

**UMKOMANZI DRIFT HOUSING PROJECT,
CRAIGIEBURN, ETHEKWINI MUNICIPALITY,
KWAZULU-NATAL**

Phase 1 Heritage Impact Assessment

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EXECUTIVE SUMMARY

The proposed housing development in Craigeburn is to provide 1000 residential sites across two sites of approximately 35.9899 hectares (ha) of land, which will consist of free standing, single dwelling units per plot. The project also aims to cater for non-residential sites within the study area. There are two sites, namely Umkomanzi Drift 1 and Umkomanzi Drift 2.

The total hectarage of the two sites is approximately 35.9899 ha (359899m²) hence the proposed development triggers section 41 (1) (c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments or activities that require an HIA. The relevant section refers to any development or other activity which will change the character of site-exceeding 5000 m².

The Umkomanzi Drift housing project falls within Southern Region of the eThekweni Municipality, within Ward 99. The site for Umkomanzi Drift 1 is to be located on Portion 200(2) of the farm Umkomanzi Drift No. 1357 and Erf 1691, and Umkomanzi Drift 2 is located on Portion 126 of Part 16 Umkomanzi Drift No. 1357 and Remainder of Portion 16 Umkomanzi Drift No. 1357.

A site inspection of both sites was undertaken on 21 October 2020. A few areas on both sites were overgrown by dense vegetation but visibility, in general, was good. Both sites were inspected on foot.

Umkomanzi Drift 1: the project area west of the tarred road is situated between existing housing and a ridge overgrown with eucalyptus and other trees. There is some informal housing on the project site as well as the remains of brick and mortar structures. The remains of several structures on the site appear on the 1937 aerial image of the project area. These structures are therefore protected by section 37(1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018. A permit for their demolition will be required from the KwaZulu-Natal Amafa and Research Institute. Although the structures are of high heritage significance due to their age, their preservation is not recommended due to their derelict condition.

The Midnight Café building falls within the project area. The café and the associated building behind the café are over 60 years as they appear on the 1937 map. The café is of high heritage significance because of its age and its service to the surrounding community. However, it is no longer in use. The architectural significance of both the café and dwelling behind it needs to be provided by a built heritage specialist prior to any action being undertaken such as alteration or demolition.

Across the road from the Midnight Café and within the project area are two structures, one of which is the Midway store with a duplicate structure next to it. These structures do not appear on the 1937 aerial map nor on the 1968 topographical map of the project area but are visible in the 1983 aerial image. These structures appear therefore to be less than 60 years old and are considered to be of a low heritage significance.

The project area extends behind the two structures discussed above. This area already has formal and informal housing and is highly disturbed by residential activity. Within this area there are several houses made from corrugated iron. The specialist could not establish the age of the structures nor their architectural significance. This will need to be done by a built heritage specialist prior to any activity that may impact the structures.

Umkomanzi Drift 2: From the maps (aerial and topographical) consulted, it appears that this area has been under cultivation since the 1930s. Currently, the project area is unused and a road and watercourse run through it. No heritage sites were found during the site inspection.

The South African fossil sensitivity map indicates that the two sites fall within an area of moderate palaeontological / fossil sensitivity. An area of moderate sensitivity requires a desktop palaeontological assessment.

A desktop palaeontological study was recently undertaken for a flood protection berm for the Sappi Saiccor paper mill which is situated just less than 3km north-east of both sites. The specialist discussed this project with the palaeontologist who undertook the study and it was agreed that the findings of the desktop study for the flood protection berm could be conflated for the Umkomanzi Drift housing project. The only exception would be that there would be no possible fossils found in the Quaternary sands as they do not occur in the housing project area.

This desktop palaeontological study found that based on the nature of the project, surface activities may impact upon the fossil heritage if preserved in the development footprint. The geological structures suggest that the Dwyka Group sediments could contain fossils of the *Glossopteris* flora only if mudstones were present but the geological map indicates diamictites and varved shales, not mudstones. Since there is a small chance that fossils from the *Glossopteris* flora may be disturbed a Fossil Chance Find Protocol must be included in the Environmental Management Programme (EMPr). Overall, it was found that the potential impact to fossil heritage resources by the project would be extremely low.

The remains of several structures that are older than 60 years were found on the project area for the proposed Umkomanzi Drift 1 housing site. Application for the demolition of the remaining walls and foundations will need to be obtained from the Institute prior to this taking place as they are protected by heritage legislation. The application process must follow the procedure provided in section 2 of Part 2 of the KwaZulu-Natal Heritage Regulations, 2012.

Confirmation of the age and significance of the structures made of corrugated iron will need to be obtained from a built heritage specialist as well as the architectural significance of the Midnight Café structures.

The requirements of the Fossil Chance Find Protocol must be adhered to as well as the mitigation measures provided in Chapter 9 of this report.

Once these recommendations are implemented, the proposed housing development at both sites may proceed from a heritage perspective.

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APPENDIX A:

Desktop palaeontological study for the proposed construction of a flood protection berm at uMkhomazi, KwaZulu-Natal

I, Jean Lois Beater, act as an independent specialist for this project and I do not have any vested interest either business, financial, personal or other, in the proposed activity other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations, 2014.

AUTHOR DETAILS

Verification	Name	Qualification	Professional Registration
Author	Jean Beater	MA (Heritage Studies) MSc (Environmental Management)	Member of the Association of South African Professional Archaeologists (No. 349) Member of IAIAAsa (No. 1538)

1. INTRODUCTION

The proposed housing development in Craigeiburn is to provide 1000 residential sites across two sites of approximately 35.9899 hectares (ha) of land, which will consist of free standing, single dwelling units per plot. The project also aims to cater for non-residential sites within the study area. The overall purpose of the Umkomanzi Drift housing project is to develop an integrated sustainable settlement wherein the beneficiaries can be provided with better accommodation and gain access to the benefits of a formal residential settlement (Tshani Consulting 2019:2). There are two sites, namely Umkomanzi Drift 1 and Umkomanzi Drift 2.

This is the Phase 1 Heritage Impact Assessment (HIA) report for the housing project.

