Phase 1 Heritage Impact Assessment Report

Heritage Impact Assessment for the Proposed Upgrade and Construction Activities outside of the National Route N2 Wild Coast Toll Highway Road Reserve.

(September 2020 Review)

Prepared By:

Prepared For:

CREDIT SHEET

Project Director

STEPHAN GAIGHER (BA Hons, Archaeology, UP)

Principal Investigator for G&A Heritage

Member of ASAPA (Site Director Status)

Tel: (015) 516 1561

Cell: 073 752 6583

E-mail: stephan@gaheritage.co.za

Website: www.gaheritage.co.za

Report Author

STEPHAN GAIGHER

Disclaimer; Although all possible care is taken to identify all sites of cultural importance during the investigation of study areas, it is always possible that hidden or sub-surface sites could be overlooked during the study. G&A Heritage and its personnel will not be held liable for such oversights or for costs incurred as a result of such oversights.

Statement of Independence

As the duly appointed representative of G&A Heritage, I Stephan Gaigher, hereby confirm my independence as a specialist and declare that neither I nor G&A Heritage have any interests, be it business or otherwise, in any proposed activity, application or appeal in respect of which the Environmental Consultant was appointed as Environmental Assessment Practitioner, other than fair remuneration for work performed on this project.

SIGNED OFF BY: STEPHAN GAIGHER

MANAGEMENT SUMMARY

Site name and location: Proposed Upgrade and Construction of Road Construction Activities outside of the Proposed National Route N2 Wild Coast Toll Highway (WCTH) Road Reserve.

Municipal Area: Ingquza Hill Local and O.R. Tambo District Municipality, Eastern Cape Province.

Developer: South African National Roads Agency SOC Limited (SANRAL)

Consultant: G&A Heritage, PO Box 522, Louis Trichardt, 0920, 38A Vorster St, Louis Trichardt, 0920

Date of Report: 24 January 2020

The purpose of the management summary is to distil the information contained in the report into a format that can be used to give specific results quickly and facilitate management decisions. It is not the purpose of the management summary to repeat in shortened format all the information contained in the report, but rather to give a statement of results for decision making purposes.

This study focuses on the Proposed Upgrade and Construction of Road Construction Activities outside of the Proposed National Route N2 Wild Coast Toll Highway (WCTH) Road Reserve, within the Ingquza Hill Local and O.R. Tambo District Municipality, Eastern Cape Province.

This study encompasses the heritage impact investigation. A preliminary layout has been supplied to lead this phase of this study.

Scope of Work
A Heritage Impact Assessment (including Archaeological, Cultural heritage, Built Heritage and Basic Paleontological Assessment) to determine the impacts on heritage resources within the study area.

The following are the required to perform the assessment:

- A desk-top investigation of the area;
- A site visit to the proposed development site;
- Identify possible archaeological, cultural, historic, built and paleontological sites within the proposed development area;
- Evaluate the potential impacts of construction and operation of the proposed development on archaeological, cultural, historical resources; built and paleontological resources; and
- Recommend mitigation measures to ameliorate any negative impacts on areas of archaeological, cultural, historical, built and paleontological importance.
- Public Participation

The purpose of this study is to determine the possible occurrence of sites with cultural heritage significance within the study area. The study is based on archival and document combined with fieldwork investigations.

Findings & Recommendations

- The noted burials within the proposed routes should be avoided by all means (Burials: N2-G001, N2-G002, N2-G003, N2-G004, N2-G005, N2-G006, N2-G007, N2-G008, N2-G009, N2-G010, N2-G011, N2-G012, N2-G013, and N2-G014).
- Sensitising construction workers of the value of the site and the possibility of archaeological chance finds.
- Monitoring of the site from the construction phase to completion phase.
- Consultations with affected families for way forward in dealing with the burials in cases were the proposed route may not be altered.
- In case of chance finds, they should be reported to the Heritage governing body PHRA-EC and all work should be put on halt.

An additional site visit was required after the finalised preliminary designs and standards for the N2 WCTH axillary roads and material sources were received from KSEMS. The findings from the August 2019 review are as follows:

- The noted burials within the proposed routes should be avoided by all means (Burials Aug. 2019 Review No's. 1 (N2-G015), 2 (N2-G016), 3 (N2-G017), 4 (N2-G018), 5 (N2-G019) and 6 (N2-G020).
- An old building was observed near the Access Road Class 3 A-1. The earliest recording of the building on a map is on the 1954 topographical map (3129 BC 1954), which means that the building is at least 65 years old and thus protected under the National Heritage Resources Act (NHRA) Section 34 – Preservation of buildings older than 60 years.

An additional site visit was required after the finalised preliminary designs and standards for the N2 WCTH axillary roads and material sources were received from KSEMS. The findings from the January 2020 review are as follows:

- The noted burial within the proposed routes should be avoided by all means (N2-G021);
- A Shembe Church, and
- Fence boundaries of two homesteads that will be affected by the proposed road alignment of the proposed Pondo-land Access Road.

No archaeological or cultural heritage objects were identified on the proposed extension area of the Potential BP1, BP2, BP1366 or BP3.

As of September 2020, it has been confirmed by the Department of Environment, Forests and Fisheries (DEFF) that the Access Roads (including both the new and upgraded routes presented within this report) would not require additional authorisation and have been authorised under the existing Record of Decision (ROD) for the N2 Wild Coast Toll Highway.

Fatal Flaws
No fatal flaws were identified.

TABLE OF CONTENTS

List of Figures

List of Abbreviations

BID .....Background Information Document

Bp ..... Before Present

EIA.....Early Iron Age

ESA ..... Early Stone Age

Fm .....Femtometre (10^{-15}m)

GPS..... Geographic Positioning System

HIA .....Heritage Impact Assessment

LIA.....Late Iron Age

LSA ..... Late Stone Age

MYA ..... Million Years Ago

MSA .....Middle Stone Age

NHRA.....National Heritage Resources Act no 22 of 1999

PP.....Public Participation

SAHRA..... South African Heritage Resource Agency

SANRAL.....South African National Roads Agency SOC Ltd

S&EIR ..... Scoping & Environmental Impact Reporting

Um.....Micrometre (10^{-6} m)

WCTH .....Wild Coast Toll Highway

WGS 84 ..... World Geodetic System for 1984

CHAPTER 1

PROJECT RESOURCES

HERITAGE IMPACT REPORT

HERITAGE IMPACT ASSESSMENT REPORT FOR THE PROPOSED UPGRADE AND CONSTRUCTION OF ROAD CONSTRUCTION ACTIVITIES OUTSIDE OF THE PROPOSED NATIONAL ROUTE N2 WILD COAST TOLL HIGHWAY (WCTH) ROAD RESERVE, WITHIN THE INGQUZA HILL LOCAL AND O.R. TAMBO DISTRICT MUNICIPALITY, EASTERN CAPE PROVINCE.

1. INTRODUCTION

Legislation and methodology

G&A Heritage was appointed by KSEMS Environmental Consultants to undertake a Heritage Impact Assessment for the Proposed Upgrade and Construction of Road Construction Activities outside of the Proposed National Route N2 Wild Coast Toll Highway (WCTH) Road Reserve, within the Ingquza Hill Local and O.R. Tambo District Municipality, Eastern Cape Province.

Section 38(1) of the South African Heritage Resources Act (25 of 1999) requires that a heritage study is undertaken for:

(a) Construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300 m in length;
(b) Construction of a bridge or similar structure exceeding 50 m in length; and
(c) Any development, or other activity which will change the character of an area of land, or water –
(1) Exceeding 10 000 m^2 in extent;
(2) Involving three or more existing erven or subdivisions thereof; or
(3) Involving three or more erven, or subdivisions thereof, which have been consolidated within the past five years; or
(d) The costs of which will exceed a sum set in terms of regulations; or
(e) Any other category of development provided for in regulations.

While the above describes the parameters of developments that fall under this Act., Section 38 (8) of the NHRA is applicable to this development. This section states that;

(8) The provisions of this section do not apply to a development as described in subsection (1) if an evaluation of the impact of such development on heritage resources is required in terms of the Environment Conservation Act, 1989 (Act 73 of 1989), or the integrated environmental management guidelines issued by the Department of Environment Affairs and Tourism, or the Minerals Act, 1991 (Act 50 of 1991), or any other legislation: Provided that the consenting authority must ensure that the evaluation fulfils the requirements of the relevant heritage resources authority in terms of subsection (3), and any comments and recommendations of the relevant heritage resources authority with regard to such development have been taken into account prior to the granting of the consent.

In regards to a development such as this that falls under Section 38 (8) of the NHRA, the requirements of Section 38 (3) applies to the subsequent reporting, stating that;

(3) The responsible heritage resources authority must specify the information to be provided in a report required in terms of subsection (2) (a): Provided that the following must be included:

(a) The identification and mapping of all heritage resources in the area affected;
(b) An assessment of the significance of such resources in terms of the heritage assessment criteria set out in section 6 (2) or prescribed under section 7;
(c) An assessment of the impact of the development on such heritage resources;
(d) An evaluation of the impact of the development on heritage resources relative to the sustainable social and economic benefits to be derived from the development;
(e) The results of consultation with communities affected by the proposed development and other interested parties regarding the impact of the development on heritage resources;
(f) If heritage resources will be adversely affected by the proposed development, the consideration of alternatives; and
(g) Plans for mitigation of any adverse effects during and after the completion of the proposed development.
(1) Ancestral graves,
(2) Royal graves and graves of traditional leaders,
(3) Graves of victims of conflict (iv) graves of important individuals,
(4) Historical graves and cemeteries older than 60 years, and
(5) Other human remains which are not covered under the Human Tissues Act, 1983 (Act No.65 of 1983 as amended);
(h) Movable objects, including ;
(1) Objects recovered from the soil or waters of South Africa including archaeological and paleontological objects and material, meteorites and rare geological specimens;
(2) Ethnographic art and objects;
(3) Military objects;
(4) Objects of decorative art;
(5) Objects of fine art;
(6) Objects of scientific or technological interest;
(7) Books, records, documents, photographic positives and negatives, graphic, film or video material or sound recordings; and
(8) Any other prescribed categories, but excluding any object made by a living person;
(i) Battlefields;
(j) Traditional building techniques.

A '**place**' is defined as:
(a) A site, area or region;
(b) A building or other structure (which may include equipment, furniture, fittings and articles associated with or connected with such building or other structure);
(c) A group of buildings or other structures (which may include equipment, furniture, fittings and articles associated with or connected with such group of buildings or other structures); and (d) an open space, including a public square, street or park; and in relation to the management of a place, includes the immediate surroundings of a place.

'**Structures**' means any building, works, device, or other facility made by people and which is fixed to land and any fixtures, fittings and equipment associated therewith older than 60 years.

'Archaeological' means:
(a) Material remains resulting from human activity which are in a state of disuse and are in or on land and are older than 100 years, including artefacts, human and hominid remains and artificial features and structures;
(b) Rock art, being a form of painting, engraving or other graphic representation on a fixed rock surface or loose rock or stone, which was executed by human agency and is older than 100 years including any area within 10 m of such representation; and
(c) Wrecks, being any vessel or aircraft, or any part thereof, which was wrecked in South Africa, whether on land or in the maritime cultural zone referred to in section 5 of the Maritime Zones

Act 1994 (Act 15 of 1994), and any cargo, debris or artefacts found or associated therewith, which are older than 60 years or which in terms of national legislation are considered to be worthy of conservation;
(d) Features, structures and artefacts associated with military history which are older than 75 years and the sites on which they are found.

'Paleontological' means any fossilised remains or fossil trace of animals or plants which lived in the geological past, other than fossil fuels or fossiliferous rock intended for industrial use, and any site which contains such fossilised remains or trace.

'Grave' means a place of interment and includes the contents, headstone or other marker of and any other structures on or associated with such place. The South African Heritage Resources Agency (SAHRA) will only issue a permit for the alteration of a grave if it is satisfied that every reasonable effort has been made to contact and obtain permission from the families concerned.

The removal of graves is subject to the following procedures as outlined by the SAHRA:

- Notification of the impending removals (using English, Afrikaans and local language media and notices at the grave site);
- Consultation with individuals or communities related or known to the deceased;
- Satisfactory arrangements for the curation of human remains and / or headstones in a museum, where applicable;
- Procurement of a permit from the SAHRA;
- Appropriate arrangements for the exhumation (preferably by a suitably trained archaeologist) and re-interment (sometimes by a registered undertaker, in a formally proclaimed cemetery);
- Observation of rituals or ceremonies required by the families.

The limitations and assumptions associated with this heritage impact assessment are as follows;

- Field investigations were performed on foot and by vehicle where access was readily available.
- Sites were evaluated by means of description of the cultural landscape, direct observations and analysis of written sources and available databases.
- It was assumed that the site layout as provided by KSEMS is accurate.
- We assumed that the public participation process performed as part of the Basic Assessment process was sufficiently encompassing not to be repeated in the Heritage Assessment Phase.

Table 1. Impacts on the NHRA Sections

Act	Section	Description	Possible Impact	Action
National Heritage Resources Act (NHRA)	34	Preservation of buildings older than 60 years	Yes	Mitigation
	35	Archaeological, paleontological and meteor sites	No impact	None
	36	Graves and burial sites	Yes	Mitigation
	37	Protection of public monuments	No impact	None
	38	Does activity trigger a HIA?	Yes	HIA

Table 2. NHRA Triggers

Action Trigger	Yes/No	Description
Construction of a road, wall, power line, pipeline, canal or other linear form of development or barrier exceeding 300m in length.	Yes	N2 WCTH Upgrade and Construction
Construction of a bridge or similar structure exceeding 50m in length.	No	N/A

Development exceeding 5000 m^2	No	N/A
Development involving more than 3 erven or sub divisions	No	N/A
Development involving more than 3 erven or sub divisions that have been consolidated in the past 5 years	No	N/A
Re-zoning of site exceeding 10 000 m^2	No	N/A
Any other development category, public open space, squares, parks or recreational grounds	No	N/A

2. Background Information

Proposed Upgrade and Construction of Road Construction Activities outside of the Proposed National Route N2 WCTH Road Reserve, within the Ingquza Hill Local and O.R. Tambo District Municipality, Eastern Cape Province.

2.1 Project Description

The South African Roads Agency SOC Limited (SANRAL) proposes the upgrade to and construction of the auxiliary roads and materials sources associated with Section 20 of the National Route (N2) Wild Coast Toll Highway (WCTH) between the Lingeni Interchange and Msikaba Bridge within the Ingquza Hill Local and O.R. Tambo District Municipalities, Eastern Cape Province.

These activities include, but are not limited to, access roads, traffic management routes, haulage roads, the Mateku road upgrade, six (6) material sources and water sources for abstraction purposes during the construction phase of the proposed development.

Section 20 of the proposed N2 WCTH extends from the Lingeni Intersection at 15.40km (S 31° 21' 25.77'', E 29° 37' 30.37'') to the Msikaba Bridge at 33.02km (S 31° 17' 42.84'', E 29° 47' 36.73''). The total length of this section of the authorised N2 WCTH road is approximately 17.62km.

Table 3. Material Sources Locations

Material Source	Exaggerated Extent	Centre Point Coordinate	
BP2	<40 ha	S 31º 20' 41.36''	E 29º 44' 30.26''
BP3	<9 ha	S 31º 20' 22.05''	E 29º 45' 27.68''
BP1366	<15 ha	S 31º 19' 33.76''	E 29º 47' 09.19''
Potential BP1	<6 ha	S 31º 19' 44.51''	E 29º 38' 17.55''
Potential BP2	6.60 ha	S 31º 17' 45.01''	E 29º 39' 59.19''
Potential BP11	7.13 ha	S 31º 17' 16.07''	E 29º 42' 04.69''

The main aim of the survey was to evaluate potential heritage resources that would occur within the project servitude, boundaries of the proposed road sections(s) that is outside of the authorised N2 WCTH road reserve, Mateku road upgrade and all other new upgrades, including the potential resources areas and borrow pits. The survey also planned to determine if there is any hamartia that would prevent the proposed development from taking place in any of the proposed study areas.

2.2 Project Location

The study areas are located just northeast of Lusikisiki in the Ingquza Hill Local and O.R. Tambo District Municipalities, Eastern Cape Province, in the Lambasi and Vellem Tribal Lands.

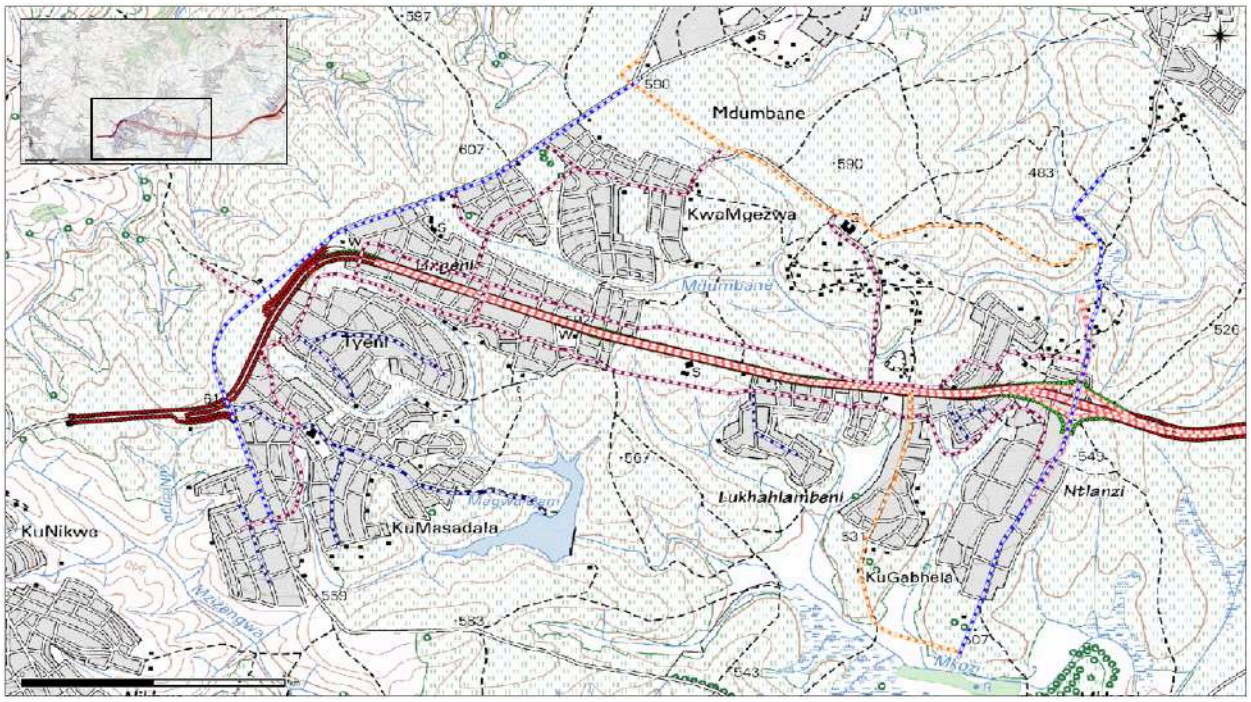


Figure 1. Location Map: 3129 BC 2004 (1)

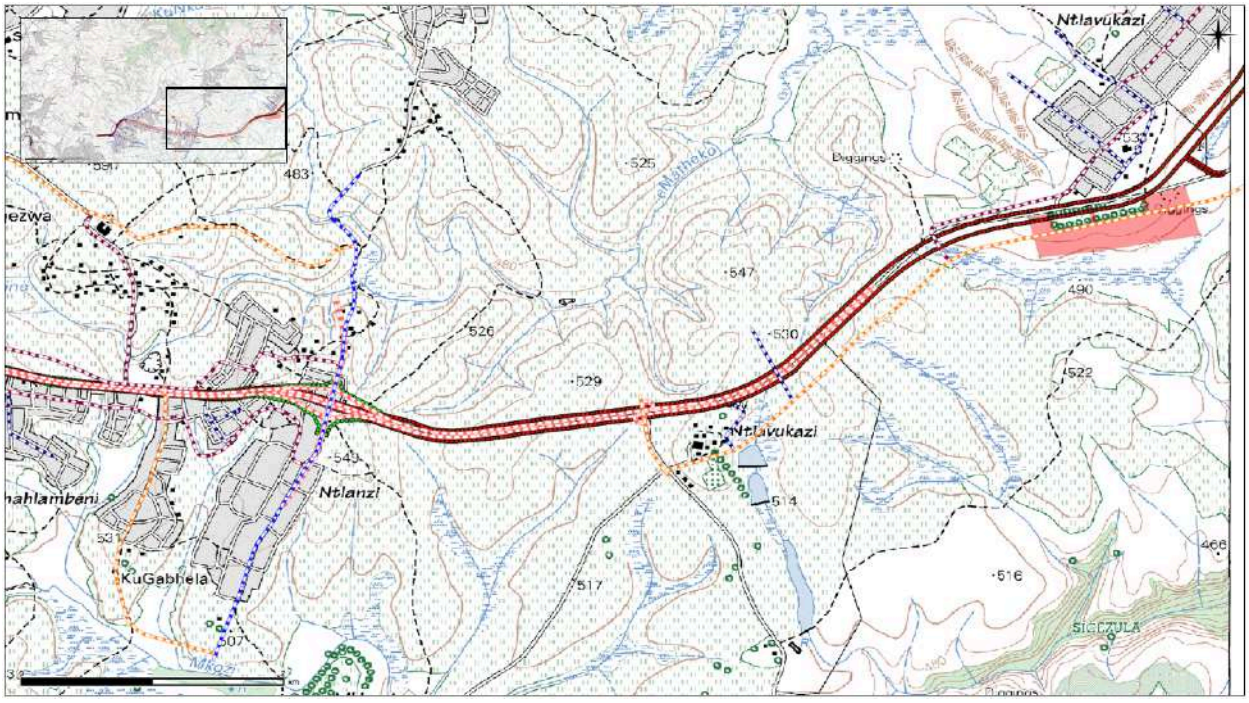


Figure 2. Location Map: 3129 BC 2004 (2)

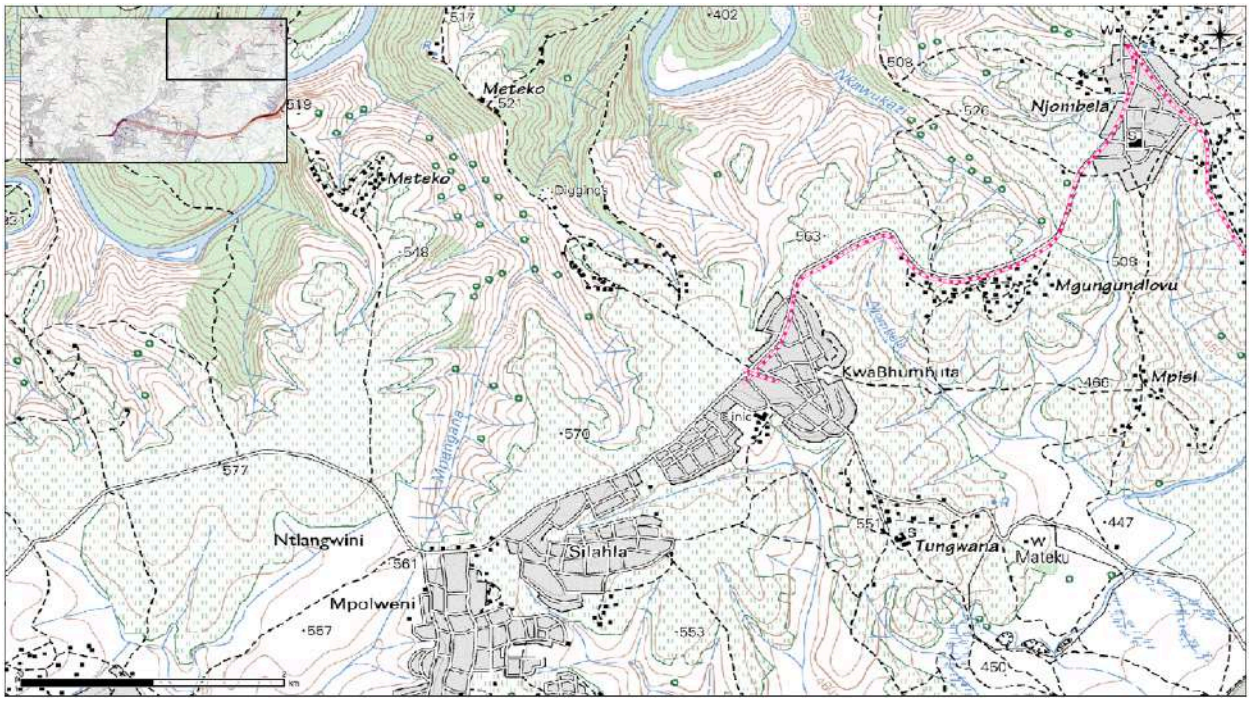


Figure 3. Location Map: 3129 BC 2004 (3)

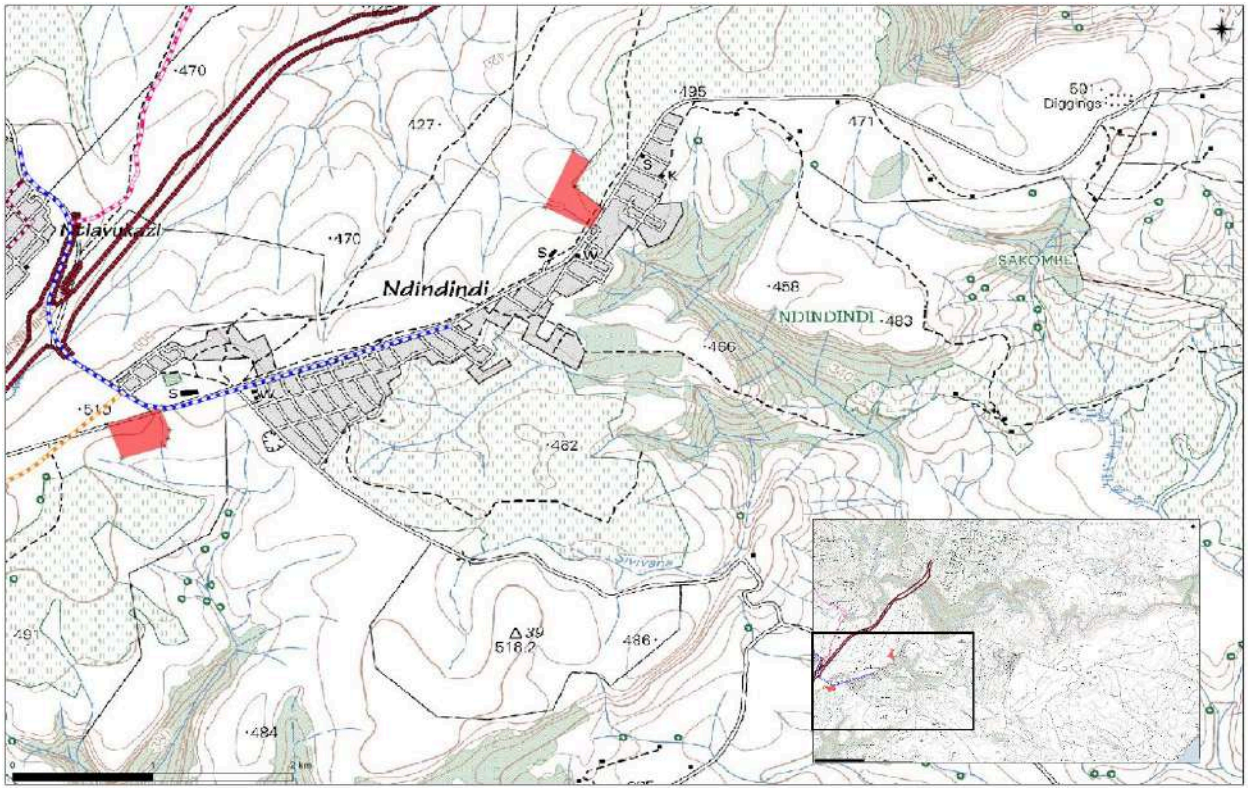


Figure 4. Location Map: 3129 BD 2004 (1)

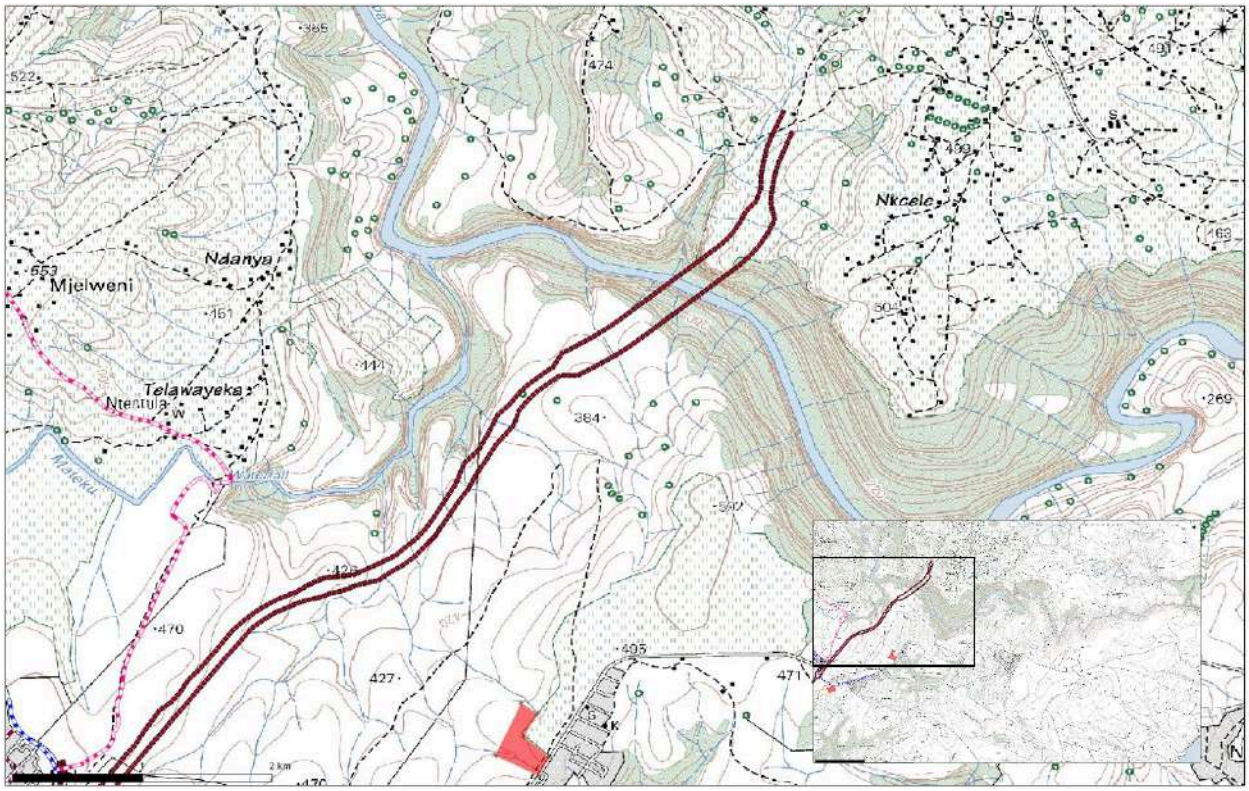


Figure 5. Location Map: 3129 BD 2004 (2)

