Archaeological Impact Assessment

For the proposed filling station on Erf 330 Crown Extension 18, Crown Mines, Gauteng

Prepared For

Marinda le Roux

By

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I, Jaco van der Walt as duly authorised representative of Heritage Contracts and Archaeological Consulting CC, hereby confirm my independence as a specialist and declare that neither I nor the Heritage Contracts and Archaeological Consulting CC have any interest, be it business, financial, personal or other, in any proposed activity, application or appeal in respect of which the client was appointed as Environmental Assessment practitioner, other than fair remuneration for work performed on this project.

SIGNATURE: _____

EXECUTIVE SUMMARY

Site name and location: The proposed Crown filling Station is located on Erf 330, Crown Extension 18, Crown Mines, Johannesburg, Gauteng Province.

Purpose of the study: Phase 1 Archaeological Impact Assessment to determine the presence of cultural heritage sites and the impact of the proposed project on these resources within the study area.

1:50 000 Topographic Map: 2628 AA

Environmental Consultant: Marinda le Roux

Developer: Four Arrows Investments 130 (Pty) Ltd

Heritage Consultant: Heritage Contracts and Archaeological Consulting CC (HCAC).

Contact person: Jaco van der Walt Tel: +27 82 373 8491

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Date of Report: 16 August 2013

Findings of the Assessment:

Apart from an avenue of Plane trees on the northern periphery of the site that is protected by heritage legislation no other sites of significance were identified on Erf 330 during the archaeological assessment. However, the site is adjacent to the Provincial Heritage site of Langlaagte Deep Mining village also known as Crown Village, situated on an open space that used to form part of the village and it is in this context that the impact of the development of the proposed filling station must be assessed. Some recommendations are included in Section 7 of the report. In order for the development to proceed, SAHRA needs to comment on the development and on whether further work will be required.

General

Due to extensive sand cover, ground visibility was low on portions of the site during survey. The possible occurrence of unmarked or informal graves and subsurface finds can thus not be excluded. If during construction any possible finds such as stone tool scatters, artefacts or bone and fossil remains are made, the operations must be stopped and a qualified archaeologist must be contacted for an assessment of the find.

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

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ABBREVIATIONS

AIA: Archaeological Impact Assessment
ASAPA: Association of South African Professional Archaeologists
BIA: Basic Impact Assessment
CRM: Cultural Resource Management
ECO: Environmental Control Officer
EIA: Environmental Impact Assessment*
EIA: Early Iron Age*
EIA Practitioner: Environmental Impact Assessment Practitioner
EMP: Environmental Management Plan
ESA: Early Stone Age
GPS: Global Positioning System
HIA: Heritage Impact Assessment
LIA: Late Iron Age
LSA: Late Stone Age
MEC: Member of the Executive Council
MIA: Middle Iron Age
MPRDA: Mineral and Petroleum Resources Development Act
MSA: Middle Stone Age
NEMA: National Environmental Management Act
PRHA: Provincial Heritage Resource Agency
SADC: Southern African Development Community
SAHRA: South African Heritage Resources Agency

**Although EIA refers to both Environmental Impact Assessment and the Early Iron Age both are internationally accepted abbreviations and must be read and interpreted in the context it is used.*

GLOSSARY

Archaeological site (remains of human activity over 100 years old)

Early Stone Age (~ 2.6 million to 250 000 years ago)

Middle Stone Age (~ 250 000 to 40-25 000 years ago)

Later Stone Age (~ 40-25 000, to recently, 100 years ago)

The Iron Age (~ AD 400 to 1840)

Historic (~ AD 1840 to 1950)

Historic building (over 60 years old)

1 BACKGROUND INFORMATION

Kind of study	Archaeological Impact Assessment
Type of development	Industrial Township
Rezoning/subdivision of land	Rezoning
Developer:	Four Arrows Investments 130 (Pty) Ltd
Consultant:	Marinda le Roux

The Archaeological Impact Assessment (AIA) report forms part of the BA for the proposed project.

The aim of the study is to identify cultural heritage sites, document, and assess their importance within local, provincial and national context. It serves to assess the impact of the proposed project on non-renewable heritage resources, and to submit appropriate recommendations with regard to the responsible cultural resources management measures that might be required to assist the developer in managing the discovered heritage resources in a responsible manner. It is also conducted to protect, preserve, and develop such resources within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999).

The report outlines the approach and methodology utilized before and during the survey, which includes: Phase 1, collection of background information from various sources and consultations; Phase 2, the physical surveying of the area on foot and by vehicle; Phase 3, reporting the outcome of the study.

During the survey no archaeological sites were identified, however some historical elements were noted forming part of the built environment associated with early mining activities in the area. General site conditions and features on sites were recorded by means of photographs, GPS locations, and site descriptions. Possible impacts were identified and mitigation measures are proposed in the following report.

