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INTRODUCTION

Umlando was contracted to undertake a heritage survey of the proposed maintenance and upgrades of Phase 2 of the DR08017 from Mt. Frere to Cedarville joining the N2, Eastern Cape. The project includes a borrow pit required to supply road fill and roadbed material.

Figures 1 – 3 give the location of the road upgrade.

The survey was undertaken in March 2013 and no heritage sites were noted. The heritage survey did exclude a palaeontological survey.

No further heritage mitigation is required for the road upgrade.

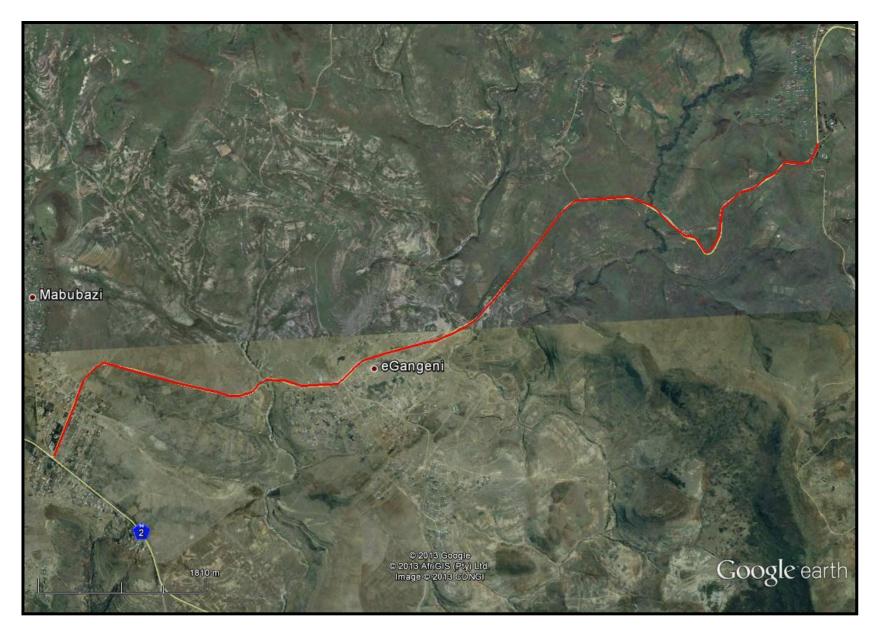


FIG. 1 GENERAL LOCATION OF THE DR08017



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FIG. 2A: AERIAL OVERVIEW OF THE DR08017

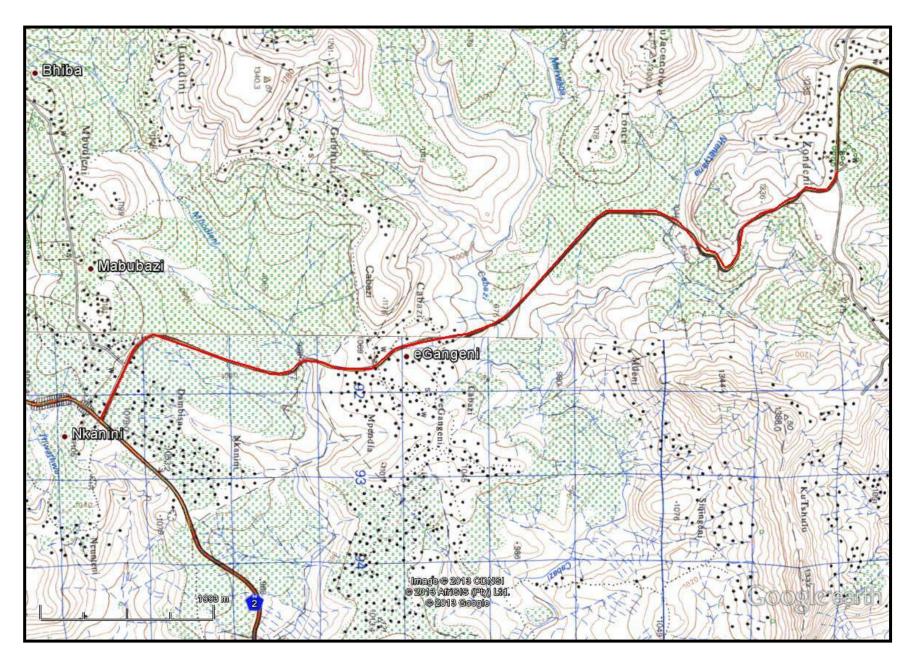


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FIG. 3: TOPOGRAPHICAL MAP OF THE DR08017



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NATIONAL HERITAGE RESOURCES ACT OF 1999

The National Heritage Resources Act of 1999 (pp 12-14) protects a variety of heritage resources. This are resources are defined as follows:

- "For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities.
- Without limiting the generality of subsection (1), the national estate may include—
 - 2.1. Places, buildings, structures and equipment of cultural significance;
 - 2.2. Places to which oral traditions are attached or which are associated with living heritage;
 - 2.3. Historical settlements and townscapes;
 - 2.4. Landscapes and natural features of cultural significance;
 - 2.5. Geological sites of scientific or cultural importance;
 - 2.6. Archaeological and palaeontological sites;
 - 2.7. Graves and burial grounds, including-

2.7.1. Ancestral graves;

- 2.7.2. Royal graves and graves of traditional leaders;
 - 2.7.3. Graves of victims of conflict;
 - 2.7.4. Graves of individuals designated by the Minister by notice in the Gazette;
 - 2.7.5. Historical graves and cemeteries; and
 - 2.7.6. Other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- 3. Sites of significance relating to the history of slavery in South Africa;
 - 3.1. Movable objects, including-

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- Objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - 4.1. Objects to which oral traditions are attached or which are associated with living heritage;
 - 4.2. Ethnographic art and objects;
 - 4.3. Military objects;
 - 4.4. objects of decorative or fine art;
 - 4.5. Objects of scientific or technological interest; and
 - 4.6. books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).
- 5. Without limiting the generality of subsections (1) and (2), a place or object is to be considered part of the national estate if it has cultural significance or other special value because of—
 - 5.1. Its importance in the community, or pattern of South Africa's history;
 - 5.2. Its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage;
 - 5.3. Its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage;
 - 5.4. Its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects;
 - 5.5. Its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
 - 5.6. Its importance in demonstrating a high degree of creative or technical achievement at a particular period;
 - 5.7. Its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
 - 5.8. Its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa; and

5.9. sites of significance relating to the history of slavery in South Africa"

METHOD

The method for Heritage assessment consists of several steps.

The first step forms part of the desktop assessment. Here we would consult the database that has been collated by Umlando. This databases contains archaeological site locations and basic information from several provinces (information from Umlando surveys and some colleagues), most of the national battlefields Southern and provincial monuments and in Africa (http://www.vuvuzela.com/googleearth/monuments.html) and cemeteries in southern Africa (information supplied by the Genealogical Society of Southern Africa). We use 1st and 2nd edition 1:50 000 topographical and 1937 aerial photographs where available, to assist in general location and dating of buildings and/or graves. The database is in Google Earth format and thus used as a quick reference when undertaking desktop studies. Where required we would consult with a local data recording centre, however these tend to be fragmented between different institutions and areas and thus difficult to access at times. We also consult with an historical architect, palaeontologist, and an historian where necessary.

The survey results will define the significance of each recorded site, as well as a management plan.

All sites are grouped according to low, medium, and high significance for the purpose of this report. Sites of low significance have no diagnostic artefacts or features. Sites of medium significance have diagnostic artefacts or features and these sites tend to be sampled. Sampling includes the collection of artefacts for future analysis. All diagnostic pottery, such as rims, lips, and decorated sherds are sampled, while bone, stone, and shell are mostly noted. Sampling usually

occurs on most sites. Sites of high significance are excavated and/or extensively sampled. Those sites that are extensively sampled have high research potential, yet poor preservation of features.

Defining significance

Heritage sites vary according to significance and several different criteria relate to each type of site. However, there are several criteria that allow for a general significance rating of archaeological sites.

These criteria are:

- 1. State of preservation of:
- 1.1. Organic remains:
- 1.1.1. Faunal
- 1.1.2. Botanical
- 1.2. Rock art
- 1.3. Walling
- 1.4. Presence of a cultural deposit
- 1.5. Features:
- 1.5.1. Ash Features
- 1.5.2. Graves
- 1.5.3. Middens
- 1.5.4. Cattle byres
- 1.5.5. Bedding and ash complexes

2. Spatial arrangements:

- 2.1. Internal housing arrangements
- 2.2. Intra-site settlement patterns
- 2.3. Inter-site settlement patterns

3. Features of the site:

3.1. Are there any unusual, unique or rare artefacts or images at the site?

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3.2. Is it a type site?

3.3. Does the site have a very good example of a specific time period, feature, or artefact?

4. Research:

4.1. Providing information on current research projects

4.2. Salvaging information for potential future research projects

5. Inter- and intra-site variability

5.1. Can this particular site yield information regarding intra-site variability, i.e. spatial relationships between various features and artefacts?

5.2. Can this particular site yield information about a community's social relationships within itself, or between other communities?

6. Archaeological Experience:

6.1. The personal experience and expertise of the CRM practitioner should not be ignored. Experience can indicate sites that have potentially significant aspects, but need to be tested prior to any conclusions.

7. Educational:

7.1. Does the site have the potential to be used as an educational instrument?

7.2. Does the site have the potential to become a tourist attraction?

7.3. The educational value of a site can only be fully determined after initial test-pit excavations and/or full excavations.

