



Archaeetnos Culture & Cultural  
Resource Consultants  
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**A REPORT ON A HERITAGE IMPACT ASSESSMENT STUDY FOR A PROPOSED LIGHT  
INDUSTRIAL DEVELOPMENT ON NEW MODDER EXTENSION 6  
EKURHULENI METROPOLITAN AREA, GAUTENG**

For:

**K2M TECHNOLOGIES  
PRIVATE BAGX92329  
RUSTENBURG  
0300**

REPORT: **AE 943**

by:

**A.J. Pelser**

**Accredited Member of ASAPA**

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Archaeetnos  
P.O.Box 31064  
WONDERBOOMPOORT  
0033  
Tel: 083 291 6104/**083 459 3091**  
Fax: **086 520 0376**  
Email: **antonp21@yahoo.com**

Members: AC van Vollenhoven BA, BA (Hons), DTO, NDM, MA (Archaeology) [UP],  
MA (Culture History) [US], DPhil (Archaeology) [UP], Man Dip [TUT]  
AJ Pelser BA (UNISA), BA (Hons) (Archaeology), MA (Archaeology) [WITS]

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## SUMMARY

Archaeon cc was contracted by K2M Technologies, on behalf of New Modder Township (Pty) Ltd, to conduct a Heritage Impact Assessment Study for a proposed new light industrial development on New Modder Extension 6, near Boksburg, in the Ekurhuleni Metropolitan Area, Gauteng.

The fieldwork undertaken revealed no objects, features or sites of any cultural (archaeological or historical) heritage significance in the area of proposed development. **The proposed development can therefore continue, as there will be no impact on any significant heritage resources, taking cognizance of some assumptions and recommendations put forward in the conclusions.**

## CONTENTS

	page
SUMMARY .....	3
CONTENTS .....	4
1. INTRODUCTION .....	5
2. TERMS OF REFERENCE .....	5
3. CONDITIONS AND ASSUMPTIONS .....	5
4. LEGAL REQUIREMENTS .....	6
5. METHODOLOGY.....	7
6. DESCRIPTION OF THE AREA .....	7
7. DISCUSSION.....	9
8. CONCLUSIONS AND RECOMMENDATIONS .....	10
9. REFERENCES .....	10
APPENDIX A.....	11
APPENDIX B.....	12
APPENDIX C .....	13

## **1. INTRODUCTION**

Archaeon cc was contracted by K2M Technologies, on behalf of New Modder Township (Pty) Ltd, to conduct a Heritage Impact Assessment Study for a proposed new light industrial development on New Modder Extension 6, near Boksburg, in the Ekurhuleni Metropolitan Area, Gauteng.

The client indicated the area where the proposed development is to take place, and the survey was confined to this area.

## **2. TERMS OF REFERENCE**

The Terms of Reference for the survey were to:

1. Identify all objects, sites, occurrences and structures of an archaeological or historical nature (cultural heritage sites) located on the property (see Appendix A).
2. Assess the significance of the cultural resources in terms of their archaeological, historical, scientific, social, religious, aesthetic and tourism value (see Appendix B).
3. Describe the possible impact of the proposed development on these cultural remains, according to a standard set of conventions.
4. Propose suitable mitigation measures to minimize possible negative impacts on the cultural resources.
5. Recommend suitable mitigation measures should there be any sites of significance that might be impacted upon by the proposed development.
6. Review applicable legislative requirements.

## **3. CONDITIONS & ASSUMPTIONS**

The following conditions and assumptions have a direct bearing on the survey and the resulting report:

