HERITAGE IMPACT ASSESSMENT

PROPOSED MIXED USE DEVELOPMENT IN KATHU, NORTHERN CAPE PROVINCE

Remainder & Portion 1 of the Farm Sims 462, Kuruman RD

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Executive summary

ACRM was commissioned to conduct a Heritage Impact Assessment (HIA) – specialist archaeological study, for a proposed mixed-use development on Remainder, & Portion 1 of the Farm Sims 462 (Kuruman RD), in Kathu in the Northern Cape Province. Kathu is located some 50kms south of Kuruman and 240 kms north east of Upington on the N14.

The HIA forms part of the EIA process that is being conducted by EnviroAfrica.

The 170 ha site is located on both sides of the R380/Dibeng Road and adjacent to the Village Walk Shopping Mall, inside the urban edge.

The total number of erven proposed is 1720, and includes 1671 residential erven, with the remainder being made up business, industrial, transport, institutional and open space zones.

The proposed development site is zoned Agriculture I, but is not being used for this purpose any more. Much of the proposed site is underlain by limestone (calcrete) with a thin veneer of red surface sands. The property is covered in extremely dense vegetation, including large swathes of virtually impenetrable thorny Swarthaak vegetation. There are no significant landscape features on the proposed site. Numerous pedestrian footpaths crisscross the farm, while an old deproclaimed tarred road cuts right across the larger portion of the property west of the R380. The demolished ruins of an apartheid-era South African Defence Force commando base, is located to the north east of the mall. Homeless people occupy a portion of the property alongside the R380. The site is fairly severely degraded.

The aim of the study is to locate and map archaeological heritage remains that may be impacted by the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.

Despite the constraints of dense vegetation cover, a fairly detailed foot survey of the proposed development site was undertaken in March 2104, in which the following observations were made:

- A very small number of Middle Stone Age (MSA) and Later Stone Age (LSA) implements were encountered over the proposed development site, which is mostly devoid of archaeological heritage.

- A dispersed scatter of MSA tools was recorded in the north east of the proposed development site, alongside the old Kuruman Road, but these remains occur in a highly degraded context.

- There are no visible graves on the proposed development site.

- A ruined concrete reservoir and the foundations of a modern structure/building were found among a stand of large Kameeldoring trees, and are probably the remains of an `old' cattle station.

The results of the study indicate that the proposed development of Remainder & Portion 1 of the Farm Sims 462 in Kathu will not impact on any significant archaeological heritage. The small number, isolated and disturbed context in which they were found means that the archaeological remains have been rated as having low (Grade 3C) significance.

The receiving environment is not a sensitive or vulnerable archaeological landscape.

Two previous studies undertaken adjacent the proposed development site encountered either no archaeological heritage or only a few single isolated MSA tools and dispersed finds.

It is noted that the northern boundary of Farm 462 is one of four farms that converge at the centre of Kathu Pan/Kathu vlei, which has generated significant archaeological information since it was first investigated in the mid-1970s. Archaeological deposits at the pan have produced stratified deposits from both the, Early (ESA) and Middle Stone Age, as well as significant numbers of ESA implements and fauna in association with each other in a `near primary context'. Kathu Pan 1, one of a complex of 12 sites surrounding the vlei, was officially graded a Grade 1 Heritage Site in March 2013 by the South Africa Heritage Resources Agency (SAHRA). Since then the Kathu Pan complex of sites, considered to be part of an archaeological landscape of great significance, that includes several other sites in and around Kathu, has been nominated as a Grade 1 National Heritage Site (NHS).

The pan is located about 2.5kms from the old Kuruman Road which is the northern boundary of the proposed development site, and will not be impacted by proposed development activities.

