

**A PHASE 1 ARCHAEOLOGICAL IMPACT ASSESSMENT FOR THE GOLF COURSE DEVELOPMENT ON PORTIONS 1 AND 2 OF THE FARM WILLOW GLEN AND PORTION 6 OF BELMONT FARM, GRAHAMSTOWN, MAKANA MUNICIPALITY, CACADU DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.**

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**Note:** This report follows the minimum standard guidelines required by the South African Heritage Resources Agency for compiling Phase 1 Archaeological Impact Assessment (AIA).

## **EXECUTIVE SUMMARY**

### **Purpose of the Study**

The purpose of the study was to conduct a phase 1 archaeological impact assessment (AIA) for the proposed golf course development on the Portions 1 and 2 of the Farm Willow Glen and Portion 6 of Belmont Farm, Grahamstown, Makana Municipality, Cacadu District Municipality, Eastern Cape Province. The survey was conducted to establish the range and importance of the exposed and *in situ* archaeological heritage materials and features, the potential impact of the development and, to make recommendations to minimize possible damage to these sites.

### **Brief Summary of Findings**

No archaeological heritage material remains or sites were encountered during the survey. However, the ruins of the original farmhouse and associated infrastructure are situated to the south of Belmont Valley Road.

### **Recommendations**

The area is of a low cultural sensitivity and development may proceed as planned, although the following recommendations must be considered:

1. An historian or built environment specialist should be appointed to assess the significance of the original farmhouse and associated infrastructure.
2. Construction managers/foremen must be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.
3. If concentrations of archaeological heritage material and human remains are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the South African Heritage

Resources Agency (SAHRA) (021 642 4502) so that systematic and professional investigation/ excavation can be undertaken.

## **BACKGROUND INFORMATION**

The phase 1 archaeological impact assessment (AIA) report is required for the environmental impact assessment (EIA).

The Belmont Development Corporation plans to relocate and re-develop the existing Grahamstown Golf Course to the Belmont Valley situated approximately 8km north-east of Grahamstown. The proposed area for development is approximately 70.59ha in extent and will comprise an eco-friendly golf course and a self-sustainable clubhouse of about 1 300m<sup>2</sup>. The clubhouse will use water tanks to handle rainwater, which will be used to supply the clubhouse. Solar panels will aid electrical output to the clubhouse. Solar panels will aid electrical output and an anaerobic digestive plant and french-drain system will treat all sanitary sewage.

### **Developer:**

Belmont Development Corporation (BelDevCo)

### **Consultant:**

Coastal and Environmental Services (CES)

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### **Terms of Reference**

To conduct a survey of possible archaeological heritage sites within the area for the proposed residential development on the existing Grahamstown Golf Course, Grahamstown, Makana Municipality, Cacadu District Municipality, Eastern Cape Province. The survey was conducted to:

- Provide a summary of the relevant legislation;
- Conduct a site inspection as required by national legislation;

- Determine the likelihood of archaeological remains of significance in the proposed site;
- Identify and map (where applicable) the location of any significant archaeological remains;
- Assess the sensitivity and significance of archaeological remains in the site;
- Assess the significance of direct and cumulative impacts of the proposed development and viable alternatives on archaeological and heritage resources;
- Identify mitigatory measures to protect and maintain any valuable archaeological sites and remains that may exist within the proposed site; and
- Prepare and submit any permit applications to the South African Heritage Resources Agency (SAHRA).

## **HERITAGE LEGISLATIVE REQUIREMENTS**

Parts of sections 35(4), 36(3) and 38(1) (8) of the National Heritage Resources Act 25 of 1999 apply:

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

*35 (4) 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;*
- (d) bring onto or use at an archaeological or palaeontological site any excavation equipment or any equipment which assist in the detection or recovery of metals or archaeological and palaeontological material or objects, or use such equipment for the recovery of meteorites.*

### ***Burial grounds and graves***

*36. (3) (a) No person may, without a permit issued by SAHRA or a provincial 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, 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 equipment, or any equipment which assists in the detection or recovery of metals.*

### **Heritage resources management**

38. (1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorized as –
- (a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
  - (b) the construction of a bridge or similar structure exceeding 50m in length;
  - (c) any development or other activity which will change the character of the site –
    - (i) exceeding 5000m<sup>2</sup> in extent, or
    - (ii) involving three or more erven or subdivisions thereof; or
    - (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or
    - (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA, or a provincial resources authority;
  - (d) the re-zoning of a site exceeding 10 000m<sup>2</sup> in extent; or
  - (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must as the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.

