

# Phase 1a Archaeological Impact Assessment

**Proposed Residential Development of Nature's Path Lifestyle  
Village on Parts of Portions 9 and 10 of the Farm Matjiesfontein No.  
304, Keurboomstrand, Plettenberg Bay, Western Cape Province**  
(Heritage Western Cape Case No. X111018JL12)

prepared for

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prepared by  
by



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5 September 2013

**DECLARATION OF INDEPENDENCE**

I **Peter Nilssen**, as the appointed independent archaeologist and specialist heritage practitioner hereby declare that I:

- am an accredited professional archaeologist with the Association of South African Professional Archaeologists (ASAPA) and the CRM section of the same association, and am suitably qualified and experienced to deal with archaeological resources related to this project;
- act/ed as the independent specialist in this application;
- regard the information contained in this report as it relates to my specialist input/study to be true and correct, and
- do not have and will not have any financial interest in the undertaking of the activity, other than remuneration for work performed in terms of the NEMA, the Environmental Impact Assessment Regulations, 2010 and any specific environmental management Act;
- have and will not have no vested interest in the proposed activity proceeding;
- 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 and any specific environmental management Act;
- 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) and any specific environmental management Act, and that failure to comply with these requirements may constitute and result in disqualification;
- am aware that a false declaration is an offence in terms of regulation 71 of GN No. R. 543.

*Peter Nilssen*

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Signature of the specialist:

**Dr. Peter Nilssen**

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Name of company:

**5 September 2013**

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Date:

## **Executive Summary**

*The proposed residential development of parts of Portions 9 and 10 of Farm No. 304, Plettenberg Bay, requires an integrated Heritage Impact Assessment including archaeological, palaeontological and visual impacts (HWC Case No X111018JL12). This report is an assessment of the impact to archaeological resources.*

*The proposed Nature's Path Lifestyle Village is a residential development consisting in part of 110 dwellings, 165 storage garages, a Bowling Green and tennis court, club house and/or restaurant. The development will also include internal roads and associated service infrastructure. Activities associated with the proposed development will involve vegetation clearing and substantial earthmoving activities. These activities may have a permanent negative impact on potential archaeological resources, if any are currently covered by vegetation or surface sediments.*

*The fieldwork for this AIA was conducted on 19 August 2013. The site of some 17 ha in extent is situated approximately 7 km north-east of Plettenberg Bay at Keurboomstrand. Large parts of the study area are disturbed by earlier agricultural activities including ploughing as well as more recent human activities, and dense, often impenetrable vegetation as well as thick grass cover over much of the area was a severe limitation to archaeological inspection and assessment.*

*Due to the significant restriction to archaeological visibility, an adequate assessment of the potential impact to archaeological resources could not be made. A substantial Later Stone Age shell midden is located about 100 m south of the affected property, and therefore, it cannot be ruled out that similar archaeological resources lie beneath vegetation in the study area. Consequently, and to minimize and/or avoid potential negative impacts, recommendations for mitigation are given below.*

*Graves indicated on and to the east of the eastern boundary in Figure 3 are in fact situated on the adjacent property of Portion 11 of Matjiesfontein 304 and therefore fall outside the affected properties. Nevertheless, recommendations are made below in this regard.*

*While the identified remnants of the historic period - a retaining wall with platform / terrace and potential old road - are not considered to be significant and a historic study is beyond the scope of work required by HWC, it may nevertheless be prudent for the generalist heritage practitioner to investigate these through an archival and deeds search. This may avoid potential delays during the construction phase of the development. It is noted that a roughly 10 000m<sup>2</sup> area including the existing dwelling and outbuildings will be subdivided from the development area and will not be impacted by the development. Therefore, this area need not be included in the HIA.*

*Provided that the below recommendations are taken into account and/or are implemented, there are no further objections to the proposed development of the Nature's Path Lifestyle Village.*

*Based on results of the AIA, and assuming that the proposed activity is approved, it is recommended that;*