2. LEGISLATIVE BACKGROUND

The total hectareage of the two sites is approximately 35.9899 ha (359899m²) hence the development triggers section 41 (1) (c)(i) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 (Act No 5 of 2018) which lists developments or activities that require an HIA. The relevant section refers to: *“any development or other activity which will change the character of it- (i) exceeding 5000 m²”*.

The project may also impact graves, structures, archaeological and palaeontological resources that are protected in terms of sections 37, 38, 39, and 40 of the KwaZulu-Natal Amafa and Research Institute Act, 2018.

In terms of Section 3 of the NHRA, heritage resources are described as follows:

- (a) places, buildings, structures and equipment of cultural significance;
- (b) places to which oral traditions are attached or which are associated with living heritage;
- (c) historical settlements and townscapes;
- (d) landscapes and natural features of cultural significance;
- (e) geological sites of scientific or cultural importance;
- (f) archaeological and paleontological sites;
- (g) graves and burial grounds, including—
 - (i) ancestral graves;
 - (ii) royal graves and graves of traditional leaders;
 - (iii) graves of victims of conflict;
 - (iv) graves of individuals designated by the Minister by notice in the *Gazette*;

- (v) historical graves and cemeteries; and
- (vi) other human remains which are not covered in terms of the Human Tissue Act, 1983 (Act No. 65 of 1983);
- (h) sites of significance relating to the history of slavery in South Africa;
- (i) movable objects, including:
 - (i) objects recovered from the soil or waters of South Africa, including archaeological and palaeontological objects and material, meteorites and rare geological specimens;
 - (ii) objects to which oral traditions are attached or which are associated with living heritage;
 - (iii) ethnographic art and objects;
 - (iv) military objects;
 - (v) objects of decorative or fine art;
 - (vi) objects of scientific or technological interest; and
 - (vii) books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings, excluding those that are public records as defined in section 1(xiv) of the National Archives of South Africa Act, 1996 (Act No. 43 of 1996).

The Phase I HIA was undertaken to assess whether any heritage resources will be impacted by the proposed Umkomanzi Drift housing project.

3. LOCATION

The Umkomanzi Drift housing project falls within Southern Region of the eThekweni Municipality, within Ward 99. Access to the sites are gained via the R197 through the R78 and N2 highway. The R197 serves as a spine road to both of the proposed sites. Umkomanzi Drift 1 is to be located on Portion 200(2) of the farm Umkomanzi Drift No. 1357 and Erf 1691, and access is gained via a Department of Transport trunk road, M529 (Tshani Consulting 2019:7).

Umkomanzi Drift 2 is located on Portion 126 of Part 16 Umkomanzi Drift No. 1357 and Remainder of Portion 16 Umkomanzi Drift No. 1357. Access to this site is gained via Calendula Avenue (Tshani Consulting 2019:7). **Figure 1** shows the location of both sites.

The draft layouts for Umkomanzi Drift 1 and Umkomanzi Drift 2 are provided in **Figures 2** and **3** below.

