

IXOPO HOUSING PROJECT, UBUHLEBEZWE MUNICIPALITY, KWAZULU-NATAL

Phase 1 Heritage Impact Assessment

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Client: NWJ Environmental Consulting
Natalie Way-Jones

Author: JLB Consulting
Jean Beater

EXECUTIVE SUMMARY

Metroprojects have been appointed by the KwaZulu-Natal Department of Housing to develop houses in an area situated south-east of the centre of the town of Ixopo which is situated within the uBuhlehezwe Local Municipality.

The area to be developed is larger than 5000m² hence it 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- (i) exceeding 5000 m². The project may also impact on 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.

The proposed housing development is located south-east of the centre of the town of Ixopo and east of the R56 provincial road between Ixopo and Umzimkhulu. The approximate mid-point of the proposed area to be developed is at 30°09'48.01" S 30°03'53.36" E.

A site inspection of the project area was undertaken on 08 July 2020. Sections of the site had been burnt making visibility good. Due to a multitude of illegal connections, the area immediately south of the informal settlement was inspected piecemeal where it was assumed to be safe to walk.

During the site inspection, an area that appears to be an old quarry or borrow pit was found which is used to dump refuse/garbage. In the same area, remains of a concrete floor were found. It is unclear whether it was associated with a dwelling or other structure as no other remains were found.

A large cemetery was found below the existing reservoir. Much of the cemetery falls outside the area proposed for the housing development. However, a number of graves (>5) were found within the development area. It is therefore recommended that the area immediately north-east of the road and below the reservoir be left undeveloped due to the presence of graves.

The area east and south of the cemetery towards the watercourse and below the tar road leading from the borrow pit was inspected. Just below the tar road the remains of a stormwater drain were found. It is of low heritage significance as there is no context to it.

The southern sections of the project area were inspected and no heritage sites were found during the inspection. Dumping of refuse, building rubble, etc., is taking place and there is also existing water conveyance infrastructure and power lines.

The specialist walked through the informal settlement. All the residents spoken to indicated that there were no graves within the informal settlement as the cemetery to the east was used or the cemetery in Ixopo was used.

A Shembe temple was found immediately west of the western boundary of the development. It is recommended that the temple be left undisturbed.

The South African Fossil Sensitivity Map indicates that the project area is situated in an area of moderate palaeontological / fossil sensitivity. An area of moderate sensitivity requires a desktop palaeontological assessment. Although parts of the project area are highly disturbed by the informal settlement, cemetery and borrow pit area, much of the southern half of the site is less disturbed hence it was recommended that a desktop palaeontological study be undertaken to ensure that no fossil finds are impacted by the proposed development.

The desktop study found that the proposed site lies on the dark grey shales of the Pietermaritzburg Formation (Ecca Group, Karoo Supergroup) that were deposited in shallow to deep water conditions. Fossils are extremely rare in this stratum but a Fossil Chance Find Protocol should be added to the EMPr. Based on this information it is recommended that no palaeontological site visit is required unless fossils are found once excavations for foundations and amenities have commenced.

The following is recommended:

- The area below the road and incorporating the reservoir be excluded from the housing development due to the presence of graves and that no development take place within 15 m of the cemetery to ensure that no graves are damaged during construction.
- Once the illegal connections are removed from the area immediately south of the informal settlement, a heritage specialist inspect this area prior to its development to ensure that no heritage sites are impacted by the construction of the houses.
- The Shembe temple found just outside the project area should protected by a 5 m buffer to ensure that it is not damaged during construction. However, the temple can be moved, in discussion with the Shembe community, if it is to be impacted by construction activities.

The updated housing layout took the recommendations of this report into consideration as can be seen in Figures **12** and **13** in the report below.

Once the above recommendations are implemented, the proposed housing development may proceed from a heritage perspective.

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APPENDIX 1: Desktop Palaeontological Study

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

Metroprojects have been appointed by the KwaZulu-Natal Department of Housing to develop houses in an area situated south-east of the centre of the town of Ixopo which is situated within the uBuhlehezwe Local Municipality.