With regard to the proposed development of Remainder & Portion 1 of the Farm Sims 462, the following recommendations are made:

1. No archaeological mitigation is required.

2. Should any unmarked human burials/remains or ostrich eggshell water flask caches be uncovered during construction activities, these must immediately be reported to the archaeologist (Jonathan Kaplan 082 321 0172), or Ms Jenna Lavin at the South African Heritage Resources Agency (021 462 4502). Burials, etc must not be removed or disturbed until inspected by the archaeologist.

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1. INTRODUCTION

ACRM was commissioned by independent environmental consultants EnviroAfrica to conduct a Heritage Impact Assessment (HIA) – specialist archaeological study, for a proposed mixed use development on Remainder, & Portion 1 of the Farm Sims 462, (Kuruman RD), in Kathu (Gamagara Municipality) in the Northern Cape Province (Figures 1 & 2).

The HIA forms part of the Environmental Impact Assessment (EIA) process that is being conducted by EnviroAfrica.

The total number of erven proposed is 1720, and includes 1671 residential erven, with the remainder being made up business/commercial, industrial, transport, institutional (i.e. school for example), and open space zones (Figure 3).

The 170 ha development site is zoned Agriculture Zone I but is not being used for this purpose anymore, and the property is currently vacant. According to the Spatial Development Framework Plan for Kathu, the proposed site has been identified for future urban development.

The aim of the study is to locate and map any archaeological heritage that may be impacted by the proposed project, to assess the significance of the potential impacts and to propose measures to mitigate the impacts.

2. HERITAGE LEGISLATION

The National Heritage Resources Act (Act No. 25 of 1999) makes provision for a compulsory Heritage Impact Assessment (HIA) when an area exceeding 5000 m² is being developed. This is to determine if the area contains heritage sites and to take the necessary steps to ensure that they are not damaged or destroyed during development.

The NHRA provides protection for the following categories of heritage resources:

- Landscapes, cultural or natural (Section 3 (3))
- Buildings or structures older than 60 years (Section 34);
- Archaeological sites, palaeontological material and meteorites (Section 35);
- Burial grounds and graves (Section 36);
- Public monuments and memorials (Section 37);
- Living heritage (defined in the Act as including cultural tradition, oral history, performance, ritual, popular memory, skills and techniques, indigenous knowledge systems and the holistic approach to nature, society and social relationships) (Section 2 (d) (xxi)).