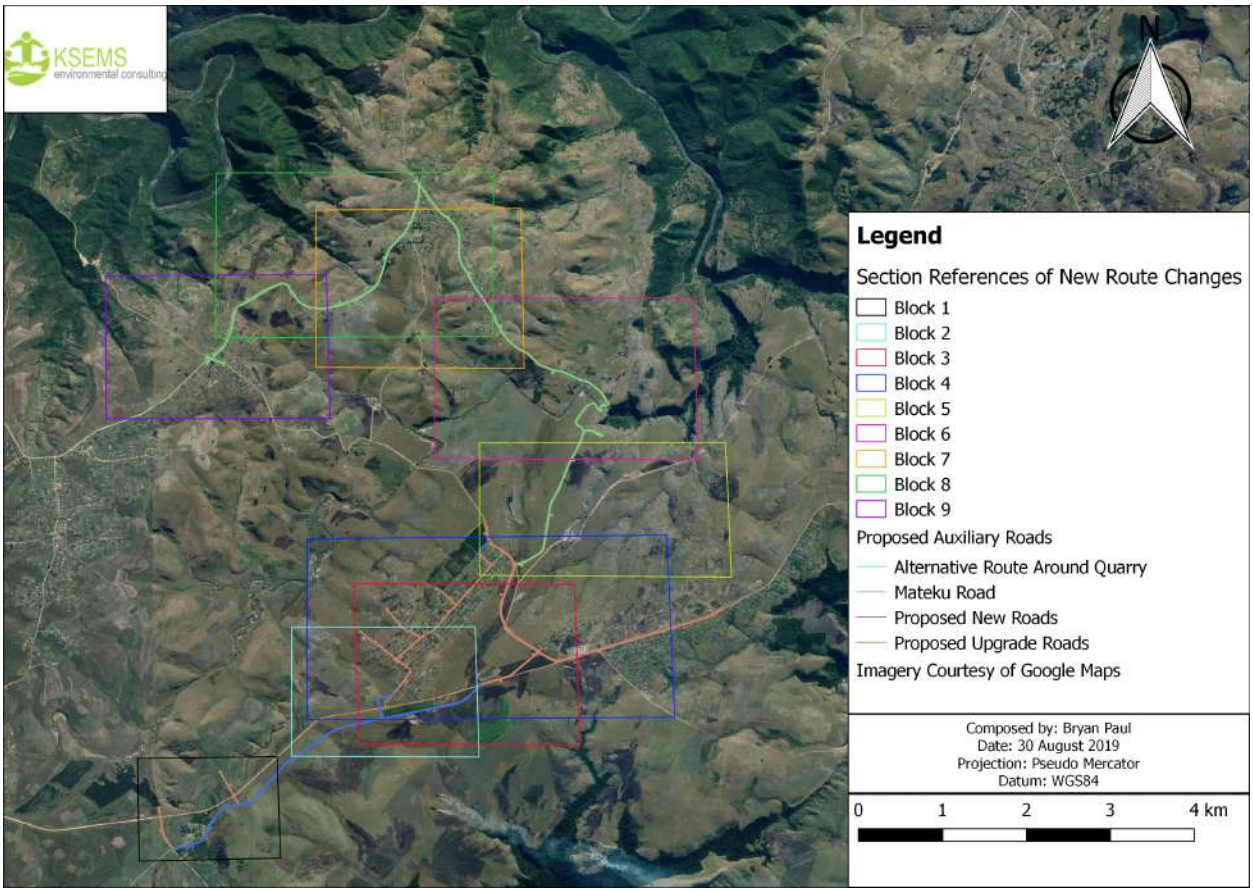


Figure 6. Block Reference Map

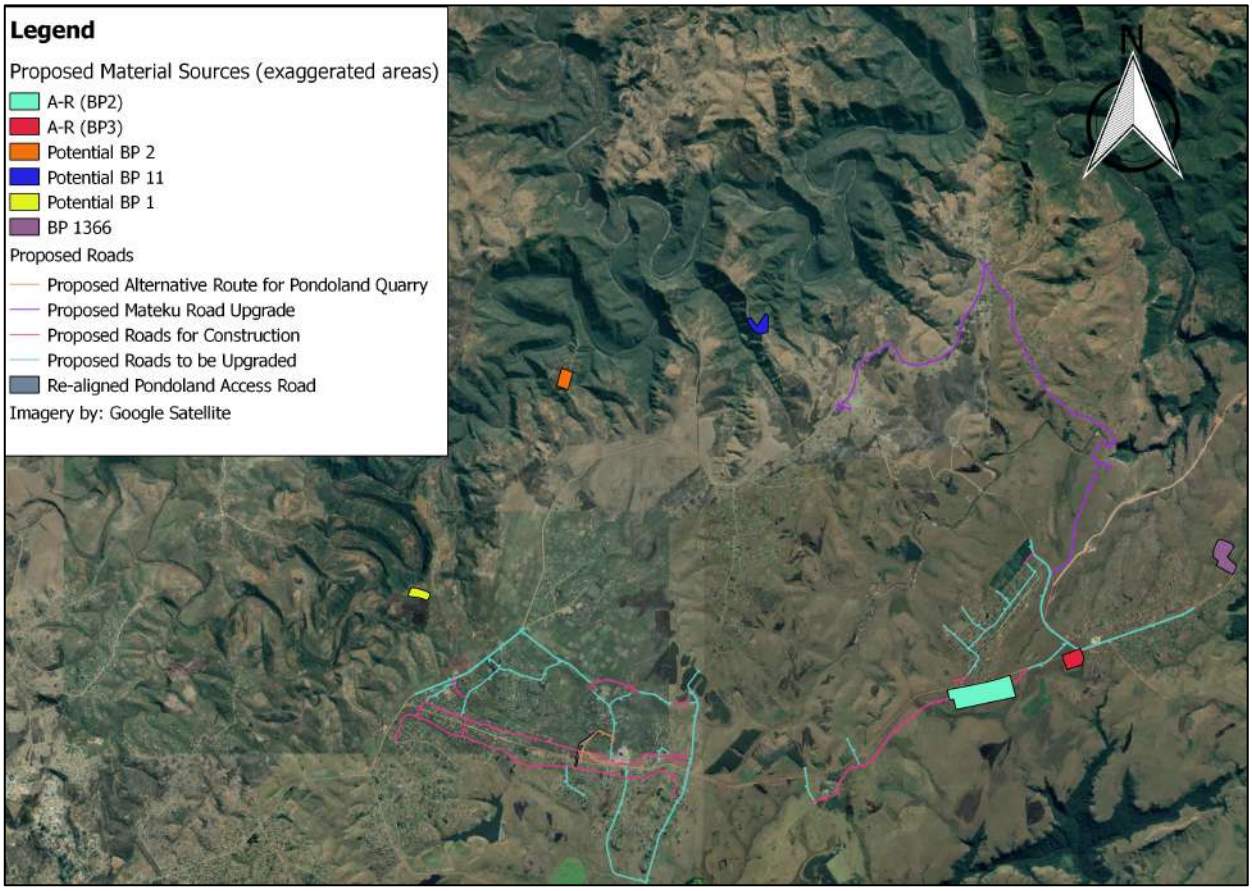


Figure 7. Locality Map of the Proposed N2 Wild Coast Toll Highway upgrade (KSEMS)

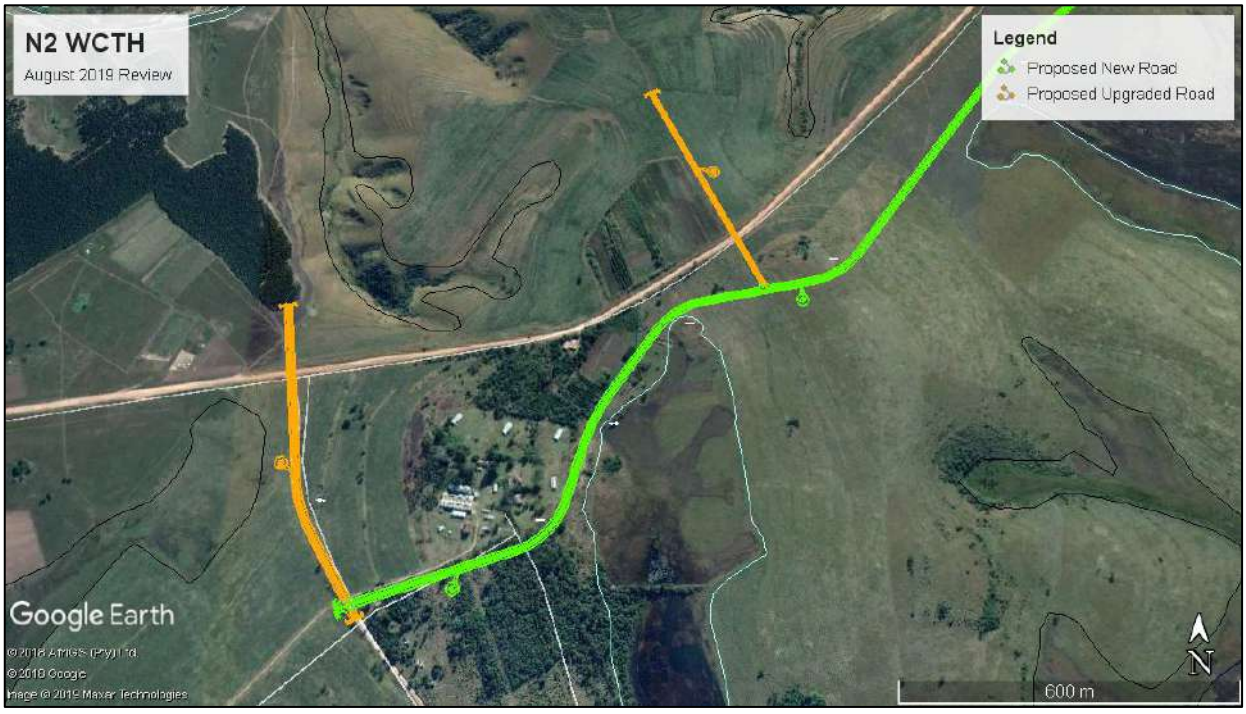


Figure 8. N2 WCTH Block 1 August 2019 Review

Figure 9. N2 WCTH Block 2 August 2019 Review

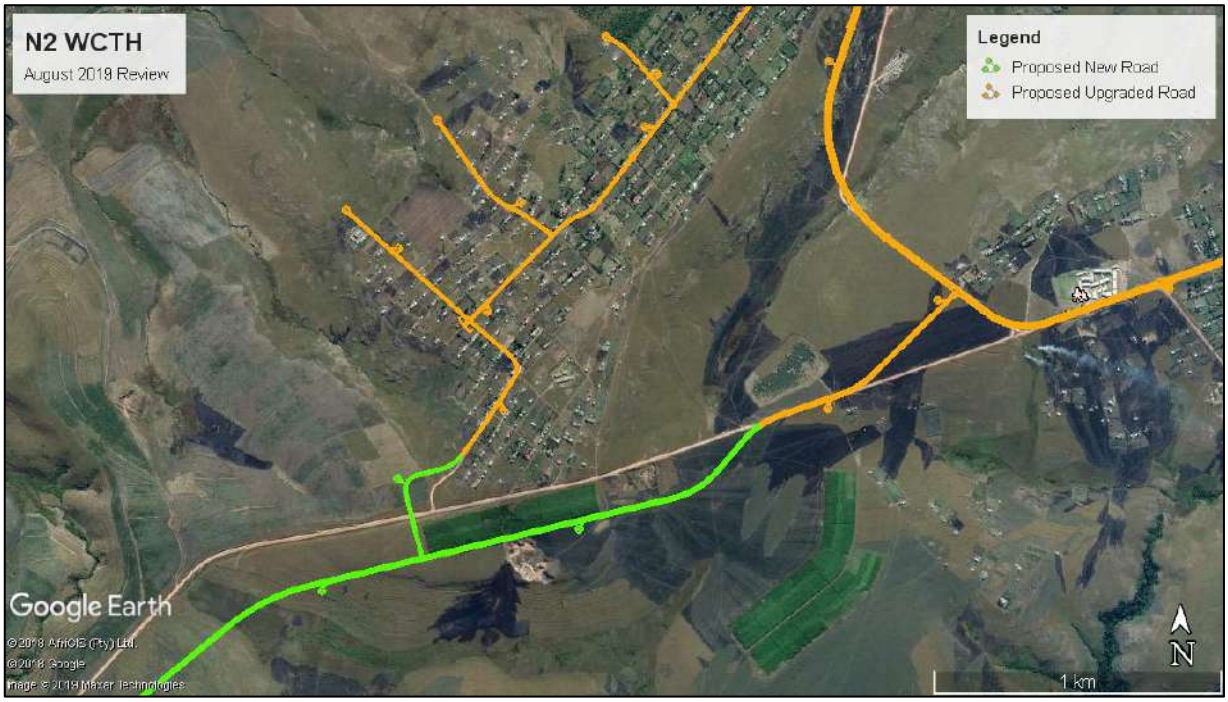


Figure 10. N2 WCTH Block 3 August 2019 Review

Figure 11. N2 WCTH Block 4 August 2019 Review

Figure 12. N2 WCTH Block 5 August 2019 Review

Figure 13. N2 WCTH Block 6 August 2019 Review

Figure 14. N2 WCTH Block 7 August 2019 Review

Figure 15. N2 WCTH Block 8 August 2019 Review

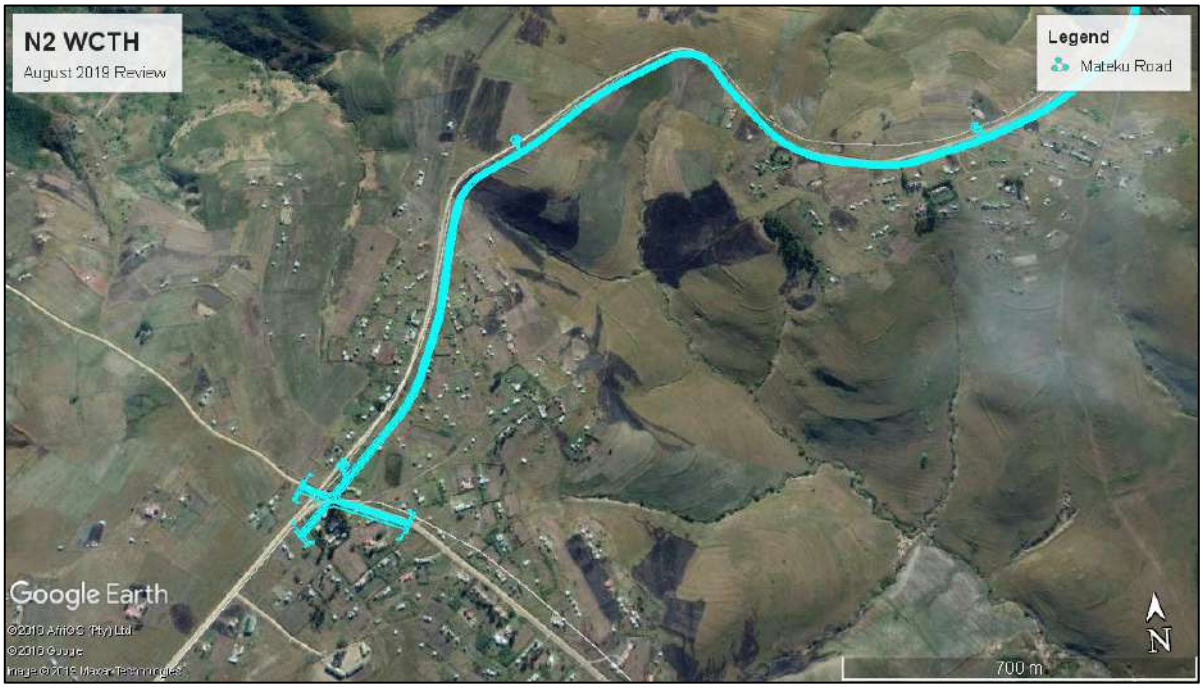


Figure 16. N2 WCTH Block 9 August 2019 Review

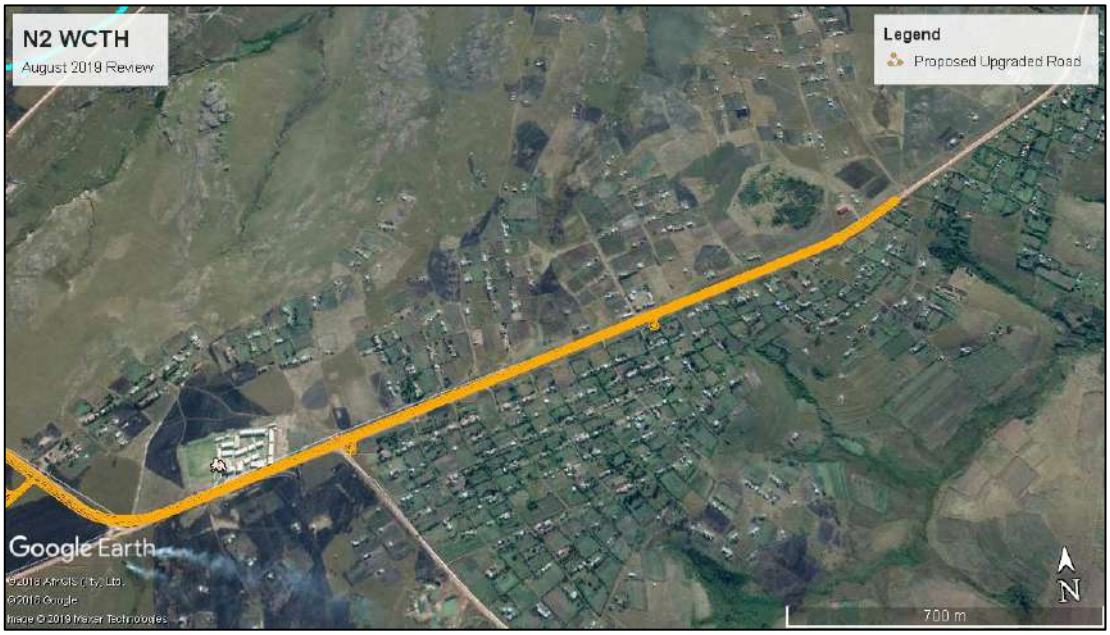


Figure 17. N2 WCTH Block 10 August 2019 Review

CHAPTER 2

FINDINGS

HERITAGE INDICATORS WITHIN THE RECEIVING ENVIRONMENT

3. REGIONAL CULTURAL CONTEXT

3.1 PALEONTOLOGY

Paleontology will form part of a stand-alone report.

The area falls within the “Green & Blue” demarcation on the *PalaeoSensitivity* Map. SAHRA states that a Palaeontological Study is required.

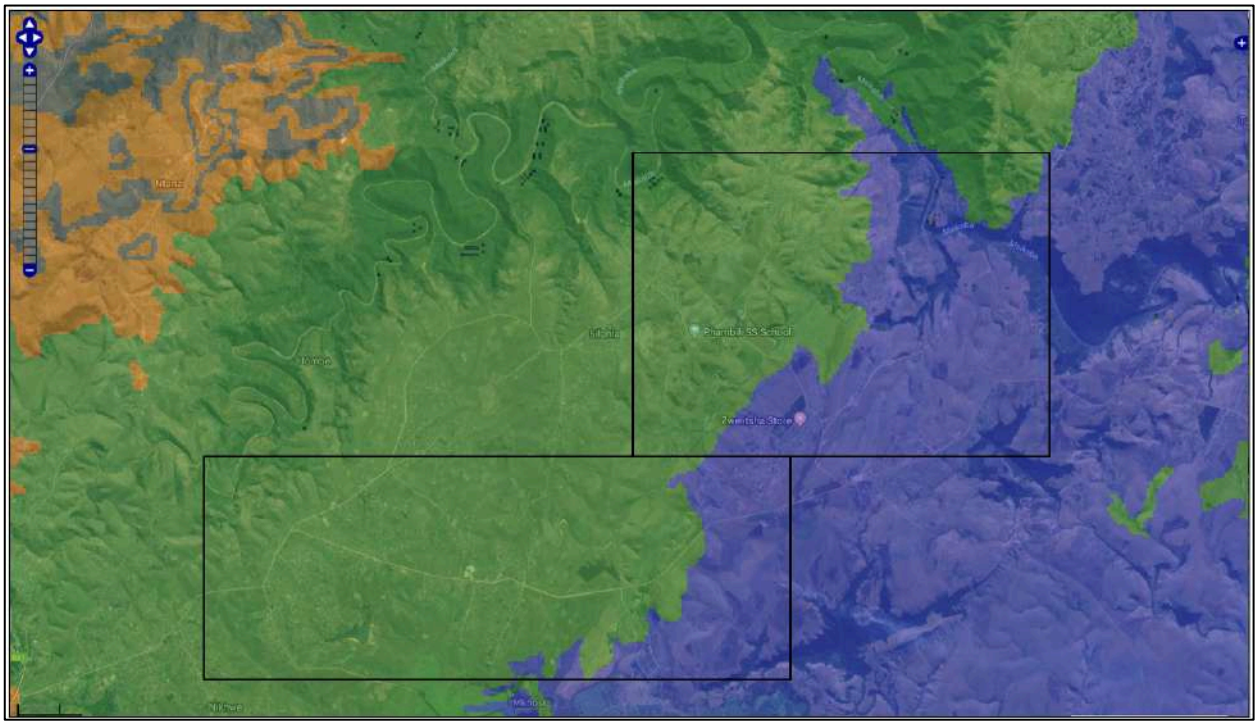


Figure 18. *PalaeoSensitivity* Map

Table 4. Palaeontological Sensitivity Classification

Colour	Sensitivity	Action Required
RED	VERY HIGH	Field assessment and protocol for finds is required.
ORANGE / YELLOW	HIGH	Desktop study is required and based on the outcome of the desktop study, a field assessment is likely.
GREEN	MODERATE	Desktop study is required.
BLUE	LOW	No Palaeontological studies are required however, a protocol for finds is required.

GREY	INSIGNIFICANT / ZERO	No Palaeontological studies are required.
WHITE / CLEAR	UNKNOWN	These area will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

3.2 Stone Age

In 1929, archaeologists working in South Africa, devised a system of dividing the Stone Age into 3 periods, namely the Early Stone Age, the Middle Stone Age and the Later Stone Age.

The Early Stone Age (ESA) refers to stone tools made by Homo erectus groups and these tools date between 1,7 million and 125 000 thousand years ago. The most distinctive tool types of the ESA are handaxes, which are easy to identify and have been widely reported from the Eastern Cape. Handaxes were reported from the Gorah, but the site has recently been destroyed (Humphreys, 1975). None were discovered inside the study area during this survey, but they are known from the banks of the Bushmen's River. Large numbers of handaxes were excavated from around a spring at an important ESA site called Amanzi (ESA, 1964/65).

The Middle Stone Age (MSA) refers to very different stone tools. They are often triangular shaped or long blades. They are frequently made on more fine-grained stone and show more controlled use of stone. These tools date between 125 000 and 30 000 years ago. At Klasies River Cave near Humansdorp, they are associated with Homo sapiens (i.e. modern people). It is quite rare to find MSA remains in caves associated with bone and other food remains (Thackeray, 1983). The majority of MSA sites are surface scatters. Scatters of MSA tools are reported all along the Sundays River Valley, and also inland at Addo Heights and Korhaansvlakte.

The Later Stone Age (LSA) people were ancestral to the San (Bushmen) and Khoekhoen (Hottentot) peoples who lived in Southern Africa between 30 000 years ago and colonial times. During most of the Holocene, South Africa was inhabited by small groups of mobile hunter-gatherers. When they lived at the coast, they exploited the marine resources such as shell fish, seal and sea birds. Many hundreds of shell middens are found along the coast in the Bhisho area. Inland groups frequently lived in caves and rock shelters and there are many sites in the Zuurberg which testify to this (Schauder, 1963). Only a fraction of the caves sites in the area have been investigated but many have rock paintings and at least a shallow archaeological deposit.

Excavations at sites such as Melkhoutboom and Vygeboom have uncovered graves with rich grave goods indicating a complex belief system. The rock art too indicates the San occupants took part in trance before painting. The sites contain well- preserved plant remains which indicate how they utilized their environment (Brooker, 1989). The majority of hunter-gatherer groups had been pushed out of the Zuurberg by the 1820's and was forced to move further inland to escape European settlement on their lands.

Khoekhoen settlement

Sheep and pottery were first introduced to South Africa by pastoralists groups some 2000 years ago. By the 16th and 17th centuries, these tribal groups were spread all along the coastal forelands from Namibia to the Eastern Cape. They were known to the colonists as Hottentots. Today the term Khoikhoi (correct spelling Khoekhoen) is more acceptable. The earliest archaeological evidence for the Khoekhoen in the region comes from Cape St Francis and dates to 300AD.

There are numerous place names, which are derived from Khoekhoen. For example Kaba, Coerney (originally Koernoe), Nanaga (although this cannot be confirmed by Nienaber & Raper 1997), Boknes, Gorah, Kabouga, Kariega, Sapkamma, etc. These names confirm that this part of the Eastern Cape was settled in the 17th and 18th centuries by various Khoekhoen tribal groupings such as the Inqua, Damasqua and Gonaqua. They were absorbed into the colonial lifestyle of the 18th century, becoming farm workers for the Dutch and British or clients of the Xhosa where they were engaged in elephant hunting. A few groups settled at missions such as Enon, Bethelsdorp and Theopolis (*edited from De Klerk, 2002*).

Figure 19. Sundays River Finds - *Kudu Ridge Website*

3.3 Iron Age

The first phase of a project to determine the distribution of pre-colonial farming settlement through space and time in the former Transkei, Eastern Cape, was carried out during 1983-87. This archaeological reconnaissance, using a stratified random sampling method, located 15 Early Iron Age settlement sites. These findings have largely escaped subsequent attention. An additional site was found adjacent to the Great Kei River after the project finished. The distribution and altitude of these sites indicate that they are confined to localities in deeply incised river valleys (as predicted from the pattern in KwaZulu-Natal), but at decreasing distances from the sea and declining altitudes in a south-westerly direction across the Eastern Cape. This might reflect the operation of a human rather than a physical geographical factor. One possibility is the early presence of Khoekhoen herders, perhaps with seasonal camps along rivers, westward of about 29°E. The distribution of a) rivers with names derived from Khoekhoen, b) isiXhosa dialects with a strong Khoekhoen component, and c) herder pottery along the coastline, all strongly support this proposal. The geographic limit of Early Iron Age settlement south-westward of East London remains to be determined. Woodland disturbance by early farmers in the larger, incised river valleys would have initiated processes of plant succession in a geographical patch-work in the later first millennium AD, that continue in places today, albeit with far greater intensity. This can be relevant to the management of such vegetation in protected areas (Feely, J. M.; Bell-Cross, S. M., 2011).

Early Xhosa Settlement

In addition to the Stone Age discussed above, archaeology can also inform us on the early contact period with black farmers in this area. While the majority of black farmers lived to the west of the Fish River, which forms an important ecological boundary between summer (eastern) and winter (western) rainfall, the *amaRharabe* were settled around Bedford/Fort Beaufort, while the *amaGcaleka* were living along the coastal areas around 1820.

Of particular interest in terms of this research, is the tantalizing possibility that the headquarters of two Xhosa chiefs were located here. These two sites have not been explored, but they offer the opportunity of archaeological research, which may inform us of 19th century Xhosa kraals.

The first site is `*Congoskraal'*. It was reported to WHR Gess (an amateur archaeologist) in 1962. According to his accounts `we have the suspicion that this is a Bantu site, as the farm was ca. 1820 the home of a Bantu chief'. According to Skead (2002) this would have been *Chungwa's Kraal*. *Chungwa* was a *Gqunukhwebe* (a mixed *Khoekhoen/Xhosa* group) Chief. There is a small hill nearby which is now called Bailey's Kop, but which the local Xhosa calls *Ntaba kwaChungwa*.

The second Xhosa kraal is reputed to be that of Chief *Habona* of the `*Donge*' and was reported to have been near the Zuurberg Pass in the late 18th century. After coming across this reference, our attention was drawn by John Adendorff to some aerial photographs, which showed several circular stone features on the farm Bassons Kloof. These stone circles resemble stone kraals, which clearly need to be investigated to determine their age (*edited from De Klerk, 2002*).

3.4 The Historic Era

Pre-colonial

Before European habitation in Lusikisiki, the AmaMpondo chief's kraal occupied what is now the present town village. In 1894 European settlers started settling in Lusikisiki after Mpondoland was annexed by the Cape Colony and a magistrate took up residence there.

Apartheid era

Several years before revolt finally flared, the government had made efforts to induce the peasants to accept Bantu Authorities. In 1953 it tried, through Paramount Chief Botha Sigcau, to force the rehabilitation scheme upon Eastern Pondoland, but at a meeting held in Lusikisiki at which Botha Sigcau was present, the people categorically rejected the scheme. The meeting was highlighted when one man by the name of Mngqingo turned his backside to Botha Sigcau, a sign of non-confidence; the people supported him and booed the chief and the officials. A few days later a large contingent of police entered the area, and Mngqingo took a large peasant army with him to the thick forests. When the government appeared to give up the affair, however, Mngqingo emerged and disbanded his impi. He was eventually arrested and deponed to the district of Cala and the opposition to the government measure gradually subsided.

Discontent then manifested itself in the district of Bizana, which lies between Lusikisiki in the south and the Umtamvuna river on the border of Natal in the north. In September 1957, the Pondos of Bizana rejected Bantu Authorities, Bantu Education and the rehabilitation scheme at a meeting to which the peasants came in their thousands. They demanded that Botha Sigcau should publicly declare whether he was the head of the Pondo tribe or the boot-licker of Verwoerd, the then Minister of Native Affairs. Botha Sigcau left surreptitiously, and the meeting went out of control, ending in disorder and the widespread cry - 'Umasiziphathe uya Kusebenza sifile', or 'Bantu Authorities will operate over our dead bodies.'

Then, in 1958, all the Pondoland districts were invited to send representatives to a large gathering called by the Minister of Bantu Administration and Development, Mr de Wet Nel, and Botha Sigcau. The people were led to believe that the gathering was some sort of celebration, but found on arrival that it was an attempt to get Bantu Authorities under way.

Chief Botha announced that he had been promoted to take over the chair of the Chief Magistrate of Umtata, and that in turn some of the Chiefs would be promoted in the various districts. The Pondo Court would be enhanced in status, and great changes would be brought about. In short, the people were told that they were getting self-government (Memorandum sent to the U.N. by the Mountain Committee).
In practice, however, Chief Botha alone made promotions; it was he who selected councillors for the courts from his own supporters. The people steadily lost confidence in the courts, and corruption set in among the councillors, who knew that their position depended not on the goodwill of the people, but on their maintaining their friendship with Chief Botha. This cancer in the heart of tribal justice was one of the main reasons for the breakdown of the whole tribal structure, and for the subsequent development of a new system during the Pondo revolt.

They rotate ever deeper into the once healthy organism of tribal life.
Government appointees to positions of authority were increasingly spurned by the people, and had to rely on the police and the magistrates to impose their authority. Many Chiefs and headmen found that once they had committed themselves to supporting Bantu Authorities, an immense chasm developed between them and the people. Gone was the old give-and-take of tribal consultation, and in its place there was now the autocratic power bestowed on the more ambitious Chiefs, who became arrogant in the knowledge that the government's might was behind them.

Frustration and dissatisfaction were mounting, and at the Isikelo Location in the district of Bizana anger boiled over. The people called a meeting to demand that Mr Saul Mabude, Chairman, and members of the District Authority explain Bantu Authorities to them. Mabude did not attend. The meeting was punctuated with grim silence, a premonition that all was not well in Pondoland. Laughter and easy talk, characteristics of the Pondos, were totally absent. The meeting ended in disorder. On a Sunday morning, some time later, a large impi marched to Mabude's kraal, while the women raised the war cry "" ***'I "" iwuuu I ii wu***

iwu!' Mabude's house was surrounded, his pigs and fowls were slaughtered, and his hut was set on fire.

The government struck back savagely. Police traversed the country in heavily meshed cars; armed police swarmed into the kraals on the hillsides, terrorizing women and children, arresting the men. Two battalions of the Mobile Watch moved in with armoured vehicles and camped at the villages of Bizana, Lusikisiki and Flagstaff. 60 'Native' police underwent special courses to assist in the training of home guards.

http://www.sahistory.org.za/lusikisiki-and-bizana

3.5 Cultural Landscape

The cultural landscape in the study area is strongly associated with rural living and subsistence farming. There is still a strong community feeling here with many ancient traditions still surviving. The landscape of high, enclosing mountains and spectacular views also results in a feeling of isolation.

3.6 Previous Studies

An extensive research into the SAHRIS database resulted in the identification of the following heritage related studies that have been performed over the last decade in the study area. Only studies within a radius of 50km from the study area were considered.