This is the Phase 1 Heritage Impact Assessment (HIA) report for the proposed Ixopo housing development.

2. LEGISLATIVE BACKGROUND

The area to be developed is larger than 5000m² hence it 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- (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 Ixopo housing project.

3. LOCATION

The proposed housing development is located south-east of the town of Ixopo and east of the R56 provincial road between Ixopo and Umzimkhulu. An informal settlement is located in a section of the study area. The approximate mid-point of the proposed area to be developed is at 30°09'48.01" S 30°03'53.36" E.

4. TERMS OF REFERENCE

Undertake a Phase 1 Heritage Impact Assessment 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).



Figure 1: Project area outlined in yellow

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 few HIAs, undertaken in the wider geographical area, were found on the SAHRIS database that provided some historical data regarding the area.

A site inspection of the project area was undertaken on 08 July 2020. Sections of the site had been burnt making visibility good. Several areas had not been burnt and were overgrown to some extent.

Due to a multitude of illegal connections, the area immediately south of the informal settlement and above the road was inspected piecemeal where it was safe to walk.

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

The available evidence, according to Prins (2013:2), indicates that the greater Ixopo area contains an array of archaeological sites covering different time-periods and cultural traditions. These include Early Stone Age sites, Middle Stone Age sites, Later Stone Age sites, and Early and Later Iron Age sites. The Later Iron Age sites were occupied by Bantu-speaking agro-pastoralists who arrived in southern Africa after 1000 year ago via East Africa. Later Iron Age communities in KwaZulu-Natal were the direct ancestors of the Zulu people.

Many African groups moved through the greater Ixopo area because of the turmoil caused by the expansionistic policies of King Shaka Zulu in the 1820's. Fodo, Chief of the Nhlangwini, established his Dumezulu kraal near the right bank of the Mkhomazi River upstream of the Josephine Bridge between Richmond and Ixopo after Dingane had been enthroned in 1828 after the killing of Shaka.

The village of Ixopo was established in 1978 and was originally named Stuartstown after the district magistrate, Martinus Stuart. Thereafter it assumed the name Ixopo which is a Zulu word

for marsh or bog and refers to the squelching sound made when a foot is withdrawn from a marsh (Standard Encyclopedia Southern Africa 1972). T.V. Bulpin (1986:480), however, states that Ixopo was named after the stream that runs through the valley (spelt eXobo) where the village is situated.

According to Whelan (2013:3), archival evidence points at the arrival of a railway line at Stuartstown (Ixopo) at the beginning of the 20th century. Construction of the line commenced in August 1912. The terminus, located near the Union Bridge close to the town, consisted of a wood and iron station building with a passenger shelter, lamp room and a goods shed and was named Madonela, the local name for Donald Strachan, one of the oldest living residents in the district. The use of the railway line stopped about 25 years ago according to Whelan.

7. RESULTS OF SITE INSPECTION

During the site inspection, an area that appears to be an old quarry or borrow pit was found which is used to dump refuse/garbage (**Figure 2**). In this area, the remains of a concrete floor were found. It is unclear whether it was associated with a dwelling or other structure as no other remains were found.

A large cemetery was found below the existing reservoir. Much of the cemetery falls outside the area proposed for the housing development. However, a number of graves (>5) were found within the development area. It is therefore recommended that the area immediately north-east of the road and below the reservoir be left undeveloped due to the presence of graves. The area to be left undeveloped is indicated in **Figure 5** below.

The graves are either marked with headstones, others with headstones and concrete slabs over the grave whilst other graves were mounds of soil, some with wooden crosses and others outlined with bricks (see images below).



Figure 2: Area used to dump garbage



Figure 3: Remains of concrete floor



Figure 4: Reservoir and surroundings



Figure 5: Area to be excluded outlined in orange



Figure 6: Grave with headstone



Figure 7: Graves with wooden crosses

The area east and south of the cemetery towards the watercourse and below the tar road leading from the borrow pit (discussed previously) was inspected. Just below the tar road the remains of what appears to be a stormwater drain were found. It is of low heritage significance as there is no surrounding context to it.



