PHASE ONE HERITAGE IMPACT ASSESSMENT OF THE PROPOSED HAYFIELDS FILLING STATION, UMGUNGUNDLOVU MUNICIPALITY, KZN.

ACTIVE HERITAGE cc.

For: Hanslab (Pty) Ltd

Frans Prins
MA (Archaeology)
P.O. Box 947
Howick
3290

feprins@gmail.com
activeheritage@gmail.com
www.activeheritage.webs.com
Fax: 086 7636380

25 January 2019

Details and experience of independent Heritage Impact Assessment Consultant

Consultant:	Frans Prins (Active Heritage cc)
Contact person:	Frans Prins
Physical address:	33 Buchanan Street, Howick, 3290
Postal address:	P O Box 947, Howick, 3290
Telephone:	+27 033 3307729
Mobile:	+27 0834739657
Fax:	0867636380
Email:	Activeheritage@gmail.com

PhD candidate (Anthropology) University of KwaZulu-Natal (UKZN)
MA (Archaeology) University of Stellenbosch 1991
Hons (Archaeology) University of Stellenbosch 1989

University of KwaZulu-Natal, Honorary Lecturer (School of Anthropology, Gender and Historical Studies).
Association of Southern African Professional Archaeologists member

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

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

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

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

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

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

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

Frans left SEF and started his own heritage consultancy called “Active Heritage cc” in July 2009. Although mostly active along the eastern seaboard his clients also include international companies such as Royal Dutch Shell through Golder Associates, and UNESCO. He has now completed almost 1000 heritage conservation and management reports for various clients since the inception of “Active Heritage cc”. Amongst these was a heritage study of the controversial fracking gas exploration of the Karoo Basin and various proposed mining developments in South Africa and proposed developments adjacent to various World Heritage sites. Apart from heritage impact assessments (HIA’s) Frans also assist the National Heritage Council (NHC) through Haley Sharpe Southern Africa’, with heritage site data capturing and analysis for the proposed National Liberation Route World Heritage Site and the national intangible heritage audit. In addition, he is has done background research and conceptualization of the proposed

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

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

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

Declaration of Consultants independence

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

Frans Prins

TABLE OF CONTENTS

1 BACKGROUND INFORMATION ON THE PROJECT 2

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA 3

2.1 Archaeology 3

2.2 Colonial Period 4

2.3 Struggle Period 5

3 BACKGROUND INFORMATION OF THE SURVEY 6

3.1 Methodology 6

3.1.1 Guidance from Desktop Study 6

3.2 Restrictions encountered during the survey 7

3.2.1 Visibility 7

3.2.2 Disturbance 7

3.3 Details of equipment used in the survey 7

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED 8

4.1 Locational data 8

4.2 Description of the general area surveyed 8

4.2.1 Backgound 8

4.2.2 Stakeholder Consultation 8

4.2.3 Desktop Paleontology Assessment 9

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE) 9

5.1 Field Rating 9

6 RECOMMENDATIONS 11

7 MAPS AND FIGURES 12

8 REFERENCES 16

LIST OF TABLES

Table 1. Background information……2

Table 2. Field rating and recommended grading of sites (SAHRA 2005) ……9

Table 3. Evaluation and statement of significance……..10

LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006)).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000))
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A phase one heritage survey of the proposed Hayfields Filling Station identified no archaeological sites on the three plots earmarked for development. The greater area is also not part of any known cultural landscape. However, a phase two built heritage assessment will have to be completed, by a 'built heritage specialist', as a residential dwelling with features older than 60 years old is situated on the one development plot. The initial Phase 1 Desktop Paleontological Assessment indicates that the project area may have moderate paleontological sensitivity. However, this opinion has subsequently been revised by a qualified palaeontologist who provided a letter of exemption. No additional paleontological studies will therefore be required. Attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act No. 4 of 2008), which requires that operations that expose archaeological or historical remains as well as graves and fossil material should cease immediately, pending evaluation by the provincial heritage agency. It is important to note that all graves in KwaZulu-Natal, including those younger than 60 years, are protected by provincial heritage legislation.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage cc) for Hanslab (Pty) Ltd
Type of development:	Proposed Filling Station
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a Heritage Impact Assessment
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

.

1.1. Details of the area surveyed:

The proposed filling station is located in Hayfields – a residential subburb of Pietermaritzburg. It covers three plots that is situated adjacent to each other (Figs 1 & 2). The street addresses for these plots are as follows:

a) 4 Ridge Road
b) 2 Ridge Road and/or 72 New England Road (same plot)
c) 70 New England Road

The GPS coordinates for the three plots are:

a) S 29° 36’ 53.26” E 30° 24’ 11.12”
b) S 29° 36’ 52.40” E 30° 24’ 11.11”
c) S 29° 36’ 52.89” E 30° 24’ 09.68”

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

2.1 Archaeology

The greater Pietermaritzburg, including the Hayfields, is relatively well covered by archaeological surveys conducted by members of the KwaZulu-Natal Museum. The available evidence, as captured in the Natal Museum heritage site inventories, indicates that the greater Pietermaritzburg area contains mostly Early, Middle, and Later Stone Age material. Most of these sites are situated close to water, such as the Msunduze River, Slangspruit, Foxhill Spruit, and Mkhondeni, as well as in open air context or adjacent to exposed dongas or road cuttings. These tools were most probably made by early hominins such as *Homo erectus* or *Homo ergaster*. Based on typological criteria they most probably date back to between 300 000 and 1.7 million years ago. The presence of the first anatomically modern people (i.e. *Homo sapiens sapiens*) in the area is indicated by the presence of a few Middle Stone Age blades and flakes. These most probably dates back to between 40 000 and 200 000 years ago. The later Stone Age flakes identified in the area are associated with the San (Bushmen) and their direct ancestors. These most probably dates back to between 200 and 20 000 years ago. Most of the Early and Middle Stone Age sites were identified by the late Dr Olivier Davies in the 1950's and 1960's. The majority of Later Stone Age sites were located by Dr Farden in the 1960s and 1970's although some has also been identified by Dr Aron Mazel in the 1980's.