This report must also be submitted to the appropriate SAHRA provincial office for peer review.

1.1 Terms of Reference

Heritage Statement

The scope of work comprises a Heritage Statement of the proposed development footprint. This statement does not include a desktop study/archival study or any mitigation work or further work that SAHRA might require in order for the development to proceed. Please note the following exclusions:

- All mitigation work
- Desktop Study
- Assessment of intangible heritage
- Assessment of buildings by a conservation architect
- Palaeontological Assessment
- Public participation
- Permit applications for demolishment, alteration of sites and excavation of sites.

Field study

Conduct a field study to: a) systematically survey the proposed project area to locate, identify, record, photograph and describe sites of archaeological, historical or cultural interest; b) record GPS points identified as significant areas; c) determine the levels of significance of the various types of heritage resources recorded in the project area.

Reporting

Report on the identification of anticipated and cumulative impacts the operational units of the proposed project activity may have on the identified heritage resources for all 3 phases of the project; i.e., construction, operation and decommissioning phases. Consider alternatives, should any significant sites be impacted adversely by the proposed project. Ensure that all studies and results comply with Heritage legislation and the code of ethics and guidelines of ASAPA.

To assist the developer in managing the discovered heritage resources in a responsible manner, and to protect, preserve, and develop them within the framework provided by the National Heritage Resources Act of 1999 (Act 25 of 1999).

1.2. Archaeological Legislation and Best Practice

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

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

The AIA or HIA, as a specialist sub-section of the EIA, is required under the National Heritage Resources Act NHRA of 1999 (Act 25 of 1999), Section 23(2)(b) of the NEMA and section s.39(3)(b)(iii) of the MPRDA.

The AIA should be submitted, as part of the EIA, BIA or EMP, to the PHRA if established in the province or to SAHRA. SAHRA will be ultimately responsible for the professional evaluation of Phase 1 AIA reports upon which review comments will be issued. 'Best practice' requires Phase 1 AIA reports and additional

development information, as per the EIA, BIA/EMP, to be submitted in duplicate to SAHRA after completion of the study. SAHRA accepts Phase 1 AIA reports authored by professional archaeologists, accredited with ASAPA or with a proven ability to do archaeological work.

Minimum accreditation requirements include an Honours degree in archaeology or related discipline and 3 years post-university CRM experience (field supervisor level).

Minimum standards for reports, site documentation and descriptions are set by ASAPA in collaboration with SAHRA. ASAPA represents professional archaeology in the SADC region. ASAPA is primarily involved in the overseeing of ethical practice and standards regarding the archaeological profession. Membership is based on proposal and secondment by other professional members.

Phase 1 AIAs are primarily concerned with the location and identification of sites situated within a proposed development area. Identified sites should be assessed according to their significance. Relevant conservation or Phase 2 mitigation recommendations should be made. Recommendations are subject to evaluation by SAHRA.

Conservation or Phase 2 mitigation recommendations, as approved by SAHRA, are to be used as guidelines in the developer's decision making process.

Phase 2 archaeological projects are primarily based on salvage/mitigation excavations preceding development destruction or impact on a site. Phase 2 excavations can only be conducted with a permit, issued by SAHRA to the appointed archaeologist. Permit conditions are prescribed by SAHRA and includes (as minimum requirements) reporting back strategies to SAHRA and deposition of excavated material at an accredited repository.

In the event of a site conservation option being preferred by the developer, a site management plan, prepared by a professional archaeologist and approved by SAHRA, will suffice as minimum requirement.

After mitigation of a site, a destruction permit must be applied for from SAHRA by the client before development may proceed.

Human remains older than 60 years are protected by the National Heritage Resources Act, with reference to Section 36. Graves older than 60 years, but younger than 100 years fall under Section 36 of Act 25 of 1999 (National Heritage Resources Act), as well as the Human Tissues Act (Act 65 of 1983), and are the jurisdiction of SAHRA. The procedure for Consultation Regarding Burial Grounds and Graves (Section 36[5]) of Act 25 of 1999) is applicable to graves older than 60 years that are situated outside a formal cemetery administrated by a local authority. Graves in this age category, located inside a formal cemetery administrated by a local authority, require the same authorisation as set out for graves younger than 60 years, in addition to SAHRA authorisation. If the grave is not situated inside a formal cemetery, but is to be relocated to one, permission from the local authority is required and all regulations, laws and by-laws, set by the cemetery authority, must be adhered to.

