

**HIA SURVEY OF PROPOSED RESIDENTIAL
DEVELOPMENT ON ERF 308, PRINCES GRANT
ESTATE, KWADUKUZA, KZN**

**FOR TRIPLO4 SUSTAINABLE SOLUTIONS
(PTY) LTD**

DATE: 26 JANUARY 2020

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EXUCITIVE SUMMARY

An HIA was undertaken for the proposed residential development on Erf 308 within the Prince's Grant Golf Estate. A large shell midden was recorded at the base of the property. The midden probably dates to the Late Iron Age and is a shellfish processing site. Some shell remains occurred near the top of the property suggesting that domestic middens could occur in the area.

The vegetation was too dense to make an accurate assessment of the entire property. I suggested that the property is re-assessed after vegetation clearance, and before construction. I also suggested that on-site monitoring might occur during the construction phase. If any material is located during construction then it can be sampled/excavated, without affecting the construction schedules.

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Abbreviations

HP	Historical Period
IIA	Indeterminate Iron Age
LIA	Late Iron Age
EIA	Early Iron Age
ISA	Indeterminate Stone Age
ESA	Early Stone Age
MSA	Middle Stone Age
LSA	Late Stone Age
HIA	Heritage Impact Assessment
PIA	Palaeontological Impact Assessment

INTRODUCTION

Mr. Havnar (the applicant) proposes the establishment of a single residential house on Erf 308, within the Prince's Grant Golf Estate, located in KwaDukuza Local Municipality, iLembe District. The development will consist a two storey house with a swimming pool, a pool pump store, pool patio and a covered entrance, as well as infrastructure for bulk services. The total site area is 771m² and the proposed development footprint is approx. 293m² (house and paving), as well as additional 30m² for the sewer and stormwater infrastructure.

In addition, approximately 180m² will be cleared and levelled to cater for landscaping/garden. Of the total proposed development footprint, approx. 160m² is located within 100m of the High Water Mark of the sea.

Bulk services –

- Sewer - The development will utilise a septic tank system which will be placed at the front of the development, 2m away from the boundaries of the site, the overflow will run into the estate system. The proposed site falls within the safe building area, above the Hazard line.
- Water will be supplied by the Prince's Grant Golf Estate and is borehole based.
- The electricity supply will be from the local municipality, and a small solar system is included in the design to supplement the electricity supply.

Umlando was requested to undertake an assessment of the proposed development. Figures 1 – 3 show the location of the development.