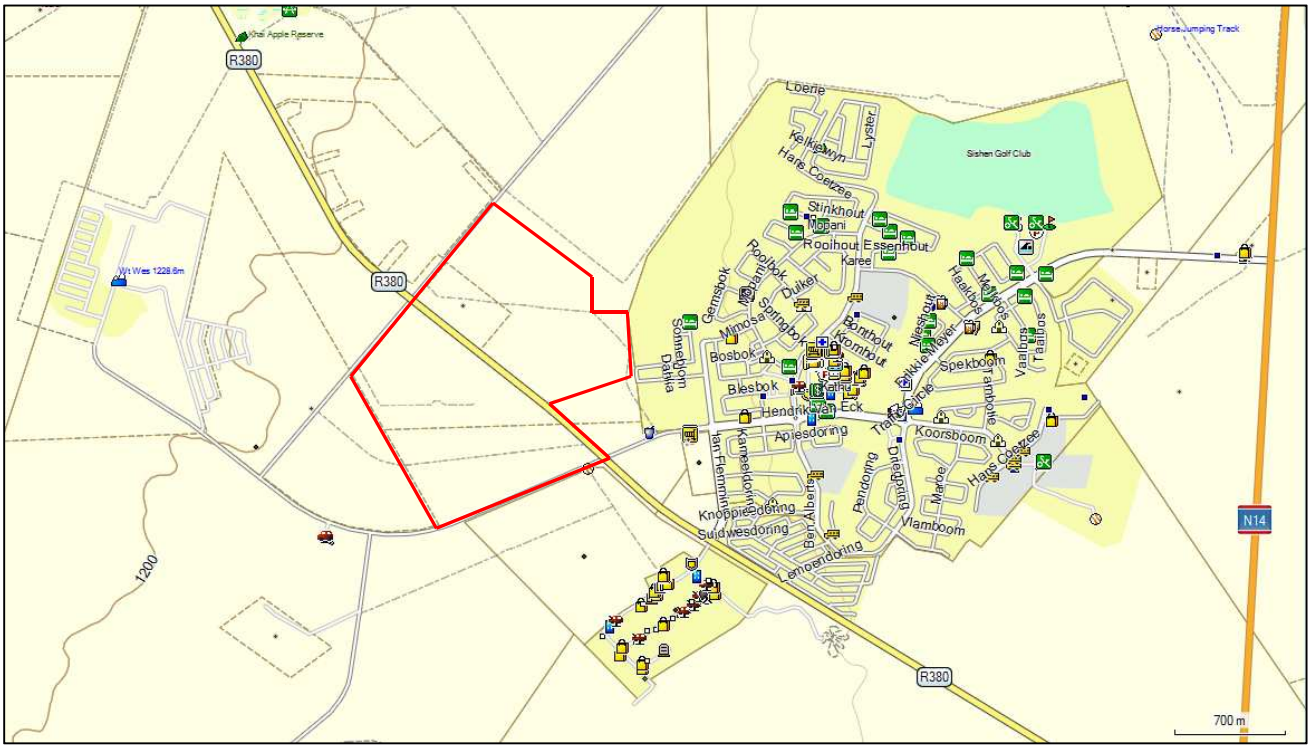

Figure 1. Locality map indicating the proposed study area (red polygon)

Figure 2. Google Aerial photograph of the proposed development site.