### **BRIEF ARCHAEOLOGICAL BACKGROUND**

The pre-colonial archaeological record of the Grahamstown region and immediate surrounds includes traces of the Early Stone Age (ESA) (1.5 million – 250 000 years ago), Middle Stone Age (MSA) (250 000 – 30 000 years ago), Later Stone Age (LSA) (30 000 – recent), Khoekhoen pastoralists and the Later Iron Age farming communities within the last 2000 years. The historical archaeological record is relatively extensive owing to the area being settled by the 1820 British Settlers and the subsequent features established in relation to the British – Xhosa Wars. The literature and research within this area is limited and incomplete, although a few sites (pre-colonial and historical) have been excavated in the surrounding Grahamstown areas.

According to S.L. Hall (1985), classic Early Stone Age handaxes and cleavers had been found near the Grahamstown golf course that probably dates between 1 million and 200 000 years ago in comparison to similar artefacts documented throughout southern Africa. The site of Howieson's Poort is situated about ten kilometres south-west of Grahamstown and is the archetype site for a distinctive type of Middle Stone Age stone tool with similar specimens having been documented at the Kasouga River-mouth and at Bell in the Peddie District (van Riet Lowe *et al.* 1929). The Middle Stone Age in the region has been dated to between 125 000-75 000 years ago as it coincides with the last interglacial period when climatic and environmental conditions were similar to those of the present interglacial. It is possible, although lacking in evidence, that seasonal

movement between the Cape folded mountains behind Grahamstown and the coast took place (Hall 1985).

Between 75 000 and 15 000 years ago there seems to have been no human occupation within the Grahamstown region owing to the worsening climatic conditions. From about 15 000 years ago populations of hunter-gatherers re-established themselves within the region as is evidenced in the preserved Later Stone Age occupational deposits of the few caves and rock shelters that have been excavated, namely Melkhoutboom in the Suurberg (Deacon 1976), Wilton near Alicedale, Uniondale about 20km north-east of Grahamstown (Leslie-Brooker 1987), Springs Rock Shelter and Glen Craig situated immediately north and north-east of Grahamstown, and Edgehill and Welgeluk located on the Koonap River some 40km to the north of Grahamstown (Hall 1985). In addition, most of these sites and many more caves and shelters in the surrounding Grahamstown area contain rock art.

### **References:**

- Deacon, H.J. 1976. *Where Hunters Gathered: A Study of Holocene Stone Age people in the Eastern Cape*. South African Archaeological Society Monograph Series, No. 1.
- Goodwin, A.J.H.; van Riet Lowe, M.A.; and van Riet Lowe, C. B.Sc., A.M.I.C.E. 1929. *The Stone Age Cultures of South Africa*. Annals of the South African Museum: XXVII.
- Hall, S.L. 1985. The Prehistory of Grahamstown and its Environs. In Daniel, J.B. Mcl.; Holleman, W.; Jacot Guillardmod, A. *Grahamstown and its Environs*. Grahamstown, Albany Museum.
- Leslie Brooker, M. 1987. *An Archaeological Study of the Uniondale Rockshelter, Albany District, Eastern Cape*. Master of Arts thesis: University of Stellenbosh