FIG. 1 GENERAL LOCATION OF THE PROPOSED DEVELOPMENT

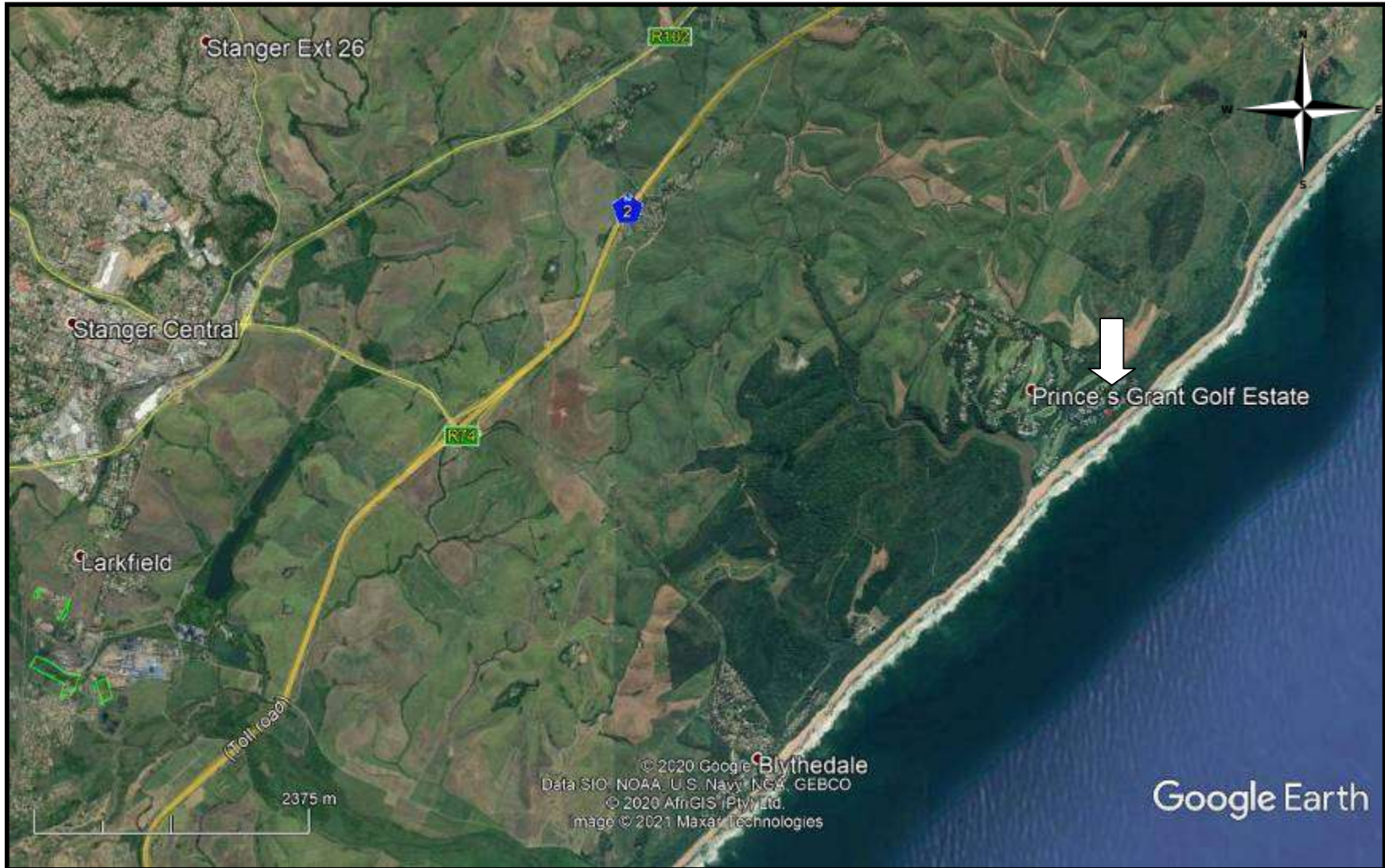


FIG. 2: AERIAL OVERVIEW OF THE PROPOSED DEVELOPMENT



FIG. 3: TOPOGRAPHICAL MAP OF THE PROPOSED DEVELOPMENT (2002)