The San were the owners of the land for almost 30 000 years but the local demography started to change soon after 2000 years ago when the first Bantu-speaking farmers crossed the Limpopo River and arrived in South Africa. By 1500 years ago these early Bantu-speaking farmers also settled adjacent to the Umngeni River in the greater Camperdown area. Due to the fact that these first farmers introduced metal technology to southern Africa they are designated as the Early Iron Age in archaeological literature. Their distinct ceramic pottery is classified to styles known as "Msuluzi" (AD 500-700), Ndondondwane (AD 700-800) and Ntshekane (AD 800-900). Most of the Early Iron Age sites in the greater Pietermaritzburg area belong to these traditions (Maggs 1989:31; Huffman 2007:325-462). These sites characteristically occur on alluvial or colluvial soil adjacent to large rivers below the 1000m contour. The Early Iron Age farmers originally came from western Africa and brought with them an elaborate initiation complex and a value system centred on the central significance of cattle.

Early as well as Later Iron Age sites have been located by Dr Tim Maggs in the 1970's and 1980's and more recent discoveries have been made Mr Gavin Whitelaw, Gavin Anderson, and Len van Schalkwyk. The Early Iron Age sites typically occur on the alluvial and colluvial soils in the large river valleys below 700m above sea level. Some have been located along the Msunduzi River as well as in the Ashburton area. Later Iron Age sites occur in similar contexts as well as on ridges or plato's in the existing grassland. Some impressive Later Iron Age sites occur in the Umngeni River Valley close to Howick as well as in the Ottos Bluff area near Albert Falls Dam.

These sites occupied by Bantu-speaking agropastoralists who arrived in southern Africa after 1000 year ago via East Africa. Later Iron Age communities in KwaZulu-Natal were the direct ancestors of the Zulu people (Huffman 2007). The larger Umngeni Valley area was inhabited by various Nguni-speaking groups such as the Dlanyawo, Nyavu and Njilo, in the beginning of the 19th century (Bryant 1965; Wright 1988). With the exception of the Nyavu who remained fiercely independent most of these communities were incorporated into the Zulu Kingdom of Shaka in the 1820's. After the Anglo-Zulu war of 1879 and the Bambatha Rebellion of 1911 almost all the African people in the study area adopted a Zulu ethnic identity.

.

2.2 Colonial Period

Apart from the prehistoric archaeology Pietermaritzburg is also well known for its colonial heritage. The original Voortrekker route, later to become the transport route into the interior, passes through Worlds View – presently a suburb in western Pietermaritzburg. The route was originally cut by the Voortrekker leader Piet Retief and his party in 1838. The wagon marks can still be seen etched in the soft sandstone along the path. The site at Worldsview is a well known provincial landmark that is protected by heritage legislation (Oberholser 1972). Apart from significant places on the landscape the colonial heritage of Pietermaritzburg also include various buildings associated with the first Dutch settlers (Voortrekkers) after 1837 as well as the latter Victorian and Edwardian heritage of the area associated more closely with the British occupancy of Natal after 1845 (Laband & Hasswell 1988; Derwent 2006). In fact, Pietermaritzburg has been described as the greatest Victorian city in the southern hemisphere although this statement has not been qualified. The greatest majority of the heritage resources located within the greater Pietermaritzburg consist of built structures, mostly buildings, which are of great architectural (and also historical) significance. The City of Pietermaritzburg has arguably one of the finest remaining urban environments in South Africa, and each of the City's four main cultural groups has contributed to its architecture, namely Afrikaner, British, Indian and African (Laband & Haswell 1988; Oberholser 1972; Derwent 2006). A number of the buildings located within the Pietermaritzburg Central Business District (CBD) are constructed out of red-clay bricks, such as the Pietermaritzburg City Hall, giving the city a recognisably unique architectural style. Similar buildings also occur elsewhere in the uMgungundlovu Municipal area. Most of the architectural resources are concentrated within the Pietermaritzburg CBD and adjacent areas such as Georgetown in Edendale. These resources largely consist of buildings constructed in Voortrekker, British-Colonial, Indian and traditional African styles. Many of these buildings date back to the late 1800s and early 1900s, while examples of architecture from as early as the 1840s still exist within the Pietermaritzburg CBD and, more rarely, in its surrounds (e.g. Hollingwood and further a field at Fort Nottingham). Other buildings consisting of later, more modern architectural styles have also been identified as architectural resources, particularly in the suburbs surrounding the CBD of Pietermaritzburg, where fine examples of post World War 2 architecture can be found. The Georgetown area in Edendale contains a number of unique buildings consisting of a mixture of traditional African styles of architecture with British- Colonial

and Indian influences. Some of the earliest buildings in Georgetown date back to the 1850s and consist of rectangular houses of unfired mud brick, and brick and shale houses covered by lime plaster. Georgetown also provides rare examples of wood and iron buildings, while this building style was common in the 1900s, few examples still exist today. However, interesting individual examples of this building style also occur further afield at Merrivale Station.