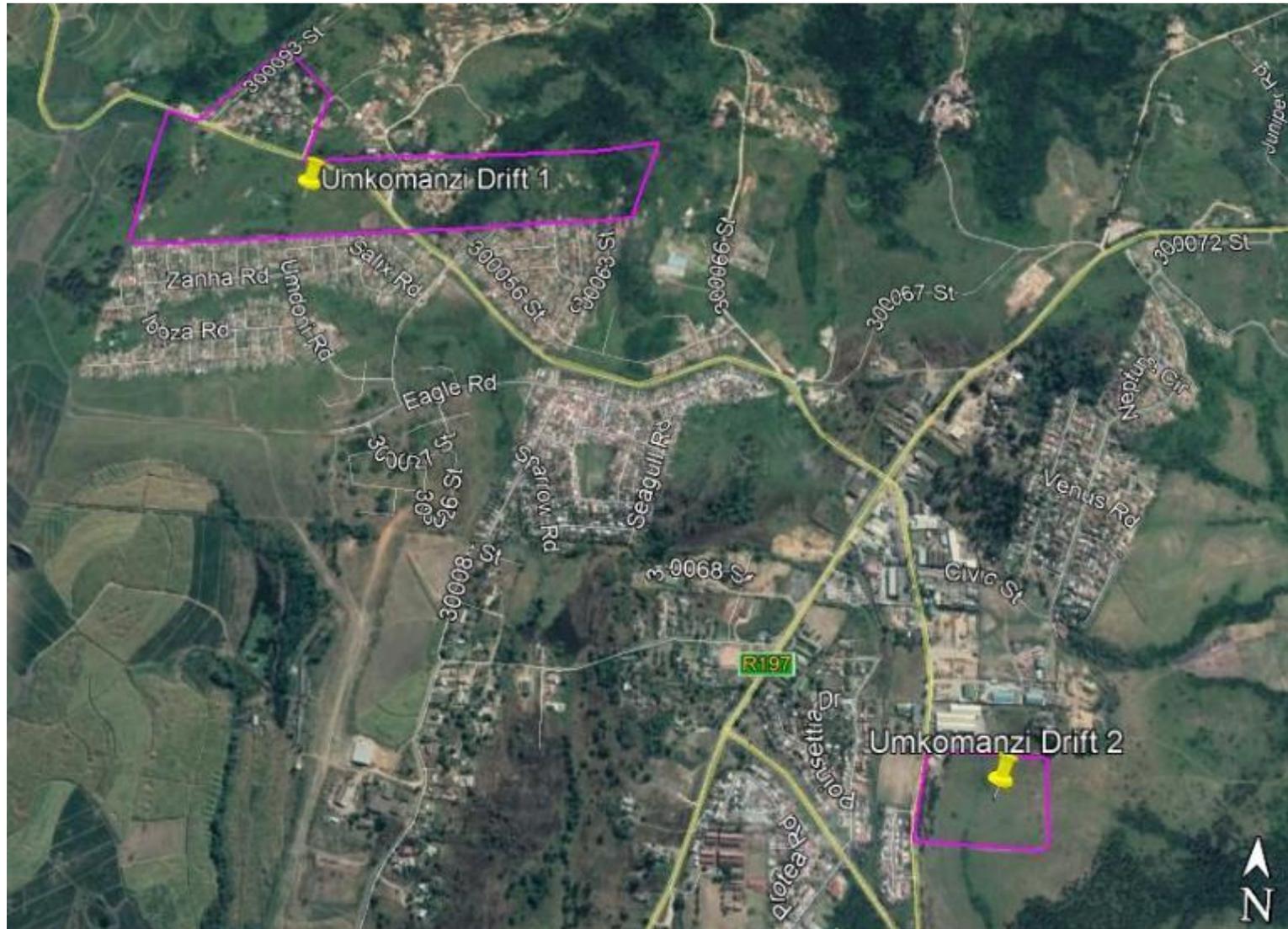


Figure 1: Both project sites outlined in pink

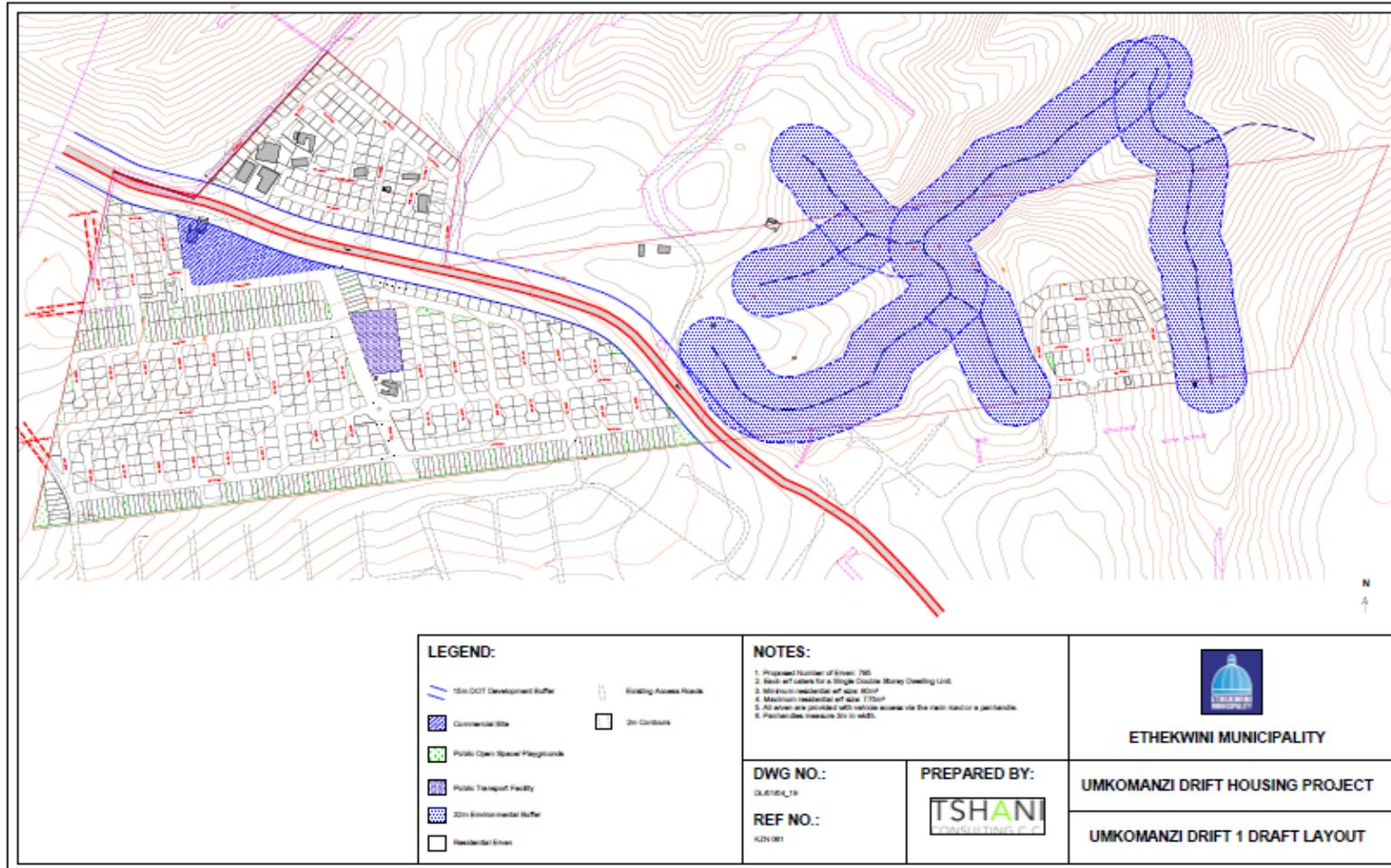


Figure 2: Draft layout for Umkomanzi Drift 1 housing project

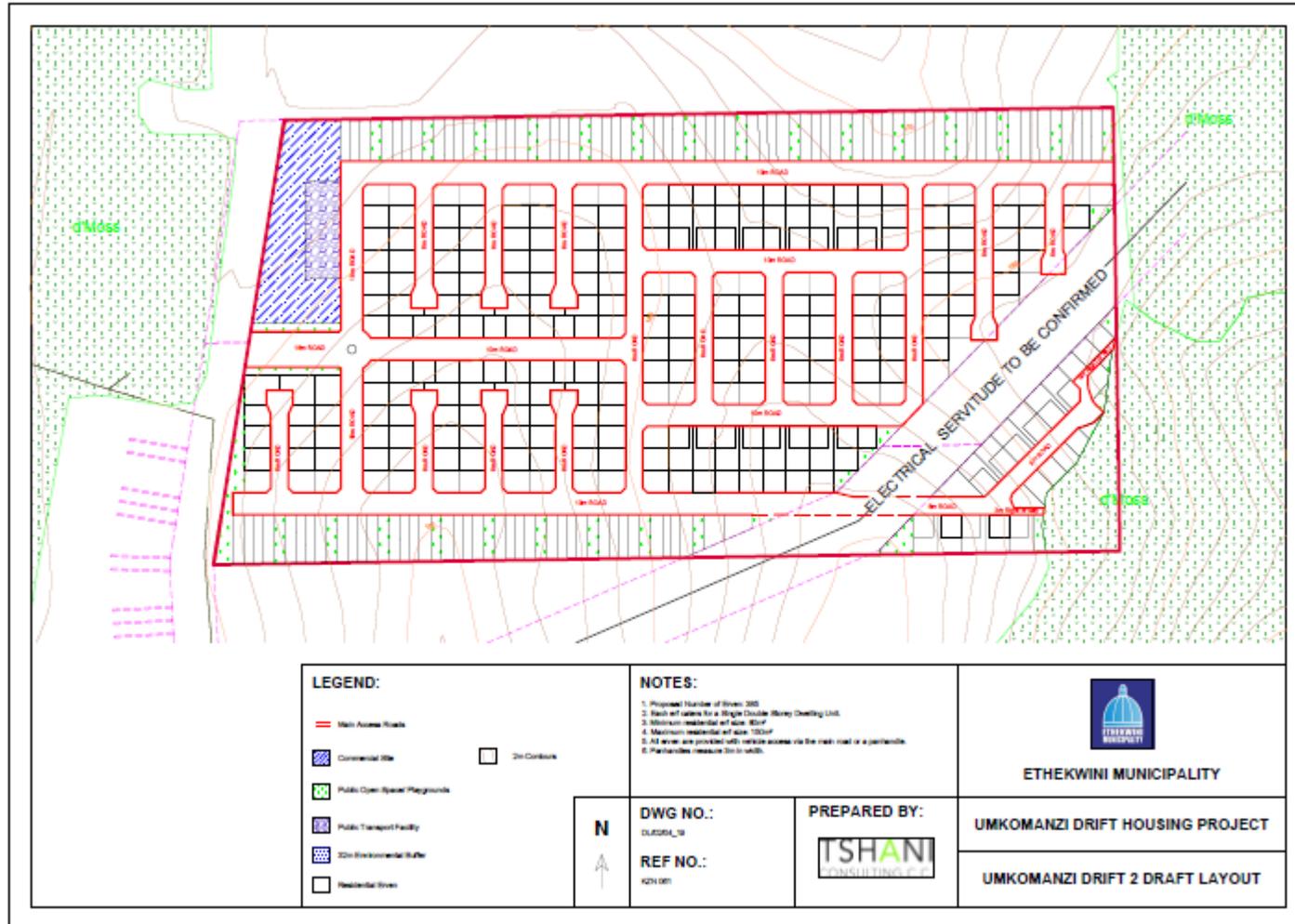


Figure 3: Draft layout for Umkomanzi Drift 2 housing project

4. TERMS OF REFERENCE

Undertake a Phase 1 HIA in order to determine the possible existence of heritage sites or features in the project area that could be impacted by the proposed housing development.

Provide mitigation measures to limit or avoid the impact of the construction of the project on heritage resources (if any).

5. METHODOLOGY AND CONSTRAINTS

A survey of literature was undertaken of the larger area in order to place the project in a historical context. A site inspection of both sites was undertaken on 21 October 2020. A few areas on both sites were overgrown by dense vegetation but visibility, in general, was good.

The heritage specialist will submit the HIA report to the provincial heritage resources authority, namely the KwaZulu-Natal Amafa and Research Institute (hereafter referred to as the Institute), for their consideration and comment.

6. HISTORICAL BACKGROUND OF THE STUDY AREA

uMkhomazi is the second largest river on the KwaZulu-Natal South Coast. The river first came into prominence in correspondence initiated by Theophilus Shepstone, the Secretary for Native Affairs, in 1851 when he proposed the establishment of a “black kingdom”, as he termed it, south of the uMkhomazi. With his locations policy proving