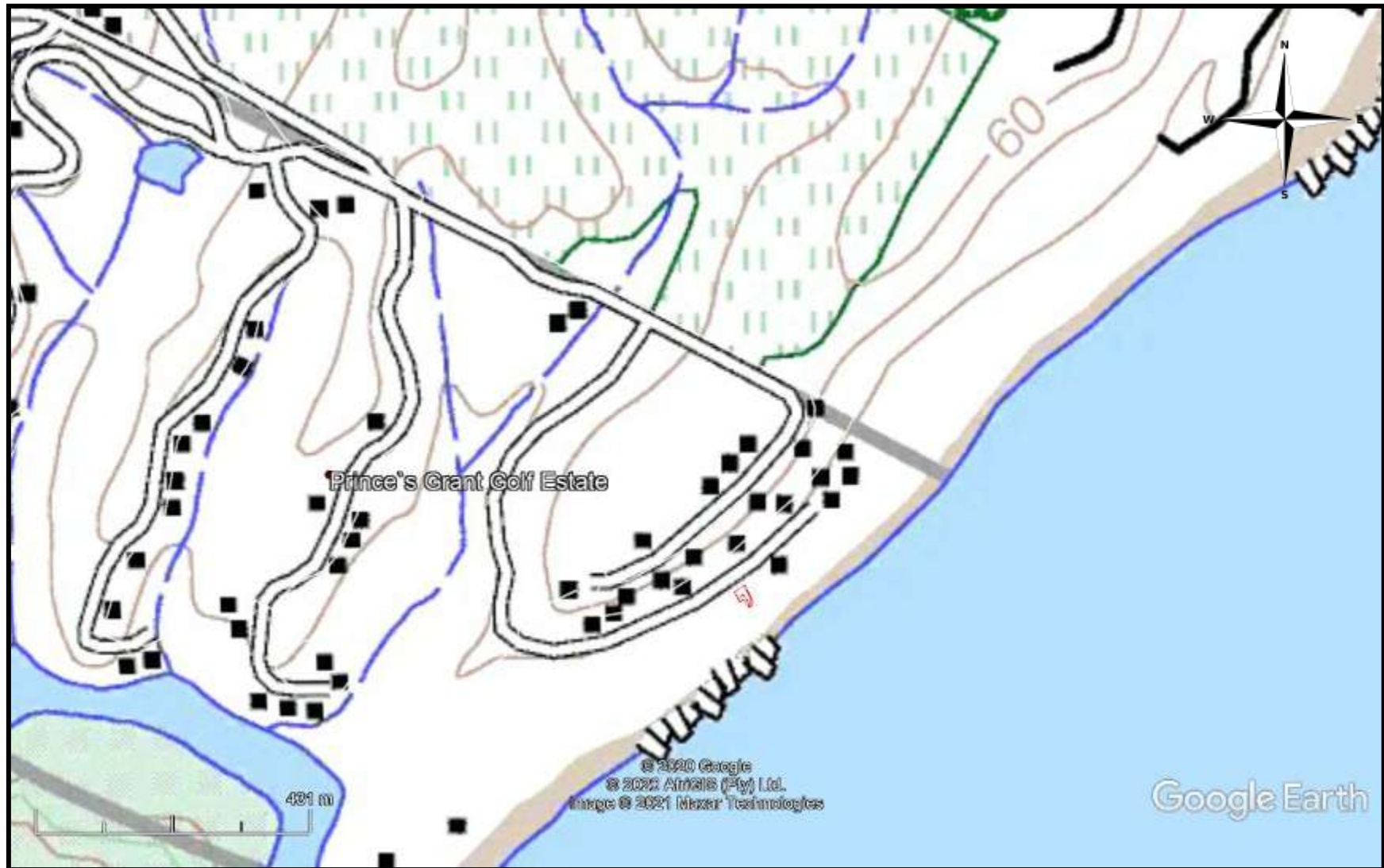


FIG. 4: SCENIC VIEW OF THE STUDY AREA



KWAZULU NATAL AMAFA AND RESEARCH INSTITUTE, ACT 05, 2018

“General protection: Structures.—

- No structure which is, or which may reasonably be expected to be older than 60 years, may be demolished, altered or added to without the prior written approval of the Council having been obtained on written application to the Council.
- Where the Council does not grant approval, the Council must consider special protection in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- The Council may, by notice in the *Gazette*, exempt—
- A defined geographical area; or
- defined categories of sites within a defined geographical area, from the provisions of subsection where the Council is satisfied that heritage resources falling in the defined geographical area or category have been identified and are adequately protected in terms of sections 38, 39, 40, 41 and 43 of Chapter 9.
- A notice referred to in subsection (2) may, by notice in the *Gazette*, be amended or withdrawn by the Council.

General protection: Graves of victims of conflict.—No person may damage, alter, exhume, or remove from its original position—

- the grave of a victim of conflict;
- a cemetery made up of such graves; or
- any part of a cemetery containing such graves, without the prior written approval of the Council having been obtained on written application to the Council.
- General protection: Traditional burial places.—
- No grave—
- not otherwise protected by this Act; and
- not located in a formal cemetery managed or administered by a local authority, may be damaged, altered, exhumed, removed from its original

position, or otherwise disturbed without the prior written approval of the Council having been obtained on written application to the Council.

The Council may only issue written approval once the Council is satisfied that—

- the applicant has made a concerted effort to consult with communities and individuals who by tradition may have an interest in the grave; and
- the applicant and the relevant communities or individuals have reached agreement regarding the grave.

General protection: Battlefield sites, archaeological sites, rock art sites, palaeontological sites, historic fortifications, meteorite or meteorite impact sites.—

- No person may destroy, damage, excavate, alter, write or draw upon, or otherwise disturb any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- Upon discovery of archaeological or palaeontological material or a meteorite by any person, all activity or operations in the general vicinity of such material or meteorite must cease forthwith and a person who made the discovery must submit a written report to the Council without delay.
- The Council may, after consultation with an owner or controlling authority, by way of written notice served on the owner or controlling authority, prohibit any activity considered by the Council to be inappropriate within 50 metres of a rock art site.
- No person may exhume, remove from its original position or otherwise disturb, damage, destroy, own or collect any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site without the prior written approval of the Council having been obtained on written application to the Council.
- No person may bring any equipment which assists in the detection of metals and archaeological and palaeontological objects and material, or

- excavation equipment onto any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, or meteorite impact site, or use similar detection or excavation equipment for the recovery of meteorites, without the prior written approval of the Council having been obtained on written application to the Council.
- The ownership of any object or material associated with any battlefield site, archaeological site, rock art site, palaeontological site, historic fortification, meteorite or meteorite impact site, on discovery, vest in the Provincial Government and the Council is regarded as the custodian on behalf of the Provincial Government.”

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 and provincial monuments and battlefields in Southern 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?
- 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. Table 1 lists the grading system.

TABLE 1: SAHRA GRADINGS FOR HERITAGE SITES

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	Grade 3A / 3B	
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

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. Many archaeological sites occur in the general area. (fig. 5). If one extrapolates survey results from areas such as Blythdale and Zinkwazi, then the occurrence of archaeological sites around beach rock outcrops is noticeable. The study area is in the same type of location.