- The developer should advise the relevant role players and construction team of the graves occurring nearby on the adjacent property to ensure that the graves are not disturbed or damaged during construction.*
- In order to avoid or minimize negative impact to potential archaeological resources currently obscured by vegetation, it is recommended that vegetation clearing and earthmoving operations associated with the construction phase of development should be monitored by a professional archaeologist or a sufficiently briefed and experienced Environmental Control Officer.*
- Although beyond the scope of work required by HWC, it is recommended that the generalist heritage practitioner should conduct an investigation into the built environment and history of the affected properties through an archival and deeds search. Such a study may shed light on or determine the significance of historic features identified during this AIA.*

*Note that;*

- In the absence of archaeological monitoring, and in the event that vegetation clearing and earthmoving activities expose archaeological materials, such activities must stop and Heritage Western Cape must be notified immediately.*
- If archaeological materials are exposed during vegetation clearing and/or earth moving activities, then they must be dealt with in accordance with the National Heritage Resources Act (No. 25 of 1999) and at the expense of the developer.*
- In the event of exposing human remains during construction, the matter will fall into the domain of Heritage Western Cape (Mr. Troy Smuts) or the South African Heritage Resources Agency (Ms Colette Scheermeyer) and will require a professional archaeologist to undertake mitigation if needed.*

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## **1. Introduction**

### **1.1 Background**

Heritage Western Cape's Interim Comment in terms of section 38(8) of the National Heritage Resources Act (NHRA; Act 25 of 1999) and the Western Cape Provincial Gazette 6061, Notice 298 of 2003 requested the following with respect to proposed development on parts of Portions 9 and 10 of the Farm Matjiesfontein No. 304, Keurboomstrand, Plettenberg Bay, Western Cape Province (Heritage Western Cape [HWC] Case No. X111018JL12; Figures 1 through 4):

1. An HIA is required consisting of an assessment of the impact to archaeological resources and palaeontological resources as well as the visual impact of the proposed development.
2. This site may require monitoring at a later stage during vegetation clearing.
3. An outline of the walk paths and the limitations experienced by the heritage practitioner must be communicated in the submission.

In order to comply with the above, the Jara Trust - through Sharples Environmental Services CC, who are undertaking the Environmental Impact Assessment process - appointed this author to conduct the Archaeological Impact Assessment (AIA) of the broader HIA. This report focuses on the impact to archaeological resources on the affected properties.

The proposed Nature's Path Lifestyle Village will consist of 110 dwelling units, ranging in size from 295 m<sup>2</sup> to 521 m<sup>2</sup>, 165 storage garages, a Bowling Green and tennis court, club house and/or restaurant. The development will also include internal roads and associated service infrastructure. A grey water system rather than a connection to existing service infrastructure is also being considered. The initial development layout is shown in Figure 2 (not the preferred alternative), while the preferred alternative is shown in Figure 3. The third alternative is the no-go option. Apart from the no-go option, both development alternatives may have a permanent negative impact on archaeological resources, if present, due to considerable vegetation clearing and earthmoving operations associated with the proposed activity.

### **1.2. Purpose and Scope of the Study**

Objectives of the Archaeological Impact Assessment are:

- To assess the study area for traces of archaeological resources to determine the archaeological sensitivity of the site;
- To identify options for archaeological mitigation and further assessment in order to minimize potential negative impacts; and
- To make recommendations for archaeological mitigation where necessary.

Terms of Reference (ToR):

- a) Locate the position and extent of the affected area.
- b) Conduct a survey of the study area to identify and record archaeological resources.
- c) Assess the impact of the proposed development on above-named resources.
- d) Recommend mitigation measures and additional assessment where necessary.
- e) Prepare and submit a report to the client and/or heritage practitioner that meets standards required by Heritage Western Cape in terms of the National Heritage Resources Act, No. 25 of 1999.

### **1.3 Study Area**

The study area – parts of Portions 9 and 10 of the Farm Matjiesfontein No. 304 – is approximately 17ha in extent and is located at Keurboomstrand, some 7km north-east of Plettenberg Bay in the Western Cape Province (Figures 1 through 4). The site is bordered by roads to the north and south, The Dunes Resort development is situated on the southern part of Portion 9 while the southern part of Portion 10 as well as properties to the east are undeveloped (Figures 1 and 4).

The bulk of the study area is relatively flat with a gentle down slope to the south while the northern portion slopes up moderately toward the north. Small patches of indigenous forest or thicket were noted particularly along the steeper slopes in the north while the bulk of the property is vegetated by alien trees such as pine, black wood, black wattle and blue gums. Thick kikuyu grass is common and was a severe limitation to archaeological visibility.

