**Archaeological Impact Assessment** 

1

For the proposed development of Erf 78 in Waltloo

**Final Report** 

**Prepared For** 

## **Enerwaste Solutions**

By



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VERSION 1.1 21 January 2015 CLIENT:

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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.

<u>SIGNATURE:</u>

#### **EXECUTIVE SUMMARY**

**Site name and location:** The proposed health care risk waste incinerator is located on Erf 78 Waltloo, Pretoria in the 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 area demarcated for the proposed health care risk waste incinerator

#### 1:50 000 Topographic Map: 2528 CB

Environmental Consultant: Enerwaste Solutions (Pty) Ltd

**Developer:** Enerwaste Solutions **Heritage Consultant:** Heritage Contracts and Archaeological Consulting CC (HCAC). <u>Contact person</u>: Jaco van der Walt <u>Tel:</u> +27 82 373 8491

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Date of Report: 21 January 2015

#### Findings of the Assessment:

The study area is located within the Waltloo commercial node that includes large industrial activities as well as several other smaller industries focussing on home medical services and construction. All of these activities would have impacted on any surface indications of archaeological sites.

The study area was assessed in terms of the archaeological component of Section 35 of the NHRA and although Early and Late Iron Age sites are known to occur in the area the extensive industrial developments in the study sites would have obliterated any possible surface indications of archaeological sites. This was confirmed during the survey and no surface indicators of archaeological (Stone or Iron Age) material was identified in the study area.

In terms of the built environment of the area (Section 34), various structures occur in the study area. These are all modern industrial warehouses and for the purposes of this project no demolition of these warehouses will occur.

Due to the lack of significant heritage features in the study area there are from an archaeological point of view no reason why the development cannot commence work based on approval from SAHRA.

#### General

Due to the subsurface nature of archaeological material and unmarked graves the possibility of the occurrence of unmarked or informal graves and subsurface finds cannot 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 | Health care risk waste incinerator |  |
| Consultant:         | Enerwaste Solutions (Pty) Ltd      |  |

The Archaeological Impact Assessment report forms part of the BIA 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, a desktop study that includes collection from various published and unpublished sources; 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 within the proposed development footprint. 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 SAHRA for review.

## **1.1 Terms of Reference**

## **Desktop study**

Conducting a brief desktop study where information on the area is collected to provide a background setting of the archaeology that can be expected in the area.

## 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 is a legal body, based in South Africa, representing 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 proposed health care risk waste incinerator is located on Erf 78 Waltloo, Pretoria in the Gauteng province. The site is directly accessible from Mundt Street in Waltloo. The site is located at 25° 43'19.65" and 27° 19'36.7" measuring 1, 2243 ha. The study area is situated within a Savanna Biome. The Savanna Biome is the largest Biome in southern Africa, occupying over one-third of the surface area of South Africa (Mucina & Rutherford, 2006). It is characterised by a grassy ground layer and a distinct upper layer of woody plants. Where this upper layer is near the ground the vegetation may be referred to as Shrubveld, where it is dense, as Woodland, and the intermediate stages are locally known as Bushveld (Mucina & Rutherford, 2006).

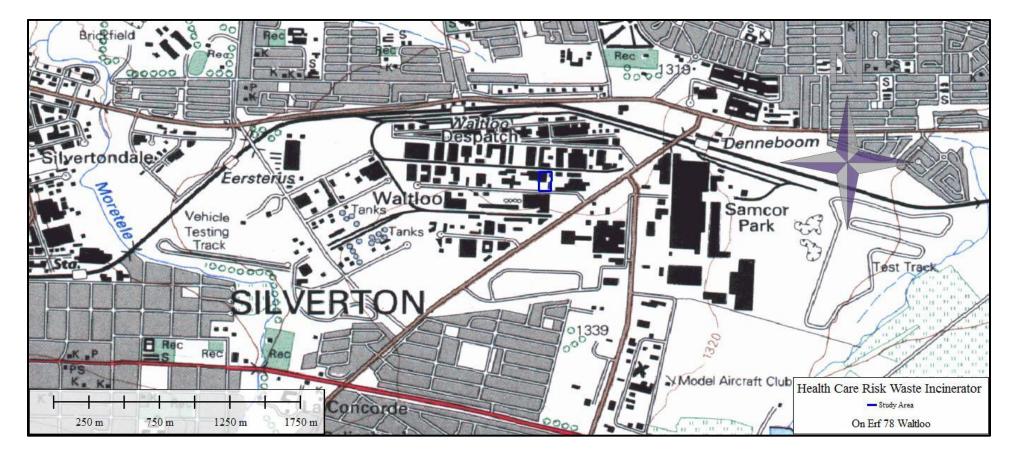


Figure 1: Location map showing the study area in blue.