Human remains that are less than 60 years old are protected under Section 2(1) of the Removal of Graves and Dead Bodies Ordinance (Ordinance no. 7 of 1925), as well as the Human Tissues Act (Act 65 of 1983), and are the jurisdiction of the National Department of Health and the relevant Provincial Department of Health and must be submitted for final approval to the office of the relevant Provincial Premier. This function is usually delegated to the Provincial MEC for Local Government and Planning; or in some cases, the MEC for Housing and Welfare.

Authorisation for exhumation and reinterment must also be obtained from the relevant local or regional council where the grave is situated, as well as the relevant local or regional council to where the grave is being relocated. All local and regional provisions, laws and by-laws must also be adhered to. To handle and transport human remains, the institution conducting the relocation should be authorised under Section 24 of Act 65 of 1983 (Human Tissues Act).

1.3 Description of Study Area

1.3.1 Location Data

The applicant proposes to establish a filling station on a highly transformed site located on Erf 330 Crown Extension 18, Crown Mines, Johannesburg, Gauteng Province. The proposed development measures 1.26 hectares in extent. The erf is divided in two with a modern dwelling on the western portion while the eastern portion is vacant. To the north of the site (opposite the road) is the provincial heritage site of Crown village (declared as Langlaagte Deep Mining village).

The topography of the area is flat and was extensively impacted on by mining activities in the past and industrial developments. The site is totally transformed by extensive developments in the area for more than a century.

1.3.2. Location Map

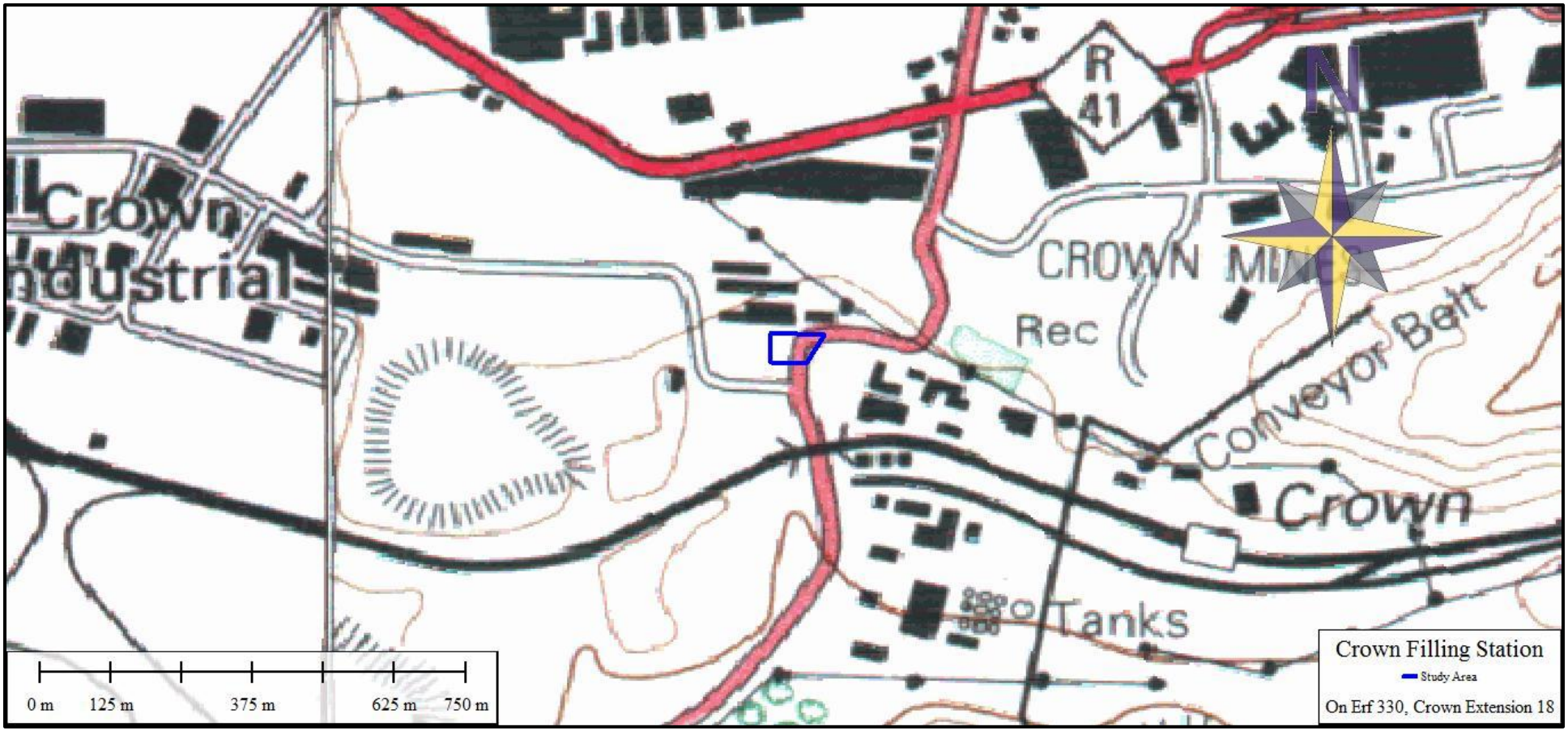

Figure 1: Study area.