Due to dense vegetation, large parts of the study area are impenetrable and archaeological visibility is very limited and restricted mainly to exposed ground surfaces in the northern extents of the affected properties where surface sediments include well rounded cobbles and small boulders of an Enon conglomerate or similar origin. The study area, and particularly Portion 9, is significantly disturbed by relatively recent human activities including agricultural activities such as ploughing, roads, disused vehicle tracks, structures, terracing and other gardening activities, small scale earthmoving, fencing, tree felling, and garden refuse, building rubble and other debris are common in the south. Examples of the study area are shown in Plates 1 and 2 (also see Figure 4).

The preferred layout plan of the proposed development is shown in Figure 3. It is noted that a roughly 10 000m<sup>2</sup> area including the main dwelling and outbuildings will be subdivided from the development area and will not be impacted by development. This area, therefore, need not be included in the HIA. The study area was accessed by vehicle from the N2 as indicated with red directional arrows in Figure 1.

### **1.4 Approach to the Study**

On behalf of the Jara Trust, Ms Cara Nieuwoudt of Sharples Environmental Services CC provided locality and background information as well as the proposed development layout plans (Figures 2 & 3). The study area was accessed by vehicle and the survey was conducted independently and on foot. Apart from an internal road and disused and overgrown vehicle tracks, a large part of the study area is densely vegetated and wooded and mostly impenetrable. Areas that are accessible on foot are thickly vegetated by kikuyu grass where archaeological visibility is zero. Apart from the grassed areas, ground surfaces are mostly covered with vegetation and forest litter with only small portions visible along the northern extent of the properties. No mole heaps were seen, which often provide a window on sub-surface sediments and their contents. Thick vegetation and near total ground cover made it impractical and futile to conduct a thorough foot survey of the property.

Survey walk tracks were fixed with a hand held Garmin Camo GPS to record the search area (Figure 4, gpx tracking file is available from the author). The position of identified archaeological occurrences, observations and photo localities were also fixed by GPS (Figure 4 and Plates 1 through 3). Digital audio notes and a comprehensive, high quality digital photographic record were also made (full data set available from author). In this report, localities of archaeological occurrences, observations and photographs are established by matching the numbers on photographs with those of waypoints in Figure 4.

Directions of views are indicated on photographs with compass bearing names such as E for east; WSW for west south west, and so on.

## 2. Results

The surroundings of Plettenberg Bay has a rich Stone Age archaeological record, where cave and open sites as well as shell middens with Middle Stone Age (MSA) and Later Stone Age (LSA) deposits are particularly common on and around the Robberg Peninsula (Kaplan 1993). While archaeological remains of the Early Stone Age, MSA and LSA periods have been recorded in the surroundings of the current study area (e.g., Deacon 2001, Kaplan 1999 & 2001, Nilssen 2012 and Webley 2001), the closest and most significant heritage site is the Provincial Heritage Site of Matjes River Cave, Keurboomstrand, Knysna District, which is situated some 4 km to the east. Matjes River Cave contains one of the deepest LSA shell middens of some 10 m thick that resulted from human occupation of the site over the last 12 000 years. The site contains abundant cultural remains that include a painted burial stone, bone tools, shell pendants and ostrich egg shell beads (Webley 2001).

A previous study of Portion 10 of the farm Matjiesfontein No. 304 identified ephemeral shell scatters, a few pieces of ostrich egg shell and two stone flakes in exposed surfaces on the north facing slope of a barrier dune to the south of the road that transects the property (Kaplan 2001). These finds were considered to be of low significance. No archaeological remains were identified to the north of the road that transects the property, though this area was noted to be densely vegetated and degraded.

A large, stratified shell midden was recorded at The Dunes Resort which lies south of the road that transects Portion 9 of the farm Matjiesfontein No. 304 (Yates 2006; Figure 3). Although shell midden deposits were evident in mole heaps, the stratified midden deposit was only exposed during vegetation clearing and earthmoving activities associated with construction. This LSA shell midden contains mammal and fish bone, ostrich egg shell, hammer stones and large quartzite flakes and was considered to be of local and regional significance (Yates 2006).