Places of worship constructed by religious communities form significant cultural resources. Christian denominations have built a large number of churches, chapels and mission stations throughout the Municipal area. Several of these structures are Provincial and Heritage Landmarks (e.g. the Christian Science Church and Old St Mary's Anglican Church in Pietermaritzburg) and are architecturally significant as well as being cultural and historical resources. There are also a number of Mosques and Hindu Temples located within the greater Pietermaritzburg, these buildings hold value in terms of both their architectural style and cultural significance. These include the Soorti Sunni Mosque in Church Street and the Stri Siva Soobramoniar and Marriamen Temples in Longmarket (Langalibalele) Street in Pietermaritzburg, amongst others. There are a number of cemeteries that have considerable cultural and historical significance. These include the Jewish and Muslim cemetery off Roberts Road in the Clarendon area, the Old Commercial Road Cemetery and the Fort Napier Military Cemetery in the Signal Hill area. Graves from the Anglo-Boer War, including those of concentration camp victims, are located within the Commercial Road Cemetery. Graves from both the First and Second World Wars are located in the Commercial Road Cemetery and the Fort Napier Military Cemetery. The Commercial Road Cemetery also contains the graves of individuals spanning the early history of Pietermaritzburg including original Voortrekkers, Germans interned during the First World War, members of the Natal Mounted Police, prominent colonial figures and early Indian Christian converts. Examples of other sites of historical and cultural significance located within the greater Pietermaritzburg include:

• Alexandra Park, and in particular, the Percy Taylor Rockeries in Scottsville which forms both an important natural feature as well as a significant historical resource; and
• The Pietermaritzburg Railway Station located off Church Street at the edge of the Pietermaritzburg CBD which is both an architectural resource as well as an important historical and cultural resource as it was here, in 1893 that the incident that sparked Mahatma Gandhi's strategy of passive resistance, occurred (KwaZulu-Natal Museum).

2.3 Struggle Period

More recently the Pietermaritzburg Tourism Authority identified and developed Struggle era sites in the Municipal area. These have now been developed for tourism purposes and a pilgrimage route has been identified. Sites and places of significance include the Old Prison in Pietermaritzburg, the Gandhi statue opposite the Colonial Building, various houses and places of significance within the Sobantu township as well as the Edendale/Mbali sub-route. Of special interest in this region is the Mandela Capture site, near Howick, and the Alan Paton Centre and struggle archives at the University of

KwaZulu-Natal at Pietermaritzburg. The Centre houses the famed author of 'Cry, the Beloved Country', and founder of the Liberal Party, Alan Paton's literary works, and documents relating to other institutions.

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. The SAHRIS website was consulted for previous heritage surveys and heritage site data covering the project area. In addition, the available archaeological and heritage literature covering the greater Pietermaritzburg area was consulted. Aerial photographs covering the area were scrutinised for potential Iron Age and historical period structures and grave sites. A ground survey, following standard and accepted archaeological procedures, was conducted on 31 November 2018.

3.1.1 Guidance from Desktop Study

- The desktop study indicates that Stone Age Sites of all periods and traditons may occur in the Midlands of KwaZulu-Natal including the greater project area. However, Early Stone Age sites typically occurs close to permanent and prominent sources of water, none of which occur in the immediate environs of the project area.
- Middle Stone Age tools have been found in dongas and erosion gullies at various locales in the KwaZulu-Natal Midlands. These sites are usually out of context and of little research value. Middle Stone Age deposts often occur in deep cave deposits throughout KwaZulu-Natal (including the Midlands). Again no erosion gullies or suitable rocky outcrops that may harbour shelters with deep cave deposits occur in the project area.
- Later Stone Age sites are more prolific in the coastal areas of KwaZulu-Natal and also in the foothiils of the Drakensberg to the west. Although Later Stone Age sites have are known from the KZN Midlands they are rather scarce. In addition, there are no suitable rocky outcrops in the project area that may harbour shelters with Later Stone Age deposits. Although rock art occur at Camperdown to the east of the project area there are no shelters or suitable rocky surfaces in the project area that may harbour such.

- Early Iron Age Sites typically occur along major river valleys below the 700 m contour in KwaZulu-Natal. It is possible that Early Iron Age sites may occur adjacent to the Duzi River in the near vicinity of the project area.
- Later Iron Age sites may occur in the greater project area. These sites were occupied by the ancestors of the first Nguni-speaking agriculturistsas well as their descendants who settled in KwaZulu-Natal. In some areas in KwaZulu-Natal, such as the areas around Pietermaritzburg, Estcourt, Ladysmith and Nqutu, these early agriculturists built with stone and as a result such sites have a high archaeological visibility. However, in other areas such as those regions around Umbumbulo and the South Coast these agriculturists built with wattle and daub and the archaeological site visibility is far more compromised. Often sites are only located with referece to historical or oral data.
- Historical buildings, structures and farmsteads do occur scattered throughout the midlands of KwaZulu-Natal especially in the environs of Pietermaritzburg. Dwellings ands structures older than 60 years old do occur in the near environs of the project area and it is higly likely that the proposed development plots may harbour strucutres older than 60 years old.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was good.

3.2.2 Disturbance

No disturbance of any potential heritage features was noted. However, the residential dwelling on Plot b (2 Ridge Road) contains some features older than 60 years. It is evident that this building has been modified over the years (see below).