2. APPROACH AND METHODOLOGY

The aim of the study is to cover archaeological databases to compile a background history of the study area followed by field verification; this was accomplished by means of the following phases.

2.1 Phase 1 – Data base Research

The first phase comprised a data base search, gathering data to understand the history of the area in question. It included scanning existing records for archaeological sites, historical sites and graves of the area.

2.1.1 Literature Search
A Literature search utilising data stored in the archaeological database at Wits and previous CRM reports done in the area was conducted. The aim of this is to extract data and information on the area in question, looking at archaeological sites, historical sites and graves of the area.

2.1.2 Information Collection
The SAHRA report mapping project (Version 1.0) was consulted to collect data from previously conducted CRM projects in the region to provide a comprehensive account of the history of the study area. The South African Heritage Information System was also used to collect information.

2.1.3 Consultation
No consultation was conducted by the heritage team as this was conducted as part of the BA.

2.1.4 Google Earth and Mapping Survey
Google Earth and 1:50 000 maps of the area were utilised to identify possible places where sites of heritage significance might be located.

2.1.5 Genealogical Society of South Africa
The database of the Genealogical Society was consulted to collect data on any known graves in the area.

2.2 Phase 2 - Physical Surveying
A field survey of the study area of 1.26 Ha was conducted. The study area was surveyed on foot by a professional archaeologist on 7 August 2013.

2.3. Restrictions
Due to the fact that most cultural remains may occur below surface, the possibility exists that some features or artefacts may not have been discovered/ recorded during the survey. Low archaeological visibility is due to extensive ground disturbance, illegal dumping and vegetation, and the possible occurrence of unmarked graves and other cultural material cannot be excluded. Although Heritage Contracts and Archaeological Consulting CC surveyed the area as thoroughly as possible, it is incumbent upon the developer to stop operations and inform the relevant heritage agency should further cultural remains, such as unmarked graves, stone tool scatters, artefacts, bones or fossils, be exposed during the process of development.

3. NATURE OF THE DEVELOPMENT

The development will include the rezoning and construction of a filling station with its associated infrastructure.

4. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND OF THE STUDY AREA

4.1 Databases Consulted

Wits Archaeological Data Bases

No previously recorded sites are on record for the 2628 BB topographic map at the Wits database (referenced 2009).

SAHRA Report Mapping Project

No surveys are on record in a radius of less than 3.5 km from the site. Further south outside of this radius several studies were conducted (van Schalkwyk (2003), Huffman & Calabrese (1997), kusel (2013)). Of these studies only Huffman and Calabrese recorded sites possibly associated with the Anglo Boer War and sites used for religious purposes.

Genealogical Society and Google Earth Monuments

The monuments database at Google Earth has the provincial heritage site “Langlaagte Deep Mining village” on record adjacent to the study area (directly north). The genealogical society does not have any grave sites on record for the study area.

4.2 Archaeological and Historical Information Available on the Study Area

Johannesburg has a rich and varied heritage. It is important to also take into account history of the greater area around the study area to contextualize the study. Below is a brief discussion of black and white interaction in the Johannesburg area, the history of the town of Johannesburg as well as a brief description of the Langlaagte Deep Village.

4.2.1. A Brief History Of Human Settlement And Black And White Interaction In The Johannesburg Area

J. S. Bergh's historical atlas of the four northern provinces of South Africa is a very useful source for the writing of local and regional history. Interestingly, it seems that the study area is located in the vicinity of the Melville Koppies, which is a Middle Stone-Age site. (Geskiedenisatlas van Suid-Afrika 1999: 4) This area was also important to Iron Age communities, since these people had smelted and worked iron ore at the Melville Koppies site since the year 1060, by approximation. (Geskiedenisatlas van Suid-Afrika 1999: 7, 87)

The Difaqane (Sotho), or Mfekane ("the crushing" in Nguni) was a time of bloody upheavals in Natal and on the Highveld, which occurred around the early 1820's until the late 1830's. (Geskiedenisatlas van Suid-Afrika 1999: 10) It came about in response to heightened competition for land and trade, and caused population groups like gun-carrying Griquas and Shaka's Zulus to attack other tribes. (Geskiedenisatlas van Suid-Afrika 1999: 14; 116-119) It seems that, in 1827, Mzilikazi's Ndebele started moving through the area where Johannesburg is located today. This group went on raids to various other areas in order to expand their area of influence. (Geskiedenisatlas van Suid-Afrika 1999: 11)