Fieldwork for the AIA presented here was conducted on 19 August 2013 when a distance of about 4.5 km was walked across the property covering an area of about 3 ha (Figure 4 and Plates 1 through 3). Due to much impenetrable vegetation and very poor archaeological visibility, a thorough AIA was not possible. At present it is impossible to establish whether or not any significant cultural remains occur in the study area, and therefore, recommendations are made below in an attempt to remedy this situation. Nevertheless, a few observations pertaining to the prehistoric and historic periods were made.

Graves are indicated on and to the east of the eastern boundary of Portion 10 in the development layout plan shown in Figure 3, but unfortunately these were not seen during fieldwork. The graves were identified by the land surveyor, Mr John Bailey, and according to Ms Nieuwoudt and Mr Marthinus Saunderson (who is managing the project on behalf of the property owners) they are unmarked and are situated outside and immediately east of the Portion 10 boundary. That is to say, the graves are situated on Portion 11 of the Farm Matjiesfontein 304. Graves and burials are protected by the NHRA (Act 25 of 1999) as well as the Human Tissues Act (Act 65 of 1983 and amended 2003). Although they are located on the adjacent property and the proposed development will not have a direct impact on them, it is recommended that the developer should advise the relevant role players and

construction team of the graves occurring nearby to ensure that the graves are not disturbed or damaged during the construction phase of development.

Two isolated quartzite flakes of Stone Age origin were identified on partially exposed surfaces in the wooded parts of the study area at **waypoints 9 and 11** (Figure 4 and Plate 3). While neither can be attributed to a specific age, the former appears more likely to be of MSA origin as it is partially weathered and patinated or cortified. Both pieces were found among cobbles - and one retains cobble cortex - of aquatic origin, possibly gravels derived from Enon conglomerate or a similar geological member. It is possible that these quartzite rich gravels were a source of raw materials for manufacturing stone tools and thus functioned as Stone Age quarry sites.

**Significance and Recommendation:** Because these specimens occur in isolation and lack context, they are presently considered to be of low significance. Nevertheless, their presence suggests that more materials may be obscured by surface sediments, vegetation cover and forest litter. An adequate assessment of the archaeological sensitivity of these localities can only be made when and if this area is cleared of vegetation and surface sediments. The area around waypoint 11 will not be impacted by development, but that around waypoint 9 will. It is recommended, therefore, that the locality around waypoint 9 should be monitored by a professional archaeologist or suitably briefed and experienced Environmental Control Officer during vegetation clearing and earthmoving activities associated with the proposed development.

What appears to be a retaining wall of historic age that was used for either a terrace or platform was recorded at **waypoint 15** (Figure 4 and Plate 3). Due to thick vegetation and potentially obscuring sediments it was difficult to determine the length of the walling though the visible portions are some 10 to 15 meters in length. The wall is made of large, rounded rocks that are almost certainly derived from the nearby source upslope, which in turn stems from an eroding Enon or similar conglomerate. While no structural remains or ruins were seen on the level platform or terrace, a few old glass bottles were seen. Whether or not these are associated with the retaining wall is uncertain.

**Significance and Recommendation:** Although this retaining wall is considered to be of low significance, it remains to be seen whether or not it is associated with any early structures on the property. It is recommended that the generalist heritage practitioner, through an archival and deeds search, establishes whether or not any early historic structures are indicated at this locality.

A second feature of likely historic or more recent age was identified at **waypoint 16** (Figure 4 and Plate 3). This is a levelled linear strip running roughly between waypoints 16 and 18 though it almost certainly extends further to the east. As is indicated with red in Plate 3 (16), the levelled strip is raised along its southern edge to compensate for the gentle down slope to the south. There is no evidence for a retaining wall and it is suggested that this is part of an old, though not necessarily historic, road.

**Significance and Recommendation:** At present this potential road is considered to be of low significance, but it is recommended that the generalist heritage practitioner establishes whether or not this is a historic road through an archival and deeds search.

### **3. Sources of Risk, Impact Identification and Assessment**

Activities associated with the proposed development will involve vegetation clearing and substantial earthmoving activities. These activities may have a permanent negative impact on potential archaeological resources that may be covered by vegetation and surface sediments. Due to the severe restriction to archaeological visibility, an adequate assessment

of the potential impact to archaeological resources could not be made. A substantial Later Stone Age shell midden is located about 100 m south of the affected property, and therefore, it cannot be ruled out that similar archaeological resources lie beneath vegetation in the study area. Consequently, and to minimize and/or avoid potential negative impacts, recommendations for mitigation are given below.