The farm Hyde Park 1388 was first surveyed for a title deed in 1906 (fig. 6), but it does not show Prince's Grant on the map. Similarly the portioning of Hyde Park 1388 in 1923, still omits Prince's Grant (fig. 7). However, the 1853 surveyor map for Blythedale shows Prince's Grant on its northern border (fig. 8). It specifically refers to the area as "Land granted to Mr Prince". This could be the difference between Granted Land and Title Deeds.

"A grant deed and title deeds may prove to be somewhat similar for they both will deal with aspects regarding ownership of property or real estate. However, there is quite a significant difference between the two, for they both signify different things.

Title deeds are documents that essentially provide for proof of ownership over property, real estate, and in some cases, vehicles as well. Property or real estate will be described in full and the owner's name and signature will also be included in title deeds.

A grant deed, on the other hand, will not necessarily provide for proof of ownership. A grant deed is the legal document that is used to indicate the transfer of property or real estate from one party to another. A grant deed will act more along the lines of a contract, where the involved parties, the grantor

and grantee, will abide my certain provisions in order to secure the transfer of ownership of the property at hand.

In other words, the grantor gives up the rights of ownership to the property and transfers them to the grantee, effectively making him/her the new owner. The grand deed is essentially the document that legally allows for the transfer of title deeds between two parties.” (<https://probate.laws.com/deed/grant-deed-vs-title-deed>)

The 1937 aerial photograph indicates that the area is covered by grassland or sugarcane (fig. 9). The lack of coastal dune thicket in this figure, in comparison today, is quite noticeable.

The 1972 topographical map indicates that there are no buildings in the study area (fig. 5). Other buildings occur in the general area and are seen on the 1937 aerial photographs. All of these buildings are protected by the KZNARI Heritage Act of 2019.