Figure 8: Remains of drain

The southern sections of the project area were inspected and no heritage sites were found during the inspection. Dumping of refuse, building rubble, etc., is taking place in parts of this area. There is also existing water conveyance infrastructure and power lines.



Figure 9: Looking south over project area towards cellphone mast

The area immediately south of the informal settlement has many illegal connections crossing it. The specialist inspected an area that was deemed to be safe as there was an existing pathway. No heritage sites were found in this area.



Figure 10: Illegal connections crossing project area

The specialist walked through the informal settlement and spoke to several residents. They all told the specialist that there were no graves within the informal settlement as the cemetery discussed above was used or the cemetery in Ixopo itself was used.

A Shembe temple was found immediately west of the western boundary of the development. It is recommended that the temple be left undisturbed by the construction of the proposed housing development.

The South African Heritage Resources Agency's Fossil Sensitivity Map indicates that the project area is situated in an area of moderate palaeontological / fossil sensitivity as indicated with green (**Figure 11**). An area of moderate sensitivity requires a desktop palaeontological assessment. Although parts of the project area are highly disturbed by the informal settlement, cemetery and borrow pit area, much of the southern half of the site is less disturbed hence it was recommended that a desktop palaeontological study be undertaken to ensure that no fossil finds are impacted by the proposed development.