## **DESCRIPTION OF THE PROPERTY**

### **Area Surveyed**

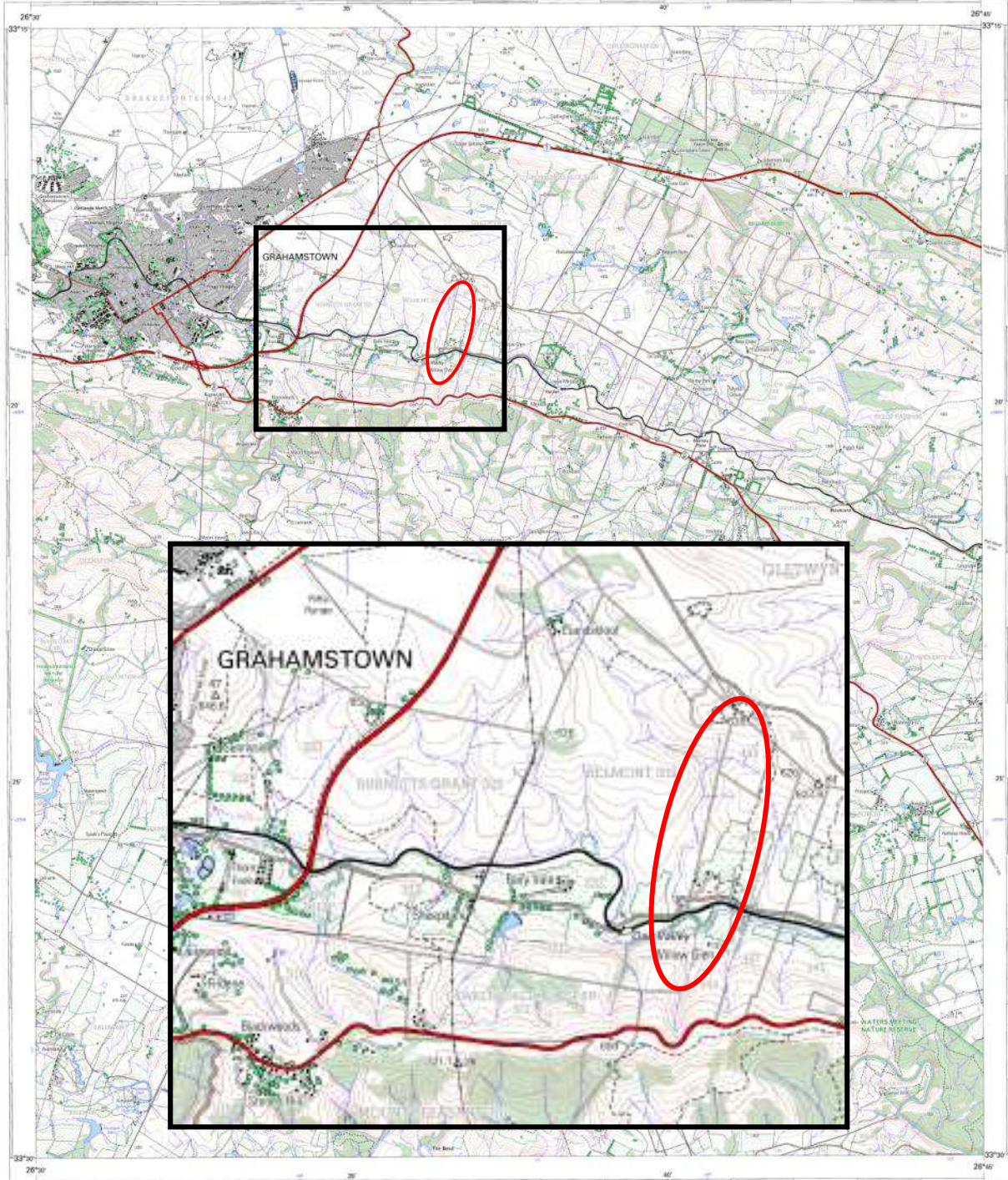
#### Location data

The Belmont Development Corporation plans to relocate and re-develop the existing Grahamstown Golf Course to the Belmont Valley situated approximately 8km north-east of Grahamstown.

