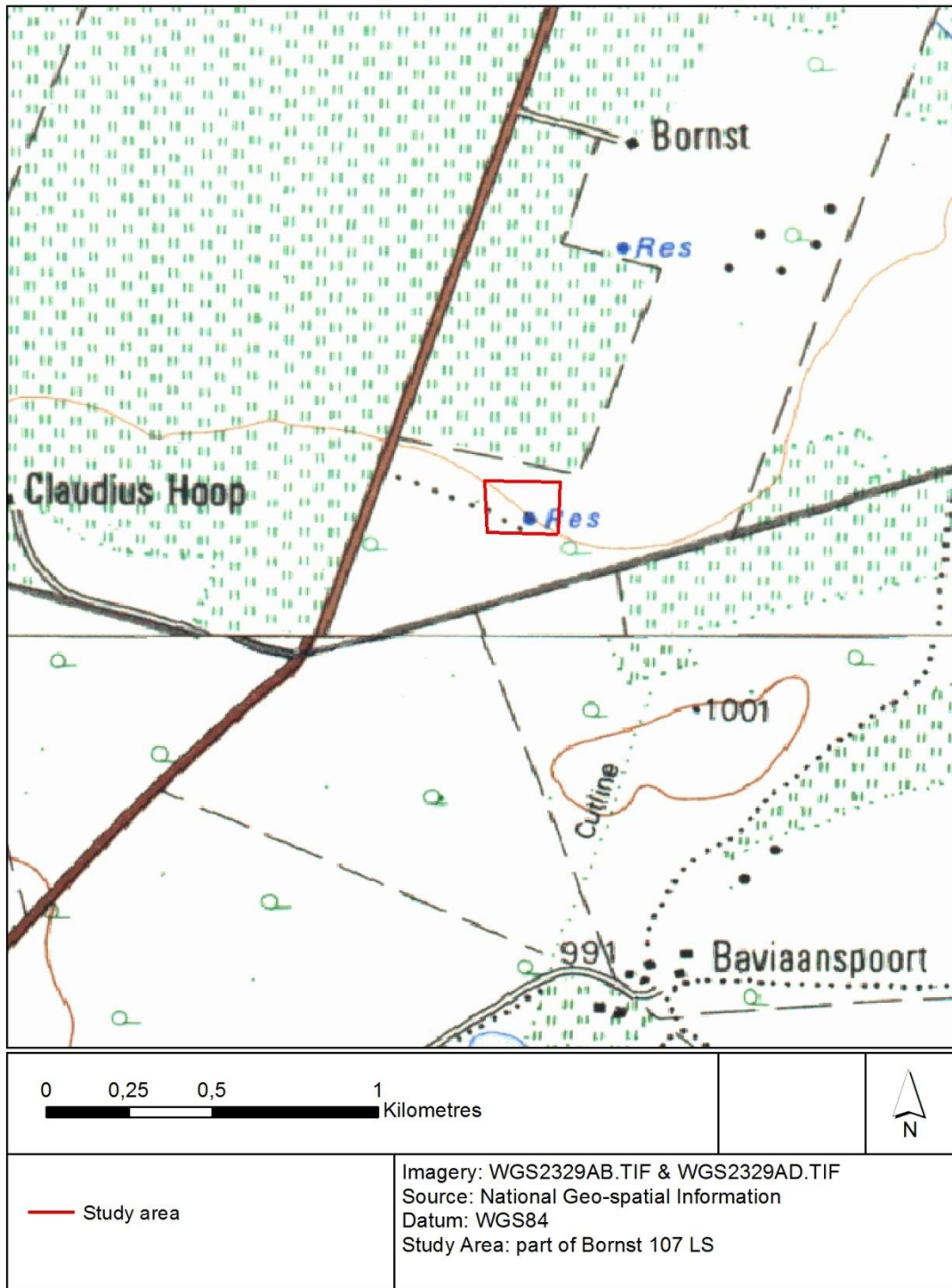


Figure 7: General topographical map of the proposed study area.

