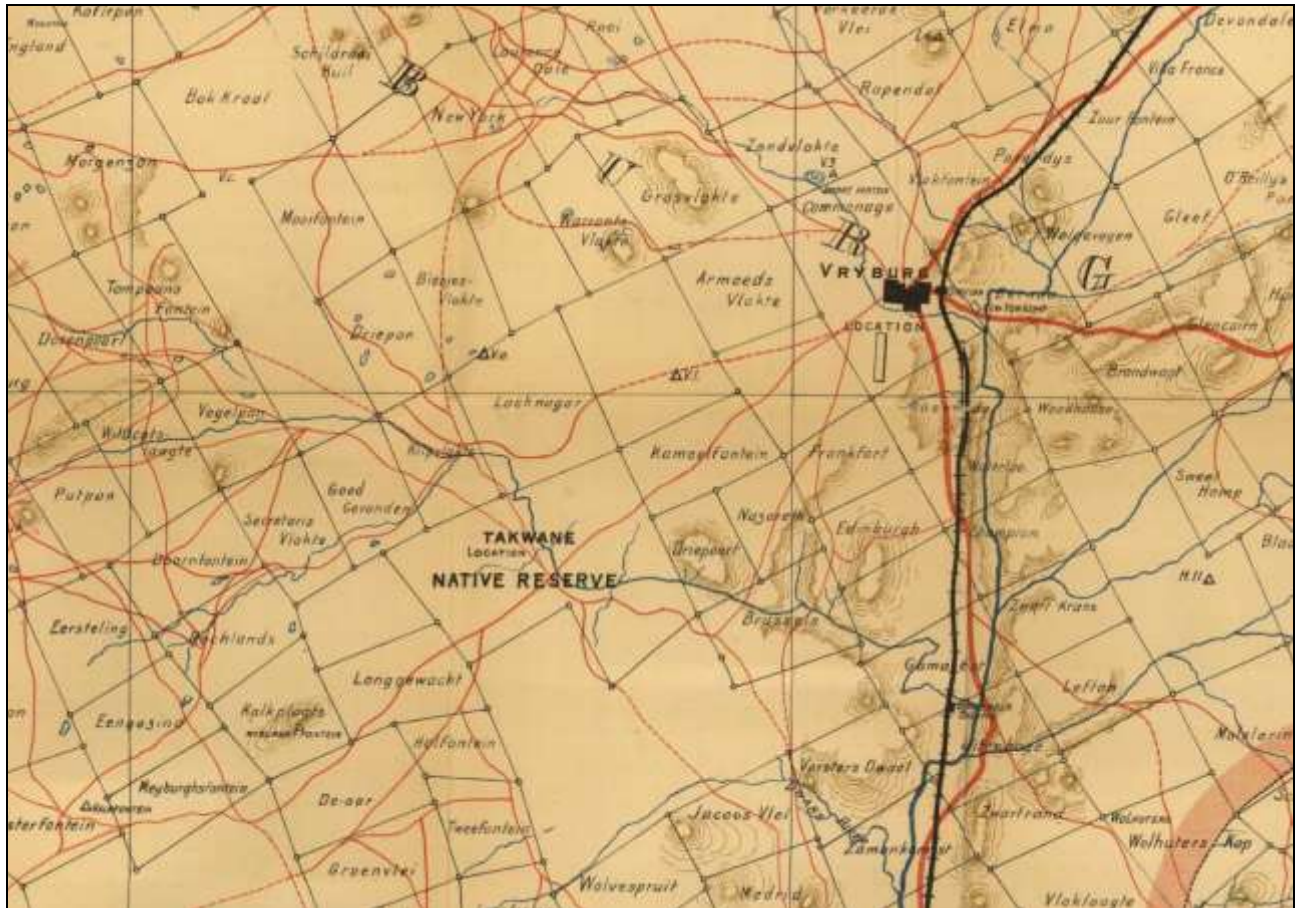


SCOPING HERITAGE IMPACT ASSESSMENT IN TERMS OF SECTION 38(8) OF THE NATIONAL HERITAGE RESOURCES ACT, 1999 (ACT 25 OF 1999)