FIG. 5: LOCATION OF KNOWN HERITAGE SITES IN THE GENERAL AREA



FIG. 6: SURVEYOR GENERAL MAP OF HYDE PARK 1906

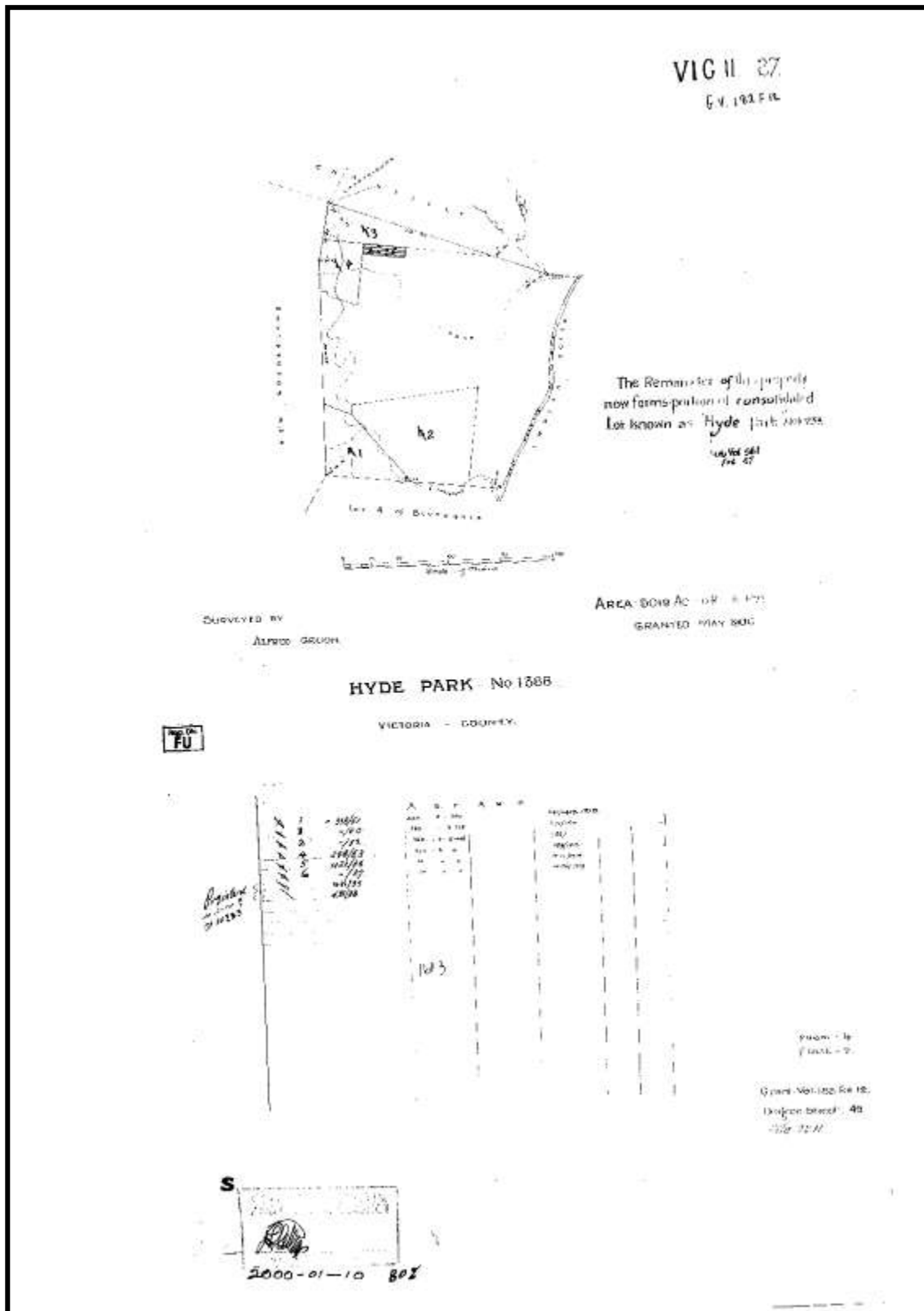


FIG. 7: SURVEYOR GENERAL MAP OF HYDE PARK 1923

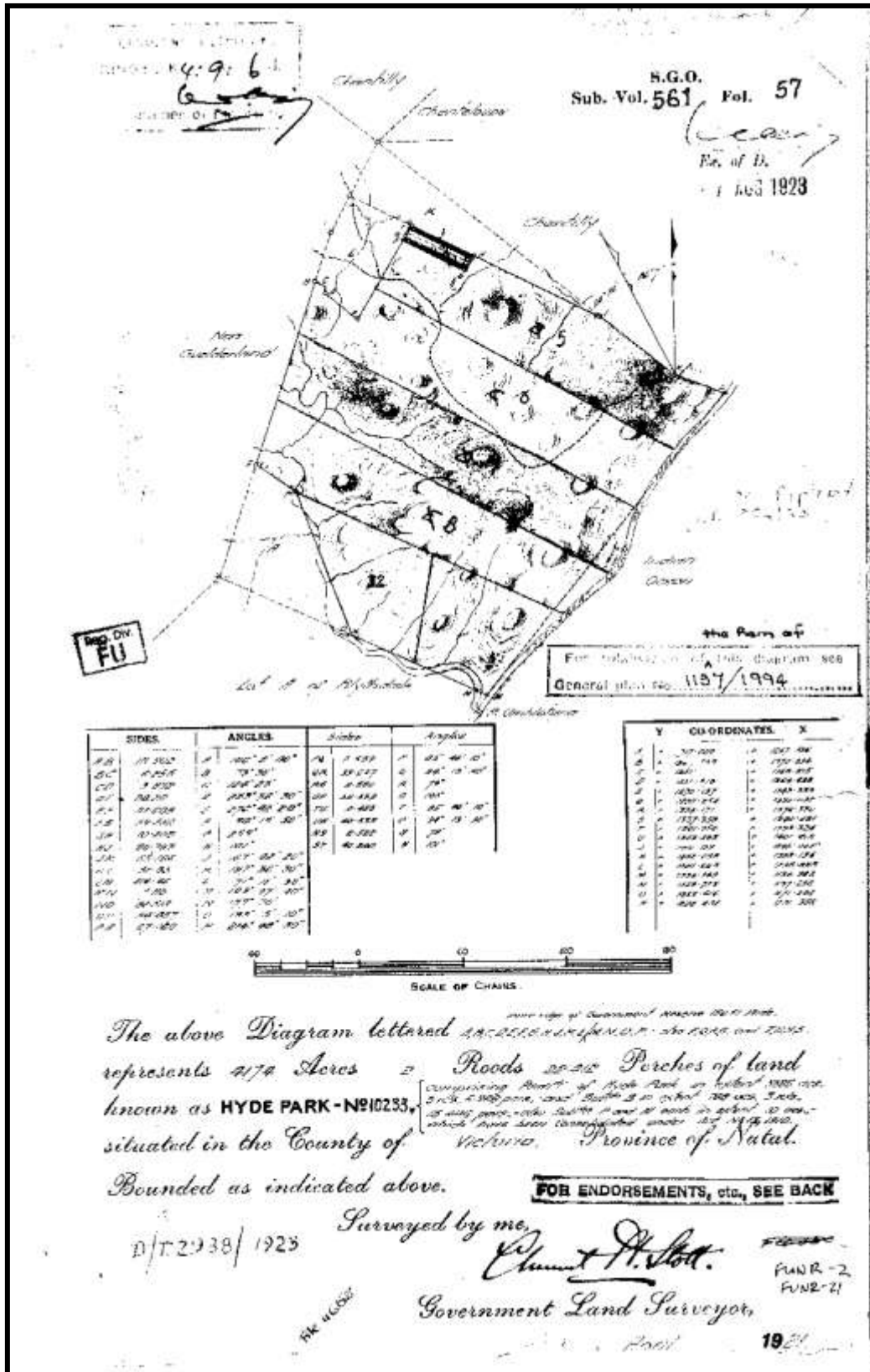