During the time of the Difaqane, a northwards migration of white settlers from the Cape was also taking place. Some travellers, missionaries and adventurers had gone on expeditions to the northern areas in South Africa, some already as early as the 1720's. One Bain travelled through, or close by the area in 1831. One Harris also travelled through this area in 1836. (Geskiedenisatlas van Suid-Afrika 1999: 13)

It was however only by the late 1820's that a mass-movement of Dutch speaking people in the Cape Colony started advancing into the northern areas. This was due to feelings of mounting dissatisfaction caused by economical and other circumstances in the Cape. This movement later became known as the Great Trek. This migration resulted in a massive increase in the extent of that proportion of modern South Africa dominated by people of European descent. (Ross 2002: 39) By 1939 to 1940, farm boundaries were drawn up in an area that includes the present-day Johannesburg and Krugersdorp. (Geskiedenisatlas van Suid-Afrika 1999: 15)

4.2.2. Johannesburg

The city of Johannesburg was formally established in 1886 with the discovery of gold and the Witwatersrand reef on the farm Langlaagte. This gold discovery set off an influx of people from all over the world into the settlement to find gold. The new settlement was named after two officials of the Zuid-Afrikaansche Republijk (ZAR), Christiaan Johannes Joubert and Johannes Rissik, who both worked in land surveying and mapping.

4.2.3. Langlaagte Deep

Langlaagte Deep was established in September 1895. It is one of the oldest villages on the reef and the oldest village in Johannesburg. The village was developed in 1903-1904 to house employees of the company. It included a mine manager's house, housing for senior officials, single quarters for men, and terraced accommodation for married workers. A recreation hall and club facilities were also provided. The conservation project has retained 35 units of the married quarters, which originally housed miners mainly from Cornwall, who were also active in the union labour movement. In 1909 Langlaagte Deep was taken over by Crown Mines Ltd. It was declared a National Monument under old NMC legislation on 10 March 1989 (www.sahistory.com).

4.2.4. Archaeology of the area

Although there are no well-known Stone Age sites located on or around the study area there is evidence of the use of the larger area by Stone Age communities for example along the Kliprivier where ESA and MSA tools

where recorded . For the Later Stone Age some petroglyphs occur to the south at Redan as well as along the Vaal River (Berg 1999).

Regarding the Iron Age, the well-known Smelting Site at Melville Koppies requires further mention. The site was excavated by Professor Mason from the Department of Archaeology of WITS in the 1980's. Extensive Stone walled sites are also recorded at Klipreviers Berg Nature reserve belonging to the Late Iron Age period. A large body of research is available on this area. These sites (Taylor's Type N, Mason's Class 2 & 5) are now collectively referred to as Klipriviersberg (Huffman 2007). These settlements are complex in that aggregated settlements are common, the outer wall sometimes includes scallops to mark back courtyards, there are more small stock kraals, and straight walls separate households in the residential zone. These sites dates to the 18th and 19th centuries and was built by people in the Fokeng cluster.

In this area the Klipriviersberg walling would have ended at about AD 1823, when Mzilikazi entered the area (Rasmussen 1978). This settlement type may have lasted longer in other areas because of the positive interaction between Fokeng and Mzilikazi.

5. HERITAGE SITE SIGNIFICANCE AND MITIGATION MEASURES

The presence and distribution of heritage resources define a 'heritage landscape'. In this landscape, every site is relevant. In addition, because heritage resources are non-renewable, heritage surveys need to investigate an entire project area, or a representative sample, depending on the nature of the project. In the case of the proposed development the local extent of its impact necessitates a representative sample and only the footprint of the areas demarcated for development were surveyed. In all initial investigations, however, the specialists are responsible only for the identification of resources visible on the surface.

This section describes the evaluation criteria used for determining the significance of archaeological and heritage sites. The following criteria were used to establish site significance:

- The unique nature of a site;
- The integrity of the archaeological/cultural heritage deposits;
- The wider historic, archaeological and geographic context of the site;
- The location of the site in relation to other similar sites or features;
- The depth of the archaeological deposit (when it can be determined/is known);
- The preservation condition of the sites;
- Potential to answer present research questions.

Furthermore, The National Heritage Resources Act (Act No 25 of 1999, Sec 3) distinguishes nine criteria for places and objects to qualify as 'part of the national estate' if they have cultural significance or other special value. These criteria are:

- Its importance in/to the community, or pattern of South Africa's history;
- Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
- Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
- Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
- Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
- Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;

- » Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa;
- » Sites of significance relating to the history of slavery in South Africa.

5.1. Field Rating of Sites

Site significance classification standards prescribed by SAHRA (2006), and approved by ASAPA for the SADC region, were used for the purpose of this report. The recommendations for each site should be read in conjunction with section 7 of this report.