## Riemland Institution Development

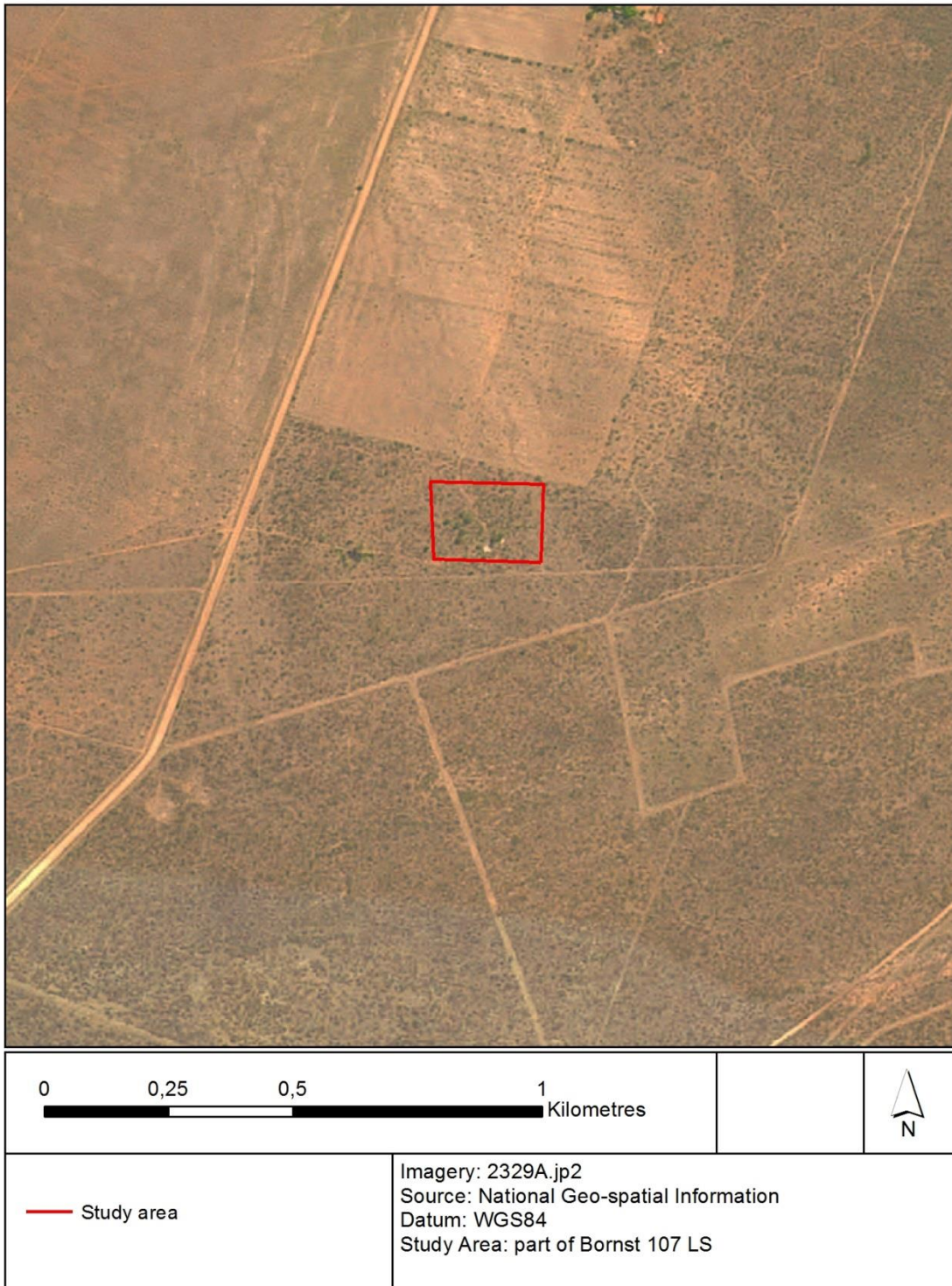


Figure 8: Satellite image of the proposed study area.

## 4. Proposed Project

The developer, the Afrikaanse Protestantse Kerk Dendron, has proposed the development of the Riemland Institution development on Portion 4 of the Farm Bornst 107 LS approximately 15km north of Mogwadi in the Makhado Local Municipality, Limpopo Province.

The proposed development will include the development of the following:

- Church and Facilities ( approx. 1200m<sup>2</sup> in size),
- Old Age Home (approx. 3000m<sup>2</sup> in size),
- Parking area (approx. 9000m<sup>2</sup> in size),
- Cemetery (approx. 3000m<sup>2</sup> in size)

The proposed site for the Riemland Institution development measures approximately 3 hectares in size. The proposed development will cover most of the area within the study area (see figures 9 – 10: development layout plans).

The purpose of the study was to determine if the proposed area was suitable for the Riemland Institution development from a heritage point of view.

The project was tabled during November 2015 and the developer intends to commence as soon as possible after receipt of the ROD from the Department of Environmental Affairs.