3.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

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

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: KwaZulu-Natal
Closest Towns: Pietermaritzburg
Suburb: Hayfields and Scottsville
Municipality: Umgungundlovu Distirct Municipality

4.2 Description of the general area surveyed

4.2.1 Backgound

Although the desktop study indicates that various historical buildings and structures occur in the greater Pietermaritzburg area (Fig 1) none of those listed occur on the footprint. The desktop study could not find any other heritage sites (other than historical buildings) within the greater project area. These conclusions are echoed by Cultural Resource Development surveys in the greater Pietermaritzburg area as reflected on the SAHRIS website. Again there is no indication that any heritage sites occur on the actual footprint.

The ground survey identified residential buildings on all three proposed development plots (Figs 4 - 6). These buildings are presently occupied. Only one of these buildings (that on Plot b) contains features suggesting an age of older than 60 years old. However, this building will have to be assessed by a built heritage specialist. No other heritage features or sites have been identified (Table 3) (but see paleontology section).

4.2.2 Stakeholder Consultation

The consultant spoke to the present occupants of the residential properties on the proposed development plots. None of them had any knowledge regarding the heritage significance of existing strucutres on the footprint. However, it is evident that a systematic archival and historical investigation of the footprint needs to be completed as the present occupants are ill-informed.

4.2.3 Desktop Paleontology Assessment

The updated fossil sensitivity map, as provided by the SAHRIS website, shows that the project area (including Phase 1 and Phase 2 of the proposed pipeline) is of modertate paleontological sensitivity (Fig 3). According to Amafa policy the implication is that a paleontological desktop study, by a palaeontologist, will be required. However, this point of view has been questioned by the Amafa accredited palaeontologist who has produced a letter of exemption based on the present, and largely altered, state of the footprint (Appendix 1). No paleontological studies will therefore be required.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

5.1 Field Rating

The residential dwelling on plot b (2 Ridge Road) contains features that are older than 60 years old. This is especially evident when viewing the roof of this building (Figs 6 & 7). This building, however, has been modified over the years and it does not appear to be a significant heritage feature. It is beyond the expertease of this consultant to give the building a field rating score as outlined in Table 2. It is therefore suggested that an accredited 'built heritage specialist' evaluate the building as a Phase Two Build Heritage Assessment.

Table 2. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

Table 3. Evaluation and statement of significance (excluding Build Heritage and Paleontology).

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

6 RECOMMENDATIONS

No archaeological sites and features occur on the proposed development plots. However, a residential dwelling with features older than 60 years old is situated on Plot b (2 Ridge Road). This dwelling will have to be assessed by a 'built heritage specialist' as part of a Phase Two Build Heritage Impact Assesment. No paleontological study will be required.

.

7 MAPS AND FIGURES

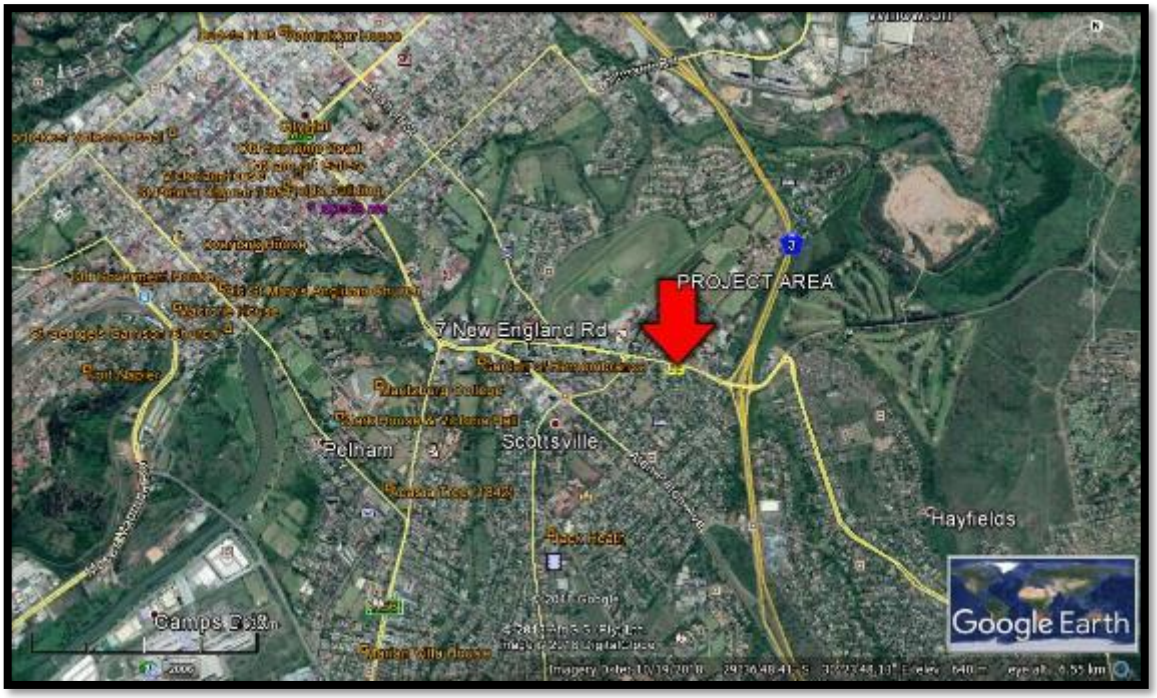

Figure 1. Google Earth Imagery the location of the project area at Hayfields, Pietermaritzburg. The purple and yellow markers indicate known heritage sites in the greater Pietermaritzburg area. None occur at the footprint.