PROPOSED DEVELOPMENT OF THE AMDA ECHO PV (SOLAR ENERGY FACILITY) ON REMAINING EXTENT KLONDIKE NO 670, AND OVERHEAD POWER LINE GRID CONNECTION TO THE MOOKODI MTS SUB-STATION ACROSS REMAINDER OF ERF 506 AND REMAINDER OF THE FARM ROSENDAL 673, VRYBURG, REGISTRATION DIVISION, NORTH WEST PROVINCE

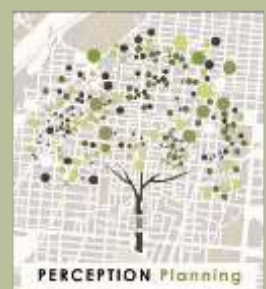


On behalf of: AMDA Echo (Pty) Ltd

February 2016

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2. INDEPENDENCE OF ASSESSOR
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4. DEVELOPMENT PROPOSAL
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6. RECOMMENDATION

REFERENCES and ACKNOWLEDGEMENTS:

1. Cape Town Archives
2. Surveyor General Office
3. Scoping Archaeological Impact Assessment, Proposed development of the AMDA ECHO PV (Solar Energy Facility) on Remaining Extent Klondike No 670, and Overhead Power Line Grid Connection to the Mookodi MTS Sub-Station across Remainder of Erf 506 and Remainder of the Farm Rosendal 673, Vryburg, Registration Division, North West Province, February 2016

ABBREVIATIONS:

1. NGSi - National Geo-Spatial Information, Department of Rural Development and Land Reform, Mowbray
2. DEA – Department of Environmental Affairs
3. HIA – Heritage Impact Assessment
4. NHRA - National Heritage Resources Act, 1999 (Act 25 of 1999)
5. SAHRA - South African Heritage Resources Agency

COVER: Extract from 109 Vryburg Imperial (1900-1919) (Source: National Geo-Spatial Information, Department of Rural Development and Land Reform, Mowbray).

1. INTRODUCTION

PERCEPTION Planning was appointed by *AMDA Echo (Pty) Ltd* to undertake an Integrated Heritage Impact Assessment (HIA) in terms of Section 38(8) of the National Heritage Resources Act, 1999 (Act 25 of 1999) as part of a proposal to establish a commercial solar energy facility - currently referred to as *AMDA Echo PV* - on the remaining extent Klondike No 670 as well as an overhead power line grid connection to the Mookodi MTS Sub-Station across Remainder of Erf 506 and Remainder of the Farm Rosendal 673, Vryburg. The entire property is about 1142.4853 ha in extent, while the affected portion of the property is approximately 250 ha in extent.

This Scoping HIA serves as preliminary desktop study/ plan of study for scoping as input to the Environmental Impact Assessment (EIA) currently underway and managed by Cape Environmental Assessment Practitioners (Pty) Ltd.

2. INDEPENDENCE OF ASSESSOR

With relation to the author's appointment as an independent specialist (Heritage Impact Assessment Manager) responsible for the compilation of an Integrated Heritage Impact Assessment in terms of Section 38(8) of the National Heritage Resources Act, 1999 (Act 25 of 1999) for this project, it is hereby declared that the undersigned:

- Or this consultancy is not a subsidiary, legally or financially, of the proponents;
- act as an independent specialist in this application;
- Remuneration for professional services by the proponent in relation to this proposal is not linked to approval by any decision-making authority responsible for permitting this proposal;
- Nor this consultancy, nor the author has any interests in secondary or downstream activities as a result of the authorisation of this project;
- Regard the information contained in this report as it relates to my specialist input/study to be true and correct;
- Have disclosed, to the applicant, EAP and competent authority, any material information that have or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document required in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010;
- Am fully aware of and meet the responsibilities in terms of NEMA, the Environmental Impact Assessment Regulations, 2010 (specifically in terms of regulation 17 of GN No. R. 543.