FIG. 8: SURVEYOR GENERAL MAP INDICATING PRINCE'S GRANT 1855

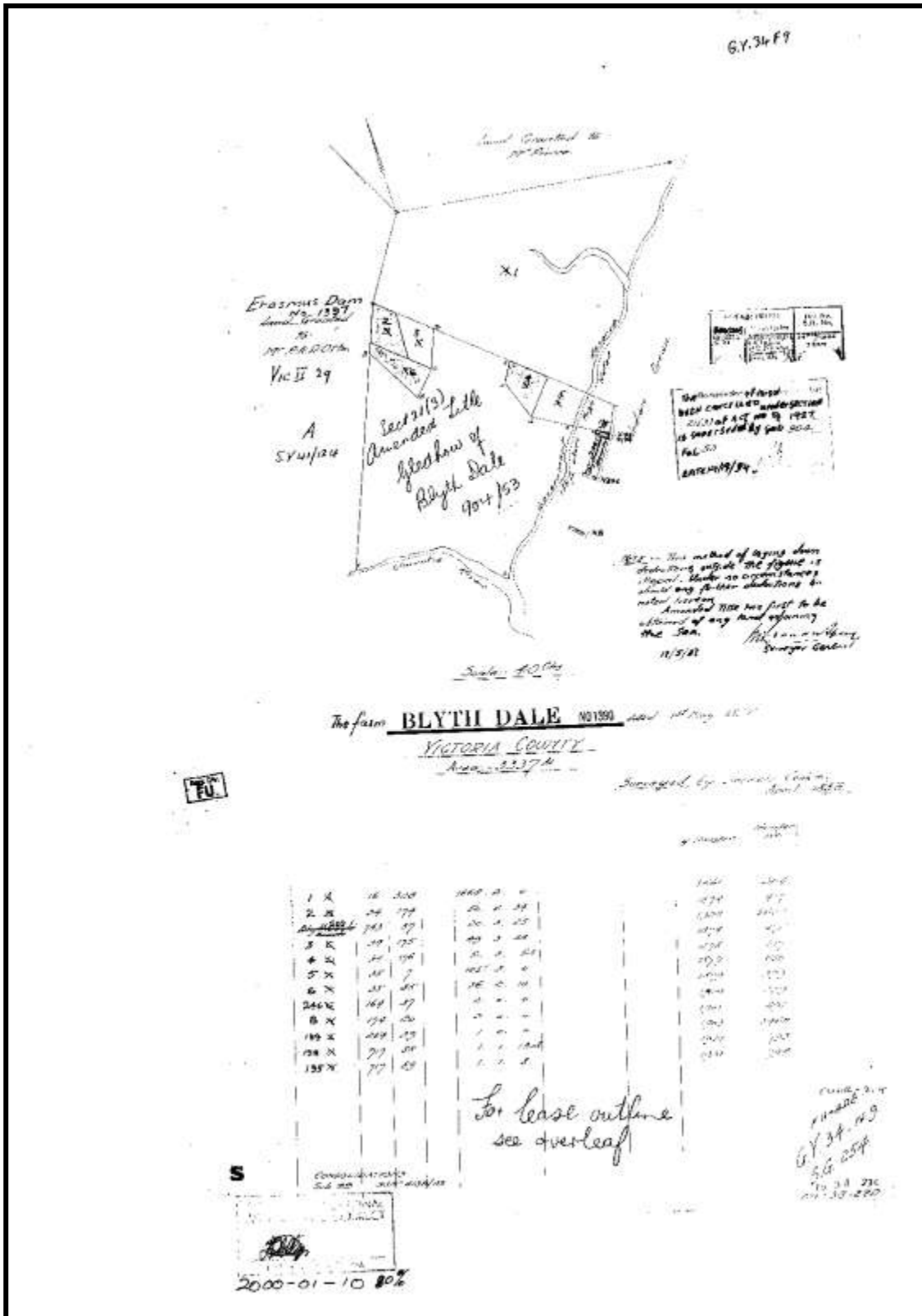
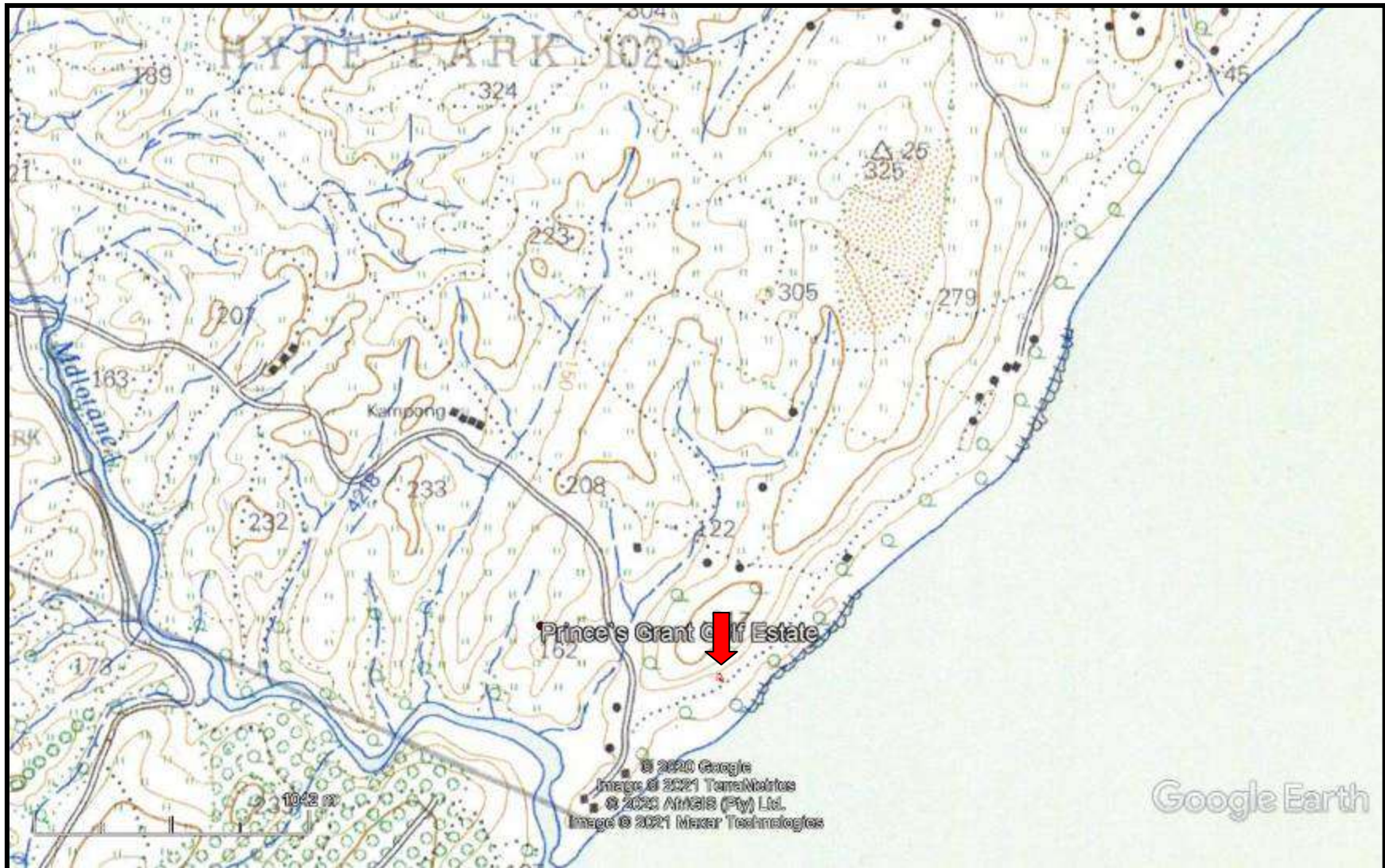