Figure 2. Google Earth Imagery showing the location of the proposed development plots at Hayfields, Pietermaritzburg.

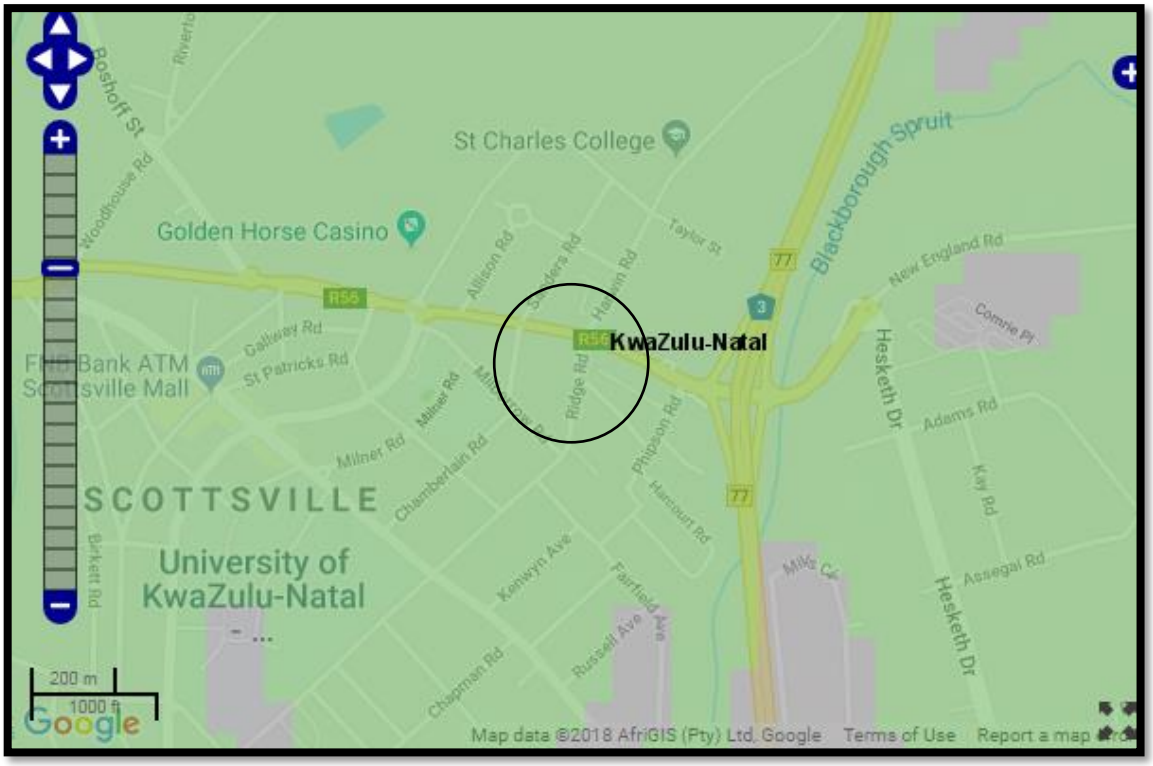

Figure 3. Fossil Sensitivity Map of the project area: The approximate location of the proposed filling station is indicated by the black polygon. The green backgound colour indicate that the area has a moderate fossil sensitivity (Source: SAHRIS website).

Figure 4. Residential dwelling on Plot a (4 Ridge Road). This building is younger than 60 years old and my be altered or demolished without an Amafa demolition permit.

Figure 5. Plot c (70 New England Road). This residential building is youger that 60 years old. It may be altered or demolished without an Amafa demolition permit.

Figure 6. Plot b (2 Ridge Road). The residential building contains features older than 60 years old although the building has been modified over the years.

Figure 7. Plot b (facing New England Road). The old features of this residential dwelling is evident on the roof and the verandah.

8 REFERENCES

Bryant, A. T. 1965. *Olden times in Zululand and Natal*. Cape Town: C. Struik.

Bulpin, T.V. 1966. *Natal and the Zulu Countr*y. Cape Town: Books of Africa.

Derwent, S. 2006. *KwaZulu-Natal Heritage Sites: A Guide to Some Great Places*. David Phillips: Cape Town

eThembeni. 2006. *Heritage Impact Assessment of the Western Aqueduct Greater Durban metro, KZN.* Unpublished report presented to Knight Piesold.

Guy, J. 2013. *Theophilus Shepstone and the Forging of Natal*. University of KwaZulu-Natal Press. Pietermaritzburg.

Huffman, T. N. 2007. *Handbook to the Iron Age: The Archaeology of Pre-colonial Farming Societies in Southern Africa*. University of KwaZulu-Natal Press. Pietermaritzburg.

Laband, J & Haswell, R. (Eds*). 1988. Pietermaritzburg, 1838-1988: A New Portrait of an African City.* University of Natal Press: Shuter & Shooter

Lugg, H.C. 1949. *Historic Natal and Zululand*. Pietermaritzburg: Shuter and Shooter

Maggs, T. 1988. Pietermaritzburg: the first 2 000 000 years. In Laband, J and Hasswell, R. (eds). *Pietermaritzburg 1838 – 1988: A New Portrait of an African City*. pg 14-17. University of Natal Press: Pietermaritzburg

Maggs, T. The Iron Age farming communities. In Duminy, A. and Guest, B. 1989. *Natal and Zululand: from Earliest Times to 1910. A New History*. Pg. 28-46. University of Natal Press. Pietermaritzburg.