FIELD RATING	***GRADE***	***SIGNIFICANCE***	***RECOMMENDED MITIGATION***
National Significance (NS)	Grade 1	-	Conservation; national site nomination
Provincial Significance (PS)	Grade 2	-	Conservation; provincial site nomination
Local Significance (LS)	Grade 3A	High significance	Conservation; mitigation not advised
Local Significance (LS)	Grade 3B	High significance	Mitigation (part of site should be retained)
Generally Protected A (GP.A)	-	High/medium significance	Mitigation before destruction
Generally Protected B (GP.B)	-	Medium significance	Recording before destruction
Generally Protected C (GP.C)	-	Low significance	Destruction

6. BASELINE STUDY-DESCRIPTION OF STUDY AREA

Stand 330 is vacant and is characterised by illegal dumping of waste and construction material. The site is bordered by Jupiter road to the south, Crownwood road to the east and a service road on the north. It is past the service road that what remains of “Crown Village” is situated. This service road that is also the northern boundary of the study area is bounded by an avenue of big plane trees that would have formed part of the centre of the old village (co-ordinates S26º13’09.13” E28º00’25.45” - S26º13’08.86” E28º00’20.73”). Unfortunately the rest of the village was demolished by developments after 1943.

Although the study area consists of a vacant stand it forms part of a larger mining development that evolved over a period of more than 100 years due to the development and expansion of the activities of the Langlaagte Deep Mine on the farm Langlaagte. The Langlaagte Deep Mining village was developed in 1903-1904 to house employees of the company and included a mine manager's house, housing for senior officials, single quarters for men and accommodation for married workers. This village was constructed in a large rectangle (Figure 7) but due to developments in the area, half of the village was demolished and the remaining half of the buildings now falls adjacent to the study area. Based on the general character of the built fabric and nature of the layout of the entire village, the layout of the buildings had a large green or communal open space in its centre and it is on a part of this open space that the current study area is located. This open space is currently made up of Erf 329 (that has a residential dwelling and outbuildings on it). According to Mrs Flo Bird of the Johannesburg Heritage foundation this is the house of the original underground manager of Langlaagte Deep Mine designed by Sir Herbert Baker (email dated 2 July 2013). This structure is not indicated on the 1943 map of the site but might have been accidentally omitted or the house was built after 1943 making it of low heritage significance. The other Erf 330 is still vacant.