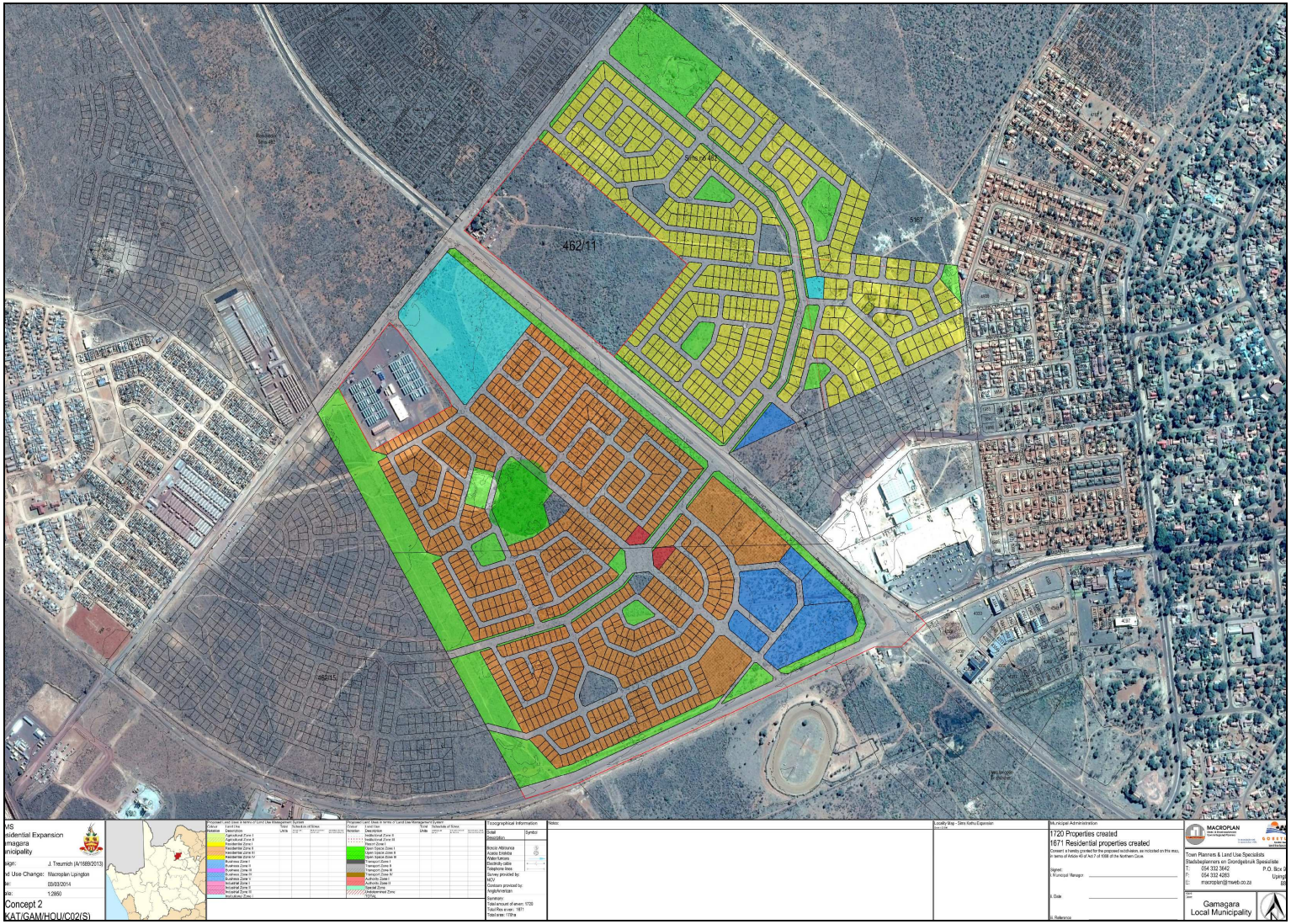

Figure 3. Proposed site development plan.

3. TERMS OF REFERENCE

The terms of reference for the study were to:

- Determine whether there are likely to be any important archaeological heritage that may be impacted by the proposed development;
- Indicate any constraints that would need to be taken into account in considering the development proposal;
- Identify potentially sensitive archaeological areas, and
- Recommend any further mitigation action.

4. DESCRIPTION OF THE RECEIVING ENVIRONMENT

Kathu is located about 50kms south of Kuruman and 240 kms north east of Upington on the N14. The proposed development site is situated on the western side of the town, inside the urban edge. The subject property is located on both sides of the R380/Dibeng Road and adjacent to the Village Walk Shopping Mall. The site is bound by Hendrik Van Ek Street in the south, the old Kuruman road in the north and an, Eskom servitude in the west. A thin veneer of red sand is underlain by calcrete throughout most of the property. The town of Kathu has experienced phenomenal growth in recent years, mainly as a result of expansion of the Sishen/Kumba Iron Ore Mine. The Village Walk Shopping Mall opened in 2008, and there are currently three more malls under construction in the town.

West of the R380 (Site A – refer to Figure 2), the large, vacant piece of land is covered in dense vegetation and thick long grass, with occasional large patches of virtually impenetrable thorny Swarthaak across the northern portion of the site. Numerous pedestrian footpaths crisscross the site, while an old (heavily pedestrianized) de-proclaimed tar road cuts through the centre of the property. There is an abandoned limestone quarry in the north western corner of the proposed site, while the ruins of a concrete reservoir and the foundations of a modern brick building (probably the remains of an ‘old’ cattle station) occurs immediately to the east of the quarry, beneath a large stand of Kameeldoring/Camel Thorn trees (Figures 4-8). This area will be left as Public Open Space. There are no significant landscape features on the proposed site.

East of the R380 (Site B), the property is covered in very dense vegetation and thick grass, while much of the northern portion, and a large portion alongside the eastern boundary and the R380 are covered in extremely thick Swarthaak vegetation. Illegal dumping of building rubble is widespread north east of the shopping mall, while diggings are also quite extensive. Two small pans occur in the north eastern corner of the site. A gravel farm road intersects the site in the west. Numerous small, barely visible pedestrian footpaths crisscross the property. About 30 informal, `homes’/camps occur mostly among the thick vegetation alongside the R380. The remains of a (demolished) Apartheid-era SADF commando camp occurs about 500m north of the mall (Figures 9-13). Two Eskom servitude cut across the site as well as an old (de-commissioned) water pipeline alongside the eastern boundary. Surrounding land use is mining, low cost and affordable housing, light industry, shopping mall, commercial/business and vacant undeveloped land identified for future urban growth.