Martin, B. 1988. The coming of the railway to Pietermaritzburg. In . In Laband, J & Haswell, R. (Eds*). Pietermaritzburg, 1838-1988: A New Portrait of an African City.* University of Natal Press: Shuter & Shooter.

Oberholster, J. J. 1972. *The Historical Monuments of South Africa*. The Rembrandt Van Rijn Foundation for Culture. Cape Town.

Mazel, A. The Stone Ages. In Duminy, A and Guest, B. 1989*. Natal and Zululand: from Earliest Times to 1910.* A New History. Pg. 1-27. University of Natal Press. Pietermaritzburg.

Mitchell, P. 2002. *The Archaeology of Southern Africa*. Cambridge University Press: Cambridge

SAHRA, 2005. *Minimum Standards for the Archaeological and the Palaeontological Components of Impact Assessment Reports, Draft version 1.4.*

Wright, J. 1988. Before Mgungundlovu: the upper Mngeni and upper Mkhomazi region in the early nineteenth century. In Laband, J & Haswell, R. (Eds*). Pietermaritzburg, 1838-1988: A New Portrait of an African City.* University of Natal Press: Shuter & Shooter

APPENDIX 1

RECOMMENDED EXEMPTION FROM A PHASE 1 PALAEONTOLOGICAL IMPACT ASSESSMENT

OR FURTHER PALAEONTOLOGICAL STUDIES AND MITIGATION:

Proposed Hayfields filling station in Pietermaritzburg, Umgungundlovu Municipality, KwaZulu-Natal

Gary Trower

P.O. Box 2878

Welkom

9460

PhD candidate (Archaeology) University of the Witwatersrand

Masters (Environmental Management) University of the Free State, 2011

Honours (Palaeontology) University of the Witwatersrand, 2008

20 January 2019

Introduction

In terms of the National Environmental Management Act 107 of 1998, Section 38 (8) of the National Heritage Resources Act 25 of 1999 (sections 34-36), and the KwaZulu-Natal Heritage Act 4 of 2008 (sections 33-36), all aspects of heritage are protected. Proposed developments that are likely to impact on heritage resources (i.e. historical, archaeological, palaeontological& cosmological) require a desktop and/or field assessment to gauge the importance of such resources (if present) in order to ensure that they are not damaged or destroyed during the construction process.If necessary, mitigation measures should be considered and if the observed heritage resources are ranked as highly significant and the proposed location cannot be shifted to a more suitable site, scientific researchers should be given the opportunity to excavate the site and recover as much of the material as possible.

The proposed Hayfields Filling Station is located in Hayfields, a residential suburb of Pietermaritzburg. The site is located on the corner of New England and Ridge Road, comprising three plots with houses, so a rezoning of the space will be required as part of the plans for the development.The highly developed nature of the site greatly reduces the possibility of locating fossil material, hence the request for a letter of exemption from further palaeontological assessment.