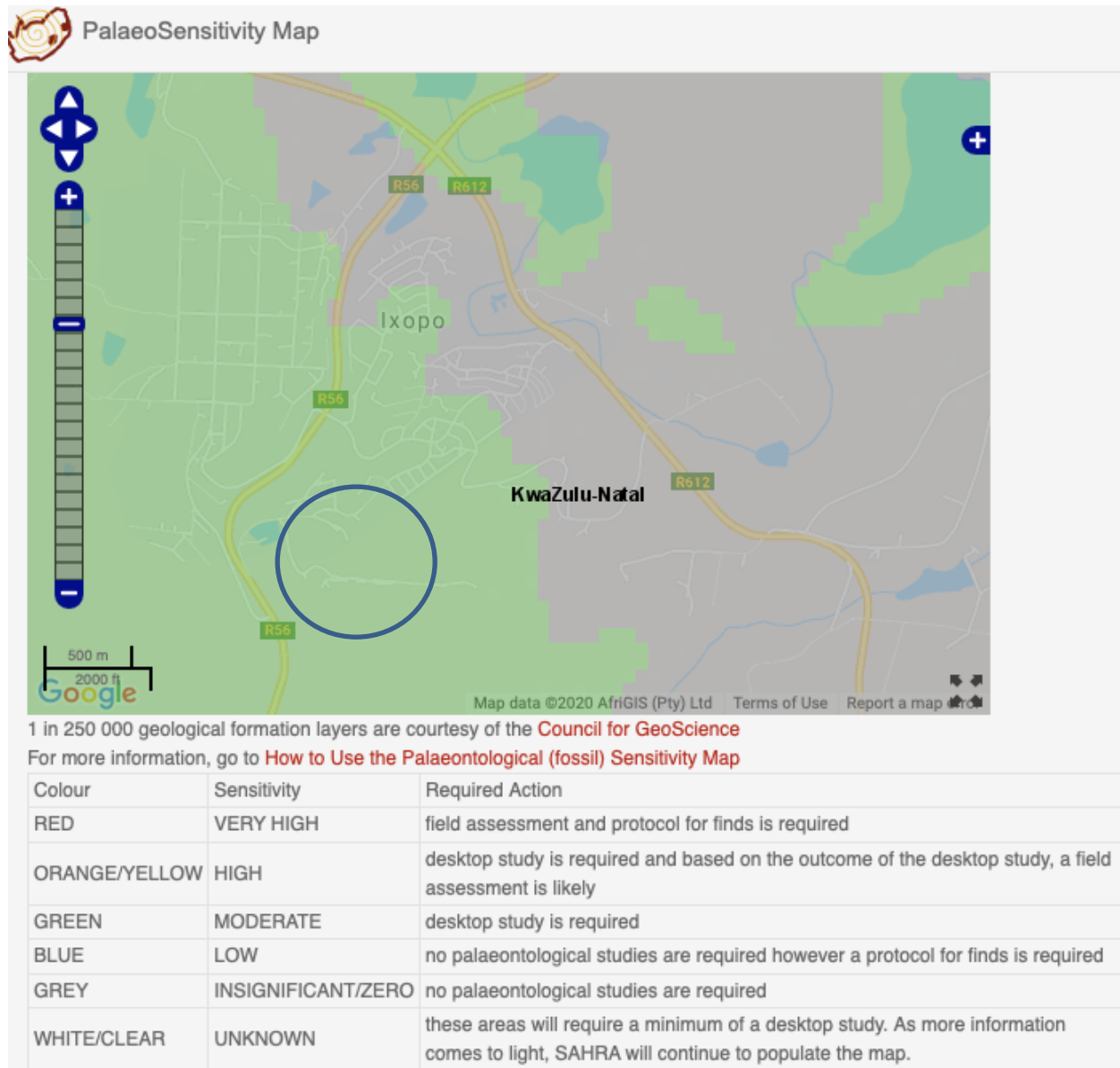


Figure 11: Fossil sensitivity of project area outlined in blue

The desktop palaeontological study, which is appended to this report as Appendix 1, found that the proposed housing project site lies on the dark grey shales of the Pietermaritzburg Formation (Ecca Group, Karoo Supergroup) that were deposited in shallow to deep water conditions. Fossils are extremely rare in this stratum but a Fossil Chance Find Protocol should be added to the Environmental Management Programmes (EMPr). Based on this information it is recommended that no palaeontological site visit is required unless fossils are found once excavations for foundations and amenities have commenced.

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

Table 1: Sites found during inspection

COORDINATES	HERITAGE RESOURCE	SIGNIFICANCE + MITIGATION MEASURES
30°09'44.90" S 30°04'02.00" E	Graves falling inside project area	High heritage significance; area demarcated in Figure 5 must be excluded from the housing development
30°09'42.10" S 30°04'03.66" E	Centre point of large cemetery	High heritage significance; no building activity should take place within 15 m of the cemetery
30°09'48.10" S 30°04'01.00" E	Stormwater drain	Low heritage significance as no remaining context to its use or association
30°09'46.80" S 30°03'55.80" E	Remains of concrete floor	Low heritage significance as no remaining context to its use or association
30°09'48.44" S 30°03'44.95" E	Shembe temple located 12 m west of boundary of development	Low heritage significance; however, potentially high local significance. Buffer of 5 m be placed around the temple to ensure that it is not damaged during construction of housing project; however, if necessary, the temple can be moved in discussion with the Shembe community

8. DISCUSSION, RECOMMENDATIONS AND CONCLUSION

It is recommended that an area below the road and incorporating the reservoir be excluded from the housing development due to the presence of graves. It is also recommended that no development take place within 15 m of the cemetery located just outside the development area to ensure that no graves are damaged during construction.

Once the illegal connections are removed from the area immediately south of the informal settlement, it is recommended that a heritage specialist inspect this area prior to development to ensure that no heritage sites are impacted by the construction of the houses.

It is recommended that the Shembe temple found just outside the project area be protected by a 5 m buffer to ensure that it is not damaged during construction. However, the temple can be moved, in discussion with the Shembe community, if it is to be impacted by construction activities.

These recommendations were taken into account in the final layout of the housing project as can be seen in **Figures 12 and 13** below. The cemetery identified during the site inspection has been excluded from development.