Figure 4. View of Site A taken from alongside the Eskom servitude. The Village Walk Shopping Mall is in the distance. View facing east.

Figure 5. View of Site A taken from alongside the Eskom servitude. View facing north east

Figure 6. View of Site A taken from alongside the Eskom servitude. View facing north.

Figure 7. View of Site A taken from alongside the Eskom servitude. View facing south.

Figure 8. View of Site A taken from the edge of the quarry. View facing south east.

Figure 9. View of Site B taken from alongside the old Kuruman road. View facing south west

Figure 10. View of Site B taken from alongside the eastern boundary. View facing south west

Figure 12. View of Site B taken from alongside the eastern boundary. View facing south east

Figure 13. View of Site B taken from alongside the old Kuruman road. View facing south

5. STUDY APPROACH

5.1 Method of survey

A fairly detailed foot survey of the proposed development site was undertaken by ACRM on the 10th and 11th March, 2014.

All archaeological remains were plotted *in-situ* using a Garmin Oregon 300 hand held GPS device, set on the map datum WGS 84[1].

A track path of the study was captured (refer to Figure 25 in Appendix II).

A desk top study was also done, which included consulting the South African Heritage Resources Agency (SAHRA), SAHRIS web site/content management system.

5.2 Constraints and limitations

The proposed development site is covered in very thick vegetation, including extremely dense patches of virtually impenetrable thorny Swarthaak vegetation across much of the northern portion of the site (especially east of the R380), resulting in very low archaeological visibility.

The large, natural pan (refer to Figure 25) in the north eastern corner of Site B has been excluded from the proposed development plan due to its botanical sensitivity (Dave McDonald pers. comm.). This area has also been retained as Public Open Space.

5.3 Identification of potential risks

The results of the study indicate that there are no archaeological risks associated with the proposed development.

Several studies conducted in the immediate surrounding area have shown that only a few artefacts were encountered on the red surface sands.

5.4 Results of the desk top study

No archaeological remains were documented during a Phase 1 HIA of Erf 5169 (Portion A & B of the Farm Sims 462), the site of the Village Walk Shopping Centre (Beaumont 2006a), while Kaplan (2008) recorded a dispersed scatter of Later Stone Age (LSA) implements, and several isolated Middle Stone Age (MSA) tools during an AIA of Erf 5168 directly north of the shopping mall, and adjacent the proposed development site (refer to Figure 2).

It is noted that the northern boundary of the Farm Sims 462 is one of four farms that converge more or less at the centre of Kathu Pan/Kathu vlei, which has generated significant archaeological information since it was first investigated in the mid-1970s (Beaumont 1990; Walker *et al* 2013). The pan is located west of the town, alongside the

[1] Due to a GPS malfunction, the track path and (a few) waypoints for a portion of the subject property alongside Hendrik van Ek Street was lost and could not be recovered. However, these have been re-created and their presentation is fairly accurate

R380 and about 2.5kms from the old Kuruman Road (the northern boundary of the proposed development site). Archaeological deposits at the pan have produced stratified deposits from both the, ESA and MSA, as well as significant numbers of ESA implements and fauna in association with each other in a `near primary context'. Kathu Pan 1 (KP1), one of a complex of 12 similar sites surrounding the vlei, was officially graded a Grade 1 Heritage Site in March 2013 by the South African Heritage Resources Agency. Since then the Kathu Pan complex of sites, considered to be part of an archaeological landscape of great significance, that includes several other highly significant archaeological sites in and around Kathu, has been nominated as a Grade 1 National Heritage Site (NHS). According to Ms Jenna Lavin[2], Heritage Officer (archaeologist) at SAHRA, the proposed nomination has been submitted to the SAHRA council for approval.