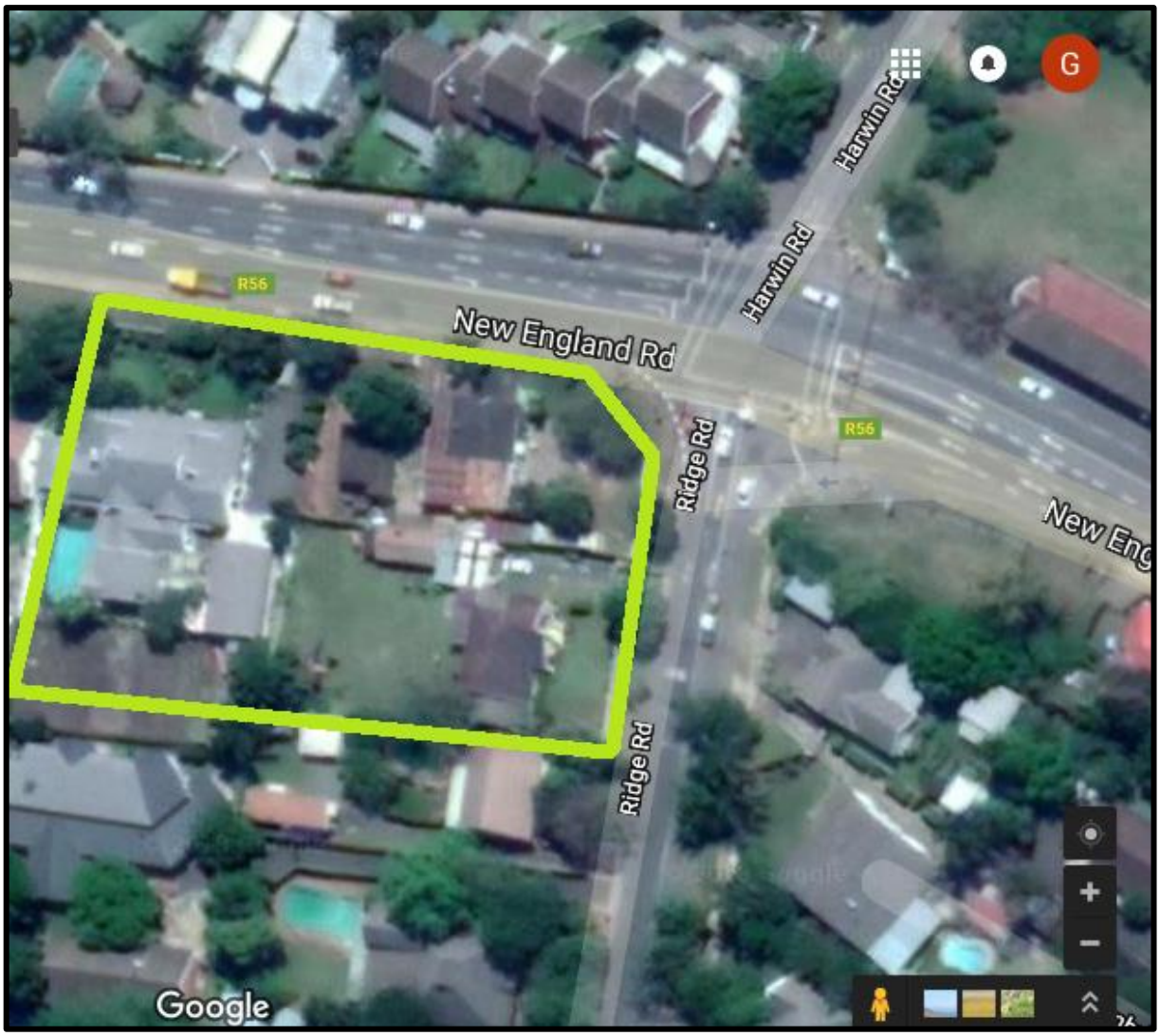

Figure 1: Google Maps image showing the site of the proposed Hayfields filling station on the corner of New England and Ridge Road. (Modified Google Maps image, AfriGIS 2019)

Figure 2 & 3: Street view from the corner of Ridge Road (Fig. 2) and the corner of New England Road (Fig. 3) Pietermaritzburg showing the site of the proposed Hayfields filling station. (Modified Google Maps image, AfriGIS 2019)

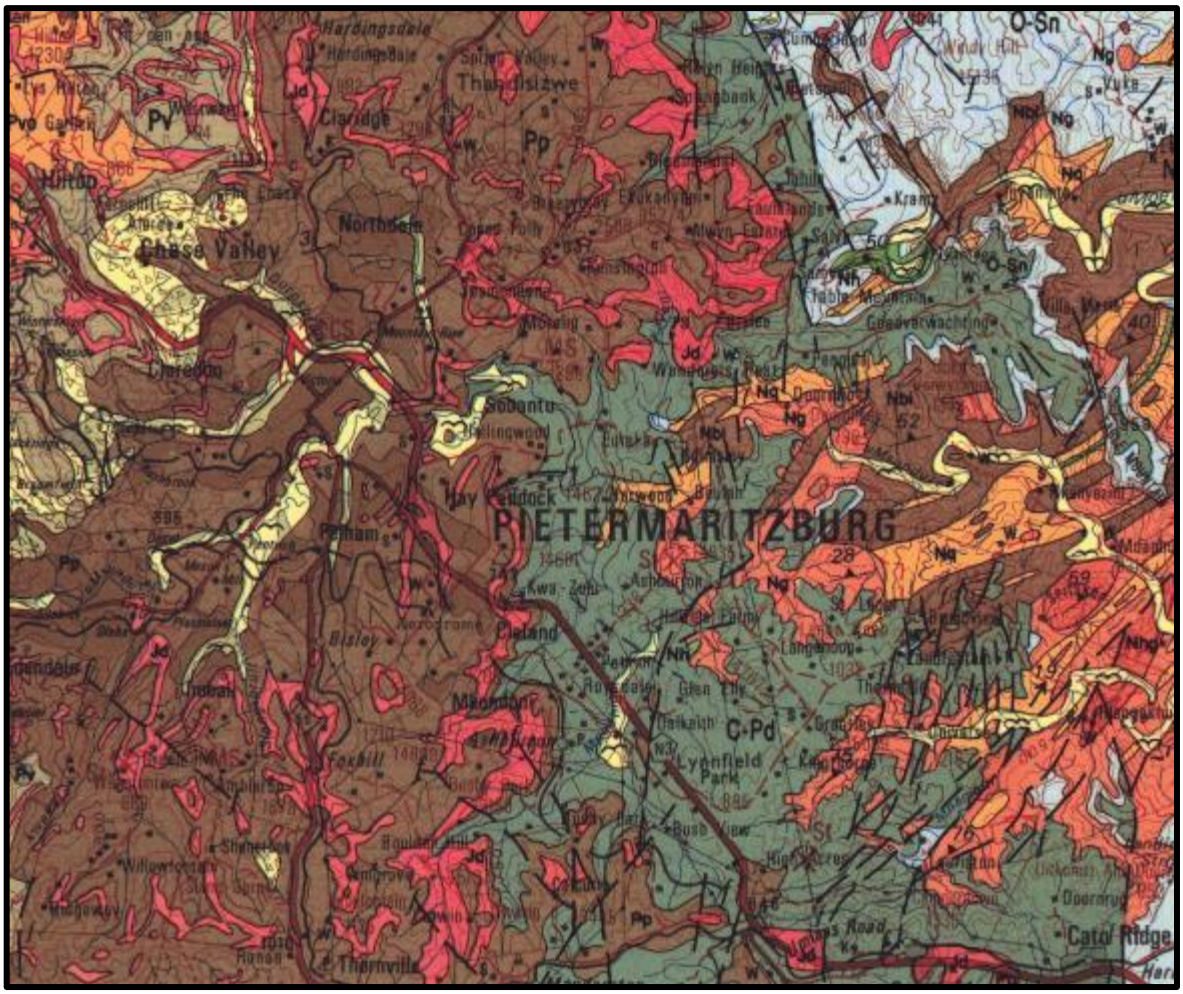

Figure 4: Geological map of the area surrounding the proposed development, underlain by rocks of the Karoo Supergroup. The geological unit directly underneath the site of the proposed filling station is the Pietermaritzburg Formation of the Ecca Group, a rock type with moderate sensitivity for possible fossil occurrences (Modified from 1:250 000 Geological Series, 2930 Durban)

Geology

The development will take place within an area underlain by bedrock of the Pietermaritzburg Formation (**Pp**) of the Ecca Group, a geological unit which makes up a portion of the Karoo Supergroup sediment package. This unit was deposited during the early Permian and comprises dark grey shale, siltstone and subordinate sandstone.