- Fourie, W. 2011. Proposed Construction of a new Police Station in Lusikisiki, Ingquza Local Municipality, O.R. Tambo District Municipality, Eastern Cape.
- Anderson, G. 2015. Heritage Survey of the Lusikisiki Regional Water Supply Scheme, Eastern Cape.
- Van Schalkwyk, L. 2013. Heritage Impact Assessment of Construction and Upgrading of Matheko Access Road, Lusikisiki, Eastern Cape Province.
- Almond, J. 2013. Recommended exemption from further Palaeontological studies: Proposed new Police Station between Lusikisiki and Flagstaff, O.R. Tambo District Municipality, Eastern Cape.
- Almond, J. 2013. Palaeontological Heritage Study: Combined Desktop and Field-Based Assessment: Rehabilitation of National Route R61 (Section 8, Majola Tea to Tombo), between Mthatha and Port St Johns, Eastern Cape.
- Anderson, G. 2015. Heritage Survey of the Port St Johns Waste Water Treatment Works, Eastern Cape.
- Anderson, G. 2017. Heritage Survey of the Proposed Port St Johns Waste Water Treatment Works.
- Binneman, J. 2009. A Letter of Recommendation (with conditions) for the exemption of a full Phase 1 Archaeological Heritage Impact Assessment for the Proposed Mining of Dolerite on Erf no. 702, Port St Johns, O.R. Tambo District Municipality, Eastern Cape Province.
- Van Schalkwyk, L. 2013. Heritage Impact Assessment of construction and upgrading of Ingquza Hill to Mangwanini Access Roads, Flagstaff, Eastern Cape Province.

3.7 Historical Maps

Three versions of 3129 BC (1954, 1982 & 2004) & 3129 BD (1982 & 2004) of the Surveyor General's 1:50 000 topographic map sets could be found during the archival study.

During the August 2019 review and additional fieldwork, a building older than 60 years was identified near the proposed Access Road Class 3A-1. See image no. 136 under Section 7.7 Built Environment.

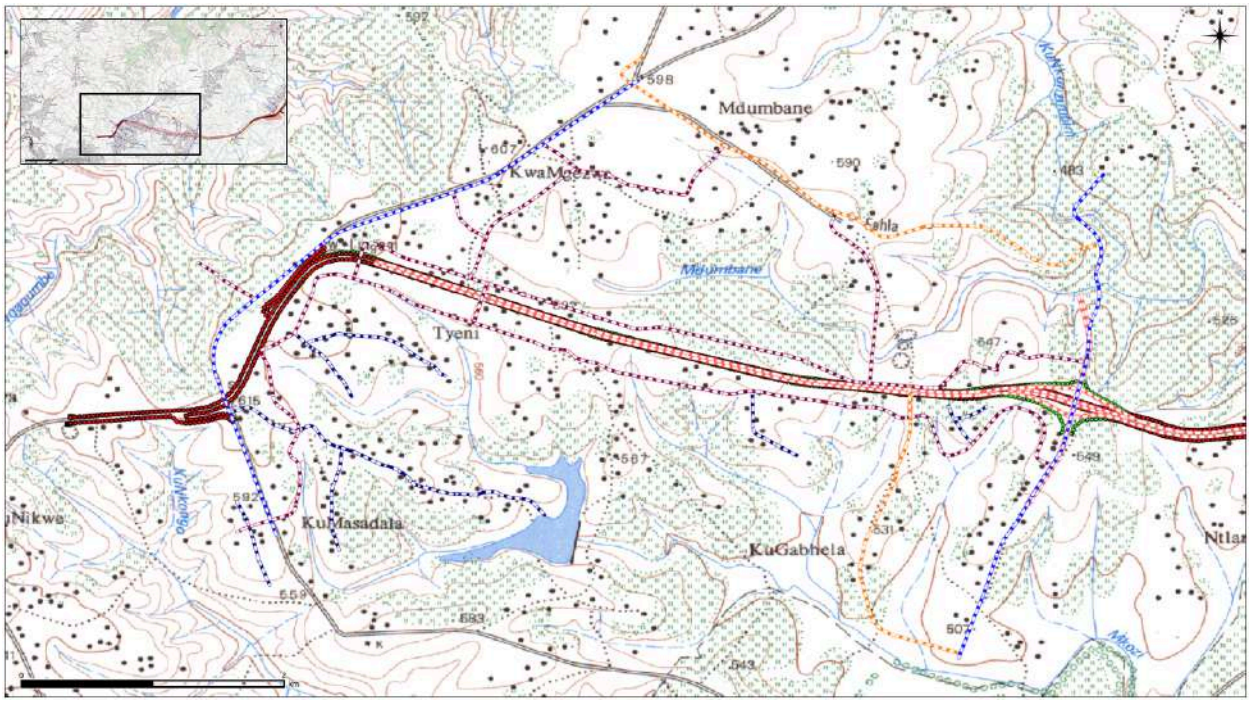


Figure 20. Topographical Map 3129 BC 1982 (1)

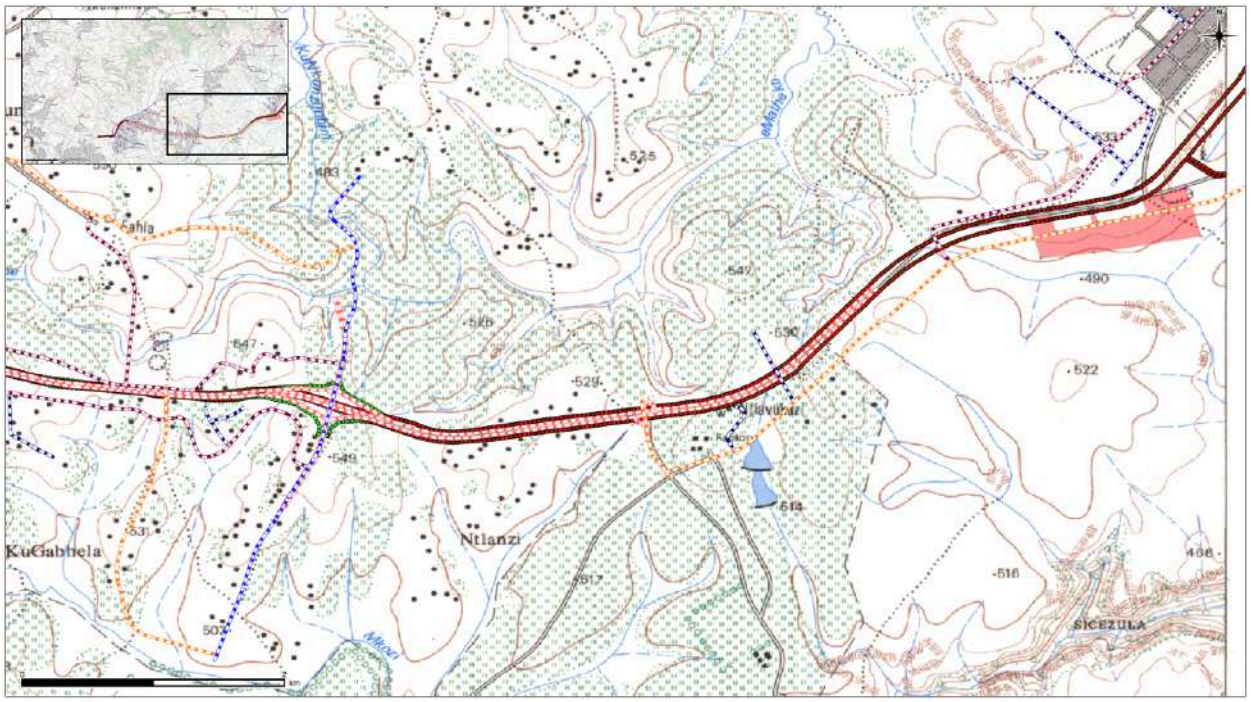


Figure 21. Topographical Map 3129 BC 1982 (2)

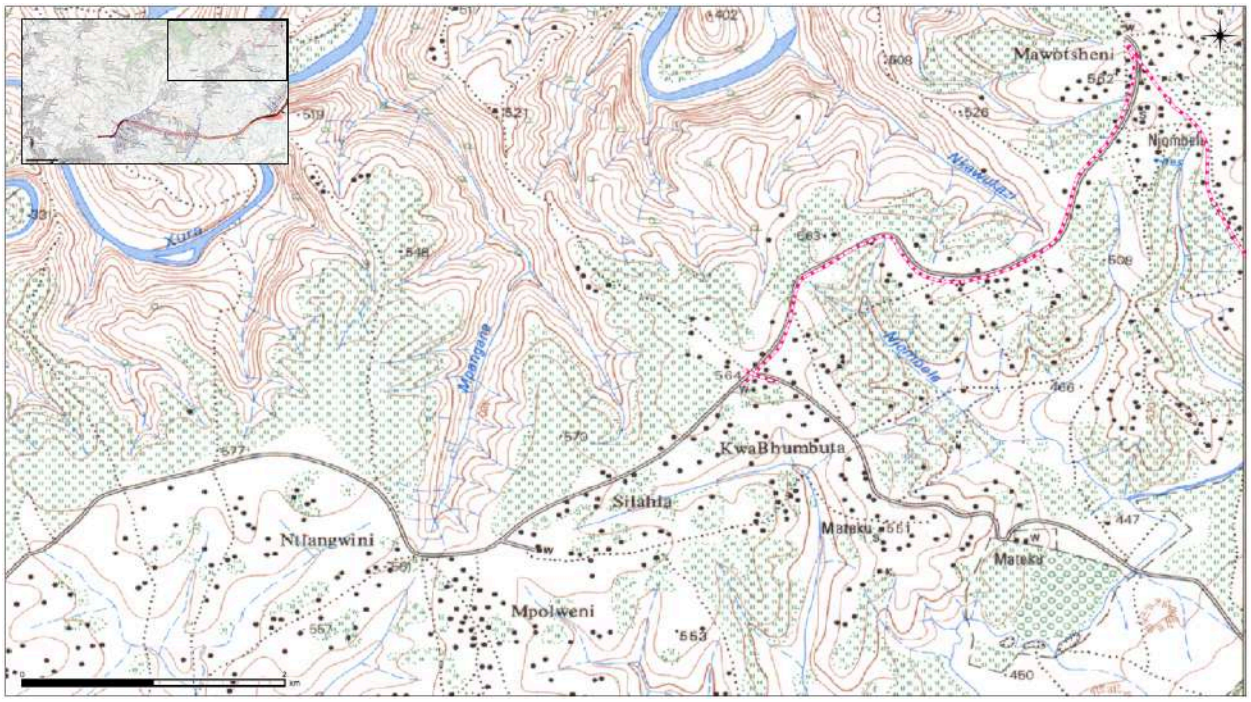


Figure 22. Topographical Map 3129 BC 1982 (3)

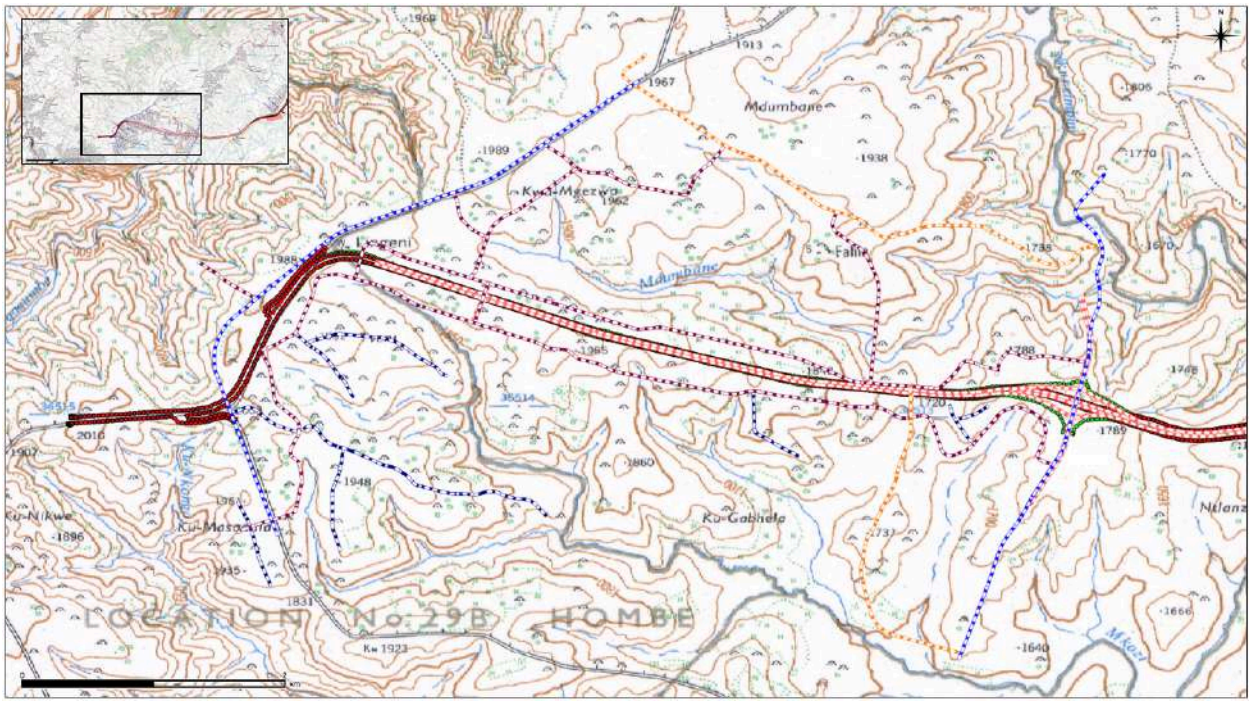


Figure 23. Topographical Map 3129 BC 1954 (1)

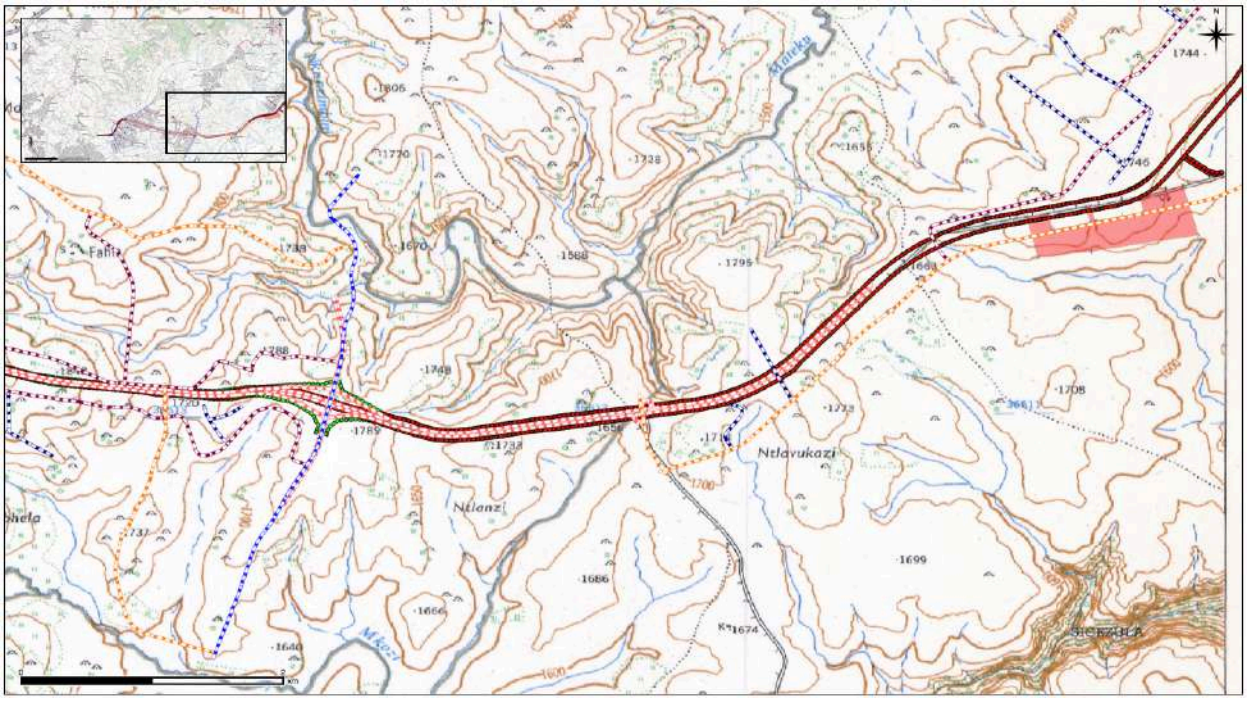


Figure 24. Topographical Map 3129 BC 1954 (2)

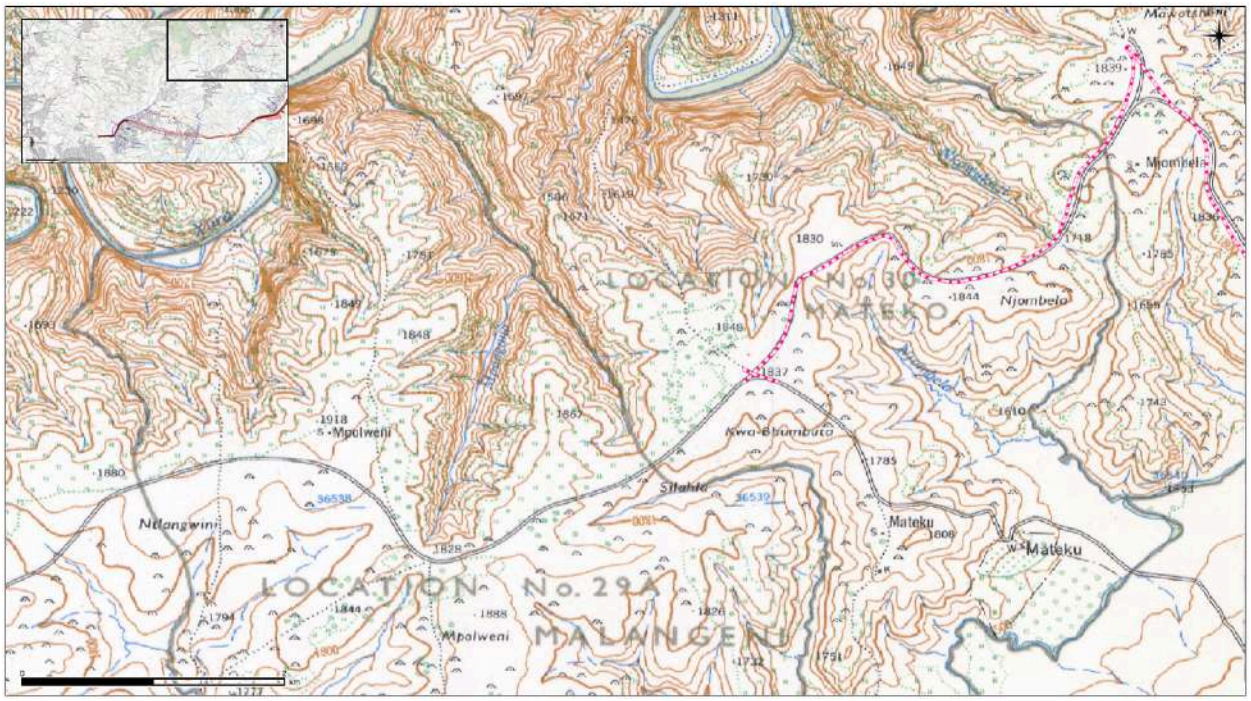


Figure 25. Topographical Map 3129 BC 1954 (3)

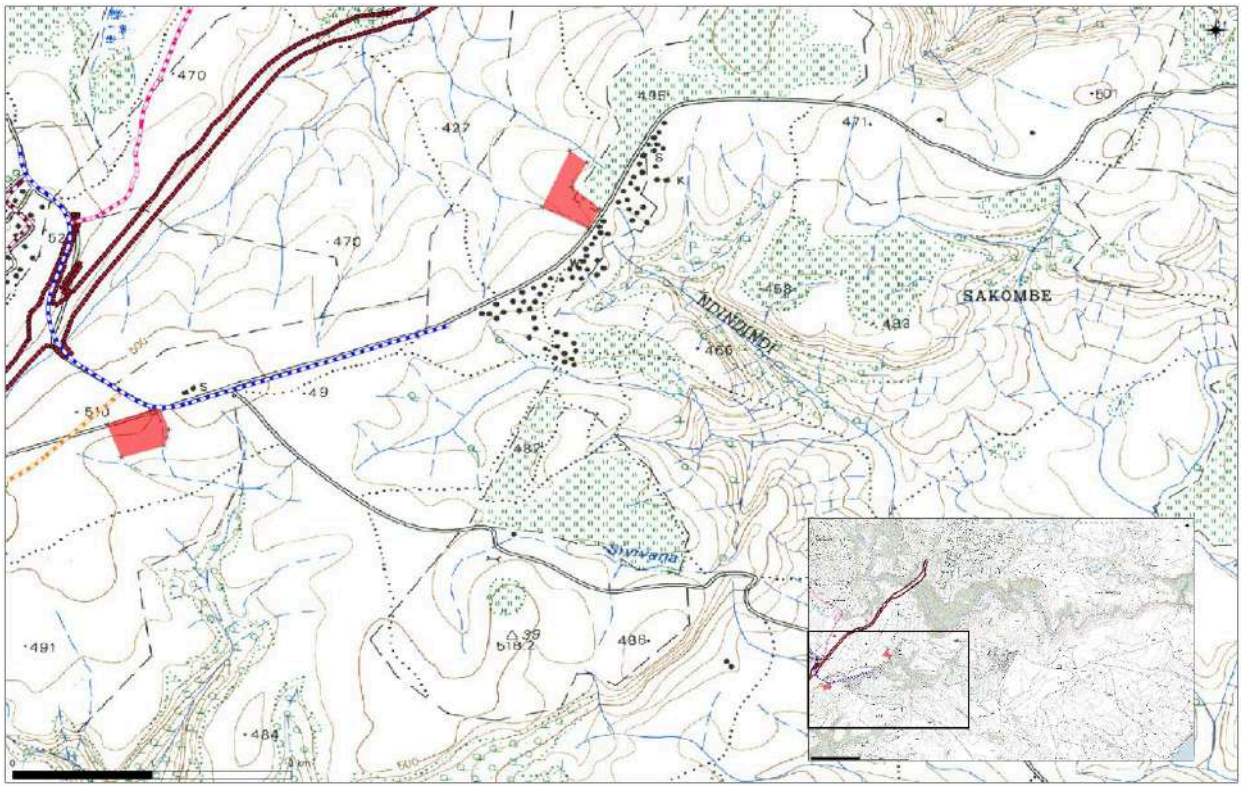


Figure 26. Topographical Map 3129 BD 1982 (1)

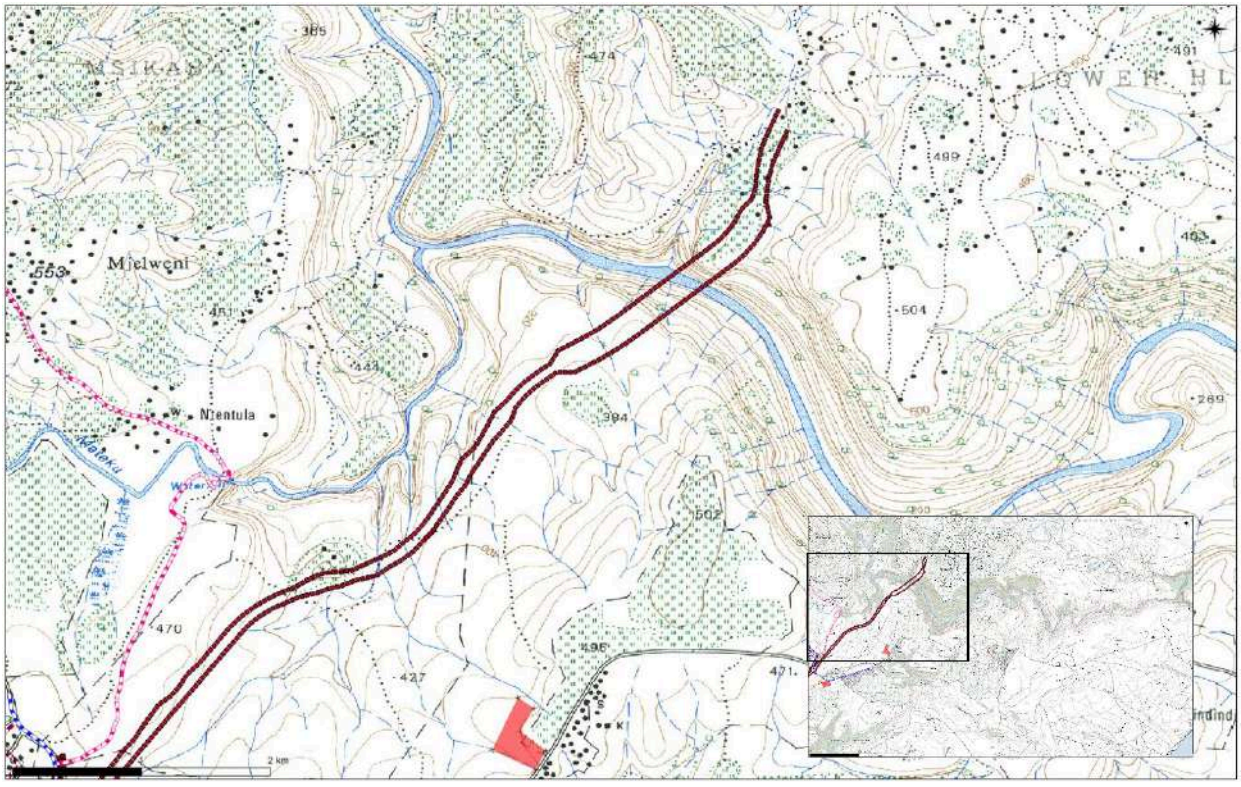


Figure 27. Topographical Map 3129 BD 1982 (2)

4. Findings

4.1 Fieldwork Results

Below are the sensitive areas that were noted during survey:
From an archaeological perspective all river banks are viewed to be sensitive and should be avoided wherever possible; The three borrow pits (Potential 1, Potential 2 and Potential 11) that follow the banks of the river Hombe could likely disturb potential Iron Age sites, as Iron Age people preferred to settle on the alluvial soils close to rivers. The same goes for the area where the Msikaba Bridge is to be constructed. It is however important to note that no Iron Age sites / signs of any kind of previous settlements were noted within these areas. There is however a high probability that the borrow pits and quarry areas could have been previously used as material sources for manufacturing tools by previous communities.

The development is also located in a rural setting that is slowly developing to a semi-urban area. As such most power lines run along the current routes and at times run along and across the proposed routes. The impact of the development to these power lines will likely be limited to irreversible visual impacts.

The only sign of sites of heritage significant that were noted within the development footprint were graves and found in various areas of corridors. Although no remains of Stone/ Iron Age sites were noted during site visit, the area could still contain camps and some areas with suitable substrates that could have been used as quarries for material to produce tools. The use of borrow pits can also be a sign of previous mining activities and permanent historical human settlement.

Below is a description of the authorised road reserve and respective upgrades and new routes:
The area under study, the authorised road reserve and the upgrades are located on almost similar landscape. The bulk of the area follows the river landscape, with the river acting as a boundary to the road. The proposed development footprint stretches from the KuMasadala, Lingeni junction, goes through farming potions and homesteads through the main road, along the Hombe River until the Msikaba Bridge.

The first three material resources can be accessed along the river, with the other nucleated around the Ntlavukazi area. Most of the proposed development footprint transverses over active farmlands and villages, BP2 is actually located behind a tea planation. Most of the farm land areas are tea plantations, from Magwa road all the way to the vicinity of the Msikaba Bridge. Farmers and Villagers in these areas are known to bury their loved ones in their place of dwelling. This makes this an ideal place for finding either known or unknown burials.

The deviations from the main authorised road reserve mostly go through developed land, (i.e townships and villages) Class 5 upgrade deviates into a developed Tyeni village and a few graves were noted. Class 5 new also deviates into Ntlavukazi were no graves were noted within the vicinity of the road. Class 3 new deviates from the main authorised road going to LuKhahlambeni an old village that is poorly developed comprising with some houses made of pole and daga. No graves or any other material resources were noted within the proposed development corridor. Further down along that road there are tea plantations across the river.

Further close to the Msikaba bridge, from KwaBhambata, the landscape becomes very rock, making it ideal for isolated archaeological materials, or historic settlement such as stone walling which are known, usually spread across such areas (Class 2 New). The new road to Msikaba Bridge is currently under construction. The existing power transmission within the project area mostly runs along the proposed lines roads network.

A large amount of stones in the potential material resources areas was also noted and this could possibly speak to previous settlement arrangements in the area. It is likely that some of these stones are placed in those positions as a result of previous settlements. The borrow pits along the Hombe river also show signs of use, over a long period and by different generations.

Findings
The field survey on the study area indicated, that a great deal of cultural heritage exists in this area of Eastern Cape. The study area is underlain by quartz, making the possibility of mineral extraction and construction materials by Iron Age and other historical societies to have resided around these areas. The existence of open pit mines within the study area also shows the possibility of more permanent Iron Age human settlements. Iron Age brought about tools that enabled agriculture and mining to explode to a greater extent than stone tools could, resulting in more permanent human settlements.

During the archaeological field survey, no fossils were discovered however the construction activities associated with the proposed project will most likely be expected to expose extensive sedimentary rocks. The project is in the close proximity to the Hombe River, it is therefore recommended that a Chance Find Procedures (CFP's) be implemented during the construction phase of the project.