A small number of mostly isolated MSA and LSA implements were also documented during a HIA for a proposed housing development on Farm 463/1 (Uitkomst) east of Kathu on the outskirts of the town (Kaplan 2014). Of particular interest is that large numbers of *in-situ* ESA lithics were encountered in the south western corner of the property. This particular site was identified by Beaumont (2013, 2006b, c, d; Walker *et al* 2013) as the northern extent of an important late Acheleun ESA site known as Kathu Townlands, and is part of the complex of archaeological sites (referred to above) that have been nominated as a Grade 1 NHS.

6. FINDINGS

6.1 Site A

A few banded ironstone flakes and chunks (090 & 094)) were encountered among piles of road gravel and litter alongside the deproclaimed tarred road that cuts right across the property west of the R380. A thick, step retouched MSA ironstone flake (091), a possible core/chunk (092), a small weathered banded ironstone flake (093), and a banded ironstone chunk (095) were also found between the old tar road and Hendrik van Ek Street (refer to Figure 7). Several ironstone flakes and chunks (098) were found among gravel/tailings alongside an old gravel road near the limestone quarry in the north western portion of the proposed site. A, small LSA retouched ironstone flake (099) was found in a small footpath alongside the R380, while a miscellaneous retouched and utilized flake and chunk (100) in banded ironstone were encountered on a large patch of gravel and calcrete alongside the R380. A diffuse scatter of tools (in a highly degraded context), including several large chunks/minimal cores and flakes (101) were found among road gravels and a surface scrape alongside the old Kuruman Road in the north east of the site.

The remains of a concrete reservoir and the foundations of a building were located among a dense stand of large Kameeldoring/Camelthorn trees immediately south of the calcrete quarry, and are probably the remains on an abandoned cattle station (refer to Figure 19).

A collection of tools and the context in which they were found is illustrated in Figures 14-18.

[2] Email correspondence dated 19 June, 2014

Figure 14. Collection of tools found between the old tar Road and Hendrik van Ek Street. Scale is in cm

Figure 15. Scrape alongside R380

Figure 16. Tools alongside the old Kuruman road. Scale is in cm

Figure 18. The old Kuruman road. Note the gravels and tailings alongside the road

Figure 17. Tools alongside the old Kuruman road. Scale is in cm

Figure 19. Remains of the concrete reservoir among a large stand of mature Camel thorn trees.

6.2 Site B

A handful of ESA ironstone flakes and chunks (107) were found among excavated limestone at the small pan in the north eastern corner of the proposed site alongside the old Kuruman road (refer to Figure 25), while similar tools, including an ESA biface (108) were found among road gravels/tailings directly alongside the road. It is suspected that much of this material has been introduced onto the site during construction of the road.

A translucent, utilized chalcedony LSA flake (115), a small limestone flake (123) and a banded ironstone flake (124) were found near the natural pan in the north eastern corner of the site. A retouched ironstone flake (116) was also found about 50m north of the edge of the pan. A dispersed scatter of MSA and LSA tools (118-121), including chunks, flakes, a core, and a blade in ironstone, quartzite and silcrete was found among the limestone quarry/diggings just outside the proposed development site.

A collection of tools and the context in which they were found is shown in Figures 20-24.

Figure 20. Collection of tools (107 & 108) from the small pan and gravels alongside the old Kuruman road. Scale is in cm

Figure 22. Utilized chalcedony blade (115) found near the large natural pan. Scale is in cm

Figure 21. Small pan alongside the old Kuruman road

Figure 23. Large, natural pan. View facing north west

Figure 24. Small collection of tools from the limestone quarry just outside the proposed site. Scale is in cm

6.3 Significance of the archaeological remains

The very small numbers, isolated and disturbed context in which they were found means that the archaeological remains documented during the study have been rated as having low (Grade 3 C) significance.