It is further hereby certified that the author has 19 years professional experience as urban planner (3 years of which were abroad) and 10 years professional experience as heritage practitioner. The author is professionally registered as follows:

- Professional Heritage Practitioner (Association for Professional Heritage Practitioners)
- Professional Planner (South African Council for Planners, South African Planning Institute)

3. DESCRIPTION OF STUDY AREA

The proposed development site (± 250 ha in extent) forms part of the remaining extent of farm Klondike No 670 (± 1142.4853 ha in extent) and is situated approximately and is situated about 7km SW of Vryburg in the North West Province - on the southern side of the N14 National road as illustrated through Figure 1 below. The following statement was articulated in the Scoping Archaeological Impact Assessment report (Nilssen, 2016:4) undertaken on the 21st February 2016 to describe the study area:

“...Google Earth imagery suggests that vegetation cover is likely to be open and sparse and that archaeological visibility will be adequate for an assessment. Water sources in the form of pans occur within the study area and it is also possible that ancient drainage lines are present. Such features are commonly attractive to life, and it is likely that archaeological resources occur in their vicinity”.

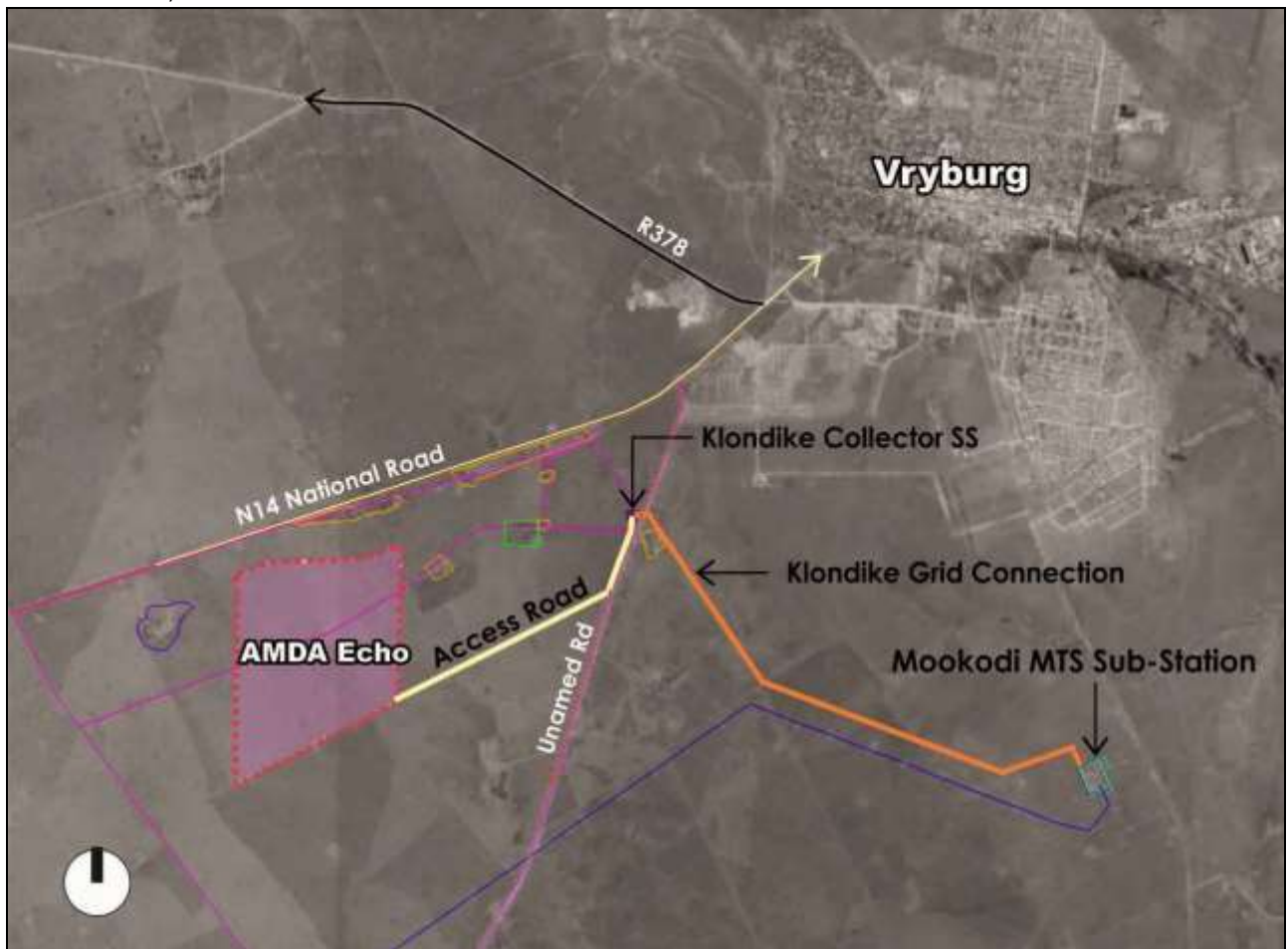


Figure 1: Location of property and proposed site in relation to Vryburg and direct environs (Source: GoogleEarth, 2015)

4. DEVELOPMENT PROPOSAL

The proposal- as seen in Figure 2 below- is to develop a 75MW (MegaWatt) Solar Photovoltaic (PV) Facility with an installed capacity of 85 MW (DC) as well as associated infrastructure listed below:

- Solar PV field footprint: 185 ha;
- Project Substation: 1 ha;
- Collector Substation: 1 ha;
- Buildings: 1.5ha;
- Roads 13.2 ha (22 km long at 6m wide);
- Permanent lay down areas: 7ha;
- Construction lay down areas: 12ha;
- Solar Field tracker structure height: 3.5m high;
- Perimeter Fence: 2.4m high (Multi- strand electric security fence).

While detailed specifications and development layouts of the proposed solar facility and associated infrastructure will be guided and determined by the Environmental Impact