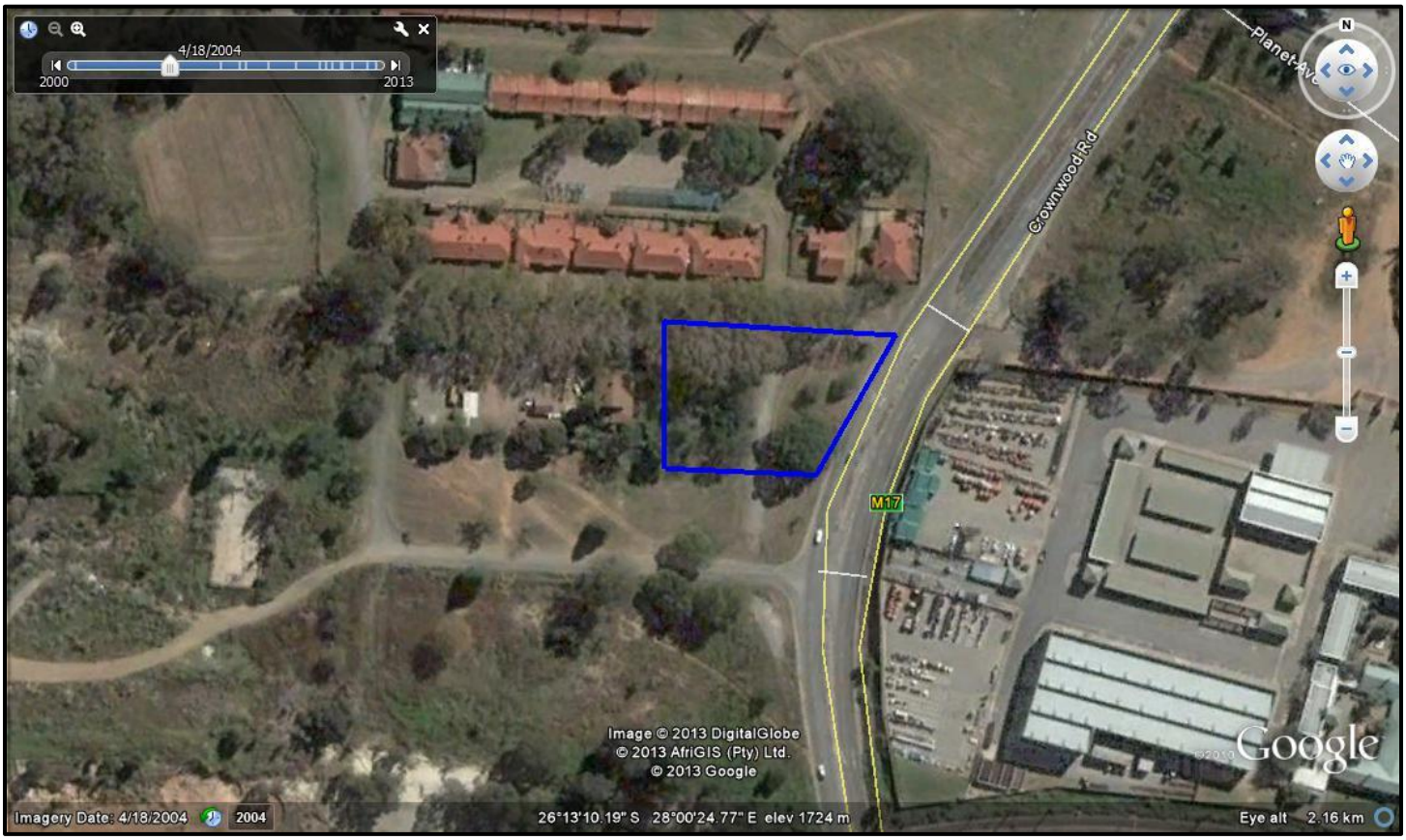

Figure 2: Google image of the study area from 2004.

Figure 3: Illegal dumping on the site.

Figure 4: Erf 330 viewed from the east.

Figure 5: Structure on adjacent Erf 329 with the study area in the foreground

Figure 6: Erf 330 viewed from the south.

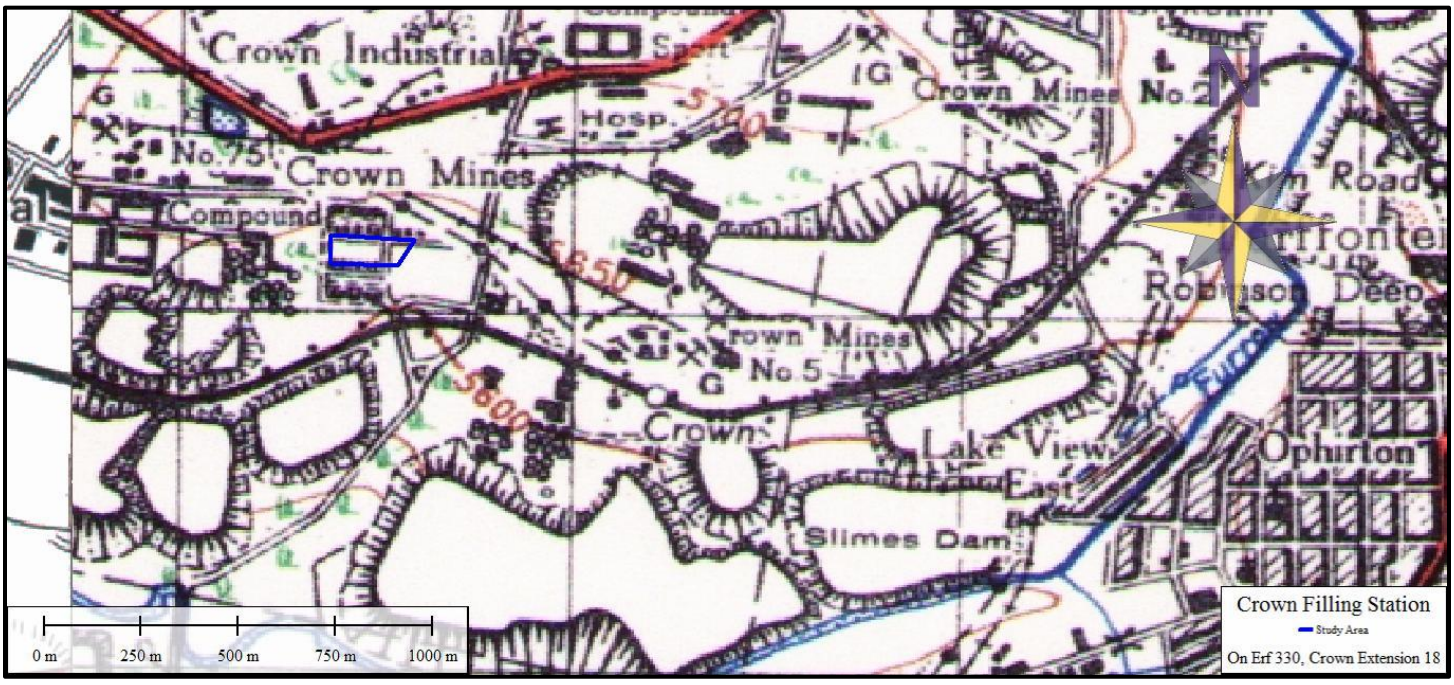

Figure 7: 1943 Map of the study area

Figure 8: Google Imageof the study area - 2013

Figure 9. Avenue of plane trees viewed from the west.