#### Map

1:50 000 Map - 3326BC GRAHAMSTOWN

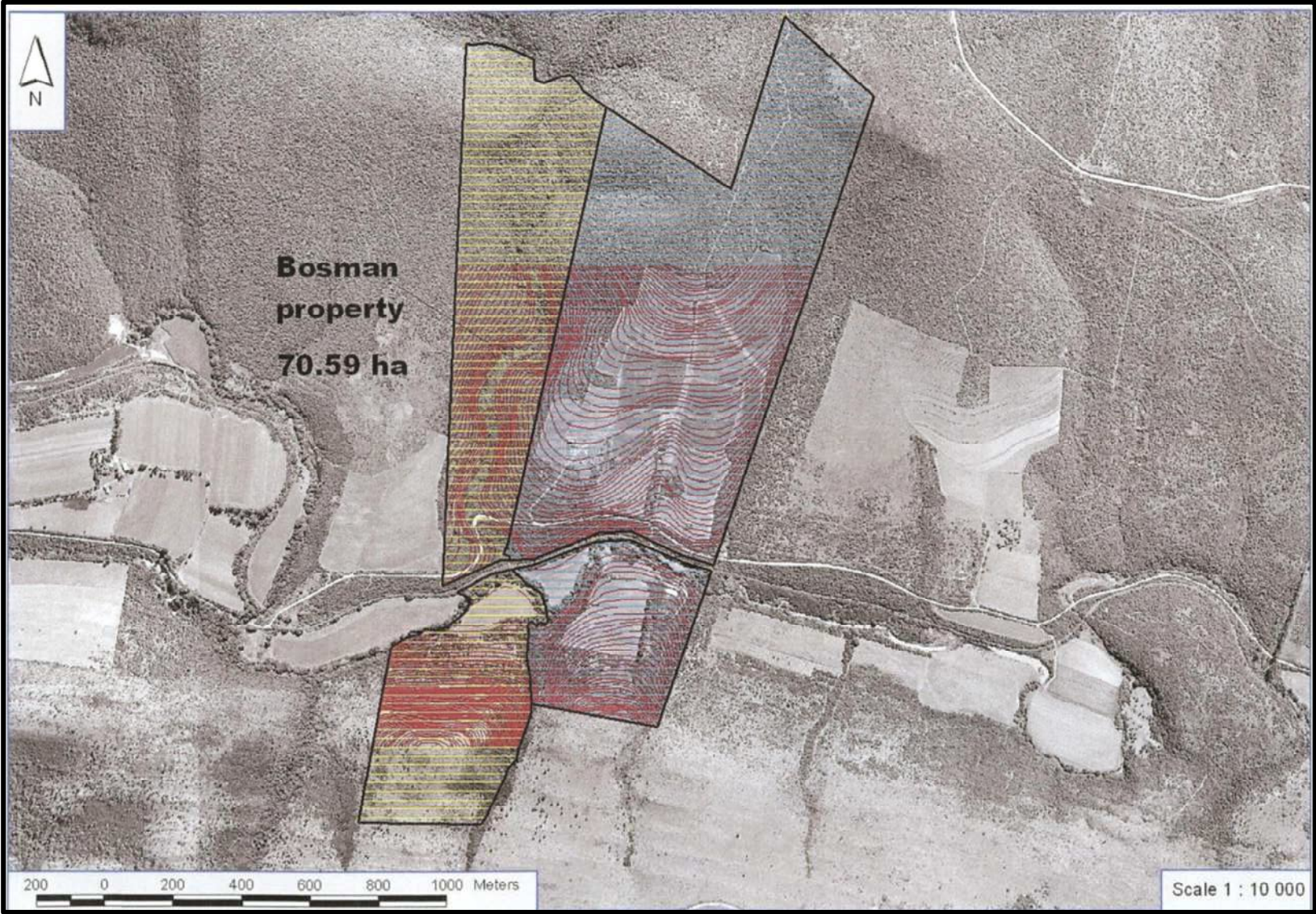




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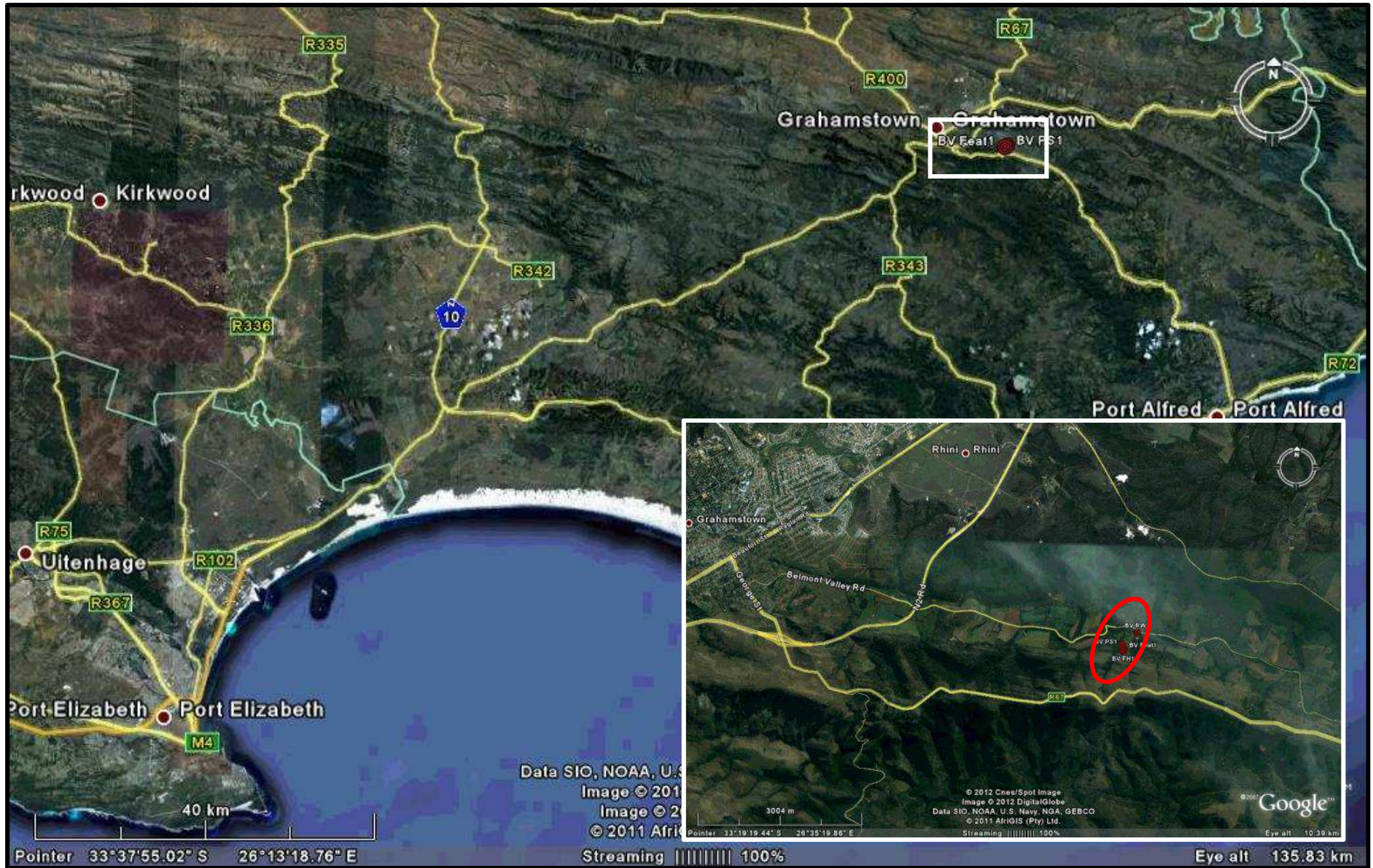
**Map 1. 1:50 000 map showing the proposed area for the development of the eco-friendly golf course and associated infrastructure.**





**Map 2. Aerial view of the delineation of the proposed area for the development of the eco-friendly golf course and associated infrastructure (map courtesy of BelDevCo).**





Map 3. Wide aerial view of the area proposed eco-friendly golf course and associated infrastructure.