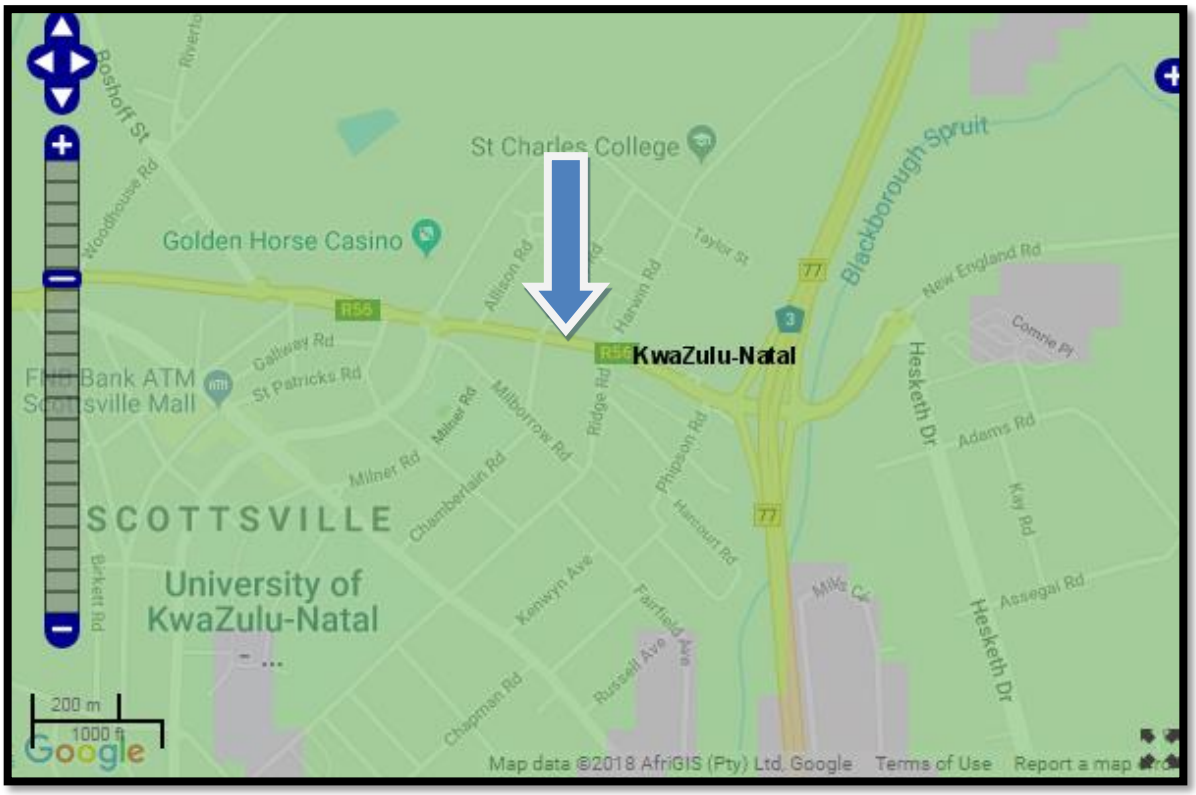

Figure 5: SAHRIS palaeontological sensitivity map, with the site of the proposed development indicated with the blue arrow. The green rating indicates that the site has a moderate sensitivity requiring a desktop PIA, as the underlying bedrock is the Pietermaritzburg Formation of the Ecca Group. (Modified from the SAHRA PalaeoSensitivity map, www.sahra.org.za/sahris/map/palaeo)

Recommendations

The document serves as a letter of exemption. The development will take on a geological unit with a moderate sensitivity to possible fossil occurrences; there is therefore a low possibility that any significant fossils will be unearthed during the construction process. Furthermore, the proposed site is situated in a highly developed urban setting and in the past significant disturbance would have occurred to any potential fossiliferous bedrock during the laying of water and sewerage pipelines, power cables, as well as during the excavation of foundations for housing. In light of these facts, a desktop Palaeontological Impact Assessment will not be necessary (Groenewald & Groenewald 2014).

References

1) Coetsee, F., 1988. 2930 Durban, 1:250 000 Topo-Cadastral Series of South Africa, Chief Director of Surveys and Mapping

2) Groenewald, G. and Groenewald, D., 2014. SAHRA palaeotechnical report: Palaeontological Heritage of the Gauteng province. South African Heritage Resources Agency

3) KwaZulu-Natal Heritage Act 4 of 2008

4) National Environmental Management Act 107 of 1998

5) National Heritage Resources Act 25 of 1999, section 38 (8)

Declaration of Consultants independence

I, Gary Trower, am an independent consultant and have no business, financial, personal or other interest in the proposed development project in respect of which I was appointed to do a palaeontological assessment other than fair remuneration for work performed. There are no circumstances whatsoever that compromise the objectivity of this specialist performing such work.

Gary Trower