difficult to implement, he envisaged that as many as 50 000 Africans would follow him to the area south of the uMkhomazi if the colonial authorities permitted it. His plan, however, was rejected by Natal Governor Benjamin Pine and by the Colonial Office in London (Du Bois 2015:26)

The first official colonial presence in the surrounding Umkomaas area commenced in July 1853 when Henry Francis Fynn was appointed Assistant Resident Magistrate in the Lower Umkomaas division in what was then Durban County. He was also the first to operate a ferry at the drift on the uMkhomazi River. In 1858 Henry Reynolds became the first officially appointed ferryman on the lower uMkhomazi. Reynolds also opened the first accommodation house, as it was called, at the drift where he operated his ferry. After his death in 1862, it traded as the Drift Hotel and was managed by his wife for more than 40 years (du Bois 2015:26).

John MacKenzie's Craigie Burn estate, the earliest sugar plantation to be started south of Isipingo in 1855 eventually formed the town of Craigieburne. The centre of the area lay on the hilltop overlooking the drift from the south where there was a store and a little inn offering accommodation to travellers (Bulpin undated:280).

In 1954, an Italian consortium developed the large Saiccor industrial cellulose plant / mill beside the river situated about 3 kilometres north-east of both housing sites (Wikipedia 2020:1).

7. RESULTS OF SITE INSPECTION

The area proposed for the Umkomanzi Drift 1 housing project was inspected on foot.