4.2 Borrow Pits

4.2.1 Potential BP1

Material Source	Exaggerated Extent	Centre Point Coordinate	
Potential BP1	<6 ha (Jan. 2020 Review)	S 31º 19' 44.51''	E 29º 38' 17.55''

Figure 28. Borrow Pit Potential BP1

Figure 29. Borrow Pit Potential BP1 Jan. 2020 Review Increased Area Investigated (Purple Polygon)

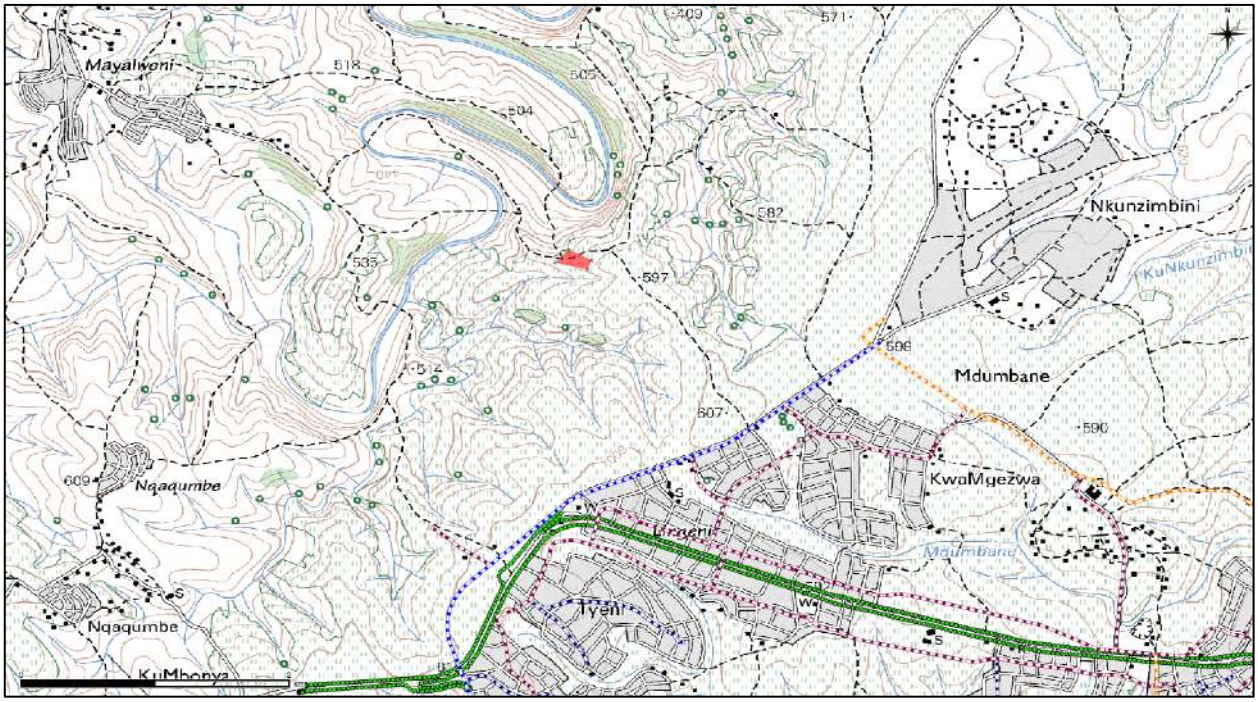


Figure 30. Location Map: Borrow Pit Potential BP1 (Red Polygon)

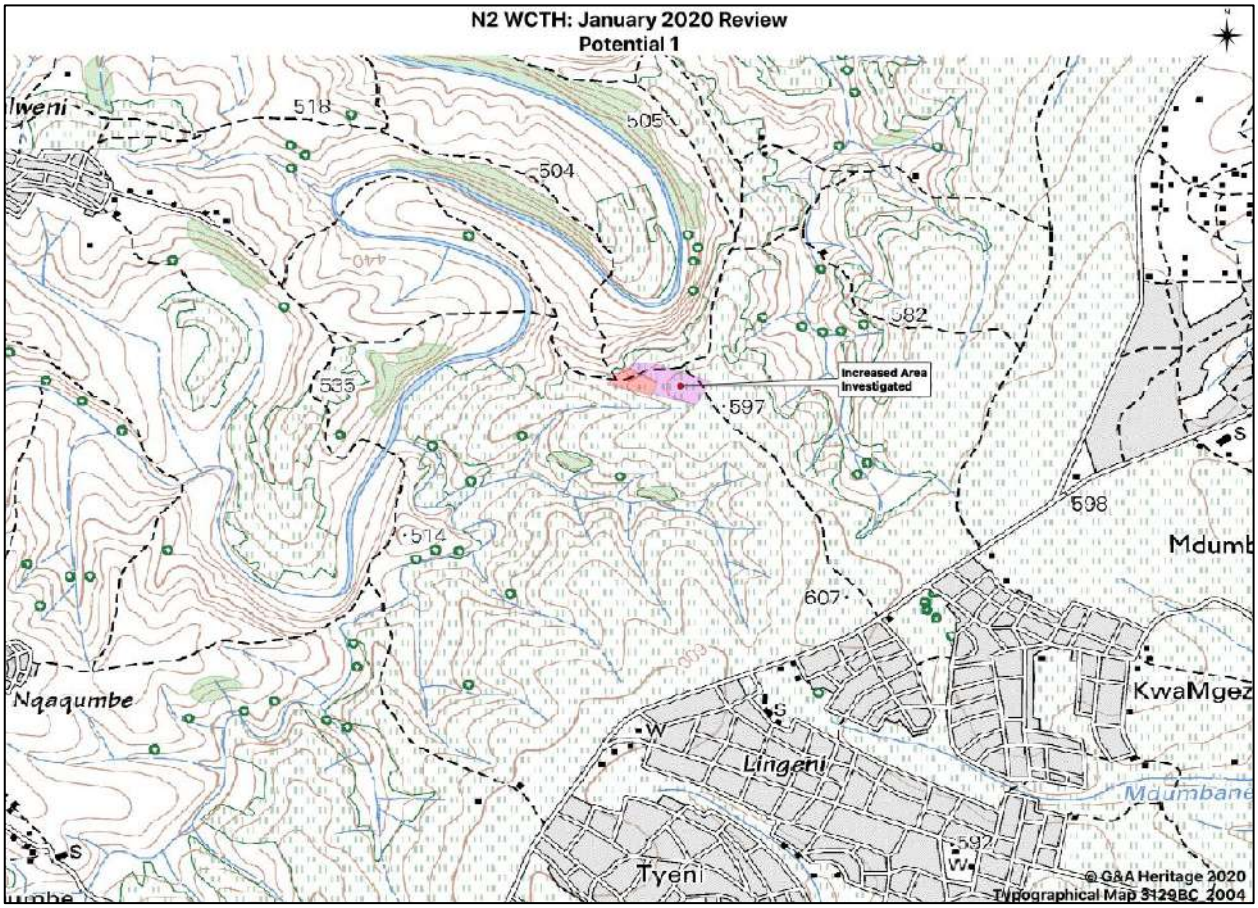


Figure 31. Location Map: Borrow Pit Potential BP1 (Red Polygon) Jan. 2020 Review Increased Area Investigated (Purple Polygon)

Figure 32.Borrow Pit Potential BP1

Figure 33. Borrow Pit Potential BP1

Figure 34. Borrow Pit Potential BP1

Figure 35. Borrow Pit Potential BP1

Figure 36. Borrow Pit Potential BP1 Jan. 2020 Review

Figure 37. Borrow Pit Potential BP1 Jan. 2020 Review

4.2.2 Potential BP2

Material Source	Exaggerated Extent	Centre Point Coordinate	
Potential BP2	6.60 ha (Jan. 2020 Review)	S 31º 17' 45.01''	E 29º 39' 59.19''

Figure 38. Borrow Pit Potential BP2

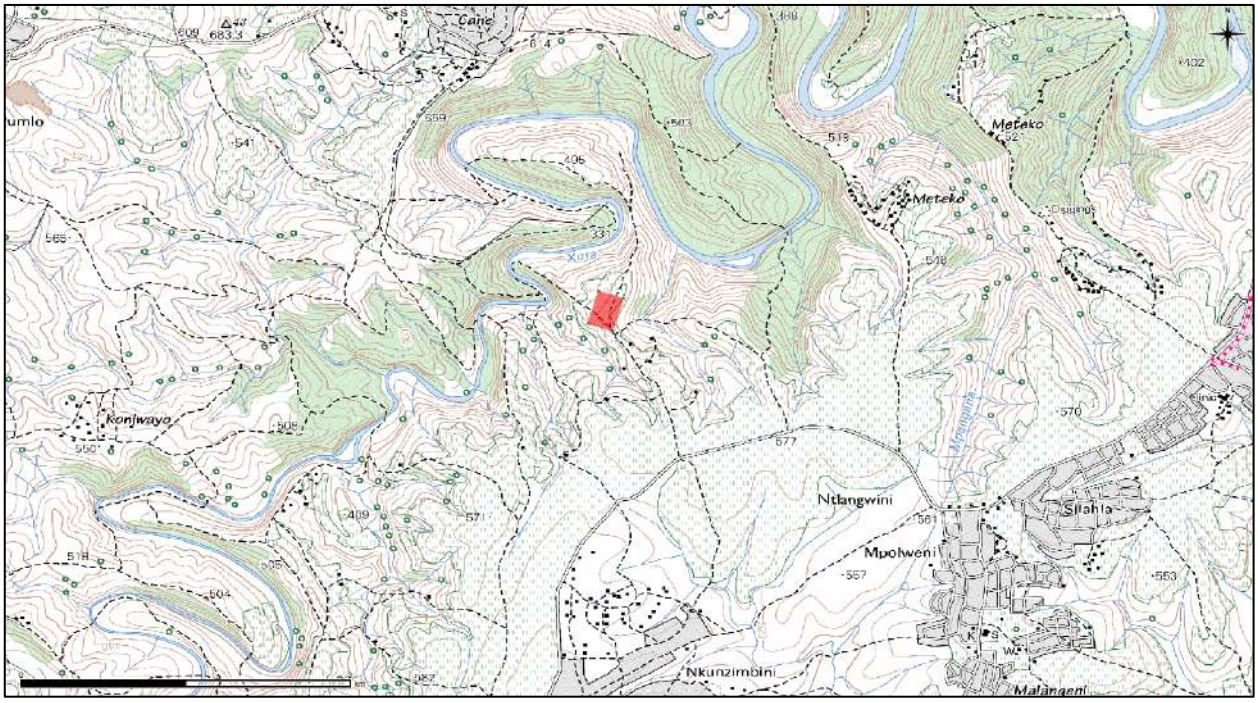


Figure 39. Location Map: Borrow Pit Potential BP2 (Red Polygon)

Figure 40. Borrow Pit Potential BP2

Figure 41. Borrow Pit Potential BP2

4.2.3 BP1366

Material Source	Exaggerated Extent	Centre Point Coordinate	
BP1366	<15 ha (Jan. 2020 Review)	S 31º 19' 33.76''	E 29º 47' 09.19''

Figure 42. Borrow Pit BP1366

Figure 43. Borrow Pit BP1366 January 2020 Review

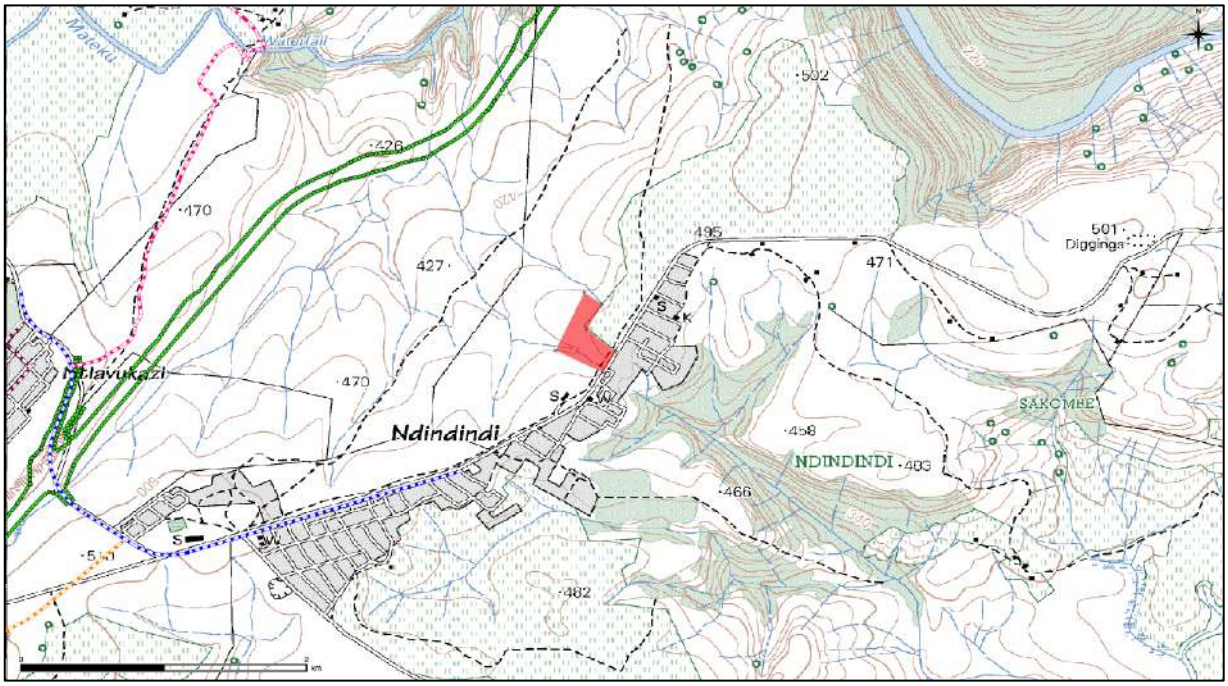


Figure 44. Location Map: Borrow Pit BP1366 (Red Polygon)

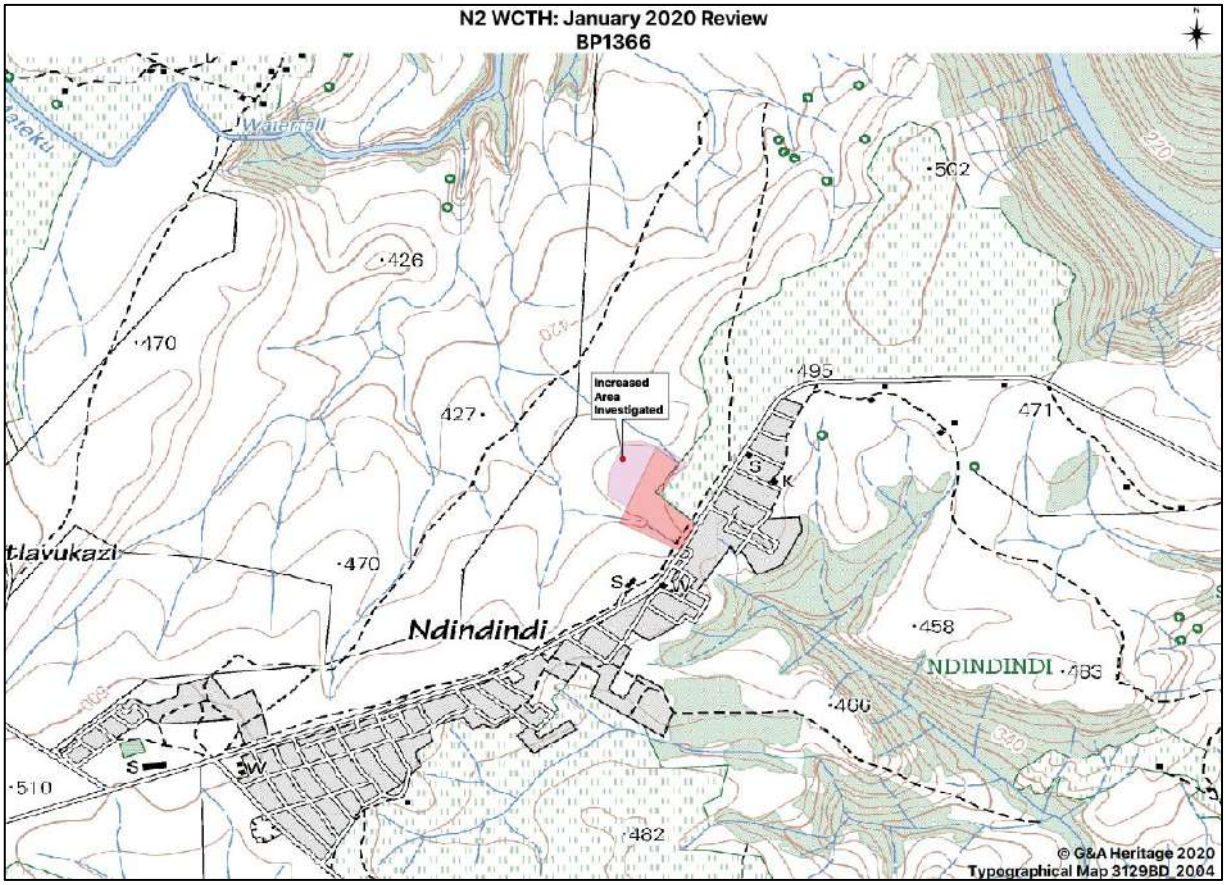


Figure 45. Location Map: Borrow Pit BP1366 (Red Polygon), Jan. 2020 Review Increased Area (Purple Polygon)

Figure 46. Borrow Pit BP1366

Figure 47. Borrow Pit BP1366

Figure 48. Borrow Pit BP1366

Figure 49. Borrow Pit BP1366

Figure 50. Borrow Pit BP1366 Jan. 2020 Review Increased Area Investigated

Figure 51. Borrow Pit BP1366 Jan. 2020 Review Increased Area Investigated

Figure 52. Borrow Pit BP1366 Jan. 2020 Review Increased Area Investigated

Figure 53. Borrow Pit BP1366 Jan. 2020 Review Increased Area Investigated

4.2.4 BP3

Material Source	Exaggerated Extent	Centre Point Coordinate	
BP3	<9 ha (Jan. 2020 Review)	S 31º 20' 22.05''	E 29º 45' 27.68''

January 2020 Review: Minor change within 50m assessment buffer.

Figure 54. Borrow Pit BP3

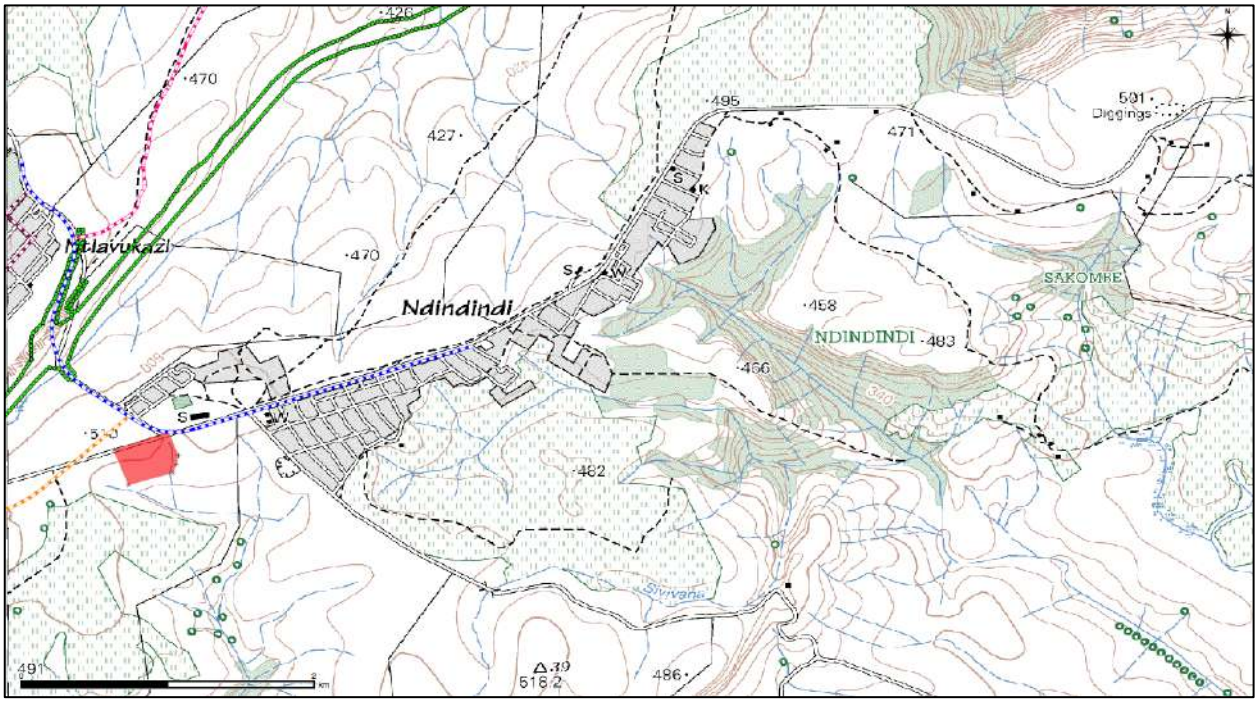


Figure 55. Location Map: Borrow Pit BP3 (Red Polygon)

Figure 56. Borrow Pit BP3

Figure 57. Borrow Pit BP3

4.2.5 BP2

Material Source	Exaggerated Extent	Centre Point Coordinate	
BP2	<40 ha (Jan. 2020 Review)	S 31º 20' 41.36''	E 29º 44' 30.26''

January 2020 Review: Minor change within 50m assessment buffer.

Figure 58. Borrow Pit BP2

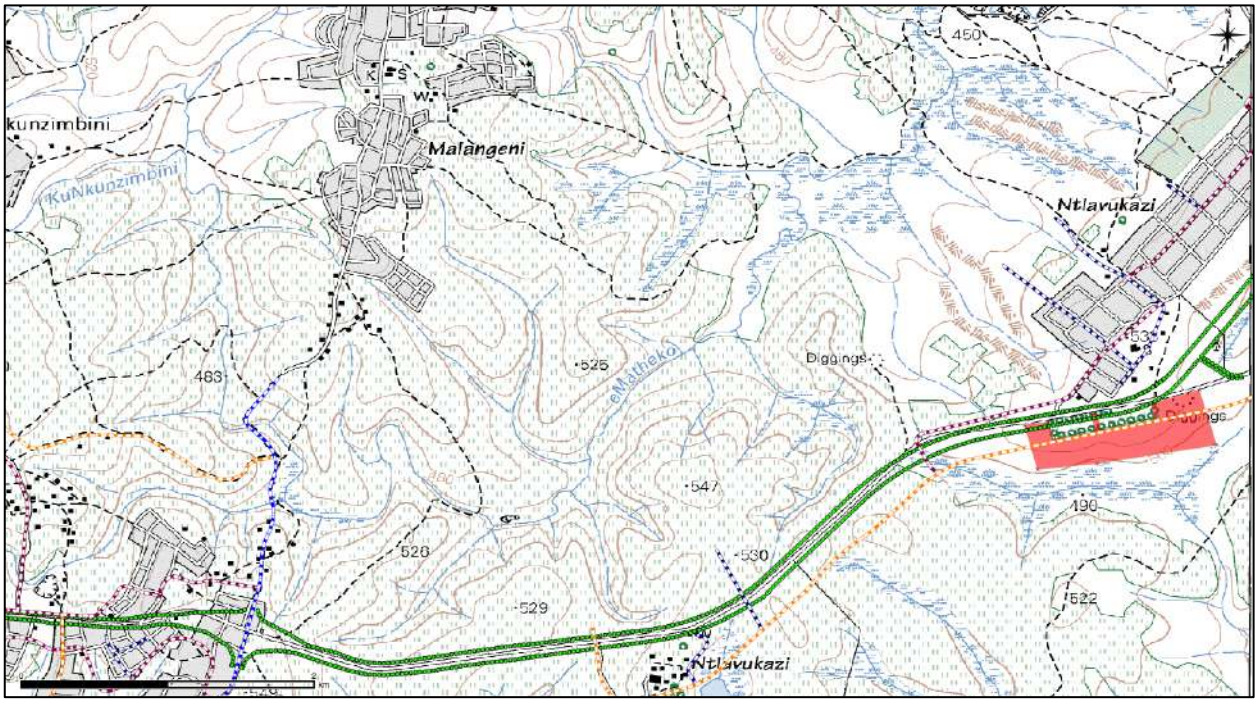


Figure 59. Location Map: Borrow Pit BP2 (Red Polygon)

Figure 60. Borrow Pit BP2

Figure 61. Borrow Pit BP2

Figure 62. Borrow Pit BP2

4.2.6 Potential BP11

Material Source	Exaggerated Extent	Centre Point Coordinate	
Potential BP11	7.13 ha	S 31º 17' 16.07''	E 29º 42' 04.69''

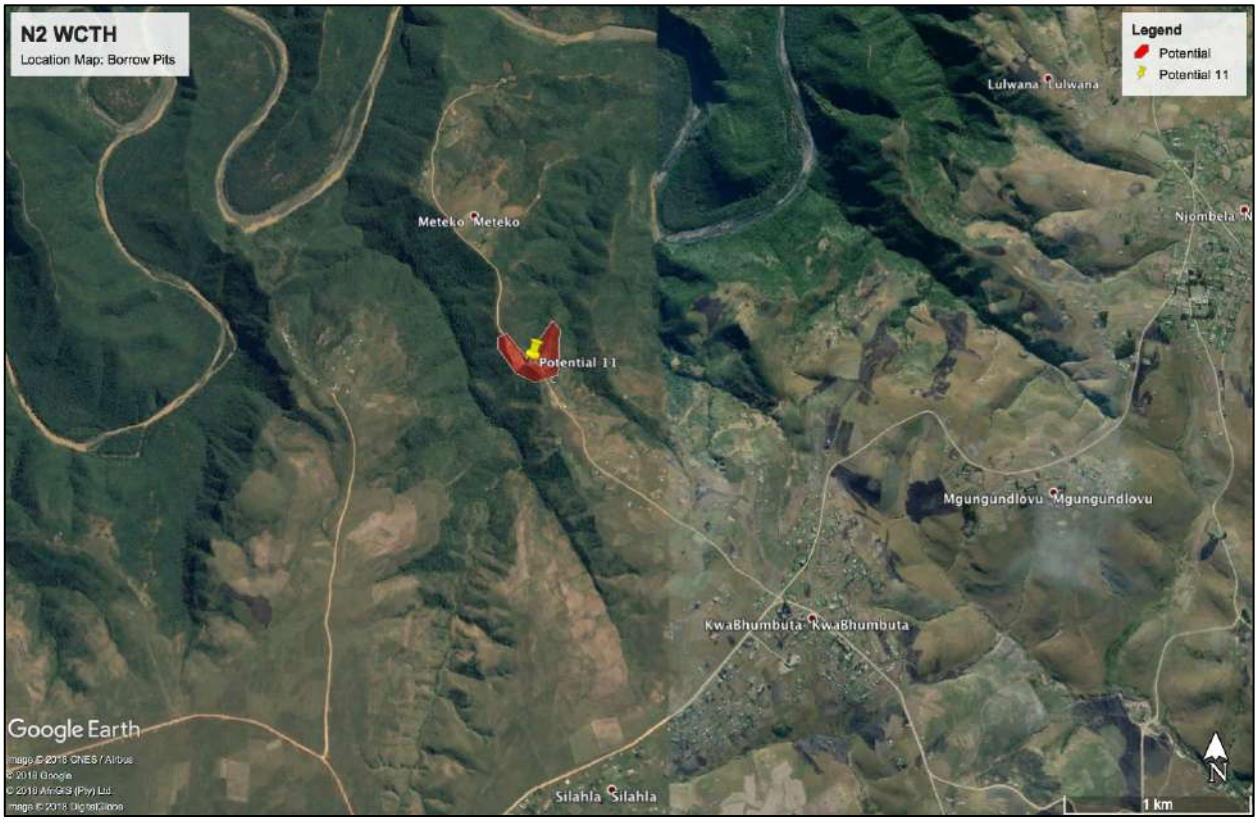


Figure 63. Borrow Pit Potential BP11

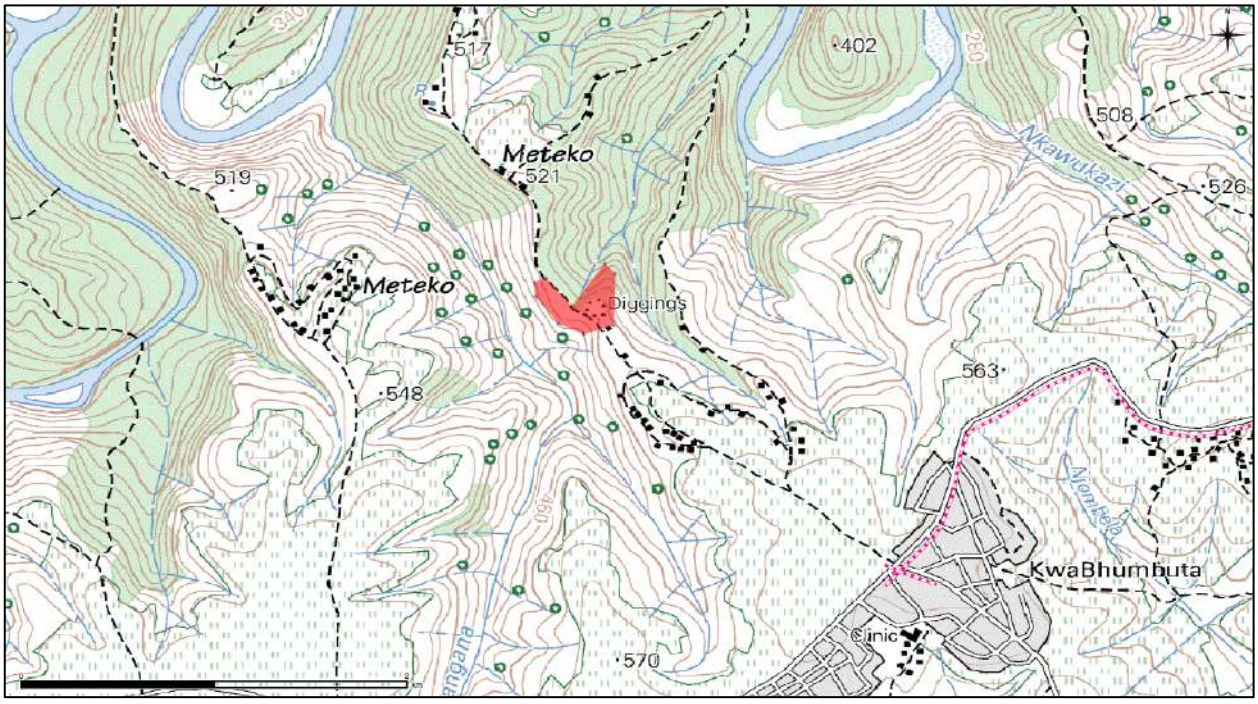


Figure 64. Location Map: Borrow Pit Potential BP11 (Red Polygon)

Figure 65. Borrow Pit Potential BP11

4.3 Grave Sites

Section 36 burial grounds and graves were discovered in the development footprint. The quarry and other stone formations within the project footprint were found to be natural formations. The identified burial grounds are spread across the different proposed road sections of the development.

Below is a table detailing the burials noted in the proposed area (s). Reference is also made to the location of the burials:

Table 5. Graves Sites & Burials noted

Site No.	Coordinates		Description	Significance
N2-G001	S 31º 20' 46.54''	E 29º 38' 14.35''	Seven (7) marked graves at Xumalo's homestead along the Class 4 new upgrade.	High
N2-G002	S 31º 21' 01.33''	E 29º 38' 02.80''	Eight (8) Marked graves at Sonwabo Gauzana's homestead along the Class 4 new upgrade.	High
N2-G003	S 31º 21' 06.77''	E 29º 38' 24.03''	Homestead with two (2) graves along the Class 5 upgrade.	High
N2-G004	S 31º 21' 16.33''	E 29º 38' 43.24''	Small grave yard close to Hombe Primary School.	High
N2-G005	S 31º 21' 27.89''	E 29º 38' 11.33''	Small grave yard close to Hombe Primary School.	High
N2-G006	S 31º 21' 00.18''	E 29º 38' 04.49''	Marked grave	High
N2-G007	S 31º 21' 02.18''	E 29º 39' 05.94''	Marked grave	High
N2-G008	S 31º 17' 36.07''	E 29º 43' 02.34''	Marked grave	High
N2-G009	S 31º 17' 00.99''	E 29º 44' 25.65''	Marked grave	High
N2-G010	S 31º 16' 56.94''	E 29º 44' 29.22''	Homestead marked grave. Coordinates taken from road due to access limitations.	High
N2-G011	S 31º 16' 43.75''	E 29º 44' 03.34''	Marked grave	High
N2-G012	S 31º 16' 51.18''	E 29º 44' 39.84''	Four (4) marked graves with black tiles at a homestead at KwaBhumbata on the Class 2 new upgrade.	High
N2-G013	S 31º 17' 22.00''	E 29º 44' 56.23''	Six (6) marked graves.	High
N2-G014	S 31º 18' 05.45''	E 29º 45' 35.85''	Graves that are marked close to the road. Graves are far away from the homestead. Class 4 new at KwaBhumbata.	High

Table 6. Grave Sites & Burials noted: August 2019 Review

Aug. 2019 Review Site no.	Site No.	Coordinates		Description	Significance
Burial 1	N2-G015	S 31° 19' 32.36"	E 29° 45' 05.11"	One (1) marked grave.	High
Burial 2	N2-G016	S 31° 19' 37.71"	E 29° 44' 59.36"	One (1) marked grave.	High
Burial 3	N2-G017	S 31° 19' 37.54"	E 29° 44' 59.28"	One (1) marked grave.	High
Burial 4	N2-G018	S 31° 19' 45.51"	E 29° 44' 55.93"	Two (2) marked graves.	High
Burial 5	N2-G019	S 31° 19 '47.02"	E 29° 44' 57.08"	One (1) marked grave located at an abandoned homestead.	High
Burial 6	N2-G020	S 31° 21' 03.55"	E 29° 38' 13.72"	Seven (7) marked graves.	High

Table 7. Grave Sites & Burials noted: January 2020 Review

January 2020 Review Site no.	Site No.	Coordinates		Description	Significance
Burial 1	N2-G021	S 31° 21' 08.43"	E 29° 40' 25.05"	One (1) marked grave.	High

4.3.1 N2-G001

Figure 66. N2-G001

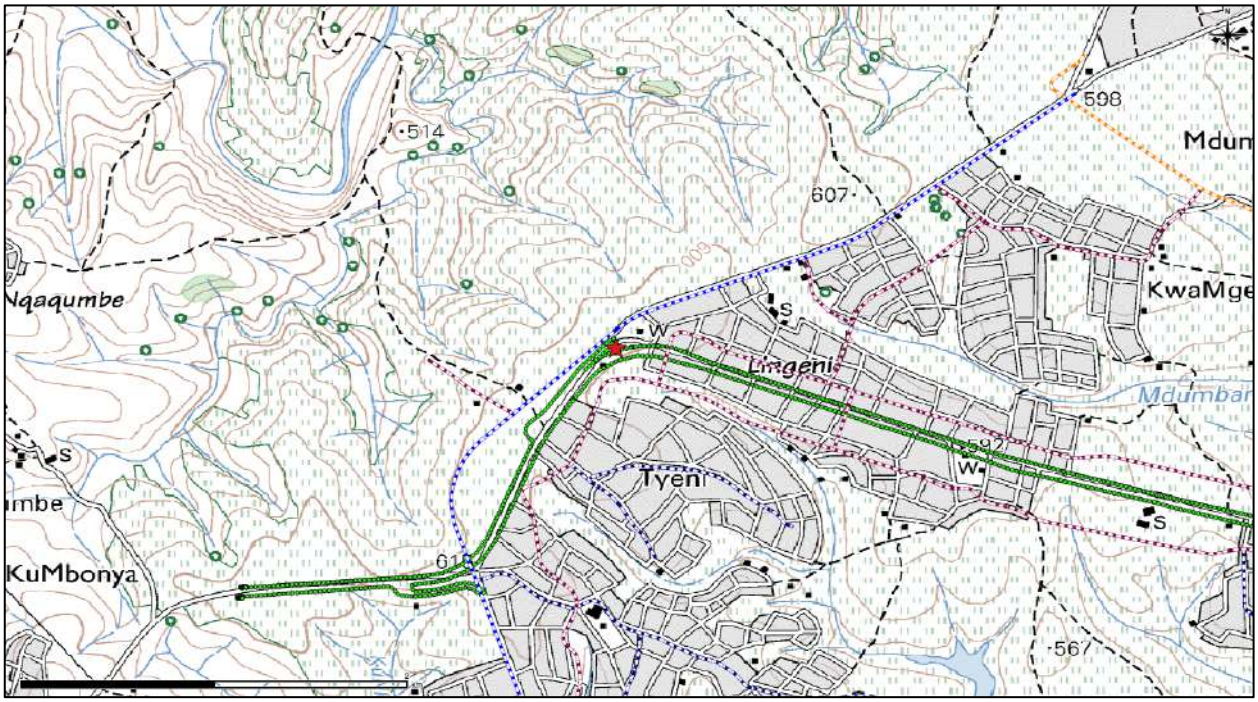


Figure 67. Location Map: N2-G001 (Red Star)