Graves indicated on and to the east of the eastern boundary in Figure 3 are in fact situated on the adjacent property of Portion 11 of Matjiesfontein 304 and therefore fall outside the affected properties. Nevertheless, recommendations are made below in this regard.

While the identified remnants of the historic period - a retaining wall with platform / terrace and potential old road - are not considered to be significant and a historic study is beyond the scope of work required by HWC, it may nevertheless be prudent for the generalist heritage practitioner to investigate these through an archival and deeds search. This may avoid potential delays during the construction phase of the development . It is noted that a roughly 10 000m<sup>2</sup> area including the existing dwelling and outbuildings will be subdivided from the development area and will not be impacted by the development. Therefore, this area need not be included in the HIA.

Provided that the below recommendations are taken into account and/or are implemented, there are no further objections to the proposed development of the Nature's Path Lifestyle Village. Table 1 summarizes the potential impact of the proposed development on archaeological resources with and without mitigation.

**Table 1. Potential impact on and loss of archaeological resources with and without mitigation.**

	With Mitigation	Without Mitigation
<b>Extent</b>	Local	Local
<b>Duration</b>	Permanent	Permanent
<b>Intensity</b>	High	High
<b>Probability</b>	Low	Unknown
<b>Significance</b>	Low	Unknown
<b>Status</b>	Unknown	Unknown
<b>Confidence</b>	High	High

**4. Recommended and Required Mitigation Measures**

*Recommended mitigation measures:*

- The developer should advise the relevant role players and construction team of the graves occurring nearby on the adjacent property to ensure that the graves are not disturbed or damaged during construction.
- In order to avoid or minimize negative impact to potential archaeological resources currently obscured by vegetation, it is recommended that vegetation clearing and earthmoving operations associated with the construction phase of development should be monitored by a professional archaeologist or a sufficiently briefed and experienced Environmental Control Officer.
- Although beyond the scope of work required by HWC, it is recommended that the generalist heritage practitioner should conduct an investigation into the built

environment and history of the affected properties through an archival and deeds search. Such a study may shed light on or determine the significance of historic features identified during this AIA.

*Required mitigation measures:*

- In the absence of archaeological monitoring, and in the event that vegetation clearing and earthmoving activities expose archaeological materials, such activities must stop and Heritage Western Cape must be notified immediately.
- If archaeological materials are exposed during vegetation clearing and/or earth moving activities, then they must be dealt with in accordance with the National Heritage Resources Act (No. 25 of 1999) and at the expense of the developer.
- In the event of exposing human remains during construction, the matter will fall into the domain of Heritage Western Cape (Mr. Troy Smuts) or the South African Heritage Resources Agency (Ms Colette Scheermeyer) and will require a professional archaeologist to undertake mitigation if needed.

## 5. References

Deacon, H.J. 2001. Phase 1 Report to Hilland Associates Archaeological Impact of the Proposed Subdivision of Farm Arch Rock, No. 296 (Keurboomstrand). An unpublished report on file at SAHRA as: 2001-SAHRA-0057.

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Yates, R. 2006. Dune Park Resort Upgrade - Part of Portion 9 of the Farm Matjiesfontein No. 304, Plettenberg Bay: Archaeological Heritage Scoping Report. An unpublished report by Mossel Bay Archaeology Project on file at SAHRA as: 2006-SAHRA-0113.