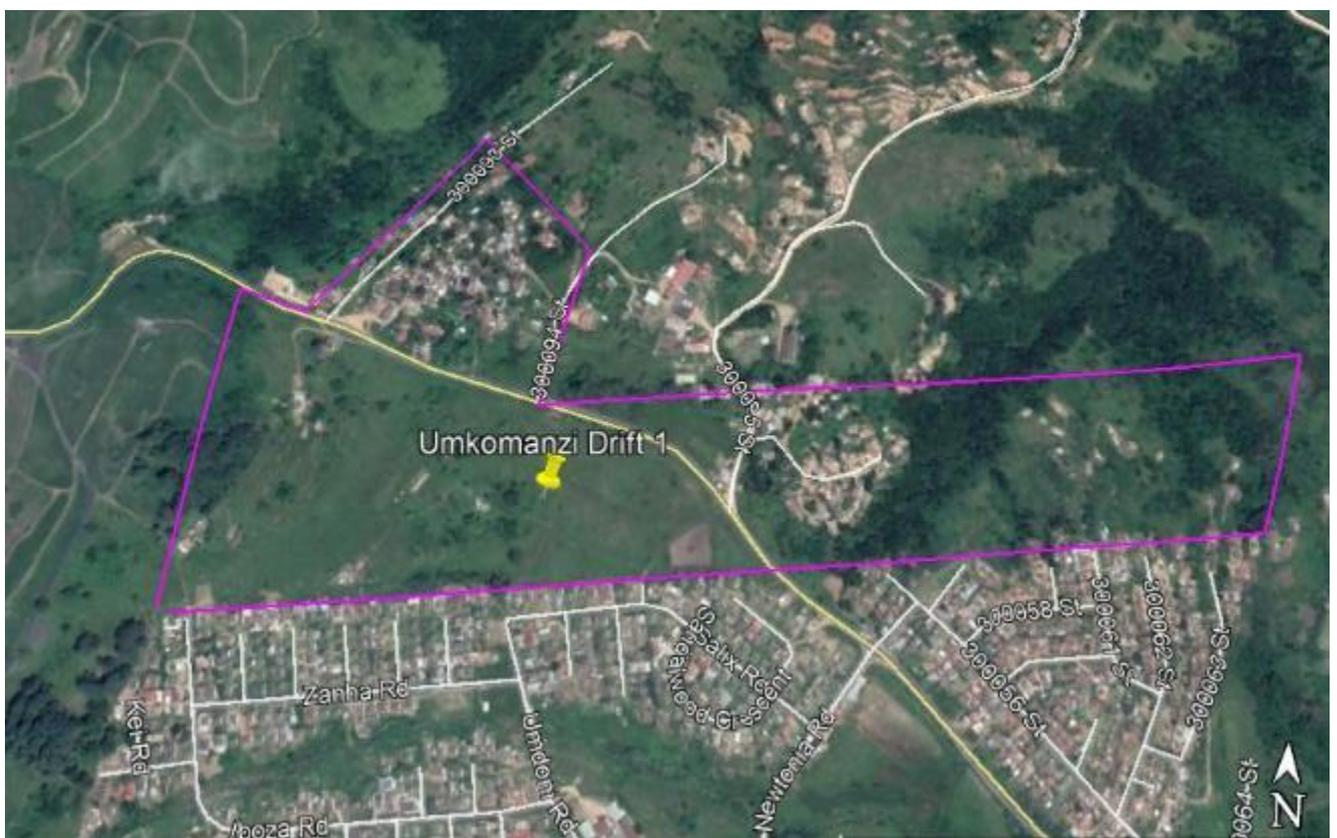


Figure 4: Umkomanzi Drift 1 project area outlined in pink

The area west of the tarred road is situated between existing housing and a ridge overgrown with eucalyptus and other trees. There is some informal housing on the project site as well as the remains of brick and mortar structures.



Figure 5: View across project area

A resident living at the back of the one structure shown below stated that he was 42 years old and the house had been there all his life.



Figure 6: Derelict structure

From the 1937 aerial map (3030BA) (see **Figure 7** below) of the project area, it appears this structure (indicated as ST1 on **Figure 7**), possibly together with other buildings, has been in

existence for over 60 years thus it is protected by section 37(1)(a) of the KwaZulu-Natal Amafa and Research Institute Act, 2018 which states that 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 approval of the Institute. Although it is of high heritage significance due to its age, the preservation of the structure is not recommended due to its derelict condition.

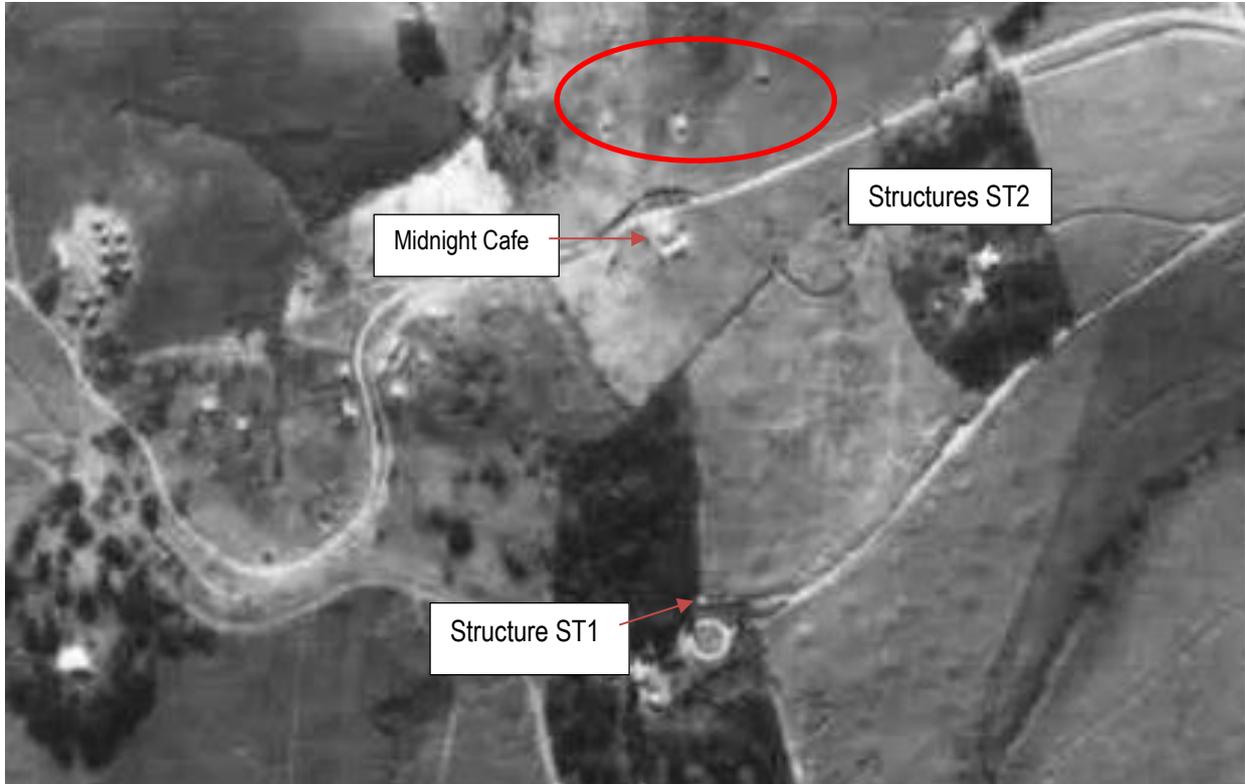


Figure 7: Aerial map of Umkomanzi Drift 1: 1937

There is a complex of houses situated towards the middle of the project site. The remains of at least 3 structures are still visible and these are indicated as ST2 on **Figure 7** above. They appear to make up a homestead of sorts. The remaining walls and foundations are over 60 years as they appear on the 1937 map and an application for a permit to demolish the structures will be required from the Institute prior to demolition. A recent wall has been built onto the remains of the main structure as can be seen in **Figure 9**. The structures are of high heritage significance as the remains signify previous residential activity of many years (since the 1930s) of the project area. However, the derelict condition of the structures would allow for their demolition.