4.3.2 N2-G002

Figure 68. N2-G002

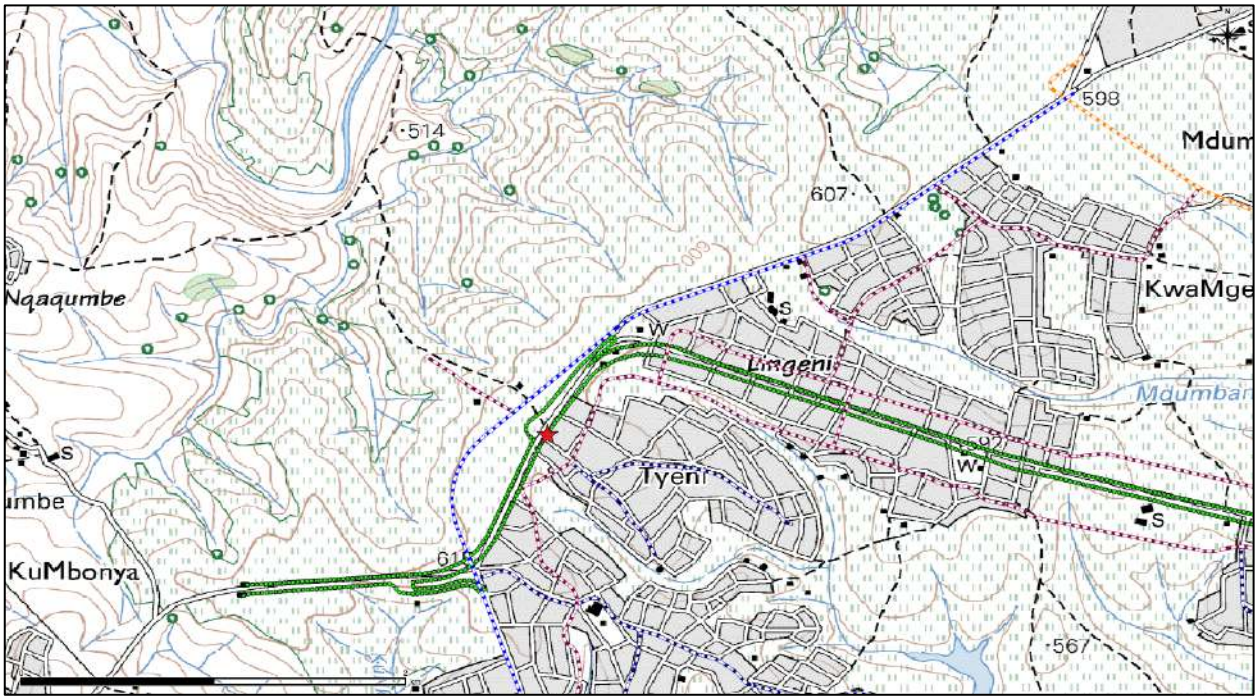


Figure 69. Location Map: N2-G002 (Red Star)

4.3.3 N2-G003

Figure 70. N2-G003

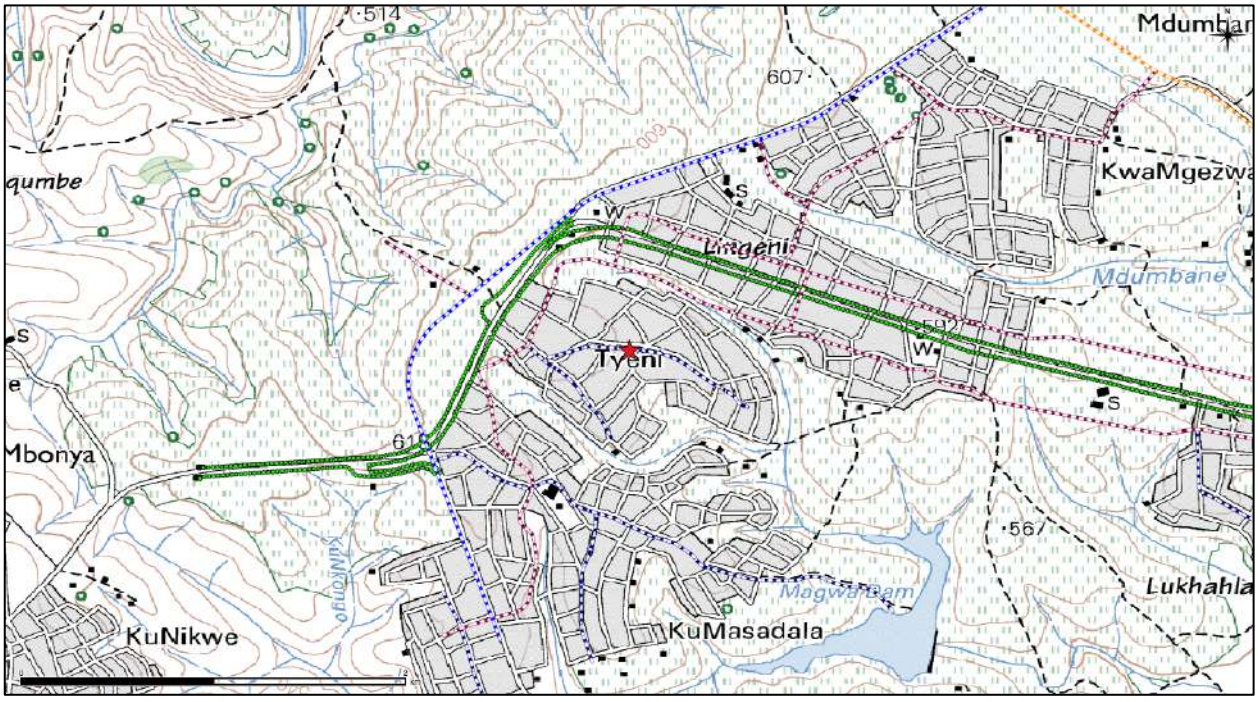


Figure 71. Location Map: N2-G003 (Red Star)

4.3.4 N2-G004

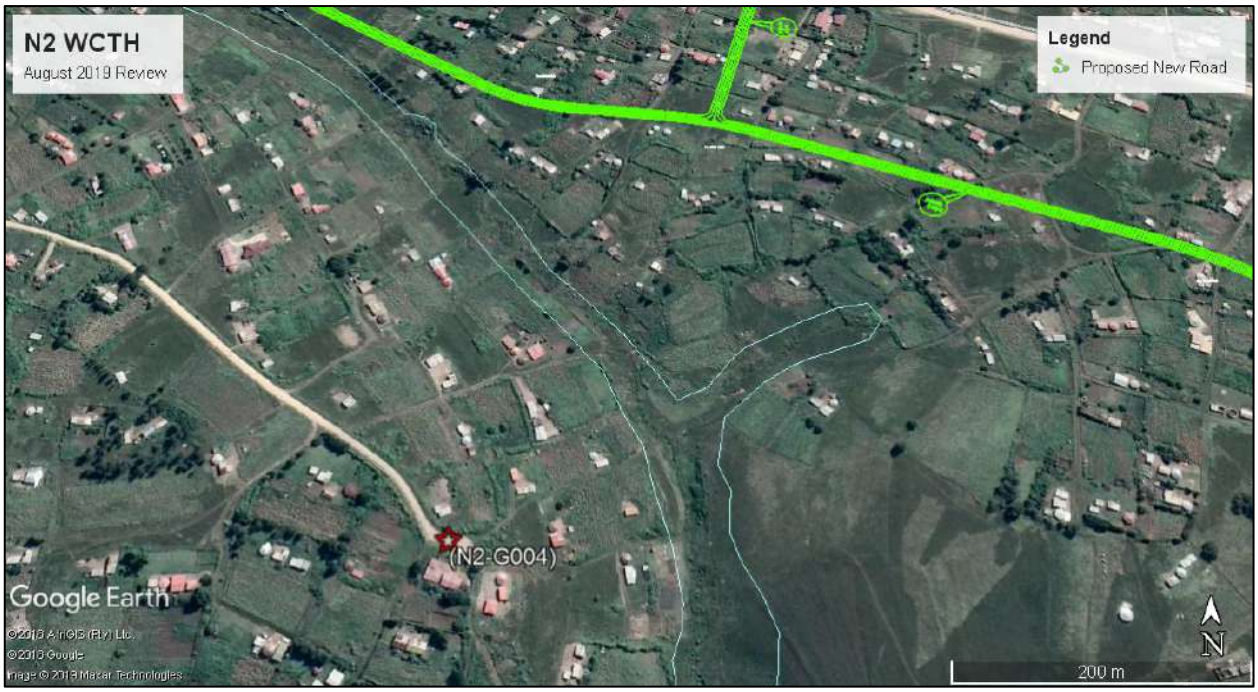


Figure 72. N2-G004

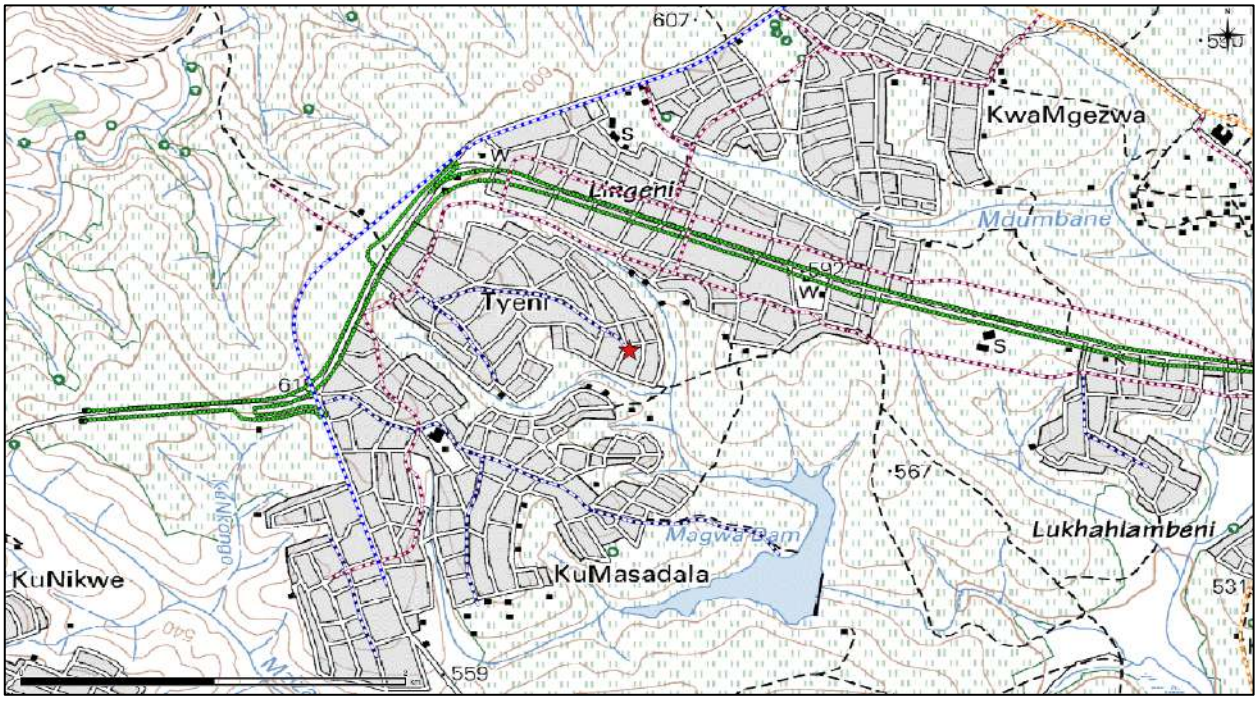


Figure 73. Location Map: N2-G004 (Red Star)

4.3.5 N2-G005

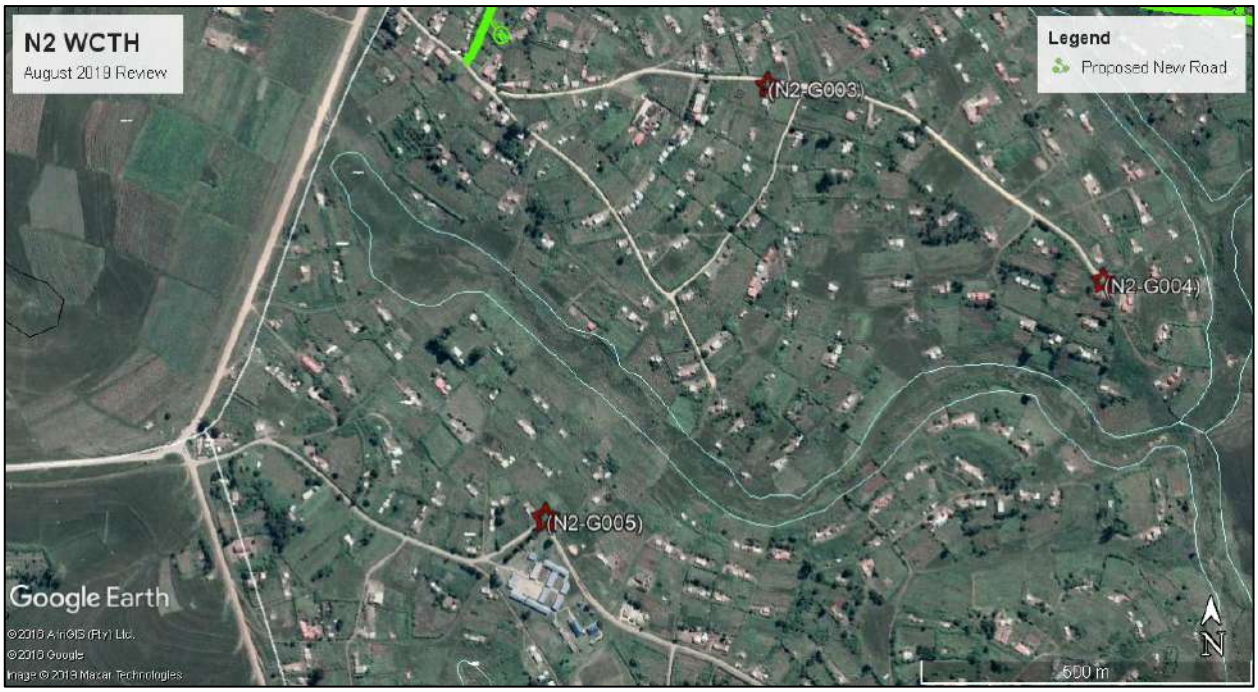


Figure 74. N2-G005

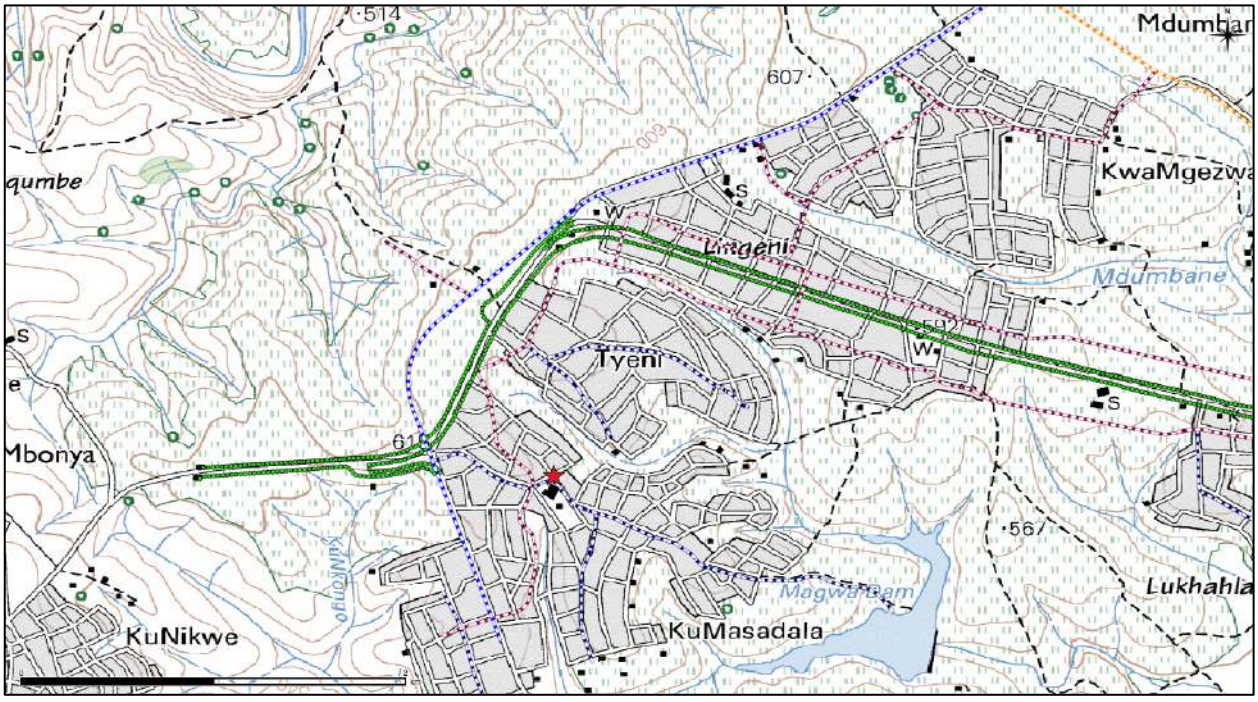


Figure 75. Location Map: N2-G005 (Red Star)

4.3.6 N2-G006

Figure 76. N2-G006

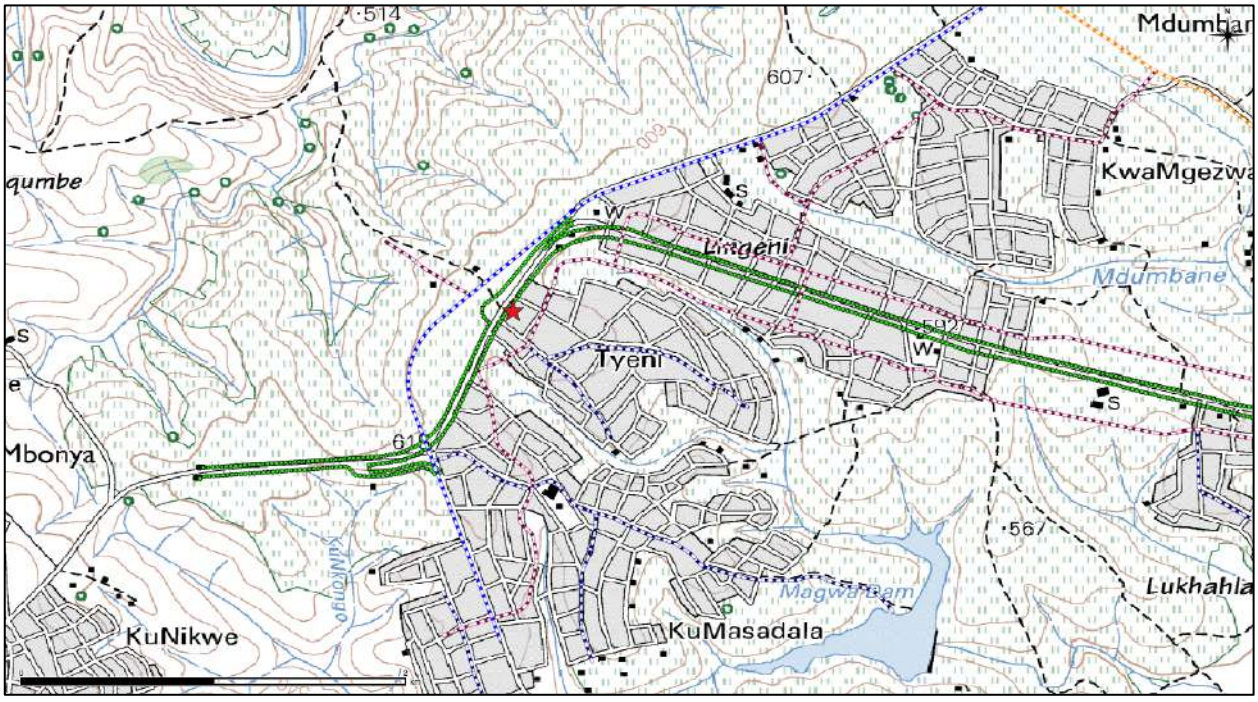


Figure 77. Location Map: N2-G006 (Red Star)

4.3.7 N2-G007

Figure 78. N2-G007

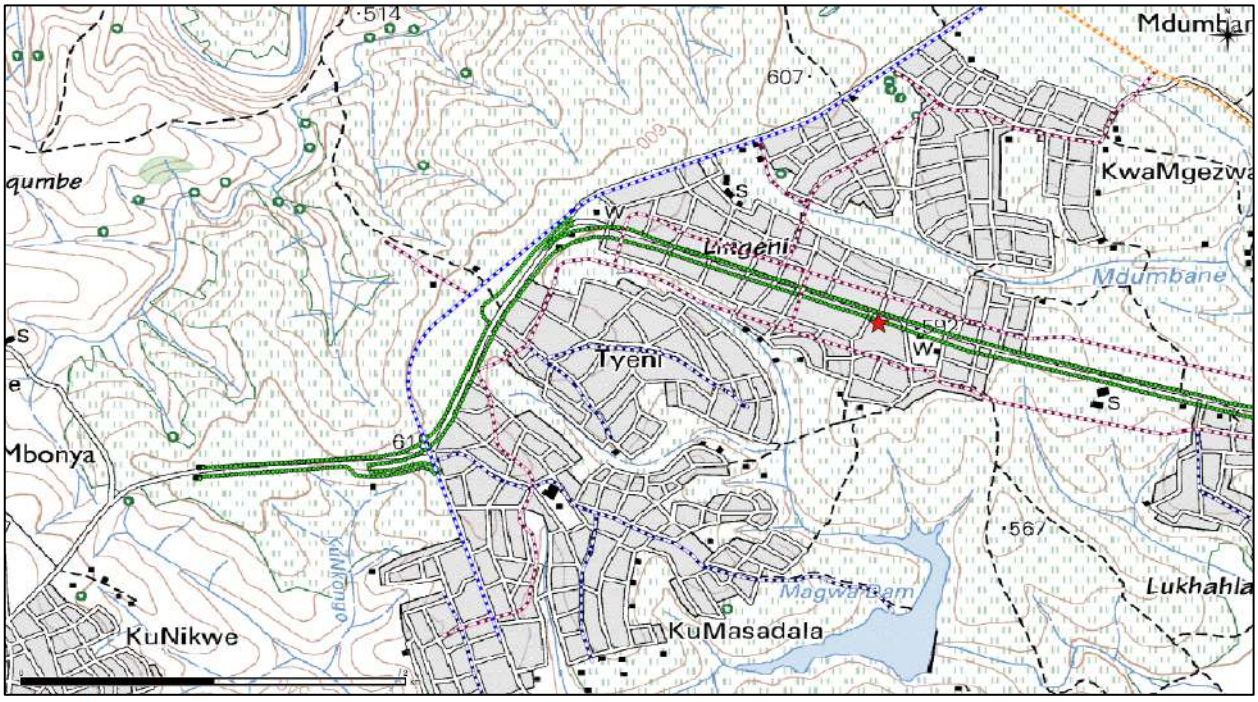


Figure 79. Location Map: N2-G007 (Red Star)

4.3.8 N2-G008

Figure 80. N2-G008

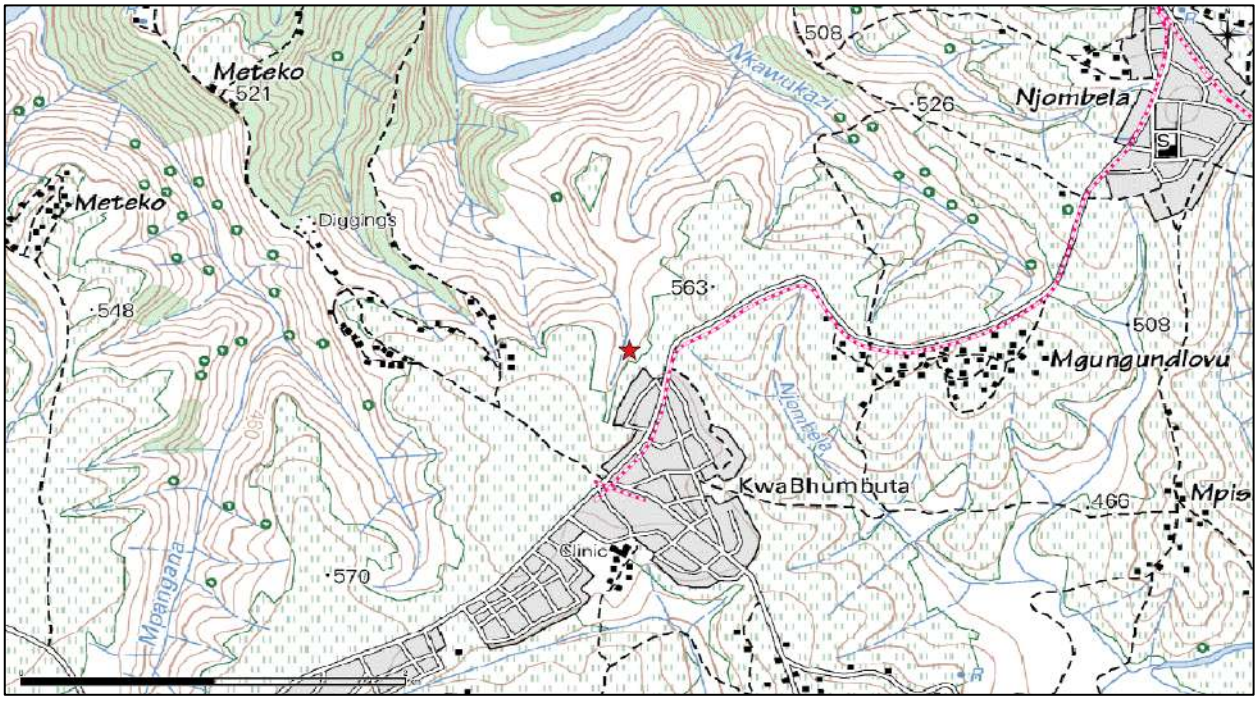


Figure 81. Location Map: N2-G008 (Red Star)

4.3.9 N2-G009

Figure 82. N2-G009

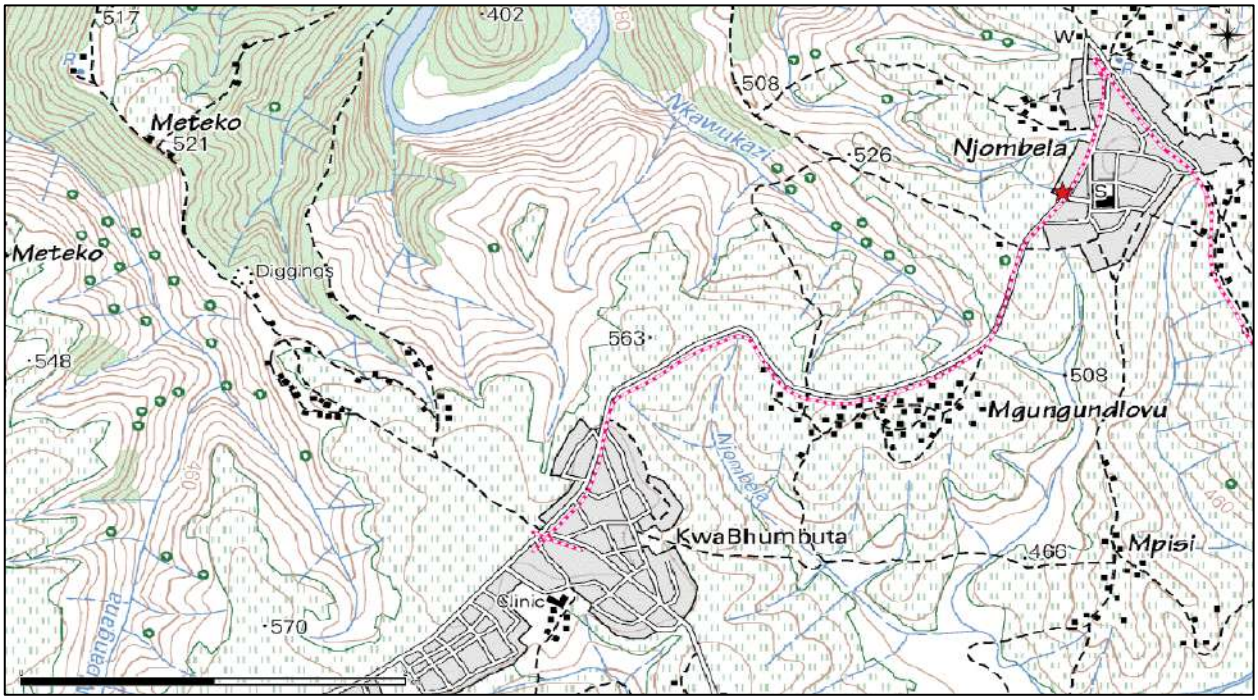


Figure 83. Location Map: N2-G009 (Red Star)

4.3.10 N2-G010

Figure 84. N2-G010

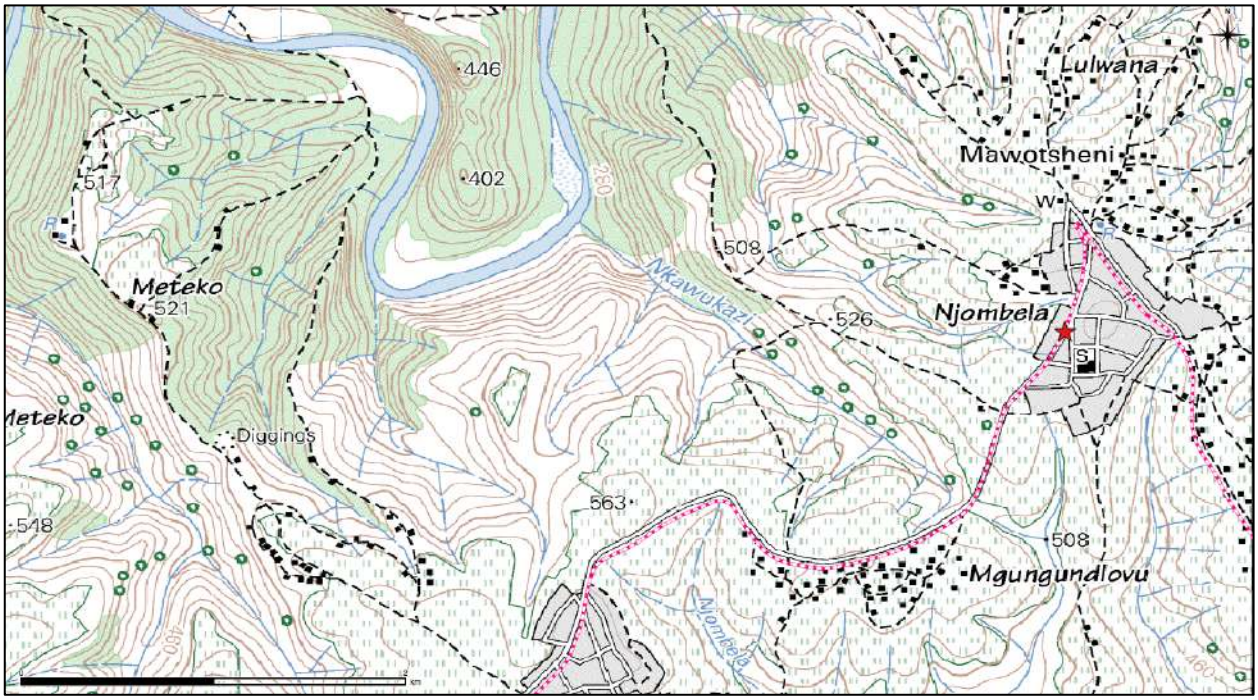


Figure 85. Location Map: N2-G010 (Red Star)