## 6. Figures and Plates (on following pages)

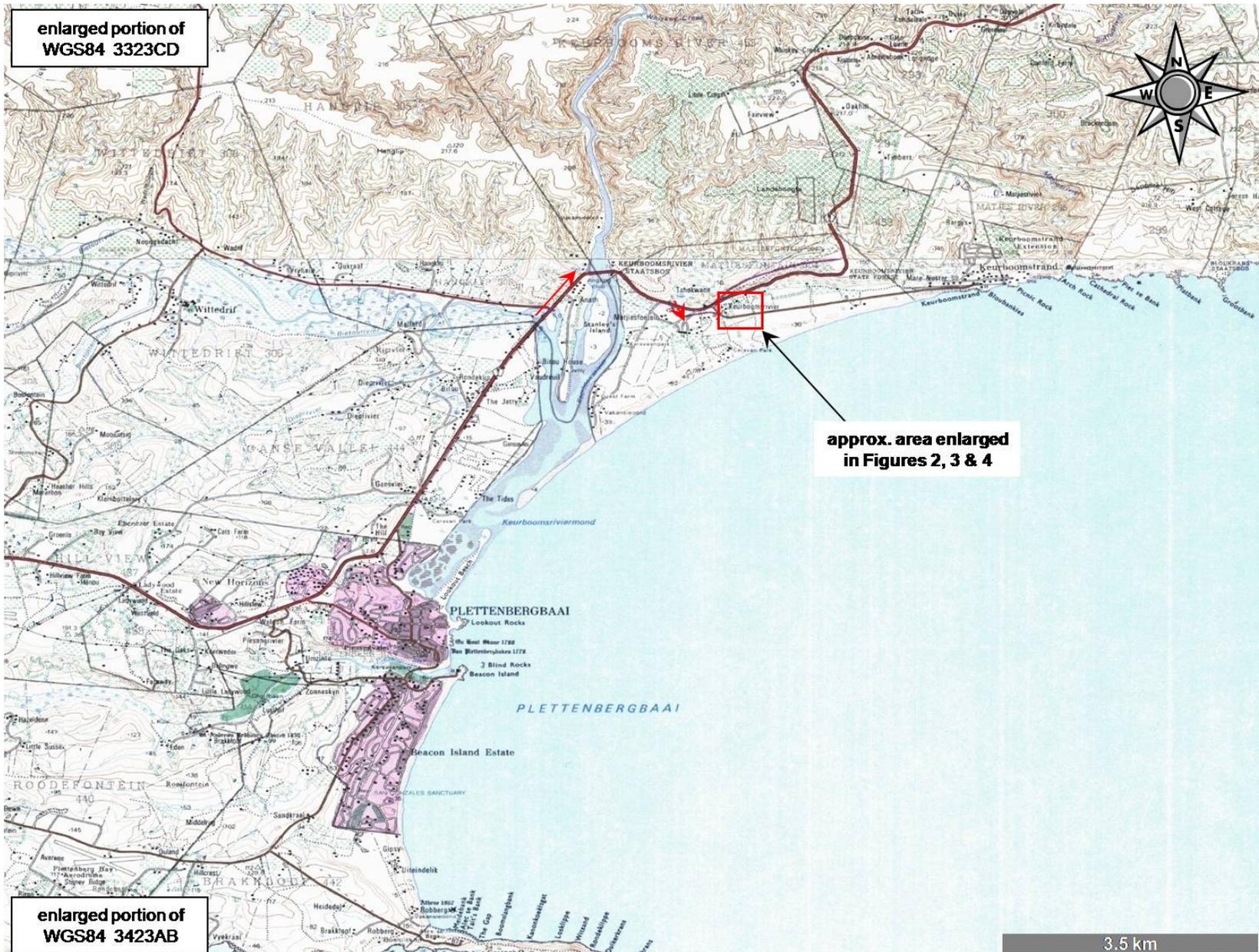
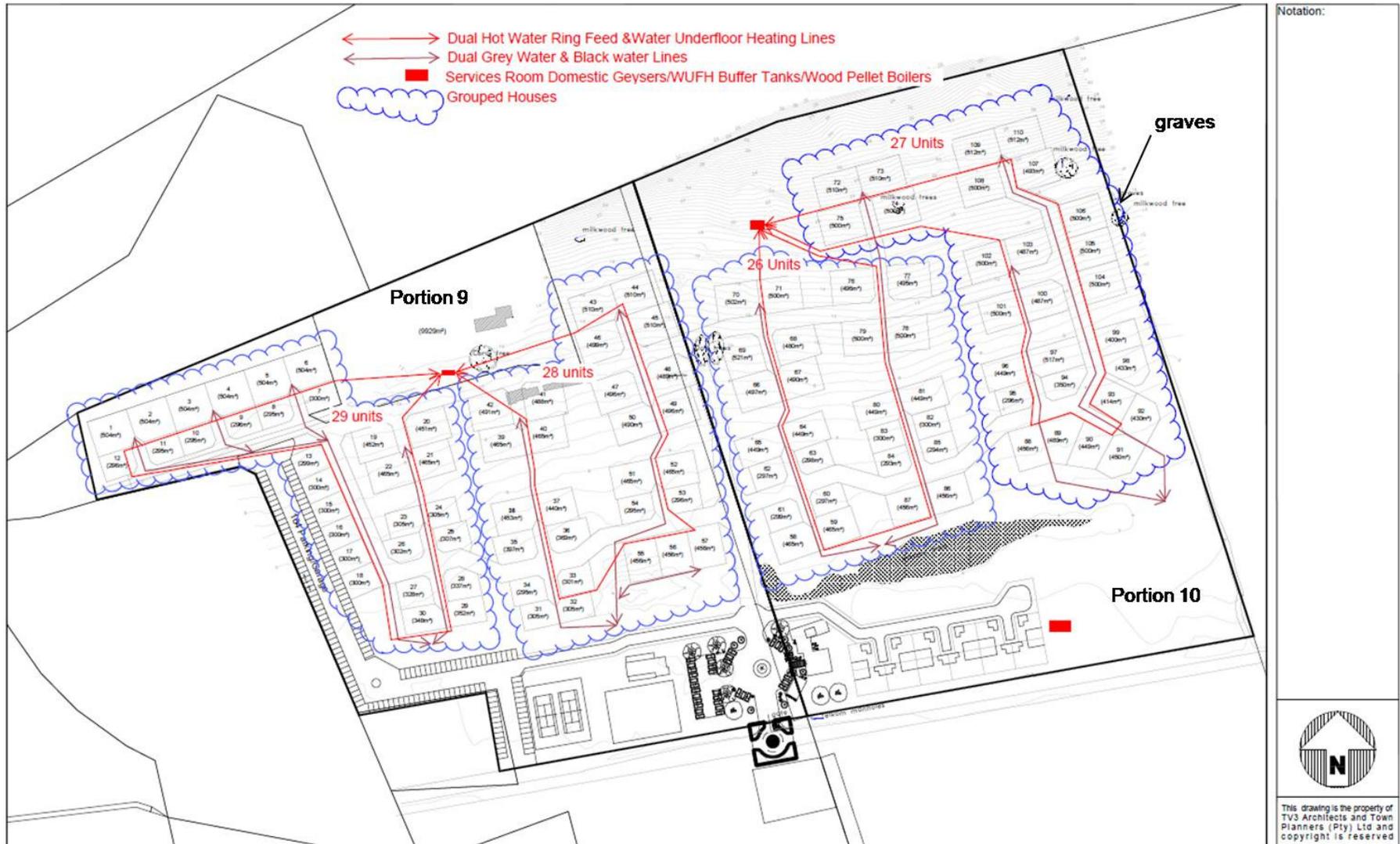