Figure 8: Remains of main dwelling



Figure 9: Recent additions to remains of main dwelling



Figure 10: Remains of structure forming part of homestead complex

The Midnight Café building falls within the project area and is situated adjacent to the tar road. It is no longer in use as a café but is appears to be currently used for accommodation. The café and the associated building behind the café are over 60 years as they appear on the 1937 map. The café is of high heritage significance because of its age and that it provided a service to the surrounding community. However, it is no longer in use and could possibly be demolished. However, the architectural significance of both the café and dwelling behind it needs to be provided by a built heritage specialist prior to any action being undertaken.



Figure 11: Midnight Café and a partial view of structure behind it



Figure 12: Structure behind the Midnight Café

Across the road from the Midnight Café and within the project area are two structures, one of which is the Midway store with a duplicate structure next to it. These structures do not appear on the 1937 map. The specialist could not obtain maps of the project area for the 1940s and 1950s. These structures do not appear in the 1968 topographical map (3030BA) of the project area but are visible in the 1983 aerial image. These structures are less than 60 years old. The structures are no longer in use; however, the back of the structures is currently been used as accommodation. They are of a low heritage significance.



Figure 13: Midway Store



Figure 14: Structure situated alongside Midway Store

The project area extends behind the two structures discussed above in a north-easterly direction. The area already has formal and informal housing and is highly disturbed by residential activity. Within this area there are several houses made from corrugated iron. The specialist could not establish the age of the structures nor their architectural significance. This will need to be done by a built heritage specialist as the use of corrugated iron is an old method of building structures.



Figure 15: Structure made from corrugated iron

In the 1937 aerial map, three structures are visible in this area. They are indicated in **Figure 7** within a red circle. It is unclear whether these structures have survived and whether they were made from corrugated iron.



Figure 16: Corrugated iron structure



Figure 17: Corrugated iron structure painted red

The project area for the proposed Umkomanzi Drift 2 housing project was inspected on foot. It is situated just south of the Superspar building and parking lot.

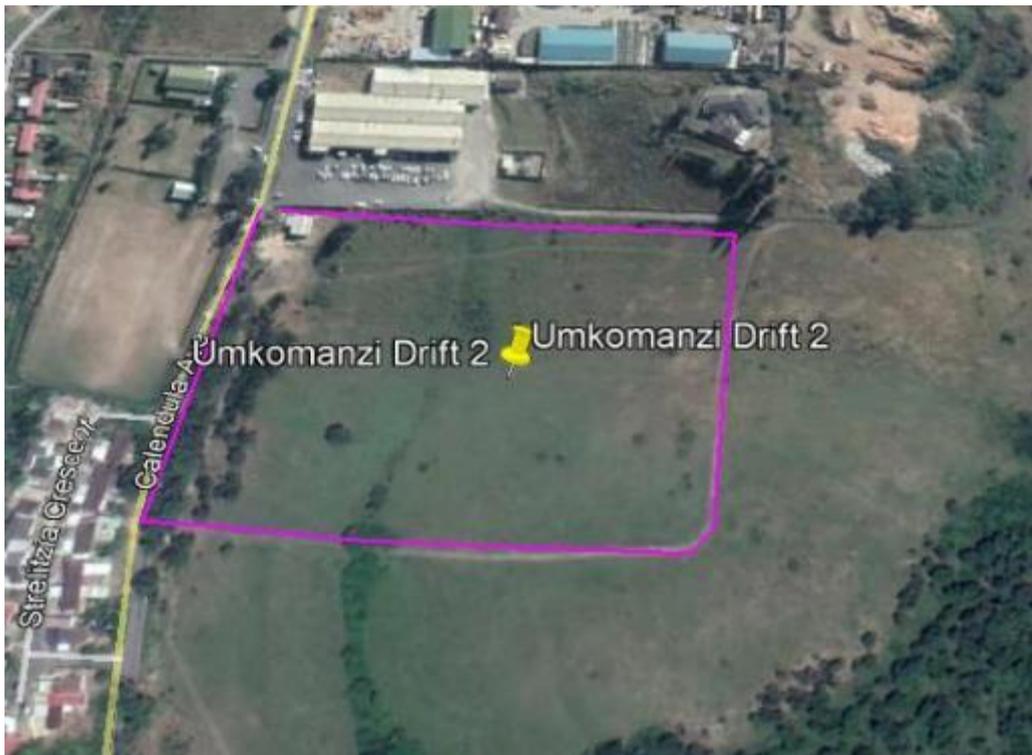


Figure 18: Umkomanzi Drift 2

From the maps (aerial and topographical) consulted, it appears that this area has been under cultivation since the 1930s.