Figure 10. Dwellings from “Crown Village”.

Figure 11. Dwelling in “Crown Village”.

Figure 12. Corrugated dwelling in “Crown Village”.

7. DISCUSSION

Apart from an avenue of Plane trees on the northern periphery of the site no other sites of heritage significance were identified on Erf 330 during the archaeological assessment. However, the site is adjacent to the Provincial Heritage site of Langlaagte Deep Mining village also known as Crown Village, situated on an open space that used to form part of the village and it is in this context that the impact of the development of the proposed filling station must be assessed. The following heritage elements were noted during the survey.

Streetscape characteristics:

A prominent feature of the old village was the central open space with two blocks of structures facing towards this open space that Erf 330 is situated on. Unfortunately most of the arterial routes linking the units are gone. A service road is still intact forming the border between Erf 330 and the Provincial Heritage site. This street is characterized by the number of tall plane trees that define the green character of the street.

Vegetation:

One of the exceptional aspects of the site is the “avenue” of historic tall mature plane trees that still occur along the road of the original village along the northern boundary.

Although these trees are all exotic species they are of historic significance as the most mature examples are older than 100 years or older than 60 years and therefor protected by legislation. This avenue of plane trees are in situ and still serve their original purpose as shading and decorative features along the street – not as garden vegetation.

(Spatial) Significance

The study area is on a piece of land adjoining a historically significant area that has been altered and demolished to the extent that only a small portion of the original historic fabric remains. The surrounding area to the west and south of Erf 330 house new and modern developments that have already detracted from the historical character of the area. Care will therefore have to be taken not to further detract from the historic character of Langlaagte Deep Mining village especially along the northern boundary of the site.

Therefore the following recommendations are made:

- The proposed development should not ‘decontextualize’ the historic character of Langlaagte Deep Village by introducing infra-structure that does not retain the historic interface between the village and the streetscape along the northern periphery of the development.
- Retain oldest and tallest trees along existing historic lane/street. This refers to the “avenue” of plane trees that occurs along the east-west street.
- Use the filling station as an urban ‘point of memorialisation’ of the adjoining provincial heritage site. Archival research into this aspect was not part of the current scope of work but should be conducted to highlight aspects for memorialisation relating to the history of Langlaagte deep Village. Memorialisation implies that an information plaque is erected as a place where the public must be informed about the history of the site and all its associations during its period of existence. This will indicate the developer’s commitment to preserve and present something of the past to the community.
- Mines in the area is known for unmarked cemeteries containing the remains of Chinese and indigenous people that used to work on the mines. If any remains are exposed during construction operations must be stopped immediately and an archaeologist must be contacted to assess the finds.
- An archaeological watching brief must be implemented during the construction phase of the development to ensure that no human remains, archaeological material or historical refuse middens and artefacts are lost due to the construction.
- It is recommended that the developer should first get comments and input from SAHRA before proceeding with planned development of the site as this might influence the development lay out.

If during construction, any archaeological or historical finds are made (e.g. refuse middens, skeletal material), the operations must be stopped, and the archaeologist must be contacted for an assessment of the finds.

If these recommendations are adhered to and subject to the approval of SAHRA, we are of the opinion from an archaeological point of view that the development can go ahead.

8. PLAN OF STUDY

This report must now be submitted to the Johannesburg Heritage Association for their comments and input. Subsequently, the report must be submitted to the Gauteng PHRA and SAHRA APM Unit for peer review. Based on the recommendations by these parties further work might be required.

9. PROJECT TEAM

Jaco van der Walt BA (Pret) BA (Hons) (Archaeology) (Wits), MA (Archaeology) (Wits)

10. STATEMENT OF COMPETENCY

I (Jaco van der Walt) am a member of ASAPA (no 159), and accredited in the following fields of the CRM Section of the association: Iron Age Archaeology, Colonial Period Archaeology, Stone Age Archaeology and Grave Relocation. This accreditation is also valid for/acknowledged by SAHRA and AMAFA.

Currently, I serve as Council Member for the CRM Section of ASAPA, and have been involved in research and contract work in South Africa, Botswana, Zimbabwe, Mozambique and Tanzania as well as the DRC; having conducted more than 300 AIAs since 2000.

11. REFERENCES

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