**Map 4. Close-up aerial view of the proposed area for the development of the eco-friendly golf course south of Belmont Valley Road showing the location of the original farmhouse (BV FH1) and associated features (BV Feat1, BV PS1) and the railway (BV RW1).**



## ARCHAEOLOGICAL INVESTIGATION

### Methodology

The area was investigated on foot. GPS co-ordinates were recorded using a Garmin Oregon 550 (Maps 3 and 4; Table 1). The area proposed for the development of the golf course is situated on previously cultivated lands. The proposed area comprises mainly dense long grass and impenetrable thicket vegetation and previously disturbed and ploughed fields (Figs 1-2). Archaeological visibility was made difficult by the dense grass and thicket vegetation; therefore, exposed surface areas and disturbed areas such as the exposed surface areas, empty dams and, the informal gravel farm roads were investigated for possible occurrences of archaeological material remains and sites. Other disturbances include the construction of powerlines and fences (Figs 3-6).



**Figs 1-2. Views of the landscape to the areas north (left) and south (right) of Belmont Valley Road.**



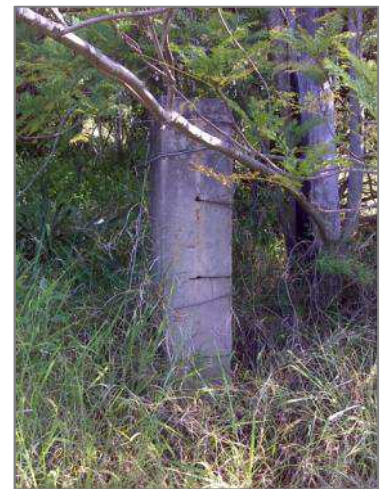
**Figs 3-4. Views of the disturbed and exposed surface areas.**





**Figs 5-6. Views of the disturbed and exposed areas (continued).**

A modern farmhouse and associated infrastructure has been built on the area north of Belmont Valley Road. The area north of Belmont Valley Road contained no archaeological or historical archaeological heritage remains. The area south of Belmont Valley Road also contained no archaeological heritage remains and sites. The original farmhouse and associated features and infrastructure including an access bridge, which has been washed away by flooding, packed stone foundations and entry walls to the original farmhouse are situated on this portion of the proposed area for development. The remains of the original farmhouse are in a dilapidated state. A dumping area containing mainly sherds of ceramics and broken glass was documented upslope and adjacent to the remains of the original farmhouse. The old railway from Grahamstown to the farming communities to the south stretches across the area proposed for development.