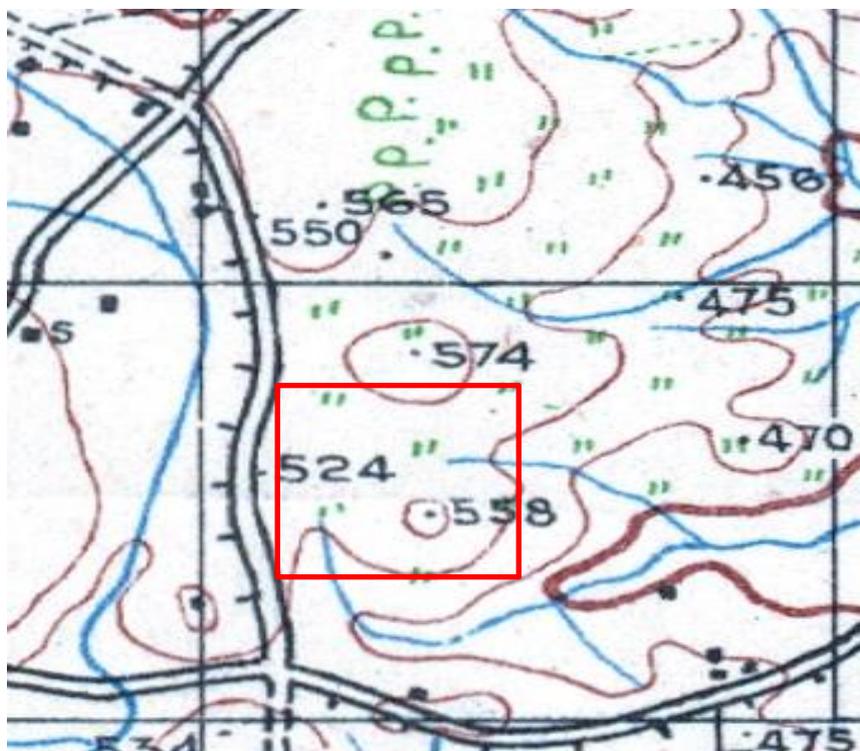


Figure 19: 1938 map with approximate position of project area outlined in red



Figure 20: 1967 aerial image of the project area outlined in red

Currently, the project area is unused and a road and watercourse run through the project area. No heritage sites were found during the inspection of the project area.



Figure 21: Looking across project area towards Calendula Avenue



Figure 22: Looking north across project area towards the Superspar



Figure 23: Road and watercourse in project area

The South African fossil sensitivity map indicates that the two sites fall within an area of moderate palaeontological / fossil sensitivity as indicated with the green colour in **Figure 24** below. An area of moderate sensitivity requires a desktop palaeontological assessment.

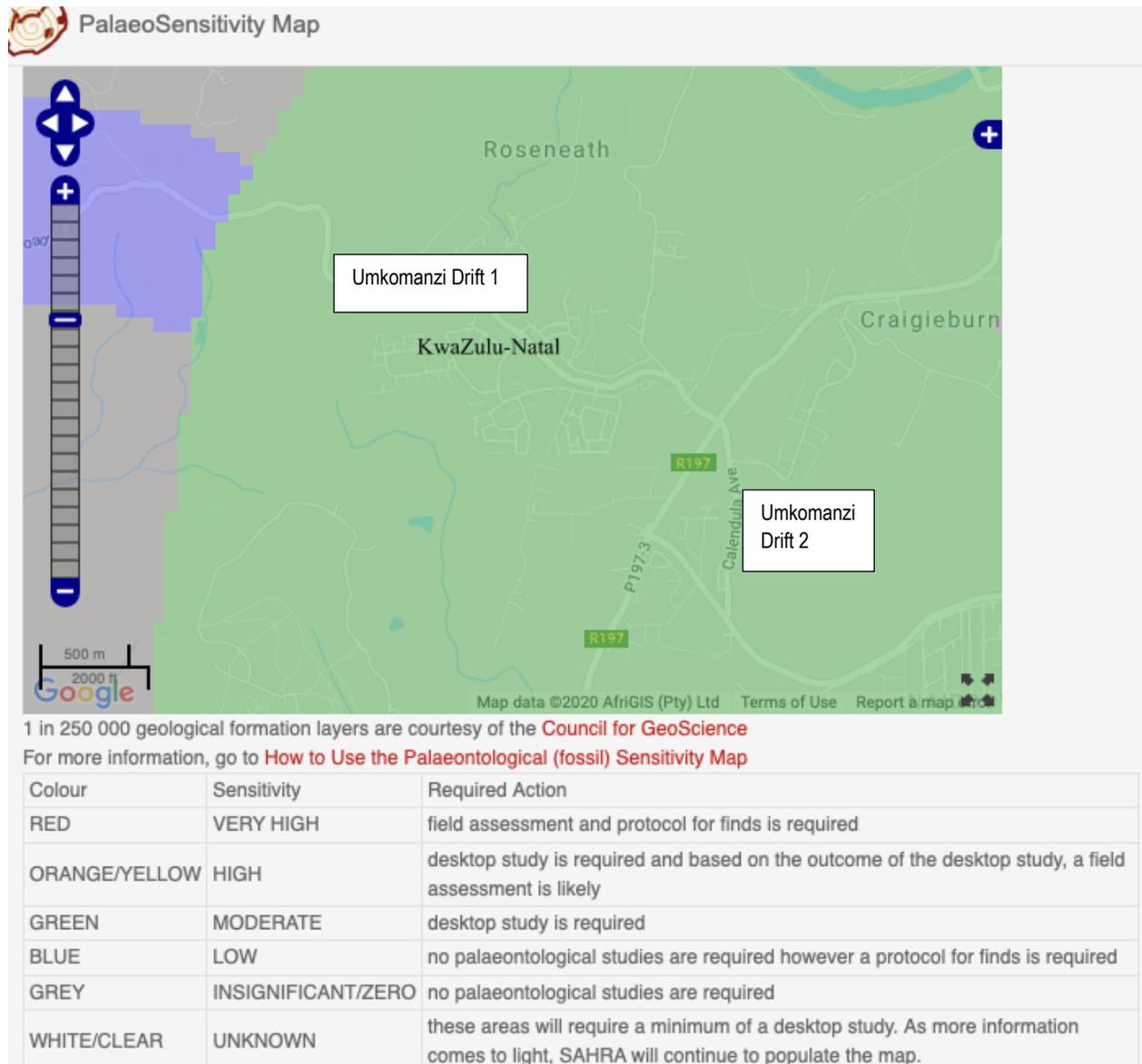


Figure 24: Fossil sensitivity map

A desktop palaeontological study was recently undertaken (September 2020) for a flood protection berm for the Sappi Saiccor paper mill which is situated just less than 3km north-east of both sites. The specialist discussed this project with the palaeontologist who undertook the study, Prof. Marion Bamford, and it was agreed that the findings of the desktop study for the flood protection berm could be conflated for the Umkomanzi Drift housing project. The only exception would be that there would be no possible fossils found in the Quaternary sands as they do not occur in the housing project area.