FIG. 9: STUDY AREA IN 1937



FIG 10: STUDY AREA IN 1960



PALAEONTOLOGICAL SENSITIVITY

The area is in an area of no palaeontological sensitivity (fig. 11). No further mitigation is required.

FIG. 11: PALAEONTOLOGICAL SENSITIVITY MAP



COLOUR	SENSITIVITY	REQUIRED ACTION
RED	VERY HIGH	field assessment and protocol for finds is required
ORANGE/YELLOW	HIGH	desktop study is required and based on the outcome of the desktop study, a field assessment is likely
GREEN	MODERATE	desktop study is required
BLUE	LOW	no palaeontological studies are required however a protocol for finds is required
GREY	INSIGNIFICANT/ZERO	no palaeontological studies are required
WHITE/CLEAR	UNKNOWN	these areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

FIELD SURVEY

The field survey was undertaken on 18th January 2020. Ground visibility was very poor due to dense coastal vegetation. However, a walk path occurs down

the centre of the site, and there was a cutting on the opposite side of the road. In addition to this, there was a large cleared area along the perimeter fence at the bottom of the property that gave a good indication of the lower area.

Isolated small fragments of shell were visible along the walk path from the main entrance road to the fencing at the base of the property. The visibility was extremely poor in the main property, with almost zero ground visibility (fig.'s 4 and 12). This was the case up to the property fencing footprint at the base of the hill.

FIG. 12: DENSE VEGETATION AT ERF 308



HAV01

HAV01 is located at the base of the hill. The site has been exposed and disturbed by the property fencing and a showering facility. The site is a very large shell midden that extends for at least 30m along the fencing line (fig. 13). The site also extends towards the sea and within Erf 308. The site extends for approx. 10m northeast of the entry gate. The parts of the midden that occurred outside of the property were not accessible, as the access gate had been locked with a chain. Most of the surface pottery occurred beyond the electrified fence.

FIG. 13: SOUTHWEST VIEW ALONG THE FENCING



The shell consists mainly of *Perna perna*, and some *Ostridae*. The pottery appears to date to the Late Iron Age (fig.'s 14 - 15). The amount of artefacts and ecofacts in the surface suggests that there is a stratified shell midden in the vicinity and this occurs both within the property and beyond it. This is confirmed by the amount of shell around the newly built shower facilities.

Along the top of the property, across the road, is a small cutting (fig. 16). This cutting had fragments of marine shell. This suggests that there is a shell midden in the area and it could occur at the top of the property.

The main midden at the base of the hill is probably a shellfish processing site, while the domestic settlement will be located uphill. The domestic area could have human remains.

Fig. 17 show the location of shell fragments and the main midden

Significance: The site is of main midden is currently of medium significance.

Mitigation: The property needs to be re-assessed after vegetation clearance. This might result in test-pit excavations in the specific affected areas and/or on-site monitoring during all earthmoving activity. The main midden, HAV01, will not be affected by the development; however, any walk paths to the beach gate will need to be assessed in terms of its impact on the midden.

A permit to destroy the site will be required by KZNARI, as well as to sample/excavate it.

SAHRA Rating: 3A

FIG.14: SHELL AND POTTERY AT HAV01



FIG.15: SHELL AND POTTERY AT HAV01



FIG.16: SHELL FRAGMENTS IN CUTTING



FIG. 17 LOCATION OF RECORDED FINDS



RECOMMENDATIONS

The proposed development at Erf 308 occurs in a highly sensitive archaeological area. A main site has been partially exposed and damaged by the property fencing and related structures, and this will not be directly affected by the residential development. A small wooden walkway may be required leading to the fence.

The area where the residential development occurs might occur on an archaeological site. Remnants of shell were seen in the upper area, suggesting that there might be an archaeological deposit. The residential area should be re-assessed after vegetation clearance and before construction. The residential area might need on-site monitoring during construction. The monitoring will be for all earthmoving areas. I would suggest that all areas that will require earthmoving activity are undertaken on consecutive days in order to complete the monitoring as soon as possible.

I suggest permits are applied for before construction occurs in case they are required when sampling of the archaeological site occurs. The permit for the destruction of that site should also be obtained. This will limit delays in waiting for a permit during construction.

CONCLUSION

An HIA was undertaken for the proposed residential development on Erf 308 within the Prince's Grant Golf Estate. A large shell midden was recorded at the base of the property. The midden probably dates to the Late Iron Age and is a shellfish processing site. Some shell remains occurred near the top of the property suggesting that domestic middens could occur in the area.

The vegetation was too dense to make an accurate assessment of the entire property. I suggested that the property is re-assessed after vegetation clearance,

and before construction. I also suggested that on-site monitoring might occur during the construction phase. If any material is located during construction then it can be sampled/excavated, without affecting the construction schedules.

REFERENCES

17B_053_54437

EXPERIENCE OF THE HERITAGE CONSULTANT

Gavin Anderson has a M. Phil (in archaeology and social psychology) degree from the University of Cape Town. Gavin has been working as a professional archaeologist and heritage impact assessor since 1995. He joined the Association of Professional Archaeologists of Southern Africa in 1998 when it was formed. Gavin is rated as a Principle Investigator with expertise status in Rock Art, Stone Age and Iron Age studies. In addition to this, he was worked on both West and East Coast shell middens, Anglo-Boer War sites, and Historical Period sites.

DECLARATION OF INDEPENDENCE

I, Gavin Anderson, declare that I am an independent specialist consultant and have no financial, personal or other interest in the proposed development, nor the developers or any of their subsidiaries, apart from fair remuneration for work performed in the delivery of heritage assessment services. There are no circumstances that compromise the objectivity of my performing such work.

A handwritten signature in black ink, appearing to read 'Gavin Anderson', with a horizontal line underneath.

Gavin Anderson
Archaeologist/Heritage Impact Assessor