4.3.11 N2-G011

Figure 86. N2-G011

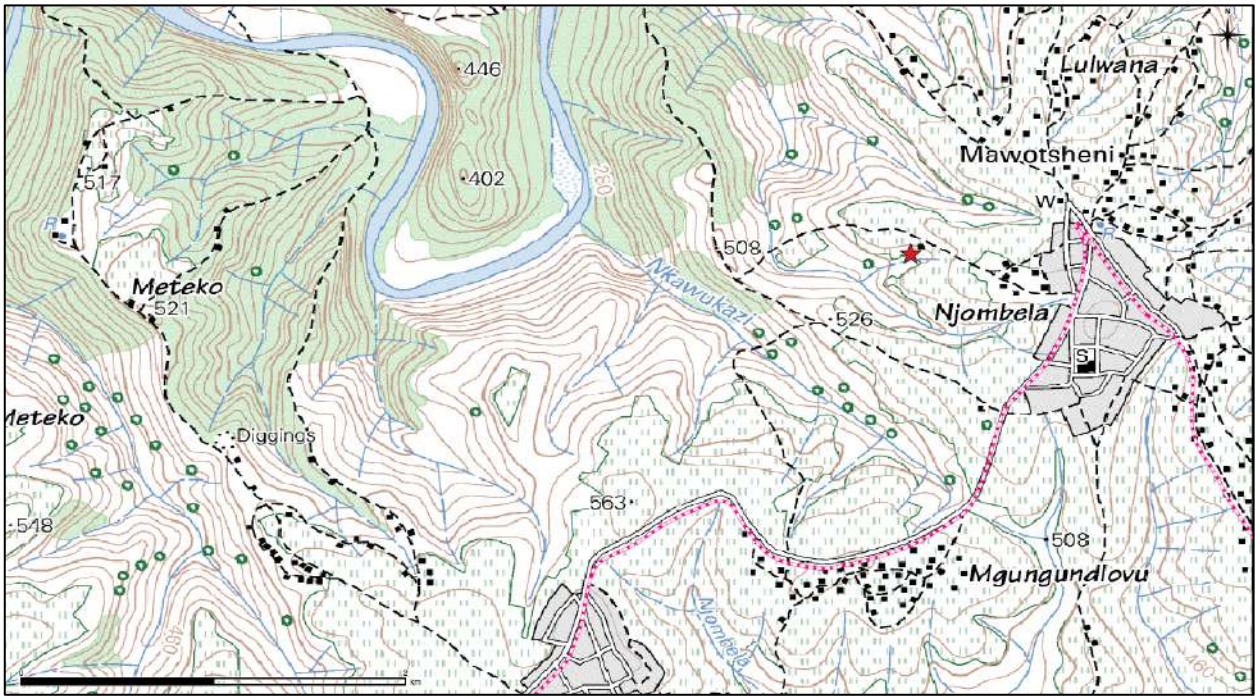


Figure 87. Location Map: N2-G011 (Red Star)

4.3.12 N2-G012

Figure 88. N2-G012

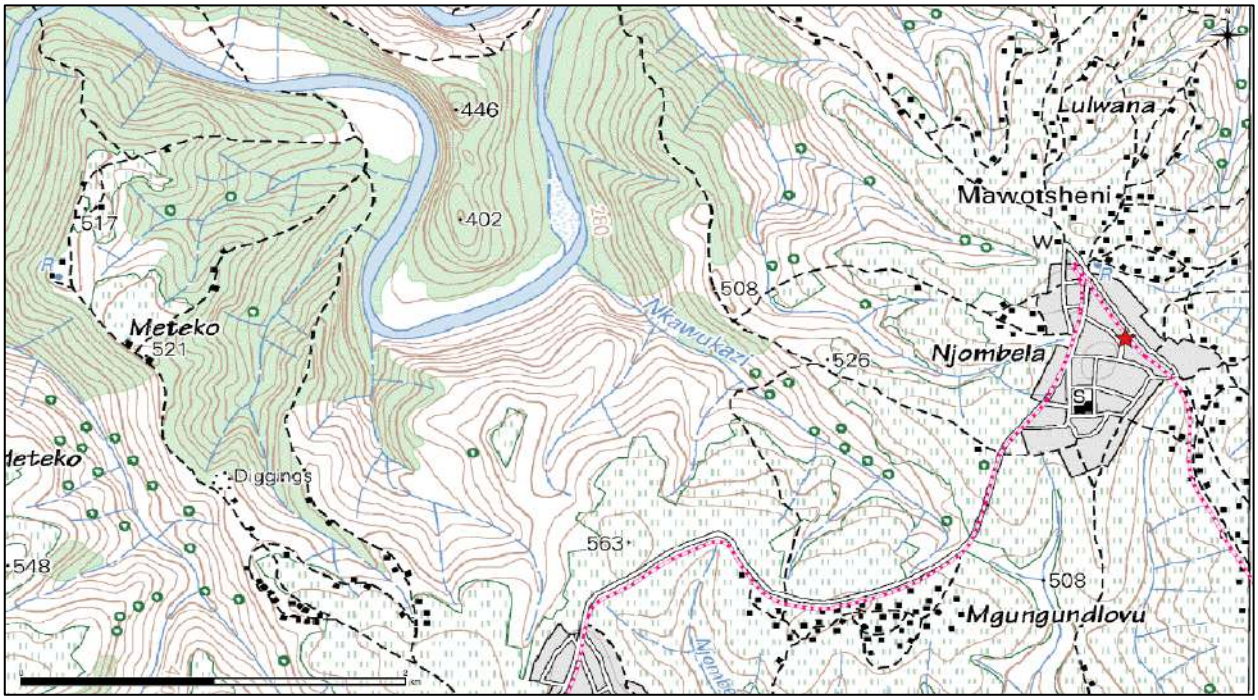


Figure 89. Location Map of N2-G012 (Red Star)

4.3.13 N2-G013

Figure 90. N2-G013

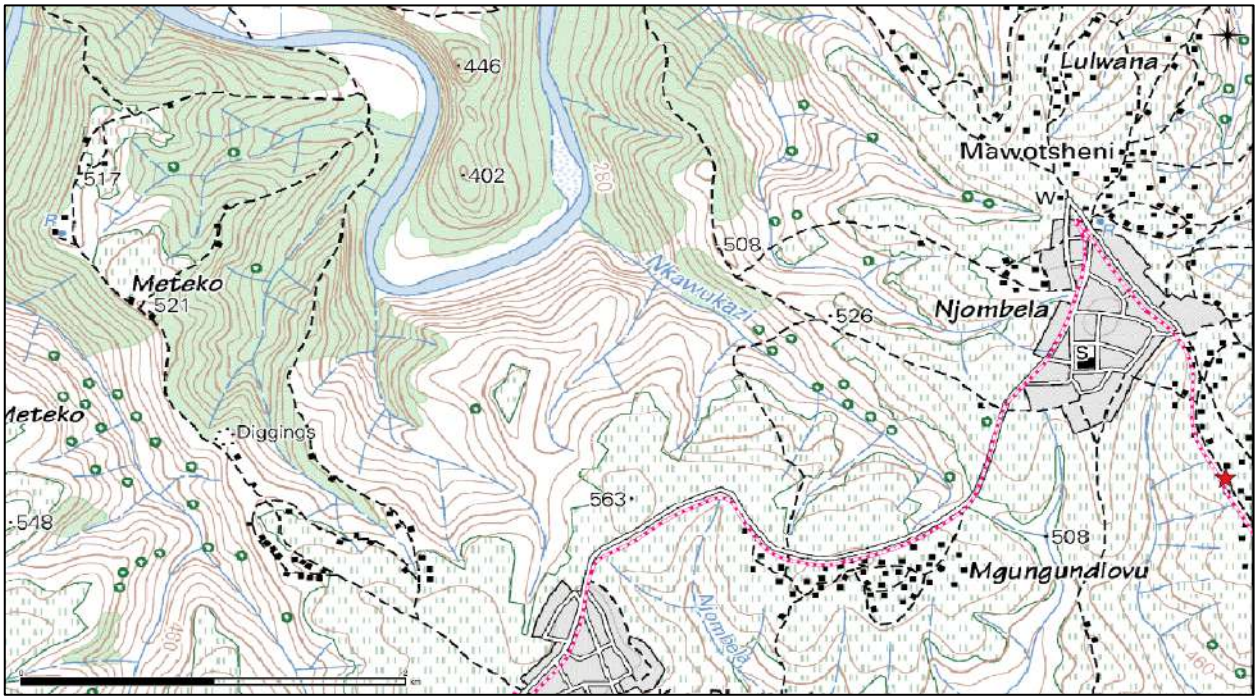


Figure 91. Location Map: N2-G013 (Red Star)

4.3.14 N2-G014

Figure 92. N2-G014

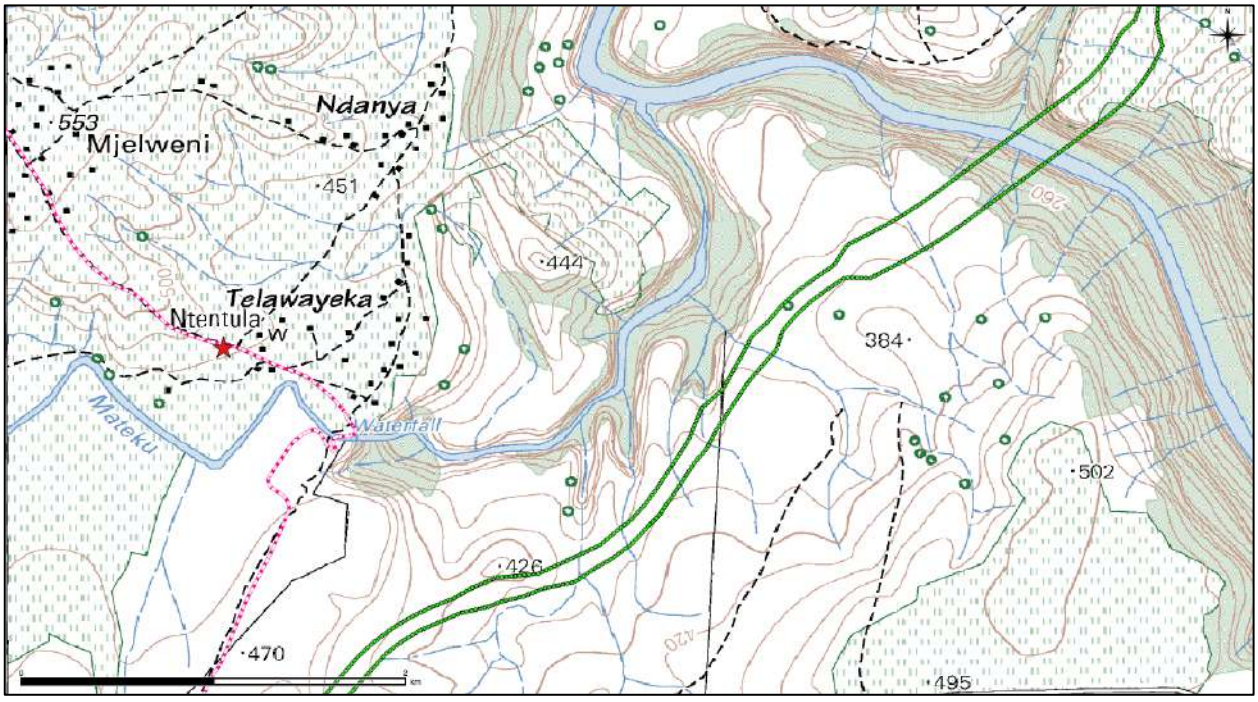


Figure 93. Location Map: N2-G014 (Red Star)

4.4.1 Class 4 new corridor

Figure 94. Class 4 New Corridor Graves

Figure 95. Class 4 New Corridor Graves

Figure 96. Class 4 New Corridor Graves

Figure 97. Class 4 New Corridor Graves

Figure 98. Class 4 New Corridor Graves

Figure 99. Class 4 New Corridor Graves

Figure 100. Class 4 New Corridor Graves

Figure 101. Class 4 New Corridor Graves

4.4.2 Class 2 New Corridor Graves

Figure 102. Class 2 New Corridor Graves

Figure 103. Class 2 New Corridor Graves

Figure 104. Class 2 New Corridor Graves

Figure 105. Class 2 New Corridor Graves

Figure 106. Class 2 New Corridor Graves

Figure 107. Class 2 New Corridor Graves

Figure 108. Class 2 New Corridor Graves

Figure 109. Class 2 New Corridor Graves

Figure 110. Class 2 New Corridor Graves

4.4.3 Class 3 New Corridor – Informal Grave Yard

Figure 111. Class 3 New Corridor Graves

Figure 112. Class 3 New Corridor Graves

Figure 113. Class 3 New Corridor Graves

4.4.4 Class 5 Upgrade Corridor

Figure 114. Class 5 Upgrade Corridor Graves

Figure 115. Class 5 Upgrade Corridor Graves

Figure 116. Class 5 Upgrade Corridor Graves

4.5 August 2019 Review Findings

4.5.1 N2-G015 (Aug. 2019 Review Burial 1)

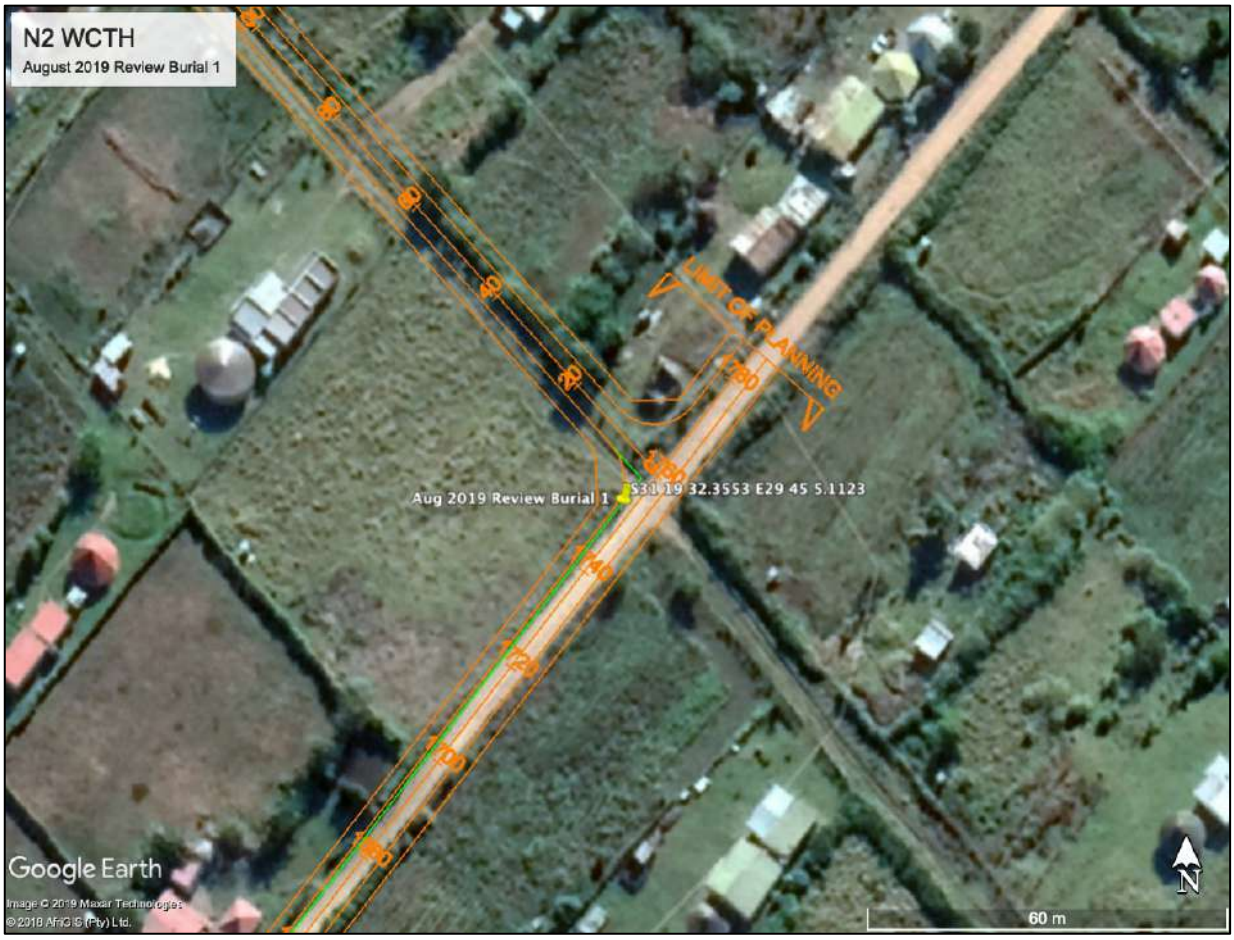


Figure 117. N2-G015 (Aug. 2019 Review Burial 1)

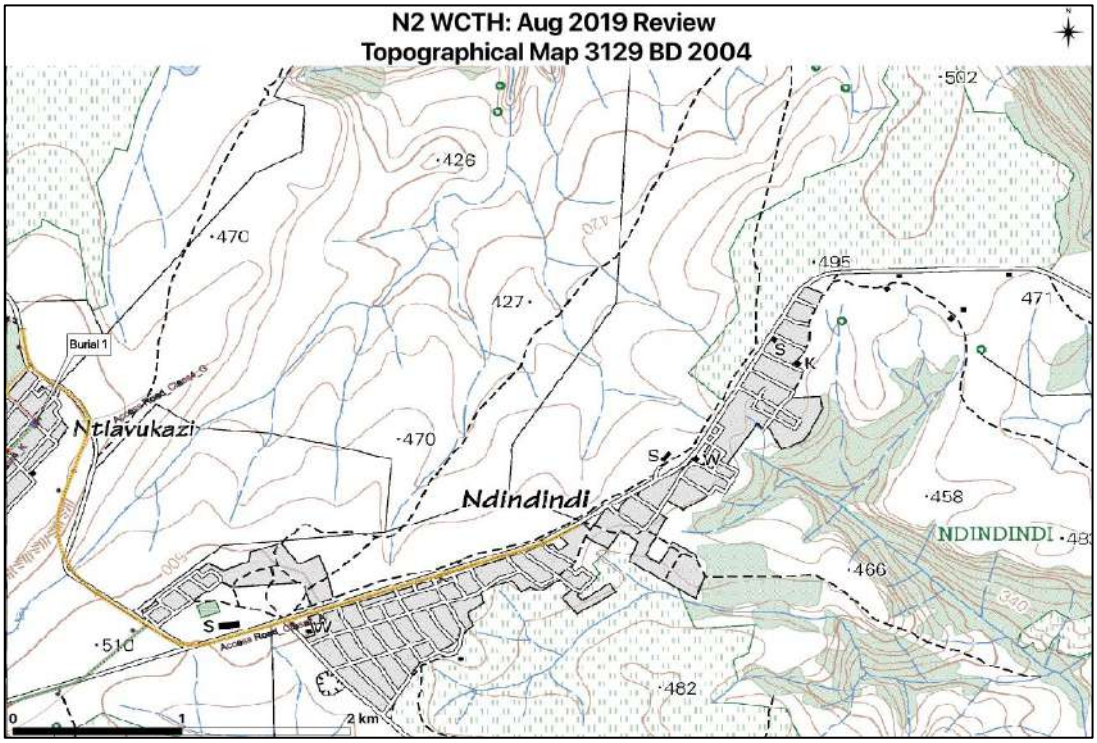


Figure 118. Location Map: N2-G015 (Aug. 2019 Review Burial 1)

Figure 119. N2-G015

4.5.2 N2-G016, N2-G017, N2-G018 & N2-G019 (Aug. 2019 Review Burial 2, 3, 4 & 5)

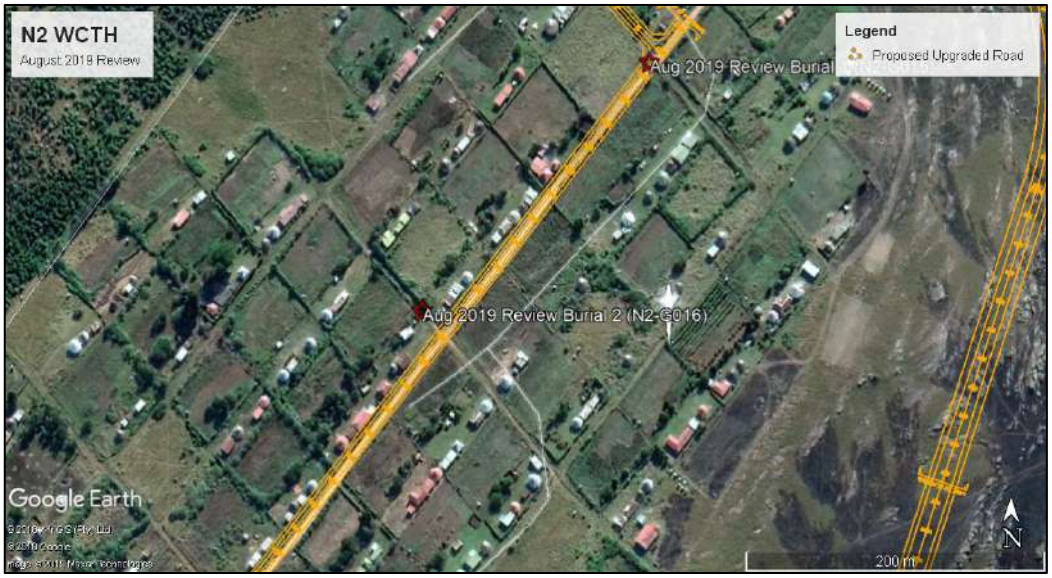


Figure 120. N2-G016 (Aug. 2019 Review Burial 2)

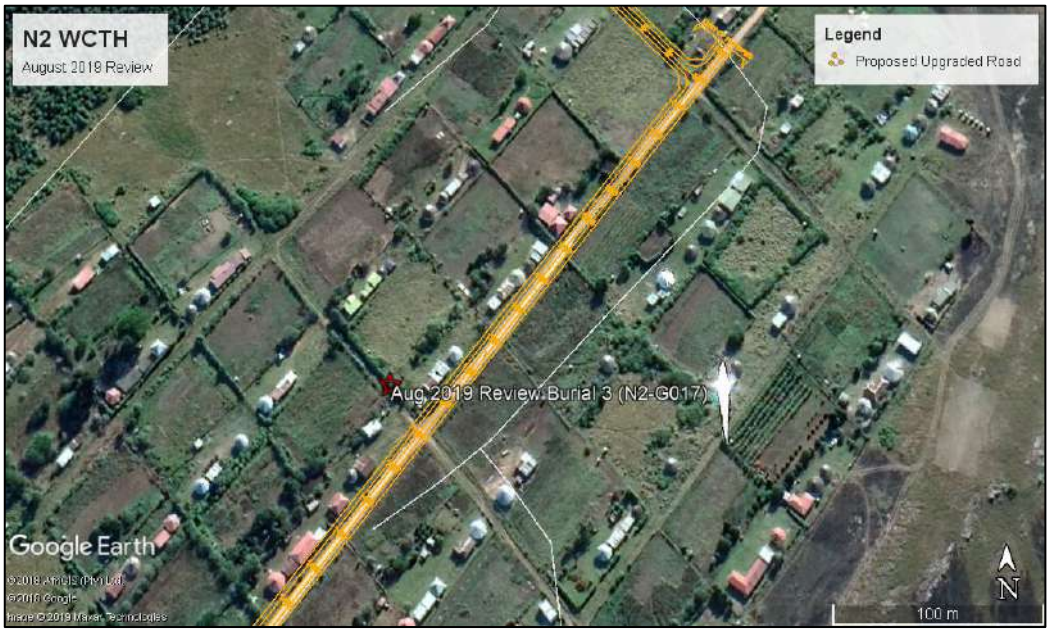


Figure 121. N2-G017 (Aug. 2019 Review Burial 3)

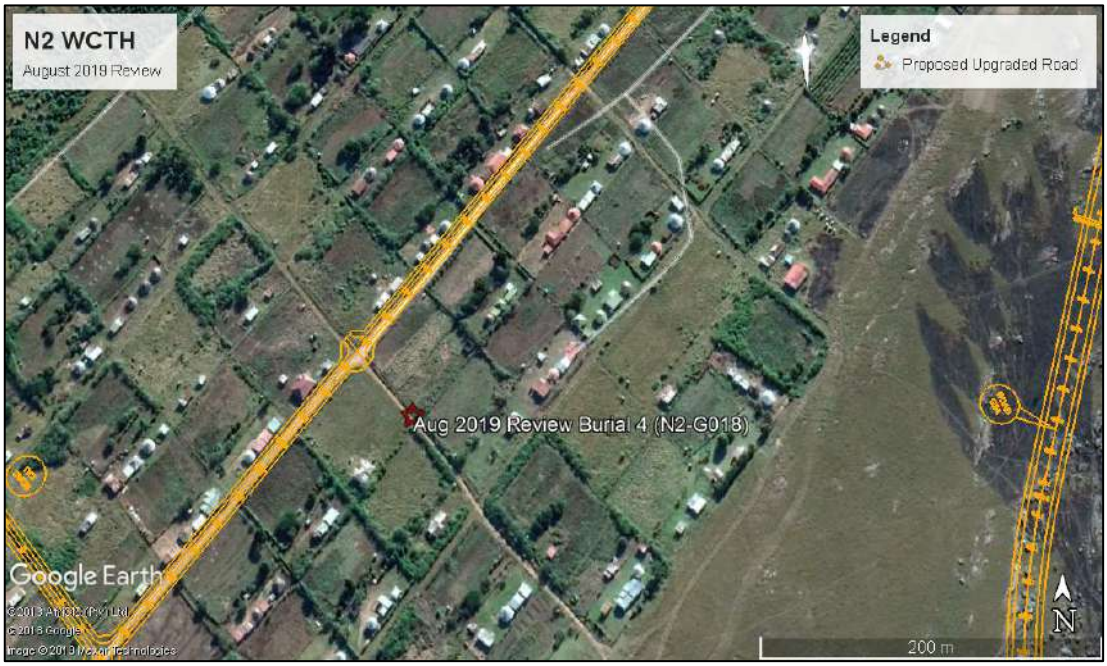


Figure 122. N2-G018 (Aug. 2019 Review Burial 4)

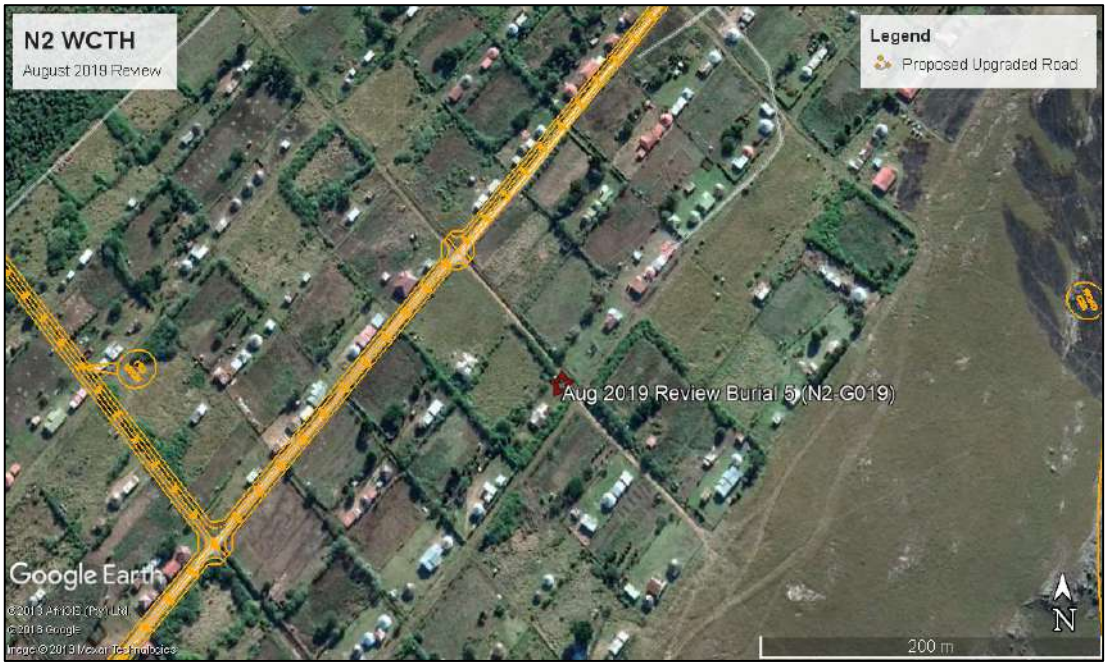


Figure 123. N2-G019 (Aug. 2019 Review Burial 5)

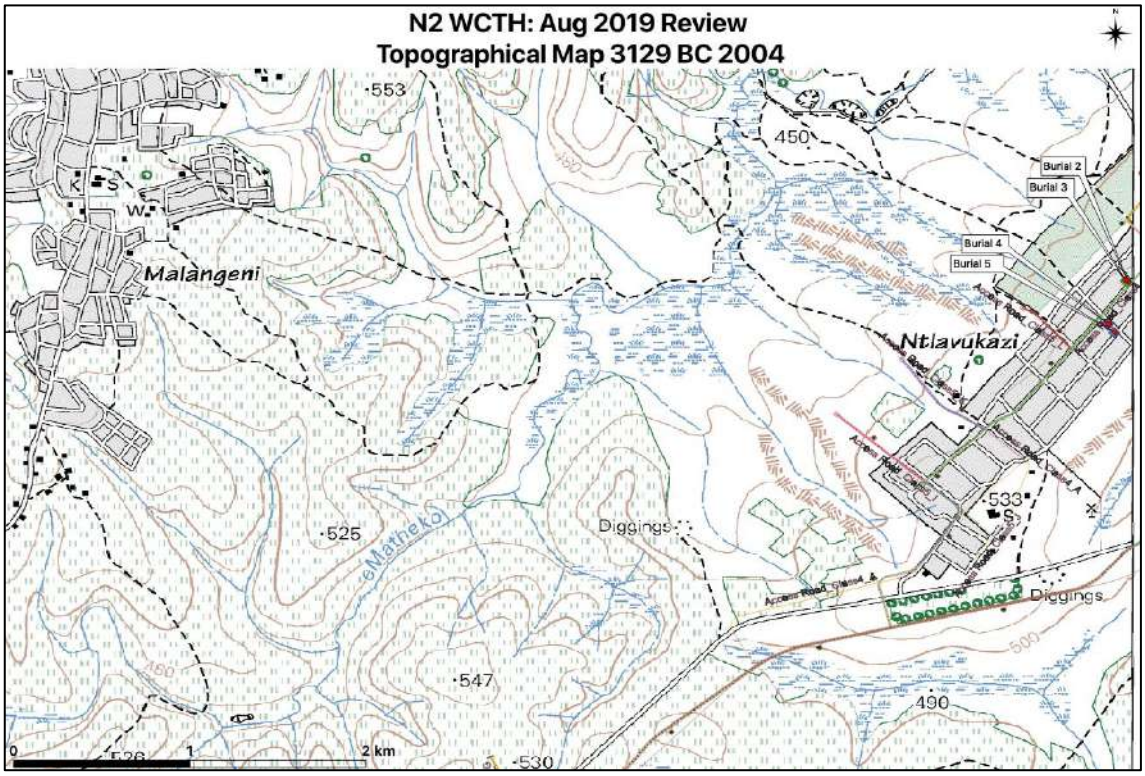


Figure 124. Location Map: N2-G016, N2-G017, N2-G018 & N2-G019 (Aug. 2019 Review Burial 2, 3, 4 & 5)

Figure 125. N2-G016 (Aug. 2019 Review Burial 2)

Figure 126. N2-G017 (Aug. 2019 Review Burial 3)

Figure 127. N2-G018 (Aug. 2019 Review Burial 4)

Figure 128. N2-G019 (Aug. 2019 Review Burial 5)

4.5.3 N2-G020 (Aug. 2019 Review Burial 6)

Figure 129. N2-G020 (Aug. 2019 Review Burial 6)

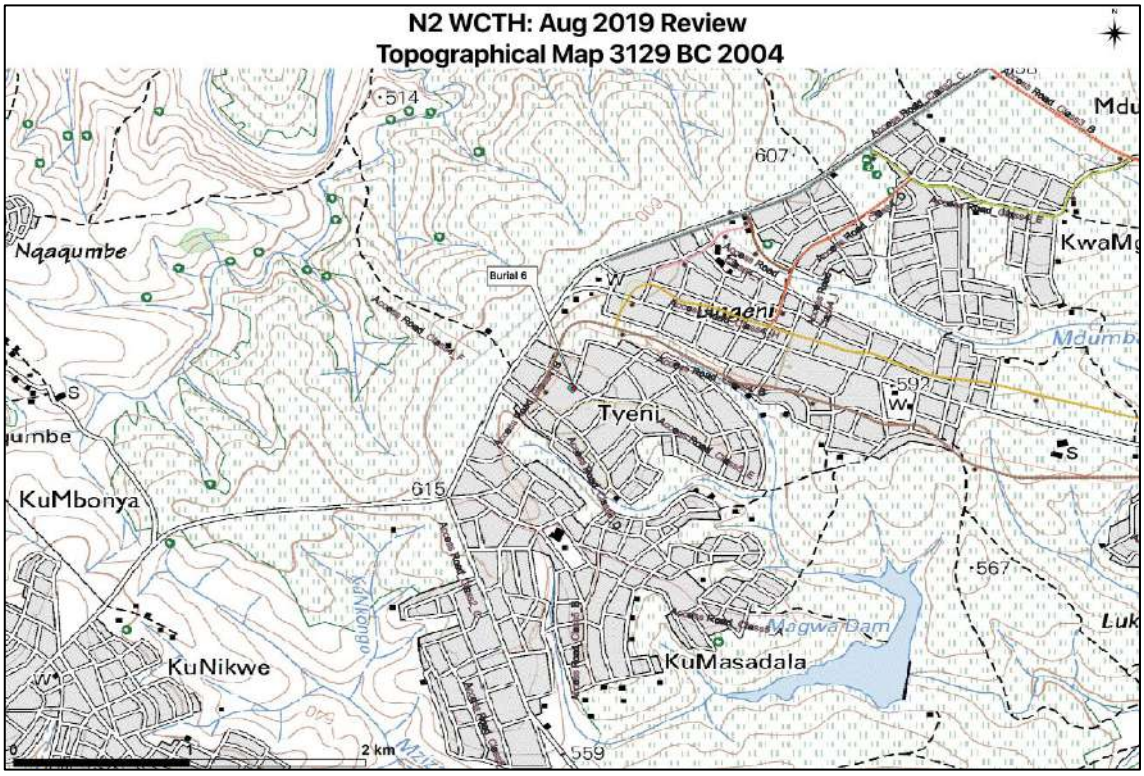


Figure 130. Location Map: N2-G020 (Aug. 2019 Review Burial 6)

Figure 131. N2-G020 (Aug. 2019 Review Burial 6)

Figure 132. N2-G020 (Aug. 2019 Review Burial 6)

4.6 January 2020 Review Findings

Only two homesteads will be affected by the construction of the proposed Pondo-land Access Road. The houses do not however carry any cultural significance or have any graves, however, the fence boundaries of the two homesteads will be affected by the proposed road alignment.