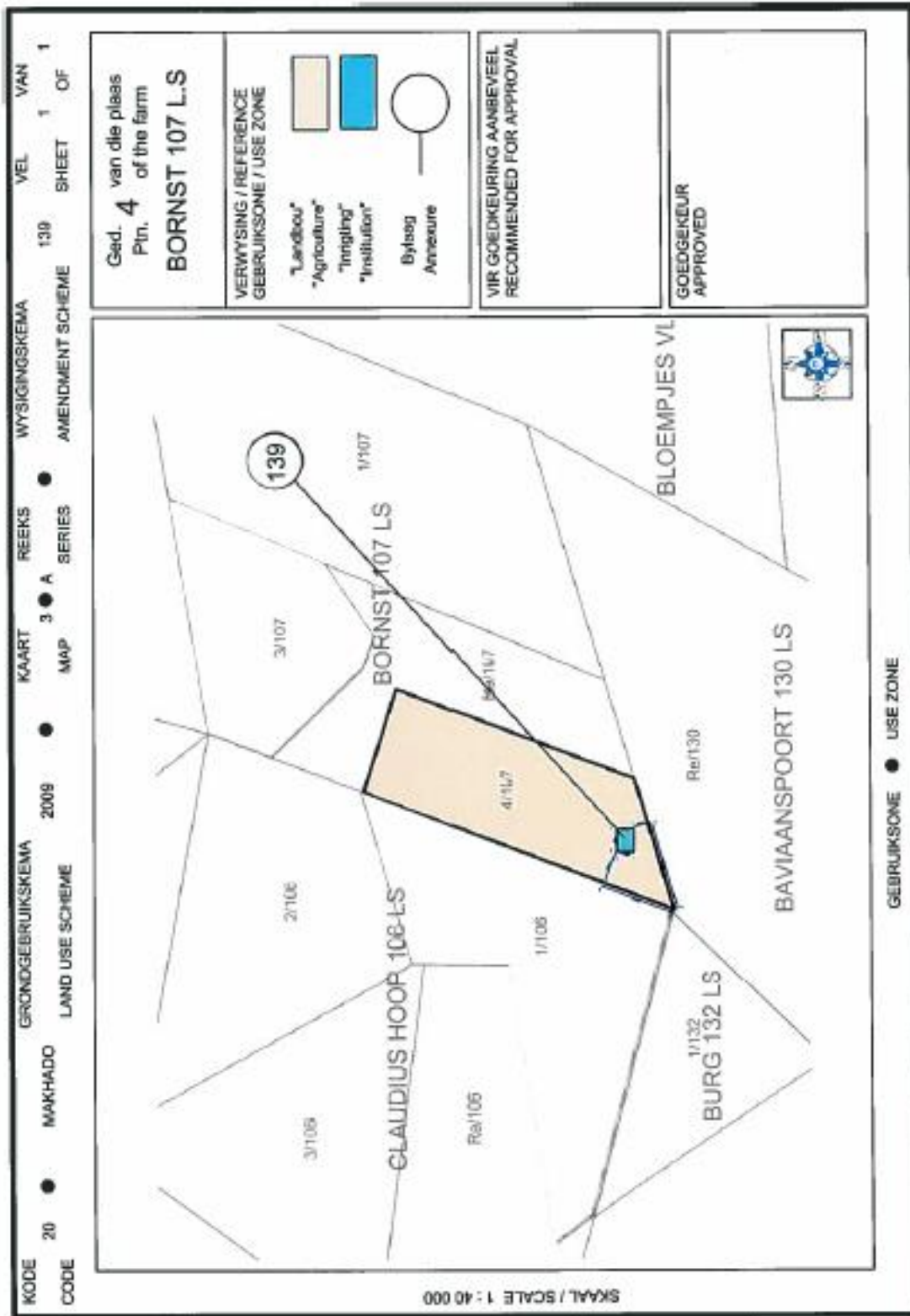


Figure 9: Proposed location of the Riemland Institution on Portion 4 of the Farm Bornst (Coloured in blue - as supplied by the developer).