# 2. APPROACH AND METHODOLOGY

The aim of the study is to cover archaeological databases to compile a background of the archaeology that can be expected in the study area followed by field verification; this was accomplished by means of the following phases.

## 2.1 Phase 1 - Desktop Study

The first phase comprised a desktop study scanning existing records for archaeological sites, historical sites, graves, architecture (structures older than 60 years) of the area.

## 2.1.1 Literature Search

Utilising data for information gathering stored in the archaeological database at Wits and previous CRM reports done in the area. The aim of this is to extract data and information on the area in question.

#### 2.1.2 Information Collection

The SAHRA report mapping project (Version 1.0) and SAHRIS 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.

## 2.1.3 Consultation

No public consultation was conducted by Heritage Specialist.

## 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

Due to the nature of cultural remains, the majority of which occurs below surface, a field survey of the study area was conducted. The study area was surveyed by means of vehicle and extensive surveys on foot by a professional archaeologist on the 15<sup>th</sup> of January 2015.

## 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. Due to the extensive industrial modification of the study area there is low archaeological visibility and the possible occurrence of unmarked graves and other cultural material cannot be excluded.

Only the surface infrastructure footprint area was surveyed as indicated in the location map, and not the entire surrounding area. Although HCAC 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 stone tool scatters, artefacts, bones or fossils, be exposed during the process of development.

### **3. NATURE OF THE DEVELOPMENT**

Enerwaste **Solutions (Pty) Ltd proposes to** establish a facility for the thermal treatment of Health Care Risk Waste (HCRW). The proposed facility will consist of three separate units with a combined capacity to treat 1050 kg of HCRW per day. The property for the proposed establishment and operation of the facility has a surface area of approximately 1.2 hectares. The site is situated in an industrial area at Erf 78 in Waltloo, City of Tshwane in the Gauteng Province (site coordinates: S25°43'17.511"; E028°19'36.710").

## 4. HISTORICAL AND ARCHAEOLOGICAL BACKGROUND OF THE STUDY AREA

## 4.1 Databases Consulted

Several previous CRM surveys are on record for the larger study area. Van Schalkwyk and de Jong 1998 conducted a survey to the east of the study area for an urban development; they recorded no significant heritage features. Another study by Van Schalkwyk 2011 in Waltloo for a road development project also recorded no archaeological features but did record structures older than 60 years. Another project just to the west of the current study area also in Mundt Street for a Metal Reclamation Facility on the remaining extent of Erf 110, Waltloo was granted exemption from an HIA. Further away to the east in Mamelodi several Late Iron Age settlements are recorded linked to Southern Ndebele speaking people with an occupation date ranging between the 1600's up to the 1800's (van Schalkwyk 2011 & Van der Walt 2008). To the North West at Derdepoort several sites with Early Iron Age material are on record (Nienaber et al 1997, van der Walt 2007). 4 Sites are on record for the 2528CB 1: 50 000 map, these sites consist of LIA and ESA sites. None of these are in close proximity to the study area.

Google Earth and 1:50 000 maps of the area were utilised to identify possible places where archaeological and historical sites might be located.

#### Genealogical Society and Google Earth Monuments

Neither the Genealogical Society nor the monuments database at Google Earth (Google Earth also include some archaeological sites and historical battlefields) have any recorded sites in the study area.

## 4.2 Background Information for the study 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 histories. In the greater Pretoria area an Early Stone Age Terrain, known as Wonderboompoort has been identified. This area was also important to Iron Age communities, as it was located within an area where many Late Iron Age terrains were found. (Bergh 1999: 4, 7).