1. Cultural Resources are all non-physical and physical man-made occurrences, as well as natural occurrences associated with human activity. These include all sites, structure and artifacts of importance, either individually or in groups, in the history, architecture and archaeology of human (cultural) development. Graves and cemeteries are included in this.
2. The significance of the sites, structures and artifacts is determined by means of their historical, social, aesthetic, technological and scientific value in relation to their uniqueness, condition of preservation and research potential. The various aspects are not mutually exclusive, and the evaluation of any site is done with reference to any number of these aspects.
3. Cultural significance is site-specific and relates to the content and context of the site. Sites regarded as having low cultural significance have already been recorded in full and require no further mitigation. Sites with medium cultural significance may or may not require mitigation depending on other factors such as the significance of impact on the site. Sites with a high cultural significance require further mitigation (see Appendix B).
4. The latitude and longitude of any archaeological or historical site or feature, is to be treated as sensitive information by the developer and should not be disclosed to members of the public.
5. All recommendations are made with full cognizance of the relevant legislation.
6. It has to be mentioned that it is almost impossible to locate all the cultural resources in a given area, due to factors such as vegetation and the subterranean presence of objects,

features and sites. Developers should however note that the report should make it clear how to handle any other finds that might occur.

#### **4. LEGISLATIVE REQUIREMENTS**

Aspects concerning the conservation of cultural resources are dealt with mainly in two acts. These are the National Heritage Resources Act (Act 25 of 1999) and the National Environmental Management Act (Act 107 of 1998).

##### **4.1 The National Heritage Resources Act**

According to the above-mentioned law the following is protected as cultural heritage resources:

- a. Archaeological artifacts, structures and sites older than 100 years
- b. Ethnographic art objects (e.g. prehistoric rock art) and ethnography
- c. Objects of decorative and visual arts
- d. Military objects, structures and sites older than 75 years
- e. Historical objects, structures and sites older than 60 years
- f. Proclaimed heritage sites
- g. Grave yards and graves older than 60 years
- h. Meteorites and fossils
- i. Objects, structures and sites of scientific or technological value.

##### **Archaeology, palaeontology and meteorites**

Section 35(4) of this act states that no person may, without a permit issued by the responsible heritage resources authority:

- a. destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or any meteorite;
- b. destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or any meteorite;
- c. trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
- d. bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment that assists in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.
- e. alter or demolish any structure or part of a structure which is older than 60 years as protected.

The above mentioned may only be disturbed or moved by an archaeologist, after receiving a permit from the South African Heritage Resources Agency.

##### **Human remains**

In terms of Section 36(3) of the National Heritage Resources Act, no person may, without a permit issued by the relevant heritage resources authority:

- a. destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves;
- b. destroy, damage, alter, exhume or remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or
- c. bring onto or use at a burial ground or grave referred to in paragraph (a) or (b) any excavation, or any equipment which assists in the detection or recovery of metals.

Human remains that are less than 60 years old are subject to provisions of the Human Tissue Act (Act 65 of 1983) and to local regulations. Exhumation of graves must conform to the standards set out in the **Ordinance on Excavations (Ordinance no. 12 of 1980)** (replacing the old Transvaal Ordinance no. 7 of 1925).

Permission must also be gained from the descendants (where known), the National Department of Health, Provincial Department of Health, Premier of the Province and local police. Furthermore, permission must also be gained from the various landowners (i.e. where the graves are located and where they are to be relocated) before exhumation can take place.

Human remains can only be handled by a registered undertaker or an institution declared under the **Human Tissues Act (Act 65 of 1983 as amended)**.

Unidentified/unknown graves are also handled as older than 60 until proven otherwise.

## **4.2 The National Environmental Management Act**

This act states that a survey and evaluation of cultural resources must be done in areas where development projects, that will change the face of the environment, will be undertaken. The impact of the development on these resources should be determined and proposals for the mitigation thereof are made.

## **5. METHODOLOGY**

### **5.1 Survey of literature**

A desktop study, to place any archaeological sites that might be identified during the survey in a local and general context, was undertaken. A basic description of the various periods in the archaeology of southern Africa is also given.

### **5.2 Field survey**

The survey was conducted according to generally accepted HIA practices and was aimed at locating all possible objects, sites and features of cultural significance in the area of proposed development. If required, the location/position of any site was determined by means of a Global Positioning System (GPS), while photographs were also taken where needed.

The survey was undertaken on foot.