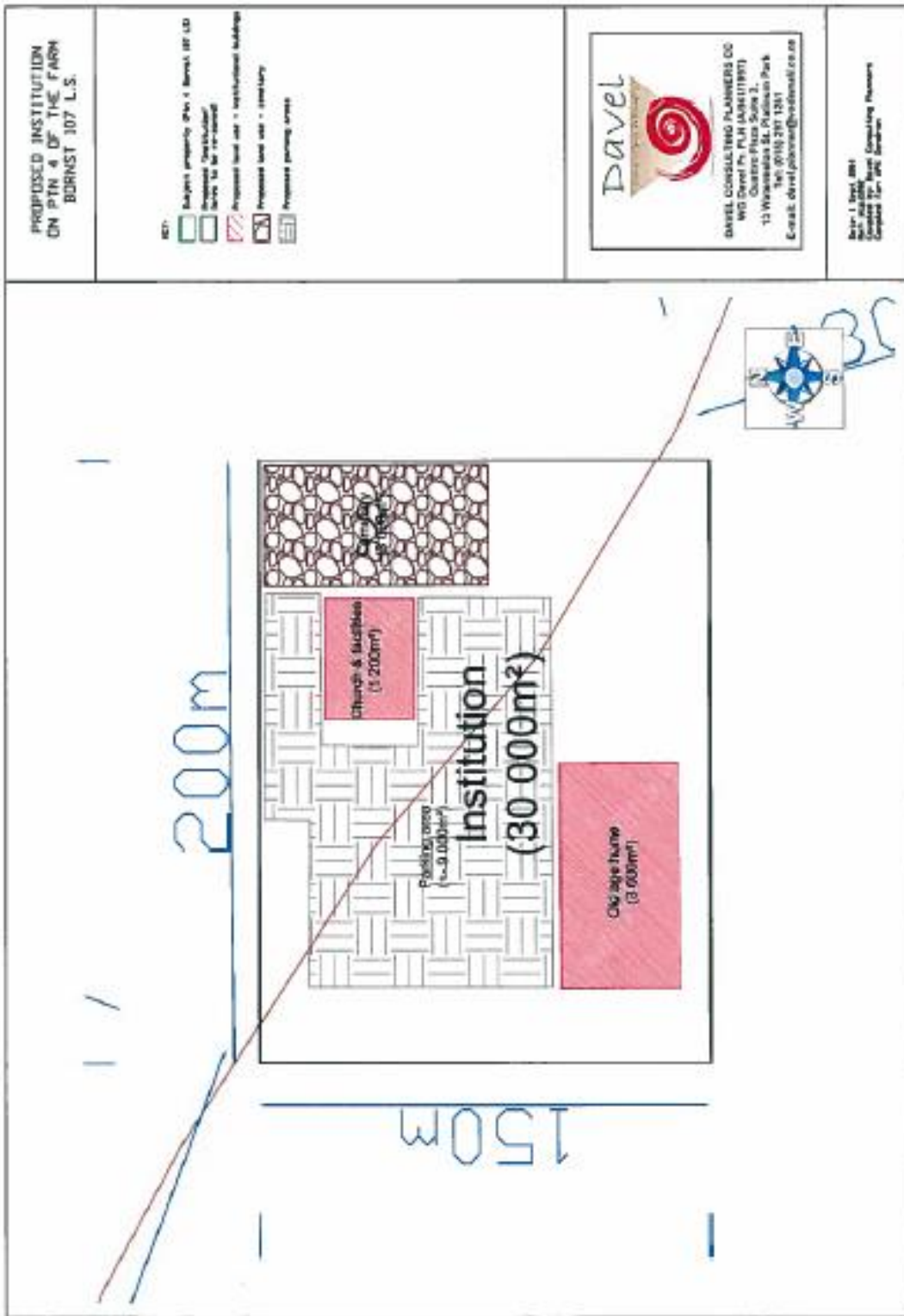


Figure 10: Proposed Riemland Institution development layout plan (as supplied by the developer).

## 5. Desktop Study Findings

The examination of heritage databases, historical data and cartographic resources represents a critical additional tool for locating and identifying heritage resources and in determining the historical and cultural context of the study area. Therefore an internet literature search was conducted and relevant archaeological and historical texts were also consulted. Relevant topographic maps and satellite imagery were studied.

### Previous Studies

Researching the SAHRA APM Report Mapping Project records and the SAHRIS online database (<http://www.sahra.org.za/sahris>), it was determined that a few other archaeological or historical studies have been performed within the wider vicinity of the study area. Previous studies listed for the area in the APM Report Mapping Project included several surveys within the area listed in chronological order below:

Roodt, H. 1999a. **Phase 1 Archaeological Impact Assessment: Low Cost Housing Project, Part of Bochum N. 178 LS Bochum, Northern Province.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as: 1999-SAHRA-0021.

Roodt, H. 1999b. **Phase 1 Archaeological Impact Assessment - Solid Waste Disposal Dendron Ndc Duitschland 169 LS, Northern Province.** An unpublished report by R & R Cultural Resource Consultants on file at SAHRA as: 1999-SAHRA-0044.

Gaigher, S. 2002. **Heritage Impact Assessment for Upgrading of 10 km of Road: Evaluation of the Heritage Component of the EIA for the Upgrading of 10km of Road West of Bochum, Limpopo Province.** An unpublished report by Archaeo-Info on file at SAHRA as: 2002-SAHRA-0051.

Murimbika, M. 2006a. **Archaeological Impact Assessment Study for the Proposed Construction of Electricity Distribution Powerlines, Limpopo Province.** An unpublished report by Nzumbululo Heritage Solutions on file at SAHRA as: 2006-SAHRA-0400.

Murimbika, M. 2006b. **Archaeological Impact Assessment Study for the Proposed Construction of Electricity Distribution Powerlines Within, Limpopo Province.** An unpublished report by Nzumbululo Heritage Solutions on file at SAHRA as: 2006-SAHRA-0443.