8. Other Heritage Significance:

8.1. Palaeontological sites

8.2. Historical buildings

8.3. Battlefields and general Anglo-Zulu and Anglo-Boer sites

8.4. Graves and/or community cemeteries

8.5. Living Heritage Sites

8.6. Cultural Landscapes, that includes old trees, hills, mountains, rivers, etc related to cultural or historical experiences.

The more a site can fulfill the above criteria, the more significant it becomes. Test-pit excavations are used to test the full potential of an archaeological deposit. This occurs in Phase 2. These test-pit excavations may require further excavations if the site is of significance (Phase 3). Sites may also be mapped and/or have artefacts sampled as a form of mitigation. Sampling normally occurs when the artefacts may be good examples of their type, but are not in a primary archaeological context. Mapping records the spatial relationship between features and artefacts.

SITE SIGNIFICANCE	FIELD RATING		GRADE	RECOMMENDED MITIGATION
High Significance	National Significance		Grade 1	Site conservation / Site development
High Significance	Provincial Significance		Grade 2	Site conservation / Site development
High Significance	Local Significance	3B	Grade 3A	
High / Medium Significance	Generally Protected A			Site conservation or mitigation prior to development / destruction
Medium Significance	Generally Protected B			Site conservation or mitigation / test excavation / systematic sampling / monitoring prior to or during development / destruction
Low Significance	Generally Protected C			On-site sampling monitoring or no archaeological mitigation required prior to or during development / destruction

TABLE 1: SAHRA GRADINGS FOR HERITAGE SITES

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RESULTS

DESKTOP STUDY

The desktop study consisted of analysing various maps for evidence of prior habitation in the study area, as well as for previous archaeological surveys. There are no known archaeological sites, monuments, historical cemeteries, and battlefields in the study area.

The 1974 aerial photograph (fig. 4) and 1982 1:50 000 map (fig. 3) indicate that the land beside the road has been systematically ploughed for agricultural purposes for some time.

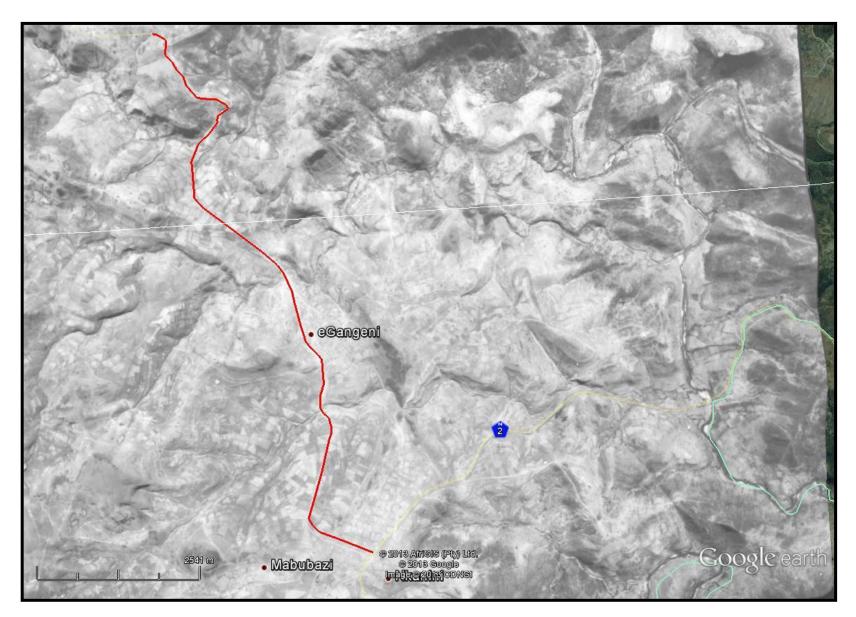
The Google Earth imagery shows the same fields being used for agricultural purposes. More importantly, the imagery also indicates that the houses are some distance from the road, thus there would be little impact on modern graves.

From the desktop study, the road upgrade appears to have little impact on potential heritage sites.



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FIG. 4: LOCATION OF THE DR08017 IN 1974



FIELD SURVEY

The field survey was undertaken in March 2013 days. Figures 5 - 7 shows the various images of the road upgrade.

The location of the borrow pit had not been given by the time of the survey, and thus it is not included in the report. The area could be assessed by a desktop study at a later stage.

The survey did not observe any heritage sites along the study area. This is mainly due to the area mostly used as agricultural fields. If any stone tools did exist, then they would be as isolated tools.

CONCLUSION

A heritage survey was undertaken for the proposed maintenance and upgrades of Phase 2 of the DR08017 from Mt. Frere to Cedarville. The road intends to join up with the N2. The project included a road upgrade and possible borrow pit.

Most of the length of the study area has been heavily ploughed for several decades, and thus any potential stone walling and/or settlements have been removed. No heritage sites were observed along the route, nor were any modern graves within 30m of the road reserve.

FIG. 6: BEGINNING OF THE DR08017



FIG. 6: MIDDLE SECTION OF THE DR08017



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FIG. 6: GENERAL VIEW OF THE DR08017



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