The study found that the uMkhomanzi River cuts through the older Karoo Supergroup in this area which is the eastern margin of the Karoo Basin thus exposing the basalmost group, the Dwyka Group that is Late Carboniferous to Early Permian age. Tillites, diamictites and varved shales represent the sediments deposited by the receding icesheets that covered parts of southern Africa when it was positioned over the South Pole. As the continent of Gondwana, of which Africa was a part, moved slowly northwards, the icesheets melted and the meltwater and some sediments began to fill the huge Karoo Basin. The Pietermaritzburg Formation (Ecca Group) overlies the Dwyka Group and comprises deep and shallow water shales. Succeeding strata are not exposed in this area (Bamford 2020:7).

Dwyka Group tillites, sandstone, mudstone and shales, could potentially preserve fossils. Around 300-290 Ma the climate in southern Africa was still relatively cool, but there were well developed Carboniferous floras in the northern hemisphere. In South Africa, however, much of the land surface was covered by ice sheets. As they melted, they dropped the moraine trapped in the ice, together with limited plant matter from the vegetation that gradually recovered and colonised the land surface. Terrestrial vertebrates had not evolved at this time. The late Carboniferous flora comprised *Glossopteris* leaves and seeds, wood, and other plants such as lycopods, sphenophytes and ferns (Bamford 2020:8).

The desktop study (Bamford 2020:10) stated that based on the nature of the project, surface activities may impact upon the fossil heritage if preserved in the development footprint. The geological structures suggest that the Dwyka Group sediments could contain fossils of the *Glossopteris* flora only if mudstones were present but the geological map indicates diamictites and varved shales, not mudstones. Since there is a small chance that fossils from the *Glossopteris* flora may be disturbed a Fossil Chance Find Protocol must be included in the Environmental Management Programme (EMPr) and implemented where necessary. Overall, it was found that the potential impact to fossil heritage resources is extremely low. The desktop palaeontological study, which includes the Fossil Chance Find Protocol, is appended to this report as **Appendix A**.

Heritage and other sites found during site inspection are listed in the table below.

Table 1: Sites found during site inspection

COORDINATES	HERITAGE RESOURCE	SIGNIFICANCE + MITIGATION MEASURES
30°11'34.9" S 30°44'05.5" E	Remains of dwelling	High heritage significance as the remains of the structure are >60 years hence are protected by heritage legislation; permit to demolish structure will need to be obtained from the Institute; due to its advanced derelict condition, it can be demolished
30°11'34.9" S 30°44'03.1" E	Remains of floor and demolished walls of structure/s	Situated outside project area
30°11'32.5" S 30°44'16.6" E	Remains of main house of complex of buildings	High heritage significance as the remains of the structure are >60 years hence are protected by heritage legislation; permit to demolish structure must be obtained from the Institute; however, due to its derelict condition, it can be demolished
30°11'32.7" S 30°44'15.4" E	Remains of associated structure forming part of complex of buildings	High heritage significance as the remains of the structure are >60 years hence are protected by heritage legislation; permit to demolish structure must be obtained from the Institute; however, due to its derelict condition, it can be demolished
30°11'27.9" S 30°44'10.5" E	Midnight Café and associated structure	High heritage significance as building is over 60 years hence protected by heritage legislation. The architectural significance of both structures needs to be obtained prior to any activity impacting the structures.
30°11'26.8" S 30°44'12.2" E	Structure situated next to Midway Store	Low heritage significance, can be altered or demolished
30°11'26.3" S 30°44'11.5" E	Midway Store	Low heritage significance, can be altered or demolished
30°11'24.7" S 30°44'12.6" E	House made from corrugated iron	Unknown; to be confirmed by built heritage specialist
30°11'25.2" S 30°44'16.2" E	House made from corrugated iron	Unknown; to be confirmed by built heritage specialist
30°11'31.5" S 30°44'29.5" E	House made from corrugated iron	Unknown; to be confirmed by built heritage specialist
30°11'30.9" S 30°44'28.9" E	House made from corrugated iron	Unknown; to be confirmed by built heritage specialist
30°11'30.3" S 30°44'28.1" E	Two structures made from corrugated iron	Unknown; to be confirmed by built heritage specialist
30°11'25.5" S 30°44'27.2" E	House made from corrugated iron	Unknown; to be confirmed by built heritage specialist

8. RECOMMENDATIONS AND CONCLUSION

The remains of several structures that are older than 60 years were found on the project area for the proposed Umkomanzi Drift 1 housing site. Application for the demolition of the remaining walls and foundations will need to be obtained from the Institute prior to this taking place as they are protected by the applicable heritage legislation. The application process must follow the procedure provided in section 2 of Part 2 of the KwaZulu-Natal Heritage Regulations of 2012 (Provincial Notice No. 40, dated 2 April 2012).

The specialist who undertook the Phase 1 HIA is not a built heritage specialist hence confirmation of the age and significance of the structures made of corrugated iron will need to be obtained from a built heritage specialist prior to any action been undertaken (such as the demolition or alteration, of these structures.) In addition, the architectural significance of the Midnight Cafe will also need to be obtained from a built heritage specialist.

The requirements of the Fossil Chance Find Protocol must be adhered to as well as the mitigation measures provided in Chapter 9 below.

Once these recommendations are implemented, the proposed housing development at both sites may proceed from a heritage perspective.

9. MITIGATION MEASURES

- For any chance finds of heritage resources, such as graves, protected structures, etc., all work must cease in the affected area and the Contractor must immediately inform the Project Manager/Developer. A heritage specialist must be called to site for inspection. The relevant heritage resource agency (the Institute) must also be informed about the finding.
- The heritage specialist will assess the significance of the resource and provide guidance on the way forward.
- Written permission must be obtained from the Institute if heritage resources are to be removed, destroyed or altered.
- All heritage resources found in close proximity to the construction area must be protected by a 5 m buffer in which no construction can take place. The buffer material (danger tape, fencing, etc.) must be highly visible to construction crews.

- Under no circumstances may any heritage material be destroyed or removed from site unless under direction of a heritage specialist.
- Should any recent remains be found on site that could potentially be human remains, the South African Police Service (SAPS) as well as the Institute must be informed. No SAPS official may remove remains until the correct permit/s have been obtained.

10. REFERENCES

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APPENDIX A

DESKTOP PALAEOLOGICAL STUDY FOR THE PROPOSED CONSTRUCTION OF A FLOOD PROTECTION BERM AT UMKHOMAZI, KWAZULU-NATAL PROVINCE