Figure 1. Study area relative to Plettenberg Bay, Western Cape. (Map courtesy of The Chief Directorate, Surveys & Mapping, Mowbray).



Figure 2. Enlarged from Figure 1 showing the not-preferred alternative Site Development Plan. Courtesy of Sharples Environmental Services CC.



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# Nature's Path

## Farms 304/9 & 304/10 Plettenbergbay

Drawn:	Checked:	Date:	Scale:
WH	JVR	14/09/2010	1:2000 (A3)
Project no.:		Revision no.:	
Q2883		3	
Drawing:			Plan no.:
Proposed Layout			1

Figure 3. Enlarged from Figure 1 showing the preferred alternative Site Development Plan. Courtesy of Sharples Environmental Services CC.

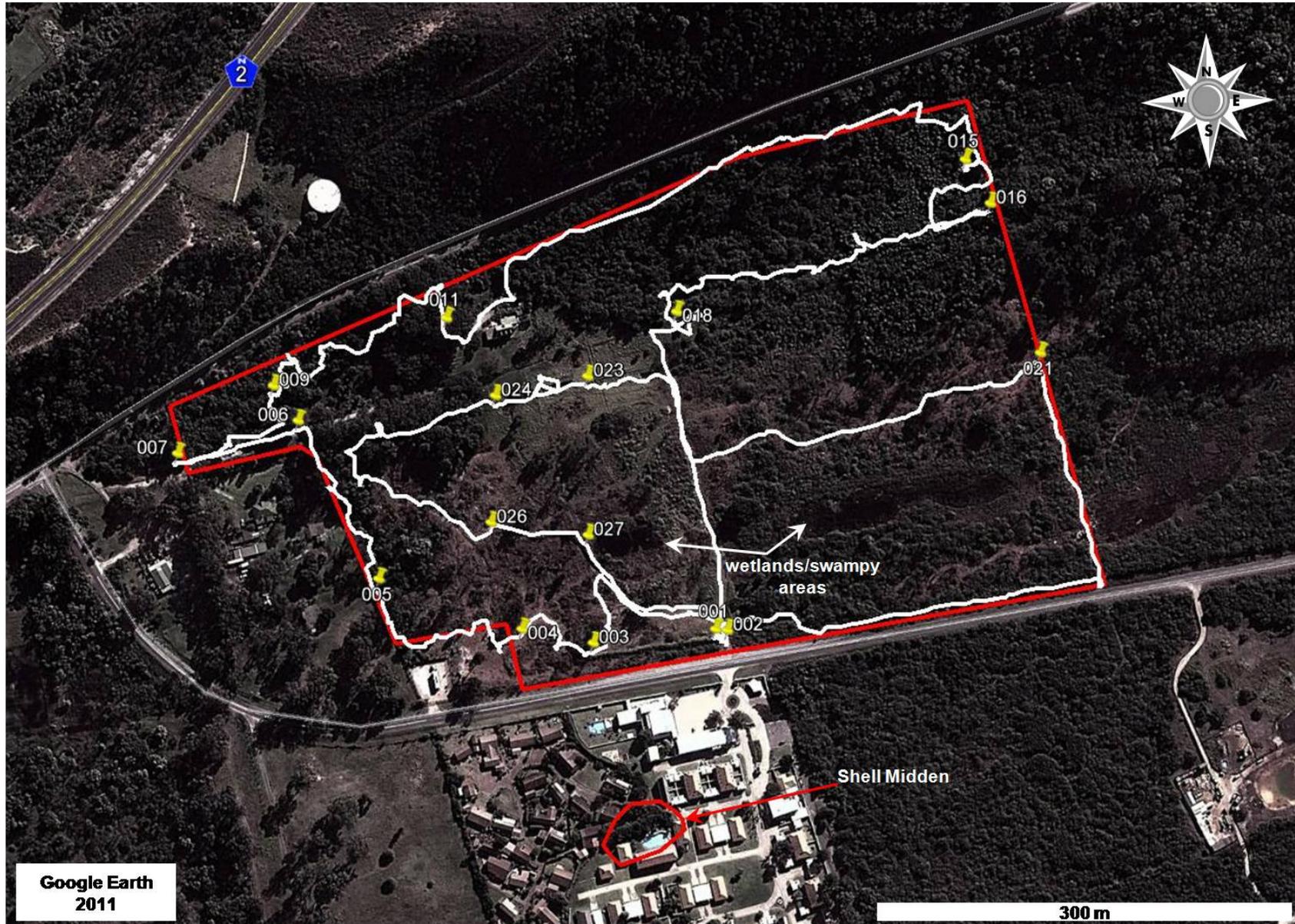


Figure 4. Enlarged area from Figure 1 showing property outline (red), survey walk tracks (white lines), archaeological occurrences and photo localities (labelled yellow markers) (see Plates 1 through 3).



Plate 1. Examples of the study area and environment; vegetation and access road / driveway to main dwelling (see Figure 4).



Plate 2. Examples of the study area and environment; topography, vegetation cover, out buildings, main dwelling and wetland / marshy area (see Figure 4).



Plate 3. (9) Stone Age quartzite flake with cobble cortex - likely of MSA origin, (11) Stone Age quartzite flake and flaked piece of indeterminate age, (15) stone retaining wall with levelled platform or terrace - walling height between 70 cm and 1 m, and (16) portion of levelled, linear strip of between 3 and 4 m in width that is likely an old road - red line indicates levelled area with steep, unnatural slope to the south (see Figure 4).