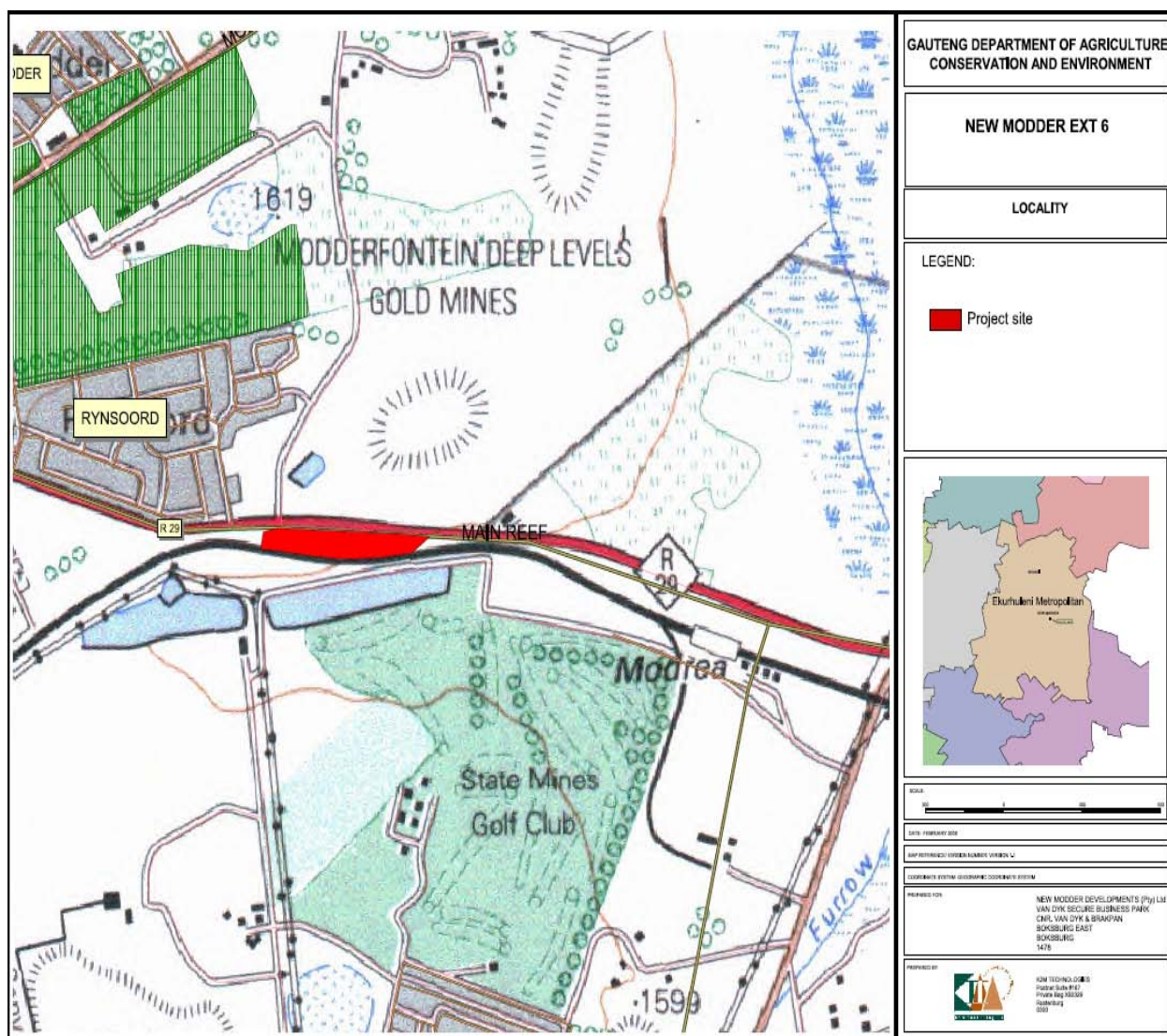
### **5.3 Documentation**

All sites, objects features and structures identified are documented according to the general minimum standards accepted by the archaeological profession. Co-ordinates of individual localities are determined by means of the Global Positioning System (GPS). The information is added to the description in order to facilitate the identification of each locality.