Munyai, R. & Roodt, F. 2008a. **Phase 1 Heritage Impact Assessment Report for the Proposed Upgrading of a Road D1468 from Senwabarwana to Indermark in the Capricorn District, Limpopo Province.** An unpublished report by Vhufa Hashu Heritage Consultants on file at SAHRA as: 2008-SAHRA-0396.

Munyai, R. & Roodt, F. 2008b. **Heritage Impact Assessment Report for the Proposed Borrow Pit No 1 for the Upgrading of a Road D1468 from Senwabarwana to Indermark in the Capricorn District, Limpopo Province.** An unpublished report by Vhufa Hashu Heritage Consultants on file at SAHRA as: 2008-SAHRA-0491.

Researching the SAHRIS online database (<http://www.sahra.org.za/sahris>) a few further studies were identified in the wider vicinity of the study area and are listed in numerical order below:

SAHRIS case No. 2234. 2011. **Consultation of Environmental Management Plan in terms of Section 40 of the Mineral and Petroleum Resources Development Act 2002, (Act 28 Of 2002) in respect of the farm Waerkum 302 LS, situated in the Magisterial District of Makhado.**

SAHRIS case No. 2017. 2013. **NID and Heritage Statement for Platinum Group Metals Prospecting Rights Application in the Waterberg, Limpopo Province.**

SAHRIS case No. 6546. 2014. **New Eskom overhead power line to be erected from existing overhead power line to borehole property Donsanna 141LS.**

SAHRIS case No. 7506. 2015. **MDD139148682-Capricorn District Munic.**

SAHRIS case No. 7511. 2015. **Schoongezicht Electrification.**

Some studies located no heritage resources (e.g. Roodt 1999b, some 10 km south of the study area; Munyai & Roodt 2008a; Munyai & Roodt 2008b) or had no or no detailed heritage assessment studies (e.g. SAHRIS case No. 2234; SAHRIS case No. 6546; SAHRIS case No. 7506; SAHRIS case No. 7511) available on the SAHRIS website. Other studies in the vicinity were very extensive such as for power distribution projects (e.g. Murimbika 2006a; Murimbika 2006b) and some studies recorded recent graves only (e.g. Gaigher 2002, 20 km west of the study area).

In a heritage survey for a low cost housing project approximately 20 km to the west of the current study area Roodt (1999a) located surface scatterings of potsherds, identified as Moloko and possibly Eiland ceramics, as well as a grinding stone. In a survey of the Makgabeng and Blouberg areas for extensive platinum prospecting (beginning some 25 km to the west of the study area a total of 25 sites including historical settlements and graves, Iron Age, Stone Age and rock art sites were recorded despite the lack of intensive surveying. The area is considered a significant landscape due to both unique geological and cultural attributes as well as having intangible heritage resources such as rain-making and initiation sites (SAHRIS case No. 2017). The aeolian paleo-dunes and playa lakes (including trace fossils of cyanobacteria) of the Makgabeng Formation are considered a unique geological feature (SAHRIS case No. 2017; Eriksson *et al.*, 2000)



## Archaeological & Historical Sequence

The historical background and timeframe of the study area and other areas in Southern Africa can be divided into the Stone Age, Iron Age and Historical period. These can be divided as follows:

### Stone Age sites

The Stone Age is divided into the Early; Middle and Late Stone Age. The *Early Stone Age* (ESA) includes the period from 2.5 million years B.P. to 250 000 years B.P. and is associated with Australopithecines and early *Homo* species who practiced stone tool industries such as the Oldowan and Acheullian. The *Middle Stone Age* (MSA) covers various tool industries, for example the Howiesons Poort industry, in the period from 250 000 years B.P. to 25 000 years B.P. and is associated with archaic and modern *Homo sapiens*. The *Late Stone Age* (LSA) incorporates the period from 25 000 years B.P. up to the Iron Age and Historical Periods and contact between hunter-gatherers and Iron Age farmers and/or European colonists. This period is associated with modern humans and characterised by lithic tool industries such as Smithfield and Robberg.

Both ESA and MSA sites are known from the Limpopo Valley to the north as well as lithic industries that appear to be transitional between the two ages and with dates estimated at 300 thousand years ago (Kuman *et al.* 2005). The presence of numerous rock art sites with associated stone tool assemblages in the Limpopo River basin as well as Blouberg and Makgabeng to the north west, the Soutpansberg to the north east and Waterberg to the south attest to the presence of Late Stone Age San/Bushman communities across the region (e.g. Pager, 1973; Eastwood *et al.*, 2002). Migrating Sotho/Tswana tribes who entered this region called the San 'Barwana' and named the Blouberg/Makgabeng area *Senwabarwana* meaning the 'drinking place of the Barwana' (Bonner & Carruthers 2003). The town of Bochum to the east was recently renamed to Senwabarwana.