The low density scatter of tools mirrors the findings of two previous studies done in the immediate surrounding area (Beaumont 2006a; Kaplan 2008), where few/no artefacts were encountered on the thin red surface sands.

7. PREDICTED IMPACTS

The overall impact of the proposed development on archaeological heritage will be very low.

The Kathu Pan complex of archaeological sites, nominated as a Grade 1 National Heritage Site, is located 2.5kms north of the proposed development site and will not be impacted by the proposed development activities.

8. CONCLUSION

The survey has identified no significant impacts to pre-colonial archaeological material.

The study has shown that the receiving environment is not a sensitive or threatened archaeological landscape.

Previous studies adjacent the proposed development site have encountered very little archaeological heritage.

9. RECOMMENDATIONS

With regard to the proposed development on Remainder, & Portion 1 of Farm Sims 468, the following recommendations are made:

1. No archaeological mitigation is required.

2. Should any unmarked human burials/remains or ostrich eggshell water flask caches be uncovered, or exposed during construction activities, these must immediately be reported to the archaeologist (Jonathan Kaplan 082 321 0172), or Ms Jenna Lavin at the

South African Heritage Resources Agency (021 462 4502). Burials must not be removed or disturbed until inspected by the archaeologist.

10. REFERENCES

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Walker, S., Chazan, M., Lukich, V. & Morris, D. 2013. A second Phase 2 archaeological data recovery at the site of Kathu Townlands for Erf 5116: Kathu, Northern Cape Province. Report prepared for PZK Beleggings 3000 CC. McGregor Museum, Kimberley.

Appendix I

Spreadsheet of waypoints and description of archaeological finds

Site	Name of Farm	Lat/long	Description of finds
	Remainder & Portion 1 of the Farm Sims 462, Kuruman RD		
090		S 27°42'5.93" E 23°1'47.46"	A few chunks an d flakes in banded ironstone alongside old tar road
091		S 27°42'10.71" E 23°1'46.55"	Step retouched ba nded ironstone MSA flake
092		S 27°42'12.41" E 23°1'41.60"	Banded ironstone chunk/?core
093		S 27°42'8.11" E 23°1'36.14"	Small weathered banded ironstone flake
094		S 27°42'7.52" E 23°1'33.17"	A few chunks an d flakes alongside old tar road
095		S 27°42'15.64" E 23°1'33.08"	Banded ironstone chunk
098		S 27°41'58.49" E 23°1'18.54	Banded ironstone chunks and flakes among tailings/gravel in road alongside calcrete quarry
099		S 27°41'51.43" E 23°1'33.82"	Small banded iro nstone LSA retouched flake
100		S 27°41 '38.85" E 23°1 '16.83"	MRP/utilized flake and chunk
101		S 27°41'38.05" E 23°1'14.23"	Dispersed chunks /flakes/min cores in banded ironstone alongside old Kuruman Road
107		S 27°41'18.01" E 23°1'33.42"	Several large ba nded ironstone flakes & chunks among calcrete diggings/pan
108		S 27°41'26.81" E 23°1'24.23"	Chunks, flakes a nd large biface among gravels alongside old Kuruman road
115		S 27°41'24.96" E 23°1'36.14"	Utilized chalcedony/translucent blade near pan
116		S 27°41'24.87" E 23°1'32.47"	Retouched MSA ba nded ironstone flake/blade
118-121		S 27°41'30.49" E 23°1'28.09"	Small collec tion of banded ironstone, silcrete & quartzite MSA and LSA flakes, chunks/core and blade in old limestone quarry (outside) proposed development site
123		S 27°41'24.88" E 23°1'38.65"	Small chalcedony LSA flake near pan
124		S 27°41'24.67" E 23°1'39.58"	Banded ironstone chunk near pan