## **6. DESCRIPTION OF THE AREA**

The area is located on New Modder Extension 6, in the Ekurhuleni Metropolitan area near Boksburg, Gauteng (**Figure 1**). It is situated on a long, narrow strip of open land between the railway line and the R29 (Main Reef road), opposite the Modderfontein Deep Levels Gold Mines

The area has been extensively disturbed through agricultural activities in the recent past (ploughing) as well as mining activities, and very little of the original vegetation still exists. A lack of grass, tree and shrub cover made visibility easy (**Figure 2**).







**Figure 2: General view of the survey area – relative dense grass cover made visibility difficult**

## **7. DISCUSSION**

In order to introduce the reader to the archaeology of the South Africa, a short background to the various time periods relevant to southern African archaeology is given.

### **7.1 Stone Age**

The Stone Age is the period in human history when lithic material was mainly used to produce tools (Coertze & Coertze 1996: 293). In South Africa the Stone Age can be divided in three periods. It is however important to note that dates are relative and only provide a broad framework for interpretation. The division for the Stone Age according to Korsman & Meyer (1999: 93-94) is as follows:

Early Stone Age (ESA) 2 million – 150 000 years ago  
 Middle Stone Age (MSA) 150 000 – 30 000 years ago  
 Late Stone Age (LSA) 40 000 years ago – 1850 - A.D.

No Stone Age sites, including rock art sites, are known to exist in the area.

### **7.2 Iron Age**

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts (Coertze & Coertze 1996: 346). In South Africa it can be divided in two separate phases according to Van der Ryst & Meyer (1999: 96-98), namely:

Early Iron Age (EIA) 200 – 1000 A.D.  
 Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

Early Iron Age (EIA) 250 – 900 A.D.  
 Middle Iron Age (MIA) 900 – 1300 A.D.  
 Late Iron Age (LIA) 1300 – 1840 A.D.

No Iron Age sites have been identified in the area.

### 7.3 Historical Age

The historical age started with the first recorded oral histories in the area. It includes the moving into the area of people that were able to read and write. This included early travelers like Schoon and Harris, both in 1836 (Bergh 1999:13).

No archaeological or historical sites were located in the survey area. If any existed here in the past it would have been disturbed extensively or completely destroyed by agricultural (ploughing) and other activities in the recent past.

## 8. CONCLUSIONS AND RECOMMENDATIONS

In conclusion it is possible to say that the assessment of the area was conducted successfully. No objects, features or sites of cultural (archaeological or historical) significance were located during the survey inside the development area. The proposed development will not impact on any known significant heritage resources and therefore no mitigation measures will have to be implemented to minimize any potential impacts.

**It is therefore recommended that the proposed development can continue. However, the subterranean presence of archaeological or historical objects, features or sites should also always be considered. If any of these are uncovered during any construction work or other development activities a professional archaeologist should be called in to investigate.**

## REFERENCES

1:50 000 Topographical Map location of development:: Map provided by client (K2M Technologies)

**Aerial view of location of development area (Appendix C): produced on Google Earth**

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## **Appendix A**

### **Definition of terms:**

Site: A large place with extensive structures and related cultural objects. It can also be a large assemblage of cultural artifacts, found on a single location.

Structure: A permanent building found in isolation or which forms a site in conjunction with other structures.

Feature: A coincidental find of movable cultural objects.

Object: Artifact (cultural object).

(Also see Knudson 1978: 20).

## **Appendix B**

### Cultural significance:

- Low            A cultural object being found out of context, not being part of a site or without any related feature/structure in its surroundings.
- Medium       Any site, structure or feature being regarded less important due to a number of factors, such as date and frequency. Also any important object found out of context.
- High           Any site, structure or feature regarded as important because of its age or uniqueness. Graves are always categorized as of a high importance. Also any important object found within a specific context.

## Appendix C – Aerial view of the location of the survey area



The development area is shown in red