Figure 12: Amended layout taking into consideration heritage sites

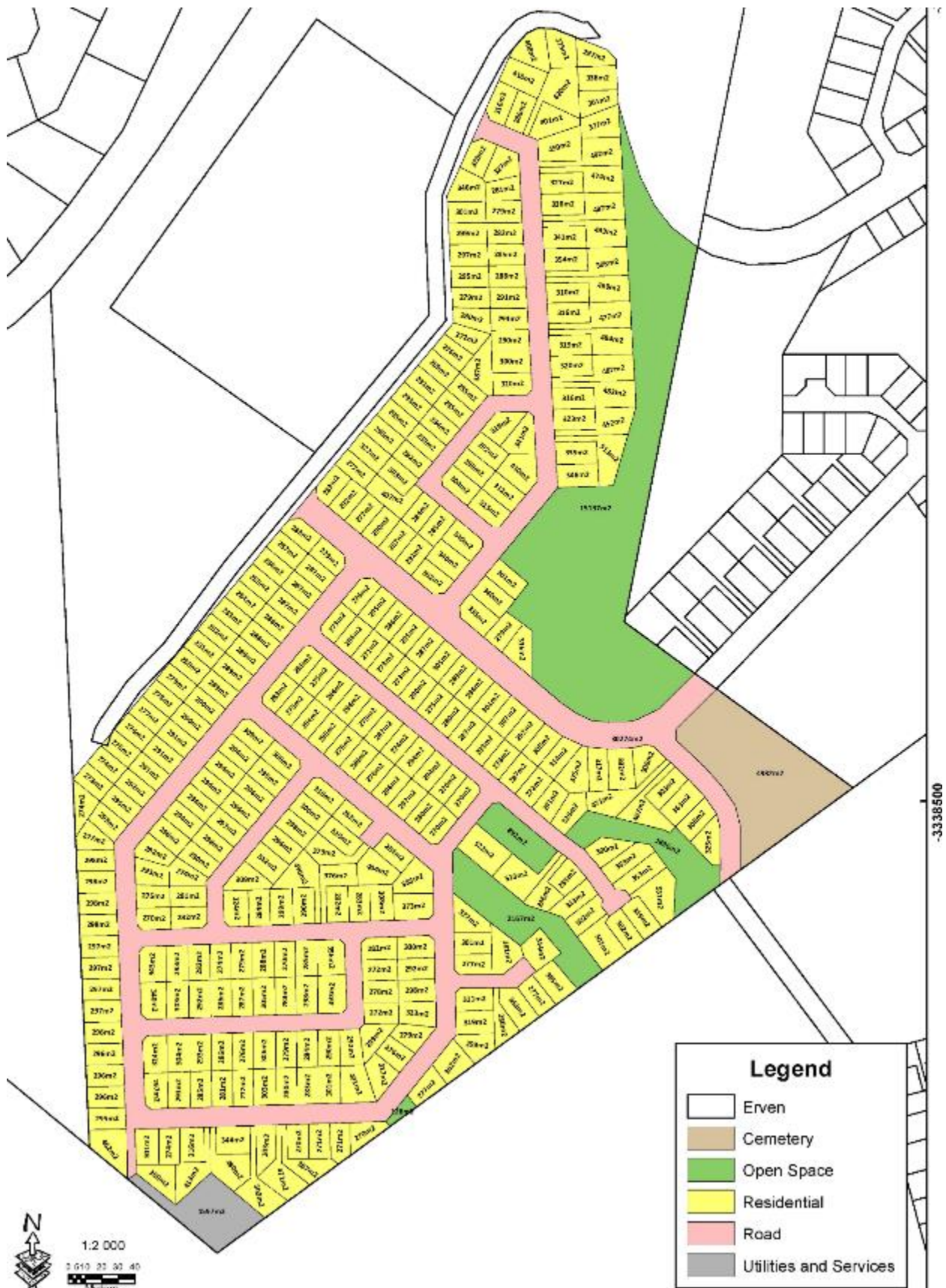


Figure 13: Amended layout of proposed houses

Once the above recommendations are implemented, the proposed housing development may proceed from a heritage perspective.

9. MITIGATION MEASURES

- For any chance finds of heritage resources, such as graves, 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.
- The recommendations and mitigation measures included in the desktop palaeontological study must be implemented and adhered to.

10. REFERENCES

Bulpin, T.V. 1986. *Discovering Southern Africa*. Treasury of Travel: Muizenberg

Prins, F. 2013. *Cultural Heritage Impact Assessment of the proposed Umzimkhulu Community Health Centre located on portion 420 of the farm Clydesdale, Umzimkhulu Local Municipality, Sisonke District Municipality*. Unpublished report

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