### Iron Age

The Iron Age incorporates the arrival and settlement of Bantu speaking people and overlaps the Pre-Historic and Historical Periods. It can be divided into three phases. The *Early Iron Age* includes the majority of the first millennium A.D. and is characterised by traditions such as Happy Rest and Silver Leaves. The *Middle Iron Age* spans the 10<sup>th</sup> to the 13<sup>th</sup> Centuries A.D. and includes such well known cultures as those at K2 and Mapungubwe. The *Late Iron Age* is taken to stretch from the 14<sup>th</sup> Century up to the colonial period and includes traditions such as Icon and Letaba. The Limpopo Valley, particularly to the north of the study area, is well known for its Early and Middle Iron Age sites in the vicinity of the Shashe-Limpopo confluence and related Zhizo settlements spread to the north and west as the Toutswe culture (contemporary with K2, circa 1000 A.D.) of the Mahalapye-Palapye area of Botswana (Huffman 2007) and north of the study site. The next century saw the arrival of Sotho/Tswana groups in the region and their ceramic style was collectively named Moloko (Evers 1983). Huffman renamed the first phase of Moloko to the Icon facies. Sites with Icon type pottery extend north and south of

the Soutpansberg and westwards across the study area, northwards into Botswana. Icon sites range from 1300 - 1450 AD. The later, 2<sup>nd</sup> phase of Moloko can be divided into the Letsibogo-, Madikwe- and Olifantspoort-facies. The more western parts of Limpopo Province and adjacent areas of the North West province are noted for the Sotho-Tswana “mega-sites” that have been the focus of intensive archaeological investigations (Evers 1983; Mason 1986; Pistorius 1992).

Bonner & Carruthers (2003) quoted an extract from van Warmelo’s 1953 text regarding the Ba-Birwa who settled in the region from the 1700’s. According to the oral history of the Ba-Birwa as documented by Van Warmelo, they originated from near the Letswalo country above modern Tzaneen. A group splintered away and moved west to Tlokwa country (Ramokgopa and Mmatshaka north of Polokwane) under chief Mahothodiala. Clashes with the Ba-Tlokwa made them move further westward and they divided again. The smaller section moved to the Ngwala hills on the farm Mietjesfontein next to the Mogalakwena River approximately 10-15km south of the Limpopo. After several years at Mietjesfontein they moved south to the Tolwe hills on the farm Klimaf. From here the chief, Bjalope, tried to expand his rule and sent his subjects successfully in several directions to occupy a larger area. (Van Warmelo 1953). The Ba-Tlokwa (from the east), Bagananwa (from the west and south) and Ndebele (from the north) had periodic influences on the Ba-Birwa from the study area through conflict, trade and intermarriage during the 18<sup>th</sup> and 19<sup>th</sup> Centuries. The Bagananwa group settled in the Blouberg region (to the east) during the early 1800’s. The Bagananwa originated from the earlier Bahurutshe chiefdom further to the south (Rustenburg/Zeerust). After their split with the Bahurutshe these people moved to Shoshong and then to Tshwapong in Botswana (Bonner & Carruthers 2003).

### **Historical Period**

The beginning of the Historical Period overlaps the demise of the late Stone and Iron Ages and is characterised by the first written accounts of the region from 1600 A.D. A number of early European travellers travelled through the region, including Coenraad de Buys and his party who spent time amongst the Bamangwato in the Shoshong-Tshwapong area before eventually settling at the base of the western Soutpansberg to the north east of the study area. Captain Frederick Elton was the first explorer to follow the Limpopo from the Shashe area to the sea (Elton 1872). European big game hunters started to hunt in the north-western parts of the Limpopo Province from the mid 1800’s. Their operations were based at the frontier town of Schoemansdal at the foot of the Soutpansberg. These hunters ranged widely through the Limpopo Valley and south and eastern Botswana, focussing mainly on the ivory of elephants for trade; they later employed African hunters including the Ba-Birwa, BaVenda and Bagananwa (Bonner & Carruthers 2003).

In an effort to claim control over the whole of the Republic the ZAR-government ventured into several wars with African chiefs who resisted these claims. The 1894 war against the Blouberg Bagananwa and their Chief Malebogo or “Leboho“ (Van Schalkwyk & Moifatswane) was well documented at the time by local missionary Christoph Sonntag. The war ended with the temporary imprisonment of chief Malebogo and the ZAR-government gaining control over the Bagananwa (Sonntag undated; Bergh 1999). The

area was not a significant theatre during the Anglo-Boer War although a brief battle was fought between Rhodesian and Boer forces in the vicinity of Rhodes Drift on the Limpopo some distance to the north of the study area and to the west occurred some of the infamous activities of the Bushveld Carbineers. According to Bonner and Carruthers (2003) one overall effect of the war on the area was the total effacing of a 'previously negligible' white presence and the re-occupation of their land by formerly displaced black communities. After 1900 European farmers were encouraged by the ruling government to occupy farms in the region in an effort mainly to compromise for land losses in other parts of the province (Bonner & Carruthers 2003).