There is a single marked grave that exists about 200ms away from the road (see site N2-G021).
A Shembe church also exists about 500ms away from the proposed road.

No archaeological or cultural heritage objects were identified on the proposed extension area of the Potential BP1, BP2, BP1366 or BP3.

4.6.1 N2-G021 (Jan. 2020 Review Burial 1)

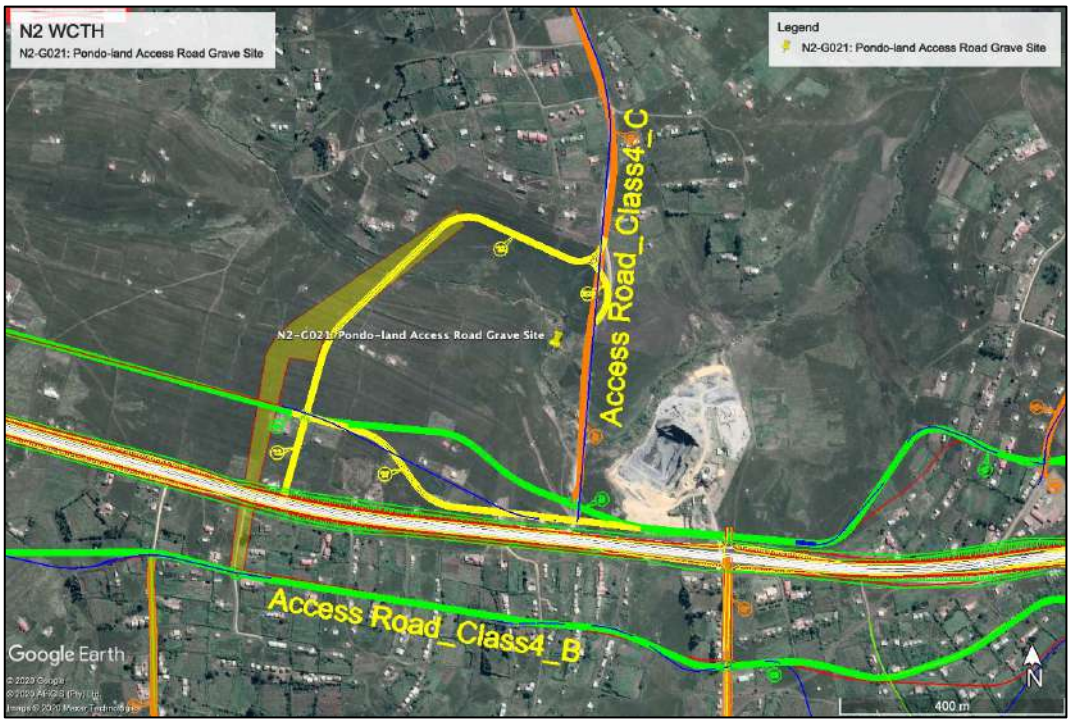


Figure 133. N2-G021 (Jan. 2020 Review Burial 1)

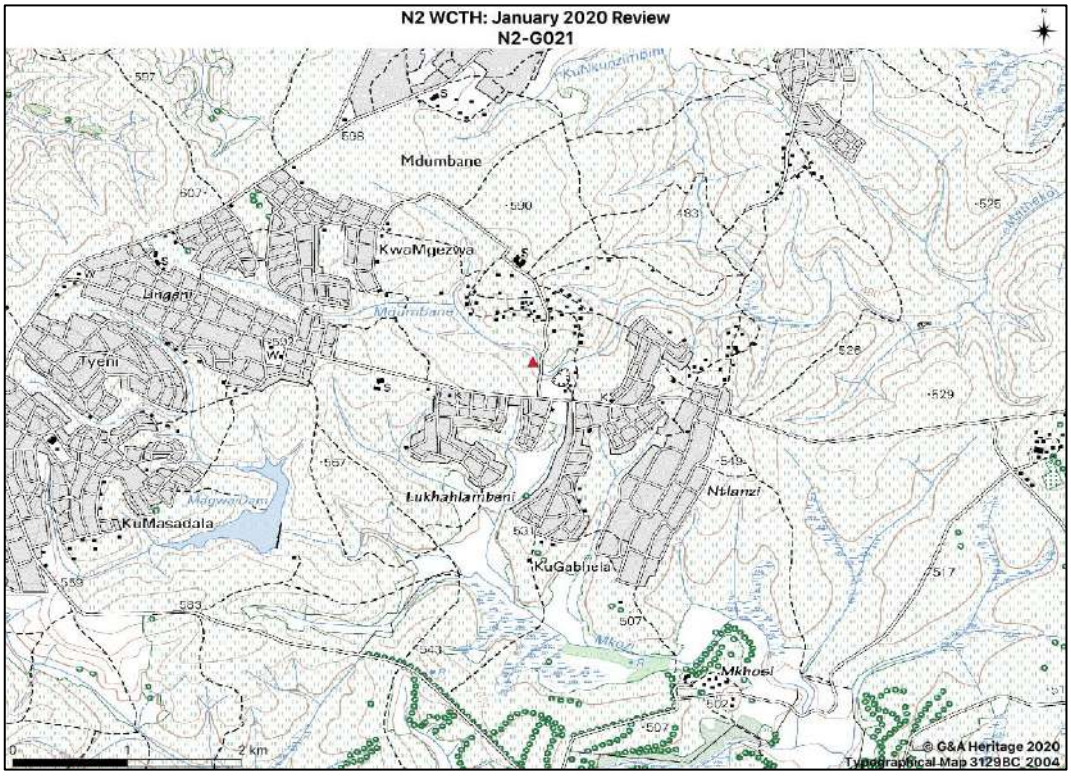


Figure 134. Location Map: N2-G021 (Jan. 2020 Review Burial 1)

Figure 135. N2-G021 (Jan. 2020 Review Burial 1)

4.7 Public Participation

As part of the heritage orientated public participation the following steps were taken to inform local residents of the planned development.

- Notices indicating the proposed development was placed on site (See Addendum 1)
- IAP's were invited to register with us to facilitate the dissemination of information and to enable them to log any queries or complains in regards the heritage of the are and how it will be affected by the proposed development.
- This HIA will be made available for public comment as part of the broader EIA report for this project.
- If a Record of Decisions (RoD) is issued for the project, IAP's will be informed of their right to log complaints within 14 days.
- Notice of Intent to Develop documents were circulated with local residents, informing them of the proposed development and its possible impact on heritage resources (See Addendum 1).
- As part of the wider EIA stakeholder engagement component, advertisements regarding the development was placed in local newspapers.

The main purpose of the stakeholder engagement process for the proposed project was to provide a platform and opportunity for stakeholders to raise issues of concern or comments, to express their views on the proposed project and assist in identifying burial grounds and other cultural resources in their area.

The local community are provided with an opportunity to raise issues of concern and assist the Heritage specialist in identifying areas and of cultural significance. Most of the homesteads that are likely to be affected by the project were visited and were allowed time to make comments. Many of them were in support of the project. The bulk of the homesteads that have family burials were also visited and the burials were recorded.

Public consultation is a legislative requirement for South Africa and the Heritage specialists were aware of the risk involved in undertaking this process. No public mobilisation against the project was noted as the process was conducted in a transparent stakeholder process.

The stakeholder engagement process conducted was achieved by encouraging active participation and engagement from IAP's in an open and transparent manner. Signage detailing the project map outline and description were placed on various areas of the project area. The local community was also encouraged to come forward and report any other graves that may not have been documented by the heritage team.

CHAPTER 3

IMPACT ASSESSMENT

5. METHODOLOGY

This study defines the heritage component of the EIA process being undertaken for the Proposed Upgrade and Construction of Road Construction Activities outside of the Proposed N2 WCTH Road Reserve, within the Ingquza Hill Local and O.R. Tambo District Municipality, Eastern Cape Province.

It is described as a first phase (HIA). This report attempts to evaluate both the accumulated heritage knowledge of the area as well as information derived from direct physical observations.

The archaeological field survey that was undertaken for this survey can be described as a non-intrusive archaeological survey. This was most appropriate as heritage resources were not disturbed. A Nikon camera was used to record the Heritage resources and sections of the site. A Garmin handheld GPS with GPS logger 2018 software was also used for GPS racks and points.

5.1 INVENTORY

Inventory studies involve the in-field survey and recording of archaeological resources within a proposed development and buffer area. The nature and scope of this type of study is defined primarily by the results of the overview study. In the case of site-specific developments, direct implementation of an inventory study may preclude the need for an overview.

There are a number of different methodological approaches to conducting inventory studies. Therefore, the proponent, in collaboration with the archaeological consultant, must develop an inventory plan for review and approval by the SAHRA prior to implementation (*Dincause, Dena F., H. Martin Wobst, Robert J. Hasenstab and David M. Lacy 1984)*.

5.2 EVALUATING HERITAGE IMPACTS

A combination of document research as well as the determination of the geographic suitability of areas and the evaluation of aerial photographs determined which areas could and should be accessed.

After plotting of the site on a GPS the areas were accessed using suitable combinations of vehicle access and access by foot.

Sites were documented by digital photography and geo-located with GPS readings using the WGS 84 datum.

Further techniques (where possible) included interviews with local inhabitants, visiting local museums and information centers and discussions with local experts. All this information was combined with information from an extensive literature study as well as the result of archival studies based on the SAHRA provincial databases.

This Heritage Impact Assessment relies on the analysis of written documents, maps, aerial photographs and other archival sources combined with the results of site investigations and interviews with effected people. Site investigations are not exhaustive and often focus on areas such as river confluence areas, elevated sites or occupational ruins.

The following documents were consulted in this study;

- South African National Archive Documents
- SAHRIS (South African Heritage Resources Information System) Database of Heritage Studies
- Internet Search
- Historic Maps
- 3129 BC 1954, 1982, & 2004, 3129 BD 1982 & 2004 Surveyor General Topographic Map series
- 1952 1:10 000 aerial photo survey

- Google Earth 2018 imagery
- Published articles and books
- JSTOR Article Archive

5.3 Fieldwork

Fieldwork for this study was performed from the 11th to the 17th of August 2018. Most of the areas were found to be accessible by vehicle. Areas of possible significance were investigated on foot. The survey was tracked using GPS and a track file in GPX format is available on request.

Where sites were identified it was documented photographically and plotted using GPS with the WGS 84 datum point as reference. GPX files are available on request from G&A Heritage.

Table 8. GPS Tracking

GPS tracking co-ordinates for the area covered	
Latitude	Longitude
S 31º 21' 53.53''	E 29º 38' 01.23''
S 31º 21' 33.06''	E 29º 37' 54.92''
S 31º 21' 25.18''	E 29º 37' 42.56''
S 31º 21' 24.17''	E 29º 37' 51.31''
S 31º 21' 02.71''	E 29º 38' 02.08''
S 31º 21' 07.23''	E 29º 38' 08.51''
S 31º 21' 17.14''	E 29º 38' 18.08''
S 31º 21' 07.35''	E 29º 38' 29.84''
S 31º 21' 32.35''	E 29º 38' 15.22''
S 31º 20' 47.50''	E 29º 38' 12.69''
S 31º 21' 05.46''	E 29º 39' 17.29''
S 31º 21' 19.46''	E 29º 40' 33.21''
S 31º 21' 57.03''	E 29º 40' 26.78''
S 31º 21' 51.69''	E 29º 41' 04.24''
S 31º 21' 23.36''	E 29º 42' 57.04''
S 31º 22' 38.56''	E 29º 43' 11.75''
S 31º 20' 18.37''	E 29º 44' 28.36''
S 31º 20' 10.53''	E 29º 45' 20.47''
S 31º 19' 41.35''	E 29º 47' 07.61''
S 31º 17' 44.42''	E 29º 47' 39.31''
S 31º 18' 34.80''	E 29º 40' 05.02''
S 31º 18' 01.55''	E 29º 54' 57.62''
S 31º 17' 09.96''	E 29º 44' 29.31''
S 31º 17' 48.38''	E 29º 45' 10.53''
S 31º 19' 23.40''	E 29º 34' 37.92''
S 31º 20' 17.87''	E 29º 39' 50.86''
S 31º 21' 17.47''	E 29º 40' 28.31''
S 31º 18' 01.12''	E 29º 40' 08.22''
S 31º 17' 38.30''	E 29º 41' 29.45''
S 31º 19' 48.07''	E 29º 38' 31.25''
S 31º 19' 55.85''	E 29º 46' 19.18''
S 31º 20' 17.47''	E 29º 39' 33.32''

The study area was surveyed using standard archaeological surveying methods. The area was surveyed using directional parameters supplied by the GPS and surveyed by foot. This technique has proven to result in the maximum coverage of an area. This action is defined as;

'an archaeologist being present in the course of the carrying-out of the development works (which may include conservation works), so as to identify and protect archaeological deposits, features or objects which may be uncovered or otherwise affected by the works' (DAHGI 1999a, 28).

Standard archaeological documentation formats were employed in the description of sites. Using standard site documentation forms as comparable medium, it enabled the surveyors to evaluate the relative importance of sites found. Furthermore, GPS (Global Positioning System) readings of all finds and sites were taken. This information was then plotted using a ***Garmin Colorado*** GPS (WGS 84- datum).

Indicators such as surface finds, plant growth anomalies, local information and topography were used in identifying sites of possible archaeological importance. Test probes were done at intervals to determine sub-surface occurrence of archaeological material. The importance of sites was assessed by comparisons with published information as well as comparative collections.

6. Measuring Impacts

In 2003 the SAHRA compiled the following guidelines to evaluate the cultural significance of individual heritage resources:

6.1 Type of Resource

- Place
- Archaeological Site
- Structure
- Grave
- Paleontological Feature
- Geological Feature

6.2 Type of Significance

6.2.1 Historic Value

It is important in the community, or pattern of history

- Important in the evolution of cultural landscapes and settlement patterns
- Important in exhibiting density, richness or diversity of cultural features illustrating the human occupation and evolution of the nation, province, region or locality.
- Important for association with events, developments or cultural phases that have had a significant role in the human occupation and evolution of the nation, province, region or community.
- Important as an example for technical, creative, design or artistic excellence, innovation or achievement in a particular period.

It has strong or special association with the life or work of a person, group or organisation of importance in history

- Importance for close associations with individuals, groups or organisations whose life, works or activities have been significant within the history of the nation, province, region or community.

It has significance relating to the history of slavery

- Importance for a direct link to the history of slavery in South Africa.

6.2.2 Aesthetic Value

It is important in exhibiting particular aesthetic characteristics valued by a community or cultural group.

- Important to a community for aesthetic characteristics held in high esteem or otherwise valued by the community.
- Importance for its creative, design or artistic excellence, innovation or achievement.
- Importance for its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having impact on important vistas or otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located.

- In the case of an historic precinct, importance for the aesthetic character created by the individual components which collectively form a significant streetscape, townscape or cultural environment.

6.2.3 Scientific Value

It has potential to yield information that will contribute to an understanding of natural or cultural heritage

- Importance for information contributing to a wider understanding of natural or cultural history by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.
- Importance for information contributing to a wider understanding of the origin of the universe or of the development of the earth.
- Importance for information contributing to a wider understanding of the origin of life; the development of plant or animal species, or the biological or cultural development of hominid or human species.
- Importance for its potential to yield information contributing to a wider understanding of the history of human occupation of the nation, Province, region or locality.
- It is important in demonstrating a high degree of creative or technical achievement at a particular period
- Importance for its technical innovation or achievement.

(a) Does the site contain evidence, which may substantively enhance understanding of culture history, culture process, and other aspects of local and regional prehistory?

- internal stratification and depth
- chronologically sensitive cultural items
- materials for absolute dating
- association with ancient landforms
- quantity and variety of tool type
- distinct intra-site activity areas
- tool types indicative of specific socio-economic or religious activity
- cultural features such as burials, dwellings, hearths, etc.
- diagnostic faunal and floral remains
- exotic cultural items and materials
- uniqueness or representativeness of the site
- integrity of the site

(b) Does the site contain evidence which may be used for experimentation aimed at improving archaeological methods and techniques?

- monitoring impacts from artificial or natural agents
- site preservation or conservation experiments
- data recovery experiments
- sampling experiments
- intra-site spatial analysis

(c) Does the site contain evidence which can make important contributions to paleoenvironmental studies?

- topographical, geomorphological context

- depositional character
- diagnostic faunal, floral data

(d) Does the site contain evidence which can contribute to other scientific disciplines such as hydrology, geomorphology, pedology, meteorology, zoology, botany, forensic medicine, and environmental hazards research, or to industry including forestry and commercial fisheries?

6.2.4 Social Value / Public significance

- It has strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
- Importance as a place highly valued by a community or cultural group for reasons of social, cultural, religious, spiritual, symbolic, aesthetic or educational associations.
- Importance in contributing to a community's sense of place.

(a) Does the site have potential for public use in an interpretive, educational or recreational capacity?

- integrity of the site
- technical and economic feasibility of restoration and development for public use
- visibility of cultural features and their ability to be easily interpreted
- accessibility to the public
- opportunities for protection against vandalism
- representativeness and uniqueness of the site
- aesthetics of the local setting
- proximity to established recreation areas
- present and potential land use
- land ownership and administration
- legal and jurisdictional status
- local community attitude toward development

(b) Does the site receive visitation or use by tourists, local residents or school groups?

6.2.5 Ethnic Significance

(a) Does the site presently have traditional, social or religious importance to a particular group or community?

- ethnographic or ethno-historic reference
- documented local community recognition or, and concern for, the site

6.2.6 Economic Significance

(a) What value of user-benefits may be placed on the site?

- visitors' willingness-to-pay
- visitors' travel costs

6.2.7 Scientific Significance

(a) Does the site contain evidence, which may substantively enhance understanding of historic patterns of settlement and land use in a particular locality, regional or larger area?

(b) Does the site contain evidence, which can make important contributions to other scientific disciplines or industry?

6.2.8 Historic Significance

(a) Is the site associated with the early exploration, settlement, land use, or other aspect of southern Africa's cultural development?

(b) Is the site associated with the life or activities of a particular historic figure, group, organization, or institution that has made a significant contribution to, or impact on, the community, province or nation?

(c) Is the site associated with a particular historic event whether cultural, economic, military, religious, social or political that has made a significant contribution to, or impact on, the community, province or nation?

(d) Is the site associated with a traditional recurring event in the history of the community, province, or nation, such as an annual celebration?

6.2.9 Public Significance

(a) Does the site have potential for public use in an interpretive, educational or recreational capacity?

- visibility and accessibility to the public
- ability of the site to be easily interpreted
- opportunities for protection against vandalism
- economic and engineering feasibility of reconstruction, restoration and maintenance
- representativeness and uniqueness of the site
- proximity to established recreation areas
- compatibility with surrounding zoning regulations or land use
- land ownership and administration
- local community attitude toward site preservation, development or destruction
- present use of site

(b) Does the site receive visitation or use by tourists, local residents or school groups?

6.2.10 Other

(a) Is the site a commonly acknowledged landmark?

(b) Does, or could, the site contribute to a sense of continuity or identity either alone or in conjunction with similar sites in the vicinity?

(c) Is the site a good typical example of an early structure or device commonly used for a specific purpose throughout an area or period of time?

(d) Is the site representative of a particular architectural style or pattern?

6.3 Degrees of Significance

6.3.1 Significance Criteria

There are several kinds of significance, including scientific, public, ethnic, historic and economic, that need to be considered when evaluating heritage resources. For any site, explicit criteria are used to measure

these values. These checklists are not intended to be exhaustive or inflexible. Innovative approaches to site evaluation which emphasize quantitative analysis and objectivity are encouraged. The process used to derive a measure of relative site significance must be rigorously documented, particularly the system for ranking or weighting various evaluated criteria.

Site integrity, or the degree to which a heritage site has been impaired or disturbed as a result of past land alteration, is an important consideration in evaluating site significance. In this regard, it is important to recognize that although an archaeological site has been disturbed, it may still contain important scientific information.

Heritage resources may be of scientific value in two respects. The potential to yield information, which, if properly recovered, will enhance understanding of Southern African human history, is one appropriate measure of scientific significance. In this respect, archaeological sites should be evaluated in terms of their potential to resolve current archaeological research problems. Scientific significance also refers to the potential for relevant contributions to other academic disciplines or to industry.

Public significance refers to the potential a site has for enhancing the public's understanding and appreciation of the past. The interpretive, educational and recreational potential of a site are valid indications of public value. Public significance criteria such as ease of access, land ownership, or scenic setting are often external to the site itself. The relevance of heritage resource data to private industry may also be interpreted as a particular kind of public significance.

Ethnic significance applies to heritage sites which have value to an ethnically distinct community or group of people. Determining the ethnic significance of an archaeological site may require consultation with persons having special knowledge of a particular site. It is essential that ethnic significance be assessed by someone properly trained in obtaining and evaluating such data.

Historic archaeological sites may relate to individuals or events that made an important, lasting contribution to the development of a particular locality or the province. Historically important sites also reflect or commemorate the historic socioeconomic character of an area. Sites having high historical value will also usually have high public value.

The economic or monetary value of a heritage site, where calculable, is also an important indication of significance. In some cases, it may be possible to project monetary benefits derived from the public's use of a heritage site as an educational or recreational facility. This may be accomplished by employing established economic evaluation methods; most of which have been developed for valuating outdoor recreation. The objective is to determine the willingness of users, including local residents and tourists, to pay for the experiences or services the site provides even though no payment is presently being made. Calculation of user benefits will normally require some study of the visitor population *(Smith, L.D. 1977)*.

6.3.2 Rarity

It possesses uncommon, rare or endangered aspects of natural or cultural heritage.

- Importance for rare, endangered or uncommon structures, landscapes or phenomena.

6.3.3 Representivity

- It is important in demonstrating the principal characteristics of a particular class of natural or cultural places or objects.
- Importance in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class.
- Importance in demonstrating the principal characteristics of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the nation, province, region or locality.

The table below illustrates how a site's heritage significance is determined

Table 9. Spheres of Significance

Spheres of Significance	High	Medium	Low
International			
National			
Provincial			
Regional			
Local			
Specific Community			

7. Assessment of Heritage Potential

7.1 Assessment Matrix

7.1.1 Determining the Archaeological Significance

In addition to guidelines provided by the National Heritage Resources Act (Act No. 25 of 1999), a set of criteria based on Deacon (J) and Whitelaw (1997) for assessing archaeological significance has been developed for Eastern Cape settings (Morris 2007a). These criteria include estimation of landform potential (in terms of its capacity to contain archaeological traces) and assessing the value to any archaeological traces (in terms of their attributes or their capacity to be construed as evidence, given that evidence is not given but constructed by the investigator).

Estimating site potential

The table below is a classification of landforms and visible archaeological traces used for estimating the potential of archaeological sites (after J. Deacon and, National Monuments Council). Type 3 sites tend to be those with higher archaeological potential, but there are notable exceptions to this rule, for example the renowned rock engravings site Driekopseiland near Kimberley which is on landform L1 Type 1 – normally a setting of lowest expected potential. It should also be noted that, generally, the older a site the poorer the preservation, so that sometimes any trace, even of only Type 1 quality, could be of exceptional significance. In light of this, estimation of potential will always be a matter for archaeological observation and interpretation.

Table 10. Classification of landforms and visible archaeological traces for estimating the potential for archaeological sites (after J. Deaon, NMC as used in Morris)

Class	Landform	Type 1	Type 2	Type 3
L1	Rocky Surface	Bedrock exposed	Some soil patches	Sandy/grassy patches
L2	Ploughed land	Far from water	In floodplain	On old river terrace
L3	Sandy ground, inland	Far from water	In floodplain or near features such as hill/dune	On old river terrace
L4	Sandy ground, coastal	>1 km from sea	Inland of dune cordon	Near rocky shore
L5	Water-logged deposit	Heavily vegetated	Running water	Sedimentary basin
L6	Developed urban	Heavily built-up with no known record of early settlement	Known early settlement, but buildings have basements	Buildings without extensive basements over known historical sites
L7	Lime/dolomite	>5 myrs	<5000 yrs	Between 5000 yrs and 5 myrs
L8	Rock shelter	Rocky floor	Loping floor or small area	Flat floor, high ceiling

Class	Archaeological traces	Type 1	Type 2	Type 3
A1	Area previously excavated	Little deposit remaining	More than half deposit remaining	High profile site
A2	Shell of bones visible	Dispersed scatter	Deposit <0.5 m thick	Deposit >0.5 m thick; shell and bone dense
A3	Stone artefacts or stone walling or other feature visible	Dispersed scatter	Deposit <0.5m thick	Deposit >0.5 m thick

Table 11. Site attributes and value assessment (adopted from Whitelaw 1997 as used in Morris)

Class	Landforms	Type 1	Type 2	Type 3
1	Length of sequence /context	No sequence Poor context Dispersed distribution	Limited sequence	Long sequence Favourable context High density of arte / ecofacts
2	Presence of exceptional items (incl. regional rarity)	Absent	Present	Major element
3	Organic preservation	Absent	Present	Major element
4	Potential for future archaeological investigation	Low	Medium	High
5	Potential for public display	Low	Medium	High
6	Aesthetic appeal	Low	Medium	High
7	Potential for implementation of a long-term management plan	Low	Medium	High

7.2 Assessing site value by attribute

The table above is adapted from Whitelaw (1997), who developed an approach for selecting sites meriting heritage recognition status in KwaZulu Natal. It is a means of judging a site's archaeological value by ranking the relative strengths of a range of attributes (given in the second column of the table). While aspects of this matrix remain qualitative, attribute assessment is a good indicator of the general archaeological significance of a site, with Type 3 attributes being those of highest significance.

7.3 Impact Statement

7.3.1 Assessment of Impacts

A heritage resource impact may be broadly defined as the net change between the integrity of a heritage site with and without the proposed development. This change may be either beneficial or adverse.

Beneficial impacts occur wherever a proposed development actively protects, preserves or enhances a heritage resource. For example, development may have a beneficial effect by preventing or lessening natural site erosion. Similarly, an action may serve to preserve a site for future investigation by covering it with a protective layer of fill. In other cases, the public or economic significance of an archaeological site may be enhanced by actions, which facilitate non-destructive public use. Although beneficial impacts are unlikely to occur frequently, they should be included in the assessment.
More commonly, the effects of a project on heritage sites are of an adverse nature. Adverse impacts occur under conditions that include:
(a) destruction or alteration of all or part of a heritage site;
(b) isolation of a site from its natural setting; and
(c) introduction of physical, chemical or visual elements that are out-of-character with the heritage resource and its setting.

Adverse effects can be more specifically defined as direct or indirect impacts. Direct impacts are the immediately demonstrable effects of a project which can be attributed to particular land

modifying actions. They are directly caused by a project or its ancillary facilities and occur at the same time and place. The immediate consequences of a project action, such as slope failure following reservoir inundation, are also considered direct impacts.

Indirect impacts result from activities other than actual project actions. Nevertheless, they are clearly induced by a project and would not occur without it. For example, project development may induce changes in land use or population density, such as increased urban and recreational development, which may indirectly impact upon heritage sites. Increased vandalism of heritage sites, resulting from improved or newly introduced access, is also considered an indirect impact. Indirect impacts are much more difficult to assess and quantify than impacts of a direct nature.

Once all project related impacts are identified, it is necessary to determine their individual level-of-effect on heritage resources. This assessment is aimed at determining the extent or degree to which future opportunities for scientific research, preservation, or public appreciation are foreclosed or otherwise adversely affected by a proposed action. Therefore, the assessment provides a reasonable indication of the relative significance or importance of a particular impact. Normally, the assessment should follow site evaluation since it is important to know what heritage values may be adversely affected.

The assessment should include careful consideration of the following level-of-effect indicators, which are defined below:

- magnitude
- severity
- duration
- range
- frequency
- diversity
- cumulative effect
- rate of change

7.4 Indicators of Impact Severity

Magnitude
The amount of physical alteration or destruction, which can be expected. The resultant loss of heritage value is measured either in amount or degree of disturbance.

Severity
The irreversibility of an impact. Adverse impacts, which result in a totally irreversible and irretrievable loss of heritage value, are of the highest severity.

Duration
The length of time an adverse impact persists. Impacts may have short-term or temporary effects, or conversely, more persistent, long-term effects on heritage sites.

Range
The spatial distribution, whether widespread or site-specific, of an adverse impact.

Frequency
The number of times an impact can be expected. For example, an adverse impact of variable magnitude and severity may occur only once. An impact such as that resulting from cultivation may be of recurring or on-going nature.

Diversity
The number of different kinds of project-related actions expected to affect a heritage site.

Cumulative Effect
A progressive alteration or destruction of a site owing to the repetitive nature of one or more impacts.

Rate of Change
The rate at which an impact will effectively alter the integrity or physical condition of a heritage site. Although an important level-of-effect indicator, it is often difficult to estimate. Rate of change is normally assessed during or following project construction.

The level-of-effect assessment should be conducted and reported in a quantitative and objective fashion. The methodological approach, particularly the system of ranking level-of-effect indicators, must be rigorously documented and recommendations should be made with respect to managing uncertainties in the assessment *(Zubrow, Ezra B.A., 1984).*

7.5 Paleontological Sites
To be addressed in a stand-alone report.

7.6 Post-Contact Sites
No sites associated with the post-contact era will be affected by the proposed development.

7.7 Built Environment
Modern built structures and associated infrastructure were identified on site.

August 2019 Review:
The field survey identified some rural non-historic structures within the proposed project footprint. These buildings were found to be modern buildings with no historical significance.