Assessment (EIA) process, the preliminary development layout plan is illustrated through Figure 1 (above). The proposed facility will connect into the Eskom Mookodi MTS sub- station, located south of Vryburg as seen in Figure 1 and 2. The sub- station will connect to the collection sub- station via a single 132 kV overhead line. The power line route will measure 5.88 km in length and will run from the collector sub- station east of the Klondike 670 subject site, across a district road, over a Municipal land to the Mookodi MTS sub- station. The power line will be 25m in height with a servitude width of 50 metres. Existing access road off the N14 may be used.



Figure 2: Development footprint of solar energy facility (Source: AE AMD, 2016)

5. METHODOLOGY

Compilation of the Integrated HIA report for the proposed development activity (including relevant development alternatives); will include the professional inputs from the following specialist reports sanctioned as part of the HIA process:

- Basic archival background research, Cultural landscape assessment, Built environment analysis and assimilating inputs from various specialist report (*Perception Planning*);
- Visual Impact Assessment (*VRM Africa, S Stead*)
- Archaeological Impact Assessment (*Dr. Peter Nilssen*);
- Desktop Palaeontological Impact Assessment (*Natura Viva, Dr. J. Almond*).

The Integrated HIA, which will be submitted to the relevant competent authorities in due course, will contribute to the overall EIA process through the following professional inputs/ components:

- Field work carried out by various specialists;
- Liaison with project manager, environmental assessment practitioner (EAP) and various specialist consultants;
- Assimilating findings and recommendations emanating from specialist inputs into HIA;
- Identification of heritage-related issues and concerns;
- Analysis of development site and its environs;

- Identification of contextual spatial informants;
- Establishing cultural significance, based on criteria set out in NHRA;
- Identification of heritage-related design informants based on the above;
- Focussed public participation process (PPP) aimed at soliciting heritage-related comments (to be coordinated with PPP to be managed by EAP);
- Address outcomes from focussed public participation process, if any;
- Assess conformity of final proposed site layout to design informants identified;
- Submission to competent authority.

6. RECOMMENDATION

Having regard to the above, it is recommended that an Integrated Heritage Impact Assessment, including the various professional inputs set out in Section 5 of this report, be undertaken and submitted to the relevant competent authorities for adjudication.

PERCEPTION Planning
25th February 2016

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