### 5.3. Palaeontology

The SAHRIS online database (<http://www.sahra.org.za/sahris>) was accessed and the Palaeontological Sensitivity Map was consulted. This map is colour coded to indicate the varied palaeontological sensitivities across the country. The following guidelines/recommendations are provided in the table below regarding the palaeontological sensitivity for each identified colour.

PalaeoSensitivity Map Action Guideline.

Colour	Sensitivity	Required Action
RED	VERY HIGH	Field assessment and protocol for finds is required.
ORANGE/YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study, a field assessment is likely.
GREEN	MODERATE	Desktop study is required.
BLUE	LOW	No palaeontological studies are required. However, a protocol for finds is required.
GREY	INSIGNIFICANT/ZERO	No palaeontological studies are required.
WHITE/CLEAR	UNKNOWN	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

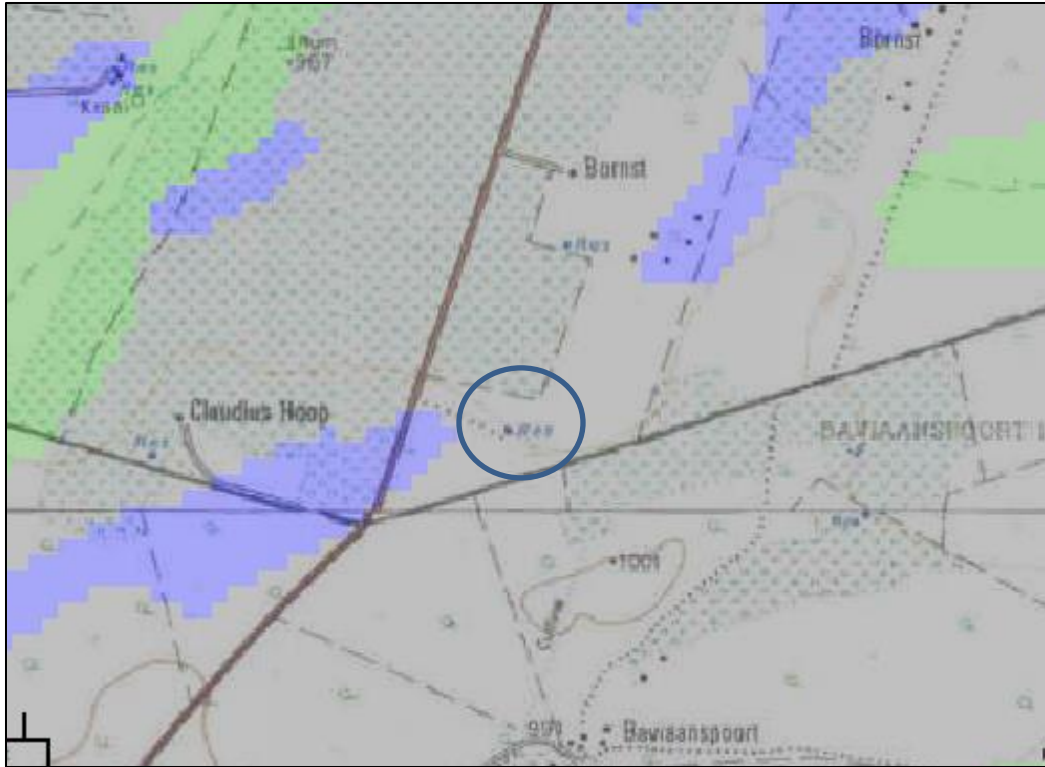


Figure 11: Palaeontological Sensitivity Map of the study area indicated in blue (Sahris Palaeosensitivity Map).

It was found that the palaeontological sensitivity for the study area was insignificant or zero and that no palaeontological studies are required.

## 6. Assessment Criteria

This chapter describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The significance of archaeological and heritage sites were based on the following criteria:

- The unique nature of a site
- The amount/depth of the archaeological deposit and the range of features (stone walls, activity areas etc.)
- The wider historic, archaeological and geographic context of the site
- The preservation condition and integrity of the site
- The potential to answer present research questions.

## 6.1. Site Significance

Site significance classification standards prescribed by the South African Heritage Resources Agency (2006) and approved by the Association for Southern African Professional Archaeologists (ASAPA) for the Southern African Development Community (SADC) region, were used for the purpose of this report.