An old building was observed near Access Road Class 3 A-1 at the coordinates S 31° 21' 23.13" E 29° 42' 56.88". According to the current owner it was used to be a grocery store.

The earliest recording of the building on a map is on the 1954 topographical map (3129 BC 1954), which means that the building is at least 65 years old and thus protected under the National Heritage Resources Act (NHRA) Section 34 – Preservation of buildings older than 60 years.

Figure 136. Old Building

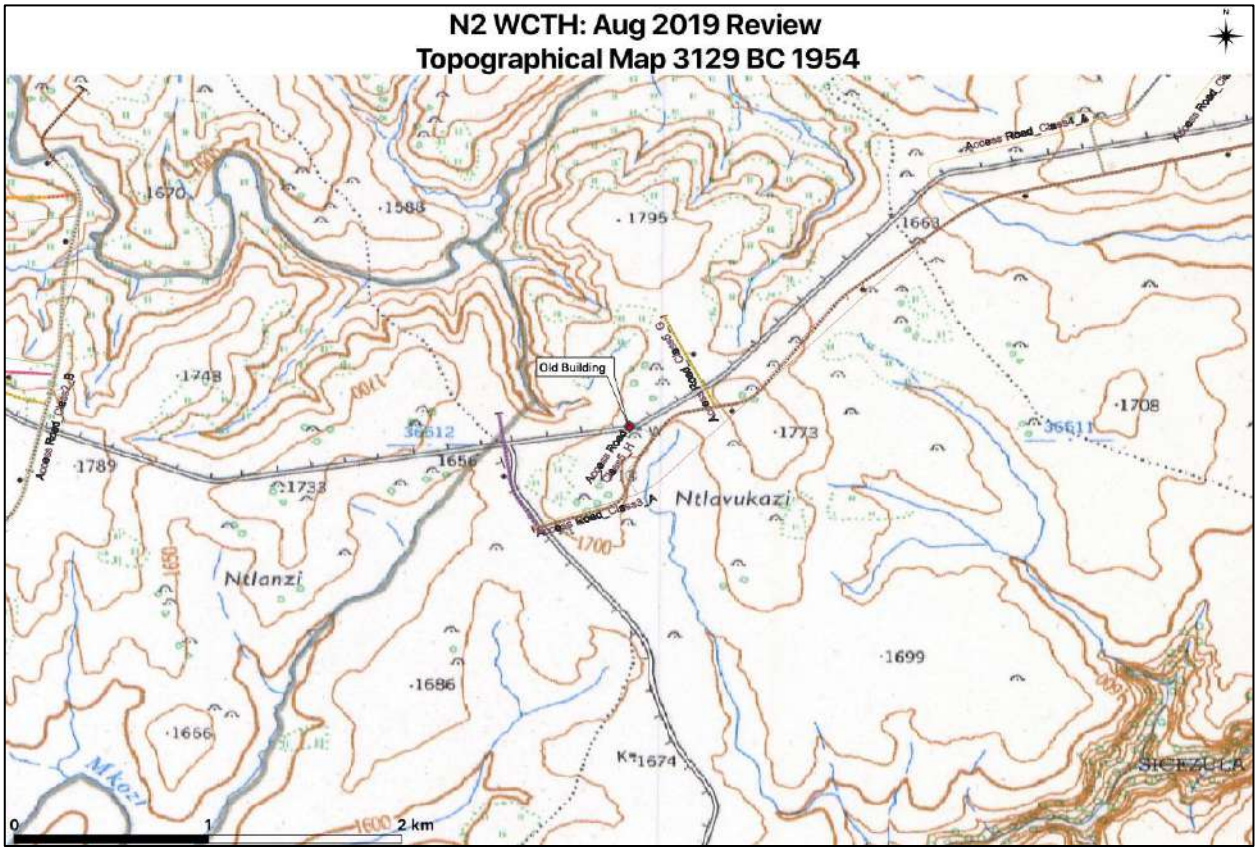


Figure 137. Topographical Map 3129 BC 1954

Note the existence of the building on the 1954 topographical map. Hereby we can conclude that the building is no less than 65 years old.

Figure 138. Homesteads

Figure 139. Homesteads

Figure 140. Homesteads and Built Environment

Table 12. Built Environment

No	Criteria	Significance Rating
1	Are any of the identified sites or buildings associated with a historical person or group? No	N/A
2	Are any of the buildings or identified sites associated with a historical event? No	N/A
3	Are any of the identified sites or buildings associated with a religious, economic social or political or educational activity? No	N/A
4	Are any of the identified sites or buildings of archaeological significance? No	N/A
5	Are any of the identified buildings or structures older than 60 years? No	N/A

7.8 Architectural Significance

Table 13. Architectural Significance

No	Criteria	Rating
1	Are any of the buildings or structures an important example of a building type? No	N/A
2	Are any of the buildings outstanding examples of a particular style or period? No	N/A
3	Do any of the buildings contain fine architectural details and reflect exceptional craftsmanship? No	N/A
4	Are any of the buildings an example of an industrial, engineering or technological development? No	N/A
5	What is the state of the architectural and structural integrity of the building? No	N/A

6	Is the building's current and future use in sympathy with its original use (for which the building was designed)? N/A	-
7	Were the alterations done in sympathy with the original design? N/A	-
8	Were the additions and extensions done in sympathy with the original design? N/A	-
9	Are any of the buildings or structures the work of a major architect, engineer or builder? No.	N/A

7.9 Spatial Significance

Even though each building needs to be evaluated as a single artefact the site still needs to be evaluated in terms of its significance in its geographic area, city, town, village, neighbourhood or precinct. This set of criteria determines the spatial significance.

Table 14. Spatial Significance

No	Criteria	Rating
1	Can any of the identified buildings or structures be considered a landmark in the town or city? No	-
2	Do any of the buildings contribute to the character of the neighborhood? No	-
3	Do any of the buildings contribute to the character of the square or streetscape? No	-
4	Do any of the buildings form part of an important group of buildings? No	-

8. Impact Evaluation

This HIA Methodology assists in evaluating the overall effect of a proposed activity on the heritage environment. The determination of the effect of a heritage impact on a heritage parameter is determined through a systematic analysis of the various components of the impact. This is undertaken using information that is available to the heritage practitioner through the process of HIA. The impact evaluation of predicted impacts was undertaken through an assessment of the significance of the impacts.

8.1 Determination of Significance of Impacts

Significance is determined through a synthesis of impact characteristics, which include context and intensity of an impact. Context refers to the geographical scale i.e. site, local, national or global whereas intensity is defined by the severity if the impact e.g. the magnitude of deviation from background conditions, the size of the area affected, the duration of the impact and the overall probability of occurrence.

Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. The total number of points scored for each impact indicates the level of significance of the impact.

8.2 Impact Rating System

Impact assessment must take account of the nature, scale and duration of effects on the heritage environment whether such effects are positive (beneficial) or negative (detrimental). Each issue / impact is also assessed according to the project stages:

- planning
- construction
- operation
- decommissioning

Where necessary, the proposal for mitigation or optimisation of an impact will be detailed. A brief discussion of the impact and the rationale behind the assessment of its significance has also been included.

8.2.1 Rating System Used to Classify Impacts

The rating system is applied to the potential impact on the receiving environment and includes an objective evaluation of the mitigation of the impact. Impacts have been consolidated into one rating. In assessing the significance of each issue the following criteria (including an allocated point system) is used:

Table 15. Classification of Impacts

NATURE		
Including a brief description of the impact of the heritage parameter being assessed in the context of the project. This criterion includes a brief written statement of the heritage aspect being impacted upon by a particular action or activity.		
GEOGRAPHICAL EXTENT		
This is defined as the area over which the impact will be expressed. Typically, the severity and significance of an impact have different scales and as such bracketing ranges are often required. This is often useful during the detailed assessment of a project in terms of further defining the determined.		
1	Site	The impact will only affect the site.
2	Local/district	Will affect the local area or district.
3	Province/region	Will affect the entire province or region.
4	International and National	Will affect the entire country.
PROBABILITY		
This describes the chance of occurrence of an impact		
1	Unlikely	The chance of the impact occurring is extremely low (Less than a 25% chance of occurrence).
2	Possible	The impact may occur (Between a 25% to 50% chance of occurrence).
3	Probable	The impact will likely occur (Between a 50% to 75% chance of occurrence).
4	Definite	Impact will certainly occur (Greater than a 75% chance of occurrence).
REVERSIBILITY		
This describes the degree to which an impact on a heritage parameter can be successfully reversed upon completion of the proposed activity.		
1	Completely reversible	The impact is reversible with implementation of minor mitigation measures.
2	Partly reversible	The impact is partly reversible but more intense mitigation measures are required.
3	Barely reversible	The impact is unlikely to be reversed even with intense mitigation measures.

4	Irreversible	The impact is irreversible and no mitigation measures exist.
IRREPLACEABLE LOSS OF RESOURCES		
This describes the degree to which heritage resources will be irreplaceably lost as a result of a proposed activity.		
1	No loss of resource.	The impact will not result in the loss of any resources.
2	Marginal loss of resource	The impact will result in marginal loss of resources.
3	Significant loss of resources	The impact will result in significant loss of resources.
4	Complete loss of resources	The impact is result in a complete loss of all resources.
DURATION		
This describes the duration of the impacts on the heritage parameter. Duration indicates the lifetime of the impact as a result of the proposed activity.		
1	Short term	The impact and its effects will either disappear with mitigation or will be mitigated through natural process in a span shorter than the construction phase (0 – 1 years), or the impact and its effects will last for the period of a relatively short construction period and a limited recovery time after construction, thereafter it will be entirely negated (0 – 2 years).
2	Medium term	The impact and its effects will continue or last for some time after the construction phase but will be mitigated by direct human action or by natural processes thereafter (2 – 10 years).
3	Long term	The impact and its effects will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter (10 – 50 years).
4	Permanent	The only class of impact that will be non-transitory. Mitigation either by man or natural process will not occur in such a way or such a time span that the impact can be considered transient (Indefinite).
CUMULATIVE EFFECT		
This describes the cumulative effect of the impacts on the heritage parameter. A cumulative effect/impact is an effect, which in itself may not be significant but may become significant if added to other existing or potential impacts emanating from other similar or diverse activities as a result of the project activity in question.		
1	Negligible Cumulative Impact	The impact would result in negligible to no cumulative effects.
2	Low Cumulative Impact	The impact would result in insignificant cumulative effects.
3	Medium Cumulative impact	The impact would result in minor cumulative effects.
4	High Cumulative Impact	The impact would result in significant cumulative effects.
INTENSITY / MAGNITUDE		
Describes the severity of an impact.		

1	Low	Impact affects the quality, use and integrity of the system/component in a way that is barely perceptible.
2	Medium	Impact alters the quality, use and integrity of the system/component but system/ component still continues to function in a moderately modified way and maintains general integrity (some impact on integrity).
3	High	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component is severely impaired and may temporarily cease. High costs of rehabilitation and remediation.
4	Very high	Impact affects the continued viability of the system/component and the quality, use, integrity and functionality of the system or component permanently ceases and is irreversibly impaired (system collapse). Rehabilitation and remediation often impossible. If possible rehabilitation and remediation often unfeasible due to extremely high costs of rehabilitation and remediation.

SIGNIFICANCE

Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale, and therefore indicates the level of mitigation required. This describes the significance of the impact on the heritage parameter. The calculation of the significance of an impact uses the following formula:

(Extent + probability + reversibility + irreplaceability + duration + cumulative effect) x magnitude/intensity.

The summation of the different criteria will produce a non weighted value. By multiplying this value with the magnitude/intensity, the resultant value acquires a weighted characteristic which can be measured and assigned a significance rating.

Points	Impact Significance Rating	Description
6 to 28	Negative Low impact	The anticipated impact will have negligible negative effects and will require little to no mitigation.
6 to 28	Positive Low impact	The anticipated impact will have minor positive effects.
29 to 50	Negative Medium impact	The anticipated impact will have moderate negative effects and will require moderate mitigation measures.
29 to 50	Positive Medium impact	The anticipated impact will have moderate positive effects.
51 to 73	Negative High impact	The anticipated impact will have significant effects and will require significant mitigation measures to achieve an acceptable level of impact.
51 to 73	Positive High impact	The anticipated impact will have significant positive effects.
74 to 96	Negative Very high impact	The anticipated impact will have highly significant effects and are unlikely to be able to be mitigated adequately. These impacts could be considered "fatal flaws".

74 to 96	Positive Very high impact	The anticipated impact will have highly significant positive effects.

9. Anticipated Impact of the Development

9.1 N2 WCTH: Subterranean Deposits

Table 16. Mitigation of Impacts: *Subterranean Deposits*

IMPACT TABLE FORMAT		
Heritage component	Subterranean sites	
Extent	Local	
Probability	Unlikely	
Reversibility	Totally Reversible	
Irreplaceable loss of resources	Insignificant loss of resources	
Duration	Medium term	
Cumulative effect	Low cumulative effect	
Intensity/magnitude	Low	
Significance Rating of Potential Impact	8 points. The impact will have a low negative impact rating.	
	Pre-mitigation impact rating	Post mitigation impact rating
Extent	2	2
Probability	1	1
Reversibility	2	2
Irreplaceable loss	1	1
Duration	2	2
Cumulative effect	1	1
Intensity/magnitude	1	1
Significance rating	8 (low negative)	8 (low negative)
Mitigation measure	Cognisance should be taken of possible subterranean deposits or unmarked graves on the site. The management recommendations contained in this report should be followed should any such sites be encountered.	

9.2 N2 WCTH: Graves

Table 17. Mitigation of Impacts: Graves

IMPACT TABLE FORMAT	
Heritage component	Graves
Extent	Site (1)
Probability	Probable (3)
Reversibility	Irreversible (4)

Irreplaceable loss of resources	Complete loss of resources (4)	
Duration	Medium term (3)	
Cumulative effect	Medium cumulative effect (3)	
Intensity/magnitude	High (3)	
Significance Rating of Potential Impact	54 points. The impact will have a high negative impact rating.	
	Pre-mitigation impact rating	Post mitigation impact rating
Extent	2	2
Probability	1	1
Reversibility	2	2
Irreplaceable loss	1	1
Duration	2	2
Cumulative effect	1	1
Intensity/magnitude	1	1
Significance rating	54 (high negative)	8 (low negative)
Mitigation measure	Grave sites should be documented and where possible avoided. Where the route alignment cannot be changed the graves should be relocated through a proper process.	

9.3 N2 WCTH: Protected Building (older than 60 years)

Table 18. Mitigation of Impacts: Graves

IMPACT TABLE FORMAT		
Heritage component	Protected Building	
Extent	Site (1)	
Probability	Probable (3)	
Reversibility	Irreversible (4)	
Irreplaceable loss of resources	Complete loss of resources (4)	
Duration	Medium term (3)	
Cumulative effect	Medium cumulative effect (3)	
Intensity/magnitude	Medium (2)	
Significance Rating of Potential Impact	36 points. The impact will have a medium negative impact rating.	
	Pre-mitigation impact rating	Post mitigation impact rating
Extent	1	1
Probability	3	2
Reversibility	4	2
Irreplaceable loss	4	1
Duration	3	1
Cumulative effect	3	2
Intensity/magnitude	2	2

Significance rating	36 (Medium Negative)	16 (Low Negative)
Mitigation measure	The building should be documented and where possible avoided.	

9.2 Assessing Visual Impact

Visual impacts of developments result when sites that are culturally celebrated are visually affected by a development. The exact parameters for the determination of visual impacts have not yet been rigidly defined and are still mostly open to interpretation. CNdV Architects and The Department of Environmental Affairs and Development Planning (2006) have developed some guidelines for the management of the visual impacts of wind turbines in the Western Cape, although these have not yet been formalised. In these guidelines they recommend a buffer zone of 1km around significant heritage sites to minimise the visual impact.

Due to the fact that the project will mainly involve sub-surface infrastructure it is not anticipated that any visual impacts will be encountered.

9.3 Assumptions and Restrictions

- It is assumed that the SAHRIS database locations are correct.
- It is assumed that the paleontological information collected for the project is comprehensive.
- It is assumed that the social impact assessment and public participation process of the Basic Assessment will result in the identification of any intangible sites of heritage potential.

10. Assessment of Impacts

10.1 Cultural Landscape

The following landscape types were identified during the study.

Table 19. Cultural Landscape

Landscape Type	Description	Occurrence still possible?	Identified on site?
1 Paleontological	Mostly fossil remains. Remains include microbial fossils such as found in Barberton Greenstones	Yes, sub-surface	No
2 Archaeological	Evidence of human occupation associated with the following phases – Early-, Middle-, Late Stone Age, Early-, Late Iron Age, Pre-Contact Sites, Post-Contact Sites	Yes, sub-surface	No
3 Historic Built Environment	- Historical townscapes/streetscapes - Historical structures; i.e. older than 60 years - Formal public spaces - Formally declared urban conservation areas - Places associated with social identity/displacement	Yes	Yes
4 Historic Farmland	These possess distinctive patterns of settlement and historical features such as: - Historical farm yards - Historical farm workers villages/settlements - Irrigation furrows - Tree alignments and groupings - Historical routes and pathways - Distinctive types of planting	No	No

	- Distinctive architecture of cultivation e.g. planting blocks, trellising, terracing, ornamental planting.		
5 Historic rural town	- Historic mission settlements - Historic townscapes	No	No
6 Pristine natural landscape	- Historical patterns of access to a natural amenity - Formally proclaimed nature reserves - Evidence of pre-colonial occupation - Scenic resources, e.g. view corridors, viewing sites, visual edges, visual linkages - Historical structures/settlements older than 60 years - Pre-colonial or historical burial sites - Geological sites of cultural significance.	No	No
7 Relic Landscape	- Past farming settlements - Past industrial sites - Places of isolation related to attitudes to medical treatment - Battle sites - Sites of displacement,	No	No
8 Burial grounds and grave sites	- Pre-colonial burials (marked or unmarked, known or unknown) - Historical graves (marked or unmarked, known or unknown) - Graves of victims of conflict - Human remains (older than 100 years) - Associated burial goods (older than 100 years) - Burial architecture (older than 60 years)	Yes	Yes
9 Associated Landscapes	- Sites associated with living heritage e.g. initiation sites, harvesting of natural resources for traditional medicinal purposes - Sites associated with displacement & contestation - Sites of political conflict/struggle - Sites associated with an historic event/person - Sites associated with public memory	No	No
10 Historical Farmyard	- Setting of the yard and its context - Composition of structures - Historical/architectural value of individual structures - Tree alignments - Views to and from - Axial relationships - System of enclosure, e.g. defining walls - Systems of water reticulation and irrigation, e.g. furrows - Sites associated with slavery and farm labour - Colonial period archaeology	No	No
11 Historic institutions	- Historical prisons - Hospital sites - Historical school/reformatory sites - Military bases	No	No
12 Scenic visual	- Scenic routes	No	No
13 Amenity landscape	- View sheds - View points	No	No

	- Views to and from - Gateway conditions - Distinctive representative landscape conditions - Scenic corridors		

Mitigation

It is recommended that the development designs take into account the positive and negative characteristics of the existing cultural landscape type and that they endeavor to promote the positive aspects while at the same time mitigating the negative aspects.

The noted rural homesteads are considered to be of heritage significance. The grocery shop is considered to be historically significant because of its age. The building is protected by law as a heritage building as it is over 60 years old. The building however does not have any architectural significance and shows signs of lack of maintenance. The developer should make sure that the shop is not affected by the development and should be avoided. A demolition permit can be obtained from AMAFA in the event that the developer may wish to demolish the shop.

The field survey noted the existence of a substantial number of graves and burial sites. All the burials that were noted during the field survey are located on homesteads. These burials all marked and vary in sizes. The burials include adult burials and child burials.

11. Resource Management Recommendations

Although unlikely, sub-surface remains of heritage sites could still be encountered during the construction activities associated with the project. Such sites would offer no surface indication of their presence due to the high state of alterations in some areas as well as heavy plant cover in other areas. The following indicators of unmarked sub-surface sites could be encountered:

- Ash deposits (unnaturally grey appearance of soil compared to the surrounding substrate);
- Bone concentrations, either animal or human;
- Ceramic fragments such as pottery shards either historic or pre-contact;
- Stone concentrations of any formal nature.

The following recommendations are given should any sub-surface remains of heritage sites be identified as indicated above:

- All operators of excavation equipment should be made aware of the possibility of the occurrence of sub-surface heritage features and the following procedures should they be encountered.
- All construction in the immediate vicinity (50m radius of the site) should cease.
- The heritage practitioner should be informed as soon as possible.
- In the event of obvious human remains the South African Police Services (SAPS) should be notified.
- Mitigation measures (such as refilling etc.) should not be attempted.
- The area in a 50m radius of the find should be cordoned off with hazard tape.
- Public access should be limited.
- The area should be placed under guard.
- No media statements should be released until such time as the heritage practitioner has had sufficient time to analyze the finds.

12. Conclusion

The site for the Proposed Upgrade and Construction of Road Construction Activities outside of the Proposed N2 WCTH Road Reserve, within the Ingquza Hill Local and O.R. Tambo District Municipality, Eastern Cape Province was investigated, and it was determined that several burial sites are located within the study area. The following recommendations are given;

- The noted burials within the proposed routes should be avoided by all means (Burials: N2-G001, N2-G002, N2-G003, N2-G004, N2-G005, N2-G006, N2-G007, N2-G008, N2-G009, N2-G010, N2-G011, N2-G012, N2-G013, and N2-G014).
- Sensitising construction workers of the value of the site and the possibility of archaeological chance finds.
- Periodic monitoring of the site from the construction phase to completion phase.
- Consultations with affected families for way forward in dealing with the burials in cases were the proposed route may not be altered.
- In case of chance finds, they should be reported to the Heritage governing body PHRA-EC and all work should be put on halt.

An additional site visit was required after the finalised preliminary designs and standards for the N2 WCTH axillary roads and material sources were received from KSEMS. The findings from the August 2019 review are as follows:

- The noted burials within the proposed routes should be avoided by all means (Burials Aug. 2019 Review No's. 1 (N2-G015), 2 (N2-G016), 3 (N2-G017), 4 (N2-G018), 5 (N2-G019) and 6 (N2-G020).
- An old building was observed near the Access Road Class 3 A-1. The earliest recording of the building on a map is on the 1954 topographical map (3129 BC 1954), which means that the building is at least 65 years old and thus protected under the National Heritage Resources Act (NHRA) Section 34 – Preservation of buildings older than 60 years.

An additional site visit was required after the finalised preliminary designs and standards for the N2 WCTH axillary roads and material sources were received from KSEMS. The findings from the January 2020 review are as follows:

- The noted burial within the proposed routes should be avoided by all means (N2-G021);
- A Shembe Church, and
- Fence boundaries of two homesteads that will be affected by the proposed road alignment of the proposed Pondo-land Access Road.

No archaeological or cultural heritage objects were identified on the proposed extension area of the Potential BP1, BP2, BP1366 or BP3.

The initial field survey that was conducted in 2018 noted the existence of poor roads. The existing gravel wearing surface shows degradation along the entire proposed route with a large number of potholes and erosion lines. The additions are within the same rural setting that is slowly developing to a semi-urban area that was noted in the 2018 survey. Part of the project area now extends into un-developed areas and small gravel roads.

As of September 2020, it has been confirmed by the Department of Environment, Forests and Fisheries (DEFF) that the Access Roads (including both the new and upgraded routes presented within this report) would not require additional authorisation and have been authorised under the existing Record of Decision (ROD) for the N2 Wild Coast Toll Highway.

Provided the recommendations in this report is followed there is no reason, from a heritage point of view, why this development cannot continue.

13. References Cited & Researched

National Heritage Resources Act (Act No. 25 of 1999)

Environment Conservation Act, 1989 (Act 73 of 1989)

Minerals Act, 1991 (Act 50 of 1991)

Ahler, S.A. 1977. Functional analysis of nonobsidian chipped stone artefacts: terms, variables and quantification. In: Hayden, B. (ed.). Lithic use-wear analysis: 301-328. New York: Academic Press.

Aikman, H, Baumann, N, Winter, S and Clift H. 2005. A state of the cultural historical environment study: Unpublished report compiled by Overstrand Heritage and Landscape Consortium for the Overstrand District Municipality.

Beaumont, P. B., and Vogel, J. C. (1972). On a new radiocarbon chronology for Africa south of the equator.African Studies 31 65–89, 155–182.

Booth, A. R. ed. 1967. Journal of the Rev. George Champion. Cape Town: Struik.

Brain, C.K. 1981. The hunters or the hunted? An introduction to African cave taphonorny. Chicago: Chicago University Press.

Clarke, R. J., and Kuman, K. (1992).Florisbad: Anatomy of a Middle Stone Age Hominid Site, Princeton University Press, Prince6ton, N. J. (in press).

Cory, Sir G. E. 1926. The Diary ofthe Rev. Francis

Cronin, M. 1975. Mgungundlovu. Unpublished B.A. (Hons.) thesis: University of Cape Town.

Cruz-Uribe, K. & Klein, R.G. 1994. Chew marks and cut marks on animal bones from the Kasteelberg B and Dune Field Midden Later Stone Age sites, Western Cape Province, South Africa. Journal of Archaeological Science 21: 35-49.

DAHGI 1999a, Department of Arts, Heritage, Gaeltacht and Islands. Framework and Principles for the Protection of the Archaeological Heritage.

Deacon, J. 1997. Report: Workshop on Standards for the Assessment of Significance and Research Priorities for Contract Archaeology. In: Newsletter No. 49, Sept.1998. South African Association of Archaeology.

Deacon, J. 1996. Archaeology for Planners, Developers and Local Authorities. National Monuments Council. Publication no. PO21E.

Dincause, Dena F., H. Martin Wobst, Robert J. Hasenstab and David M. Lacy 1984. The Reporting of Small‐Scale Survey Results for Research Purposes: Suggestions for Improvement." Co‐authored with David M. Lacy. American Archaeology 4(1):43‐49.

Dennis Moss Partnerships Inc. 2003. Overberg Spatial Development Framework. Department of Planning, Local Government and Housing. 2000. Bio-regional Planning Framework for the Western Cape Province.

Gardiner, Allen F. 1966. Narrative of a Journey to the Zoolu Country in South Africa. Cape Town: Struik (Reprint).

Greenfield, H. J., van Schalkwyk, L. O. and Jongsma, T. L. 2000. Surface and subsurface reconnaissance at Ndondondwane: preliminary results of the 1995-97 field seasons. Southern African Field Archaeology, 9: 5-16.

Greenfield, H. J. and van Schalkwyk, L. O. 2003. Intr a- settlement social and economic organization of Early Iron Age farming communities in southern Africa: view from Ndondondwane. Azania, 38: 121-37.

Greenfield PM, Maynard AE, Boehm C, Yut E. 2000a. Cultural apprenticeship and cultural change: tool learning and imitation in chimpanzees and humans. In Biology, Brains,and Behavior, ed. ST Parker, J Langer, ML McKinney, pp. 237–77. Santa Fe: SAR Press

Goodwin A. J. and Lowe C. van Riet . THE STONE AGE CULTURES OF SOUTH AFRICA. (Annals of the South African Museum, vol. XXVII). The Trustees of the South African Museum, 1929. pp. 289, 4 text-figures and 45 plates. 25s.

HALL, G. 2006. Reconstruction of ancient environments in KwaZulu-Natal using stable carbon isotope analysis of archaeological charcoal from Sibudu Cave. Paper read at the Association of Southern African Professional Archaeologists Conference, National Cultural History Museum, Pretoria, April 10–13, 2006.

Hart, T. & Miller, D. 1994. Phase 1 archaeological and palaeontological survey of the proposed mining area on the farm Velddrif 110, Velddrif, Western Cape Province. Report prepared by the Archaeology Contracts Office, University of Cape Town, for Lime Sales Limited.

Huffman, T. N. 1993. Broederstroom and the Central Cattle Pattern. South African Journal of Science, 89: 220-26.

Huffman, T. N. 2001. The Central Cattle Pattern and interpreting the past. Southern African Humanities, 13: 19-35.

Huskel J, Greenfield, Kent, D, Fowler, & Leonard O, van Schalkwyk, 2005. Where are the gardens? Early Iron Age horticulture in the Thukela River Basin of South Africa. World Archaeology Vol. 37(2): 307–328

Isaacs, N. 1970. Travels and Adventures in Eastern Africa. Cape Town: Struik (Reprint).

Kirby, P. R. 1955. Andrew Smith and Natal. Cape Town: Van Riebeeck Society.

Klein, R. G. (1970). Problems in the study of the Middle Stone Age of South Africa.South African Archaeological Bulletin 25 127–135.

Krige, E. J. 1936. The social system of the Zulus. Pietermaritzburg: Shuter and Shooter.

Kuper 1982. Lineage Theory: A Critical Retrospect. Institute of Cultural Anthropology, University of Leiden, 2300 RA Leiden, The Netherlands.

Kent, S. 1998. Invisible gender-invisible foragers: hunter-gatherer spatial patterning and the southern African archaeological record. In: Kent, S. (ed.) Gender in African prehistory: 39-67. California: Altamira Press.

Lombard, M. 2003. Closer to the point: macro-fracture, micro-wear and residue analyses of Middle Stone Age lithic points from Sibudu Cave, KwaZulu-Natal, South Africa. Unpublished M.Sc. thesis, University of the Witwatersrand.

Lombard, M., Parsons, I. & Van der Ryst, M.M. 2004. Middle Stone Age lithic point experimentation for macro-fracture and residue analysis: the process and preliminary results with reference to Sibudu Cave points. South African Journal of Science 100: 159-166

Japha, D., Japha, V., Le grange, L & Todeschini, F. Mission Settlements in South Africa: A Report on their historical background and prospects for conservation. University of Cape Town.

Kaplan, J. M. (1989a).45 000 Years of Hunter-Gatherer History as Seen from Umhlatuzana Rock Shelter, M.A. thesis, University of Cape Town, Cape Town.

Maggs, T. O. 1980. The Iron Age sequence south of the Vaal and Pongola Rivers: some historical implications. Journal of African History, 21: 1-15.

Maggs, T. O. 1984a. Ndondondwane; a preliminary report on an Early Iron Age site on the lower Tugela River. Annals of the Natal Museum, 26: 71-94.

Maggs, T. O. 1984b. Iron Age settlement and subsistence patterns in the Tugela River Basin, Natal. In Frontiers of Southern African Archaeology Today (eds M. Hall, G. Avery, D. M. Avery, M. L. Wilson and A. J. B. Humphreys). Cambridge Monographs in African Archaeology 10. Oxford: British Archaeological Reports, International Series 207, pp. 194-206.

Maggs, T. O. 1984c. The Iron Age south of the Zambezi. In Southern African Prehistory and Paleoenvironments (ed. R. Klein). Rotterdam: Balken, pp. 329-60.

Maggs, T. O. 1989. The Iron Age farming communities. In Natal and Zululand: From Earliest Time to 1910: A New History (eds A. Duminy and B. Guest). Pietermaritzberg: University of Natal Press/
Shuter & Shooter, pp. 28^8.

Maggs, T. O. 1995. The Early Iron Age in the extreme south: some patterns and problems. Azania, 9/30: 171-8.

Maggs, T. and Ward, V. 1984. Early Iron Age sites in the Muden area of Natal. Annals of the Natal Museum, 26: 105-40.

Maggs, T., Oswald, D., Hall, M. and Ruther, H. 1986. Spatial parameters of Late Iron Age settlements in the upper Thukela Valley. Annals of the Natal Museum, 27: 455-79.
Maggs, T., 1976. Iron Age communities of the southern Highveld. Pietermaritzburg: Council of the Natal Museum, 1976.

Mazel 1981 Up and Down the Little Berg: Archaeological resource management in the Natal Drakensbergpt.4 pg. 235 – end

Mitchell, P. J. (1988). The Early Microlithic Assemblages of Southern Africa.British Archaeological Reports, International Series, 388, Oxford.

Owen, M.A. Cape Town: Van Riebeeck Society.

Spenneman, D. 2006. Gauging community values in Historic preservation. CRM: The Journal of Heritage Stewardship 3(2):6-20.

Oberholster, J. J. & Walton, J. n.d. Dingane's Kraal - Mgungundlovu. National Monuments Commission Booklet.

Retief, P. in litt. Letter dated November 18, 1837. In Campbell