Another Iron Age site is the early Iron Age Site of Derdepoort where a small collection of ceramics was uncovered dating back to the 4th to 7<sup>th</sup> century AD (Nienaber et al 1997).

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. 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. At the beginning of the nineteenth century, the predominant black tribe in the area north of Pretoria was the Manala-Ndebele. The Kgatla were also present to the north of where Pretoria is located today. It seems that, in 1832, Shaka's Zulu tribe passed by the south of Pretoria from the southeast in a westerly direction. This was in order to attack Mzilikazi's Ndebele. This group also went on raids in various other areas in order to expand their area of influence. (Bergh 1999: 11, 14,109-119). 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 as early as the 1720's.

The Scottish travellers Robert Scoon and William McLuckie passed through, or close by the area where the study area was located in 1829. In the same year, Robert Moffat and James Archbell also travelled through this area. In the mid 1830's, several travellers made their way from the Pretoria area inland. These included the travellers Robert Scoon, Dr Andrew Smith and Captain William Cornwallis Harris. (Bergh 1999: 12-13)

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)

Pretoria was founded in 1855 and became the capital of South Africa, then known as the Zuid-Afrikaanse Republiek (ZAR), in 1860. By 1900, Pretoria was a thriving Transvaal town, with shaded streets, well-kept gardens and a lively economy. In mid-1899, the Pretoria district had a white population of 21 000 men and 19 000 women, while the black, coloured and Indian population totalled 38 618. (Theron 1984: 1-3)

The Anglo-Boer War was the greatest conflict that had taken place in South Africa up to date, and also affected the Pretoria district. The white concentration camp closest to the study area was situated a small distance to the northeast of Pretoria. A white and a black concentration camp are located to the southwest of Pretoria, in the Irene area.

The Boer side generally lost ground against the British in this area as the war continued, and in June 1900 the Boer military leaders decided that Pretoria would have to be surrendered to the British forces. This decision was inevitable if the war was to be continued. The town was very susceptible to a siege, and its defence would have gravely endangered the lives of its inhabitants. More importantly, the defence of the town would involve such a great number of Boers that the capture of these men would have surely meant the end of the war. Pretoria was therefore occupied by British forces on Tuesday 5 June 1900. (Bergh 1999: 54, 250; Theron 1984: 273-279).

The battle of Diamond hill took place to the east of the study area a couple of days later. The battle is also referred to as the battle of Donkerhoek. Lord Roberts and his army occupied Pretoria and expected the Boers to surrender, the Boers however moved their capital to Machadodorp and went to great lengths to protect the railway line to prevent the British from moving east toward Machadodorp. General Louis Botha strategically positioned 3500 men in the hills in areas where he expected the British would try and pass. The British advanced toward Botha's forces with 5000 mounted men and 8000 infantry including about 70 guns. The British stated their aims to be to clear the Boers from the Pretoria area. The British attacked both ends of the Boer line on 11 June 1900. Their infantry and artillery advanced toward the centre of the position. The next day the British launched a strong attack on the Boers and improved their position which forced the Boers to flee. The Boers lost 30 men (11 were killed) and the British suffered 180 casualties. The Boers left with a sense of victory and the determination to continue to fight. The war lasted 2 more years and guerrilla warfare was characteristic of the war. Another battle took place at Silkaatsnek, to the northwest of Pretoria, some distance from the project area. Here, General De la Rey's Boer troops defeated the British army on 11 July 1900.

Between 1939 and 1940, farm boundaries were drawn up in an area that includes the present-day Pretoria. (Bergh 1999: 15).

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

## 6. BASELINE STUDY-DESCRIPTION OF SITES

It is important to note that only the footprint of the proposed development was surveyed as indicated in Figure 1. The study area is extensively disturbed by industrial developments (Figure 3) and although LIA stone walled sites are on record 8.3 km to the east on the farm Hatherley (van Schalkwyk 1998, van der Walt 2008) as well as Early Iron Age sites at Derdepoort 4.6 km to the North west (Nienaber 1997, van der Walt 2008), the extensive industrial developments in the area would have obliterated any possible surface indications of archaeological sites. This was confirmed during the survey and no surface indicators of archaeological (Stone or Iron Age) material was identified in the study area.