Table 1. Spreadsheet of waypoints and description of archaeological finds

Appendix I

Track paths and waypoints

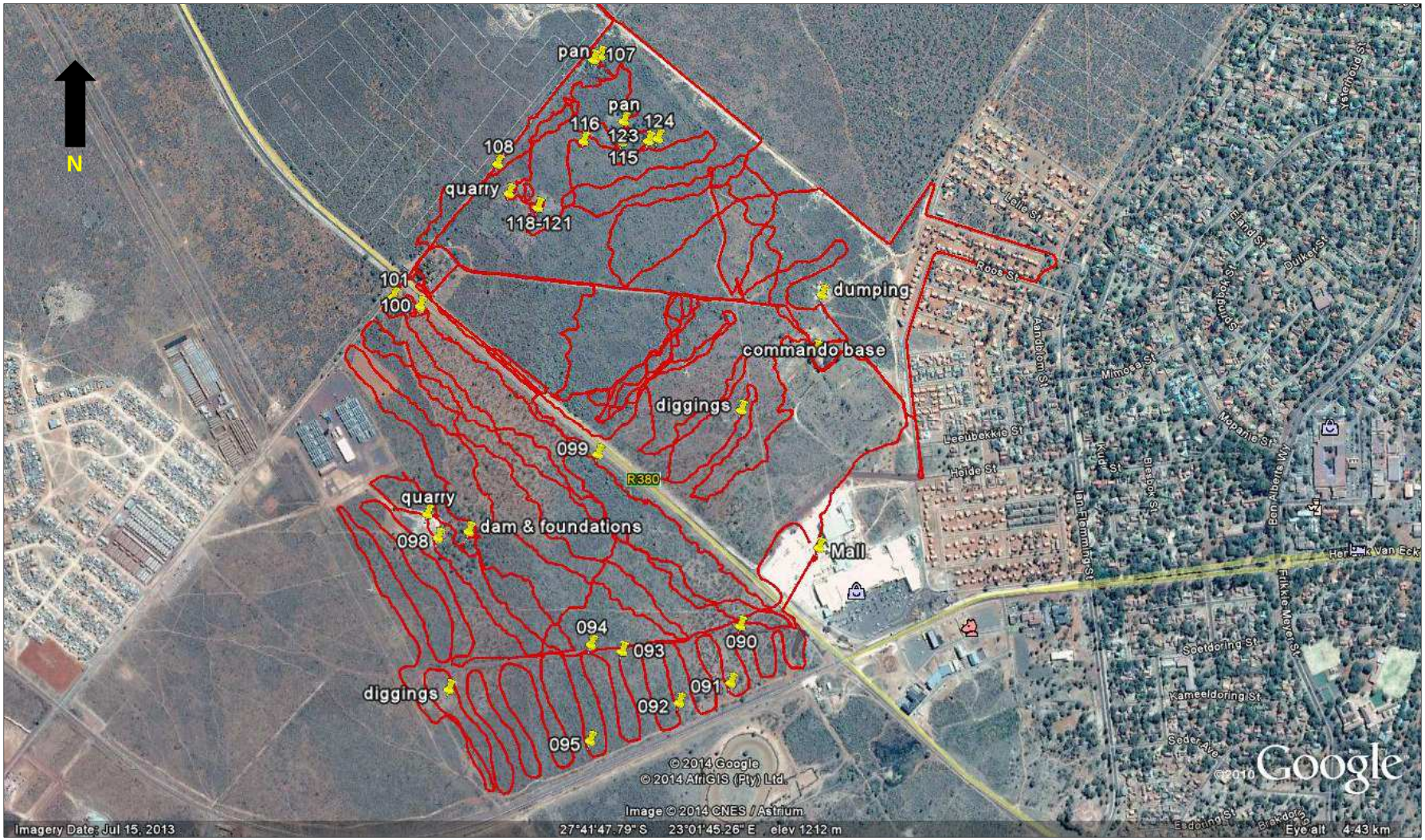

Figure 25. Track path and waypoints