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

## 6.2. Impact Rating:

### **Low or No Significance:**

The constraint is absent, but in instances where present, poses a negligible significance on the proposed development in terms of heritage concerns.

### **Moderate Significance:**

The constraint is present and poses a notable but not major significance on the proposed development in terms of heritage concerns. If the constraint can't be avoided, appropriate mitigation measures must be implemented to minimize the significance.

### **High Significance:**

The constraint is present and poses a high significance on the proposed development in terms of heritage concerns. It is recommended that the constraint be avoided or appropriate mitigation measures must be implemented to minimize the significance.

### 6.3. Certainty

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

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

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

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

### 6.4. Duration

*SHORT TERM:* 0 – 5 years

*MEDIUM:* 6 – 20 years

*LONG TERM:* more than 20 years

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

### 6.5. Mitigation

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

- **A** – No further action necessary
- **B** – Mapping of the site and controlled sampling required
- **C** – Preserve site, or extensive data collection and mapping required; and
- **D** – Preserve site

## 7. Methodology

### 7.1. Physical Survey

The extent of the proposed development site was determined as well as the extent of the areas to be affected by secondary activities (access route, construction camp, etc.) during the development.

The physical survey was conducted on foot over the entire area proposed for development. Priority was placed on the undisturbed areas. A systematic inspection of the areas on foot along linear transects resulted in the maximum coverage of the proposed areas. The author transected the study area in parallel transects of approximately 30m between them. The field work was conducted on 03 December 2015 and most of the morning was spent on the survey, which was performed by M. Hutten. The survey focused on the indicated study area as provided by the developer where the proposed

development will be situated. Areas outside of the indicated study areas were not surveyed.

## **7.2. Interviews**

The church minister, Mr. Petrus van Rensburg, who stays on the property, was questioned during the survey and he indicated that he was not aware of any heritage sites (such as graves) on the proposed area to be developed.

## **7.3. Restrictions**

Thick vegetation in some areas restricted surface visibility to an extent.

## **7.4. Documentation**

All sites/find-spots, if any, located during the foot surveys were briefly documented. The documentation included digital photographs and descriptions as to the nature and condition of the site and recovered materials. The sites/find-spots were plotted using a Global Positioning System (GPS) (Garmin GPSmap 60CSx) and numbered accordingly. The track logs and identified sites are depicted on the following map and satellite image.

# Riemland Institution Development



Figure 12: Satellite image of the study area with the track log



## 8. Assessment of Sites and Finds

This section contains the results of the heritage site/find assessment.

### Riemland Institution Development

The proposed Riemland Institution development will be situated on Portion 4 of the Farm Bornst 107 LS, approximately 15km north of Mogwadi, in the Makhado Local Municipality, Limpopo Province.

The proposed site for the development is situated on the southern extent of the property and measures approximately 3 hectares in size and will host several facilities for the proposed Riemland Institution.

The site is flat and has typical Bushveld vegetation (figure 14). This part of the property is largely used for the grazing of animals and is largely undisturbed except for a large cement dam (figure 15) in the central part, and a borehole and pump on the southern edge of the proposed area.



Figure 13: View of the typical Bushveld vegetation across the study area.



Figure 14: View of the large cement dam within the study area.

After intensive investigations across the study area, no sites or finds of any heritage value or potential were identified.

Field Rating:	None
Heritage Significance:	None
Impact:	None
Certainty:	None
Duration:	None
Mitigation:	A – No further action necessary

## **9. Conclusion and Recommendations**

The following steps and measures are recommended regarding the investigated area:

### **Riemland Institution Development**

Hutten Heritage Consultants was contracted by Tekplan Environmental to conduct a Heritage Impact Assessment (HIA) for the proposed Riemland Institution development on Portion 4 of the Farm Bornst 107 LS in the Makhado Local Municipality, Limpopo Province.

An archival and historical desktop study was undertaken which was used to compile a historical layering of the study area within its regional context. This component indicated that the landscape within which the project area is located has a rich and diverse history. However, the desktop study did not reveal any historic or heritage sites from within the specific locations of the study area.

The Sahrís Palaeontological Sensitivity Map was also consulted and it was found that the palaeontological sensitivity for the study area was insignificant or zero and that no palaeontological studies are required.

The desktop study was followed by a fieldwork component which comprised an inspection of the study area. The study area is largely undisturbed and no sites of heritage value or significance were identified.

As for the proposed site, no site-specific actions or any further heritage mitigation measures are recommended as no heritage resource sites or finds of any value or significance were identified in the indicated study area.

The proposed Riemland Institution development on Portion 4 of the Farm Bornst 107 LS, at the indicated area can continue from a heritage point of view.

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