In terms of the built environment of the area (Section 34), various structures occur in the study area (Figure 4 -7). These are all modern industrial warehouses not older than 60 years. From the 1943 archival map (Figure 2) it is clear that no buildings or infrastructure occurred in the area at that time.

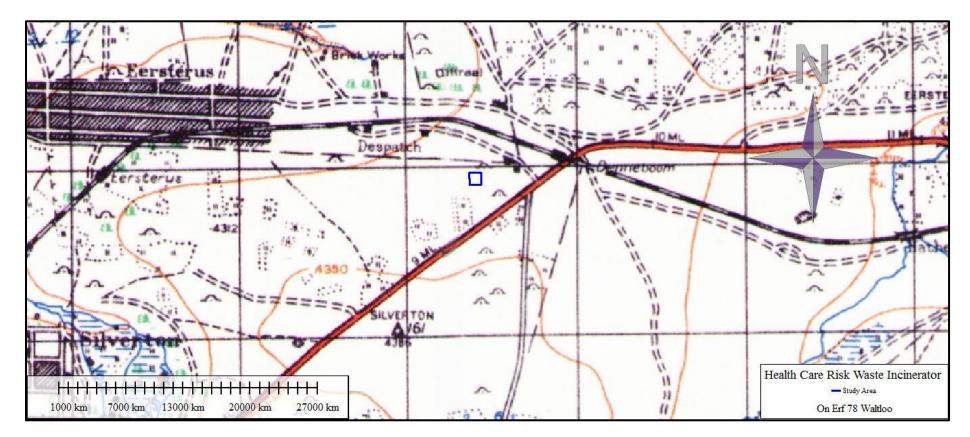


Figure 2: Enlarged section of the 2528 CB sheet that was drawn in 1943.



Figure 3: Study area in blue with track logs in black.



Figure 4: Study area viewed from the North.

Figure 5: Modern warehouses in the study area.



Figure 6: Storage facility.

Figure 7: Offices.

#### 7. RECOMMENDATIONS AND CONCLUSIONS

The study area is located within the Waltloo commercial node that includes large industrial activities as well as several other smaller industries focussing on home medical services and construction. All of these activities would have impacted on any surface indications of archaeological sites.

The study area was assessed in terms of the archaeological component of Section 35 of the NHRA and although the larger area is known for LIA stone walled sites and EIA sites the extensive industrial developments in the area would have obliterated any possible surface indications of archaeological sites. This was confirmed during the survey and no surface indicators of archaeological (Stone or Iron Age) material was identified in the study area.

Considering that the study area has been highly disturbed by semi-industrial and industrial activities and that it is highly unlikely that any significant heritage resources are still present within the study area there are from an archaeological point of view no reason why the development cannot commence work based on approval from SAHRA.

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

It is therefore recommended that chance find procedures are put in place during the construction period to mitigate any accidental finds as described below.

#### **Chance finds procedure**

This procedure applies to the developer's permanent employees, its subsidiaries, contractors and subcontractors, and service providers. The aim of this procedure is to establish monitoring and reporting procedures to ensure compliance with this policy and its associated procedures. Construction crews must be properly inducted to ensure they are fully aware of the procedures regarding chance finds as discussed below.

- If during the construction, operations or closure phases of this project, any person employed by the developer, one of its subsidiaries, contractors and subcontractors, or service provider, finds any artefact of cultural significance, this person must cease work at the site of the find and report this find to their immediate supervisor, and through their supervisor to the senior on-site manager.
- It is the responsibility of the senior on-site Manager to make an initial assessment of the extent of the find, and confirm the extent of the work stoppage in that area.
- The senior on-site Manager will inform the ECO of the chance find and its immediate impact on operations. The ECO will then contact a professional archaeologist for an assessment of the finds who will notify the SAHRA.

#### 8. PROJECT TEAM

Jaco van der Walt, Project Manager

#### 9. 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.

I have been involved in research and contract work in South Africa, Botswana, Zimbabwe, Mozambique, Tanzania and the DRC; having conducted more than 400 AIAs since 2000.

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