**Figs 7-8. Associated features leading towards the original farmhouse south of Belmont Valley Road.**



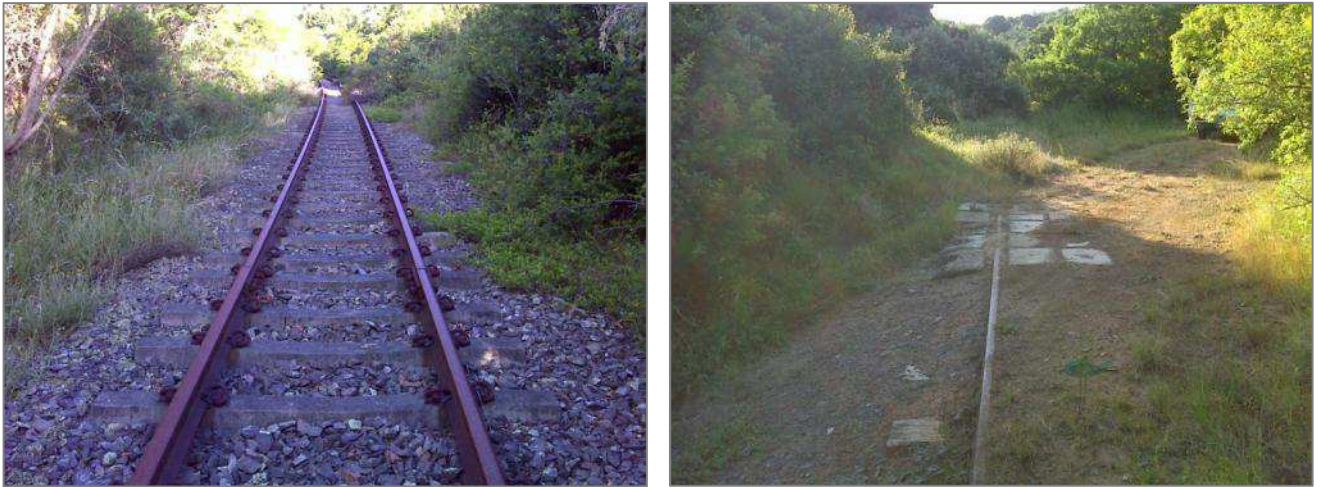


**Figs 9-12. Views of the remains of the original farmhouse and dumping area (bottom right).**



**Figs 13-14. Views of the access bridge to the original farmhouse south of Belmont Valley Road.**





**Figs 15-16. Views of the railway within the proposed area for the development south of Belmont Valley Road.**

#### **DESCRIPTION OF SITES**

No archaeological material or sites were observed or documented within the proposed area for development. However, the remains of the original farmhouse and associated features occur within the area proposed for development south of Belmont Valley Road.



**Table 1: GPS co-ordinates and sites.**

<b>Reference</b>	<b>Description</b>	<b>GPS Co-ordinates</b>
<b>BV RW1</b>	Location of the railway line across the proposed area for development.	33°19'19.37"S; 26°36'47.55"E
<b>BV PS1</b>	Packed stones observed within the previously ploughed and cultivated fields.	33°19'26.78"S; 26°36'37.29"E
<b>BV Feat1</b>	Concrete pillar marking the entry point to the original farmhouse.	33°19'28.77"S; 26°36'38.38"E
<b>BV FH1</b>	Area of original farmhouse and dumping area.	33°19'28.77"S; 26°36'38.38"E

**CULTURAL LANDSCAPE**

There is no material evidence of a pre-colonial archaeological landscape within the area proposed for development. However, evidence from the wider region stipulates that the activities on the pre-colonial landscape ranged from the Early Stone Age, Middle Stone Age, and Later Stone Age. Evidence points to a predominantly historical archaeological landscape colonized during the early 1800's and settled from the 1820's. Remains of the original farmhouse and associated features, the access bridge and, the railway line show such evidence of historical settlement on the landscape.

## **RECOMMENDATIONS**

The area is of a low cultural sensitivity and development may proceed as planned, although the following recommendations must be considered:

1. An historian or built environment specialist should be appointed to assess the significance of the original farmhouse and associated infrastructure.
2. Construction managers/foremen must be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.
3. If concentrations of archaeological heritage material and human remains are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the South African Heritage Resources Agency (SAHRA) (021 642 4502) so that systematic and professional investigation/ excavation can be undertaken.

## ASSESSMENT OF THE SIGNIFICANCE OF IMPACTS

### Impact 1: Negative Impact on Archaeological Heritage Remains and Sites

#### *Cause and Comment*

No archaeological heritage remains and sites were encountered, therefore, it is not expected that any negative impact should occur.

#### *Significance of Impact*

Impact	Effect					Risk or Likelihood	Total Score	Overall Significance		
	Temporal Scale		Spatial Study		Severity of Impact					
Without Mitigation	Permanent	4	Study Area	2	Slight	1	Unlikely	1	8	LOW
With Mitigation	Permanent	4	Study Area	2	Slight	1	Unlikely	1	8	LOW

#### Mitigation and Management

1. Construction managers/foremen must be informed before construction starts on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites.
2. If concentrations of archaeological heritage material and human remains are uncovered during construction, all work must cease immediately and be reported to the Albany Museum (046 622 2312) and/or the South African Heritage Resources Agency (SAHRA) (021 642 4502) so that systematic and professional investigation/ excavation can be undertaken.

## ASSESSMENT OF THE SIGNIFICANCE OF IMPACTS

### Impact 1: Negative Impact Original Farmhouse and Associated Infrastructure, and Railway Line.

#### *Cause and Comment*

A clubhouse is planned for the location of the existing original farmhouse. Therefore, the original and associated features will be affected during the course of development, as well as the railway line.

A recommendation has been made for an historian or built environment specialist to assess the significance of the original farmhouse and associated infrastructure, as well as the railway line encountered within the area proposed for development.

#### *Significance of Impact*

Impact	Effect						Risk or Likelihood	Total Score	Overall Significance	
	Temporal Scale		Spatial Study		Severity of Impact					
<b>Without Mitigation</b>	<b>Permanent</b>	<b>4</b>	<b>Study Area</b>	<b>2</b>	<b>Slight</b>	<b>1</b>	<b>Unlikely</b>	<b>1</b>	<b>8</b>	<b>LOW</b>
<b>With Mitigation</b>	<b>Permanent</b>	<b>4</b>	<b>Study Area</b>	<b>2</b>	<b>Slight</b>	<b>1</b>	<b>Unlikely</b>	<b>1</b>	<b>8</b>	<b>LOW</b>

#### **Mitigation and Management**

1. An historian or built environment specialist should be appointed to assess the significance of the original farmhouse and associated infrastructure.

## **GENERAL REMARKS AND CONDITION**

**Note:** This report is a phase 1 archaeological heritage impact assessment/investigation **only** and does **not** include or exempt other required heritage impact assessments (see below).

**The National Heritage Resources Act (Act No. 25 of 1999, section 35) requires a full Heritage Impact Assessment (HIA) in order that all heritage resources, that is, all places or objects of aesthetics, architectural, historic, scientific, social, spiritual linguistic or technological value or significance are protected. Thus any assessment should make provision for the protection of all these heritage components, including archaeology, shipwrecks, battlefields, graves, and structures older than 60 years, living heritage, historical settlements, landscapes, geological sites, palaeontological sites and objects.**

It must be emphasised that the conclusions and recommendations expressed in this archaeological heritage sensitivity investigation are based on the visibility of archaeological sites/features and may not therefore, reflect the true state of affairs. Many sites/features may be covered by soil and vegetation and will only be located once this has been removed. In the event of such finds being uncovered, (during any phase of construction work), archaeologists must be informed immediately so that they can investigate the importance of the sites and excavate or collect material before it is destroyed. The *onus* is on the developer to ensure that this agreement is honoured in accordance with the National Heritage Act No. 25 of 1999.

It must also be clear that Archaeological Specialist Reports (AIAs) will be assessed by the relevant heritage resources authority. The final decision rests with the heritage resources authority, which should give a permit or a formal letter of permission for the destruction of any cultural sites.

## **APPENDIX A: IDENTIFICATION OF ARCHAEOLOGICAL FEATURES AND MATERIAL FROM INLAND AREAS: guidelines and procedures for developers**

### 1. Human Skeletal material

Human remains, whether the complete remains of an individual buried during the past, or scattered human remains resulting from disturbance of the grave, should be reported. In general the remains are buried in a flexed position on their sides, but are also found buried in a sitting position with a flat stone capping and developers are requested to be on the alert for this.

### 2. Freshwater mussel middens

Freshwater mussels are found in the muddy banks of rivers and streams and were collected by people in the past as a food resource. Freshwater mussel shell middens are accumulations of mussel shell and are usually found close to rivers and streams. These shell middens frequently contain stone tools, pottery, bone, and occasionally human remains. Shell middens may be of various sizes and depths, but an accumulation which exceeds 1 m<sup>2</sup> in extent, should be reported to an archaeologist.

### 3. Stone artefacts

These are difficult for the layman to identify. However, large accumulations of flaked stones which do not appear to have been distributed naturally should be reported. If the stone tools are associated with bone remains, development should be halted immediately and archaeologists notified

### 4. Fossil bone

Fossil bones may be found embedded in geological deposits. Any concentrations of bones, whether fossilized or not, should be reported.

### 5. Large stone features

They come in different forms and sizes, but are easy to identify. The most common are roughly circular stone walls (mostly collapsed) and may represent stock enclosures, remains of wind breaks or cooking shelters. Others consist of large piles of stones of different sizes and heights and are known as *isisivane*. They are usually near river and mountain crossings. Their purpose and meaning is not fully understood, however, some are thought to represent burial cairns while others may have symbolic value.

### 6. Historical artefacts or features

These are easy to identified and include foundations of buildings or other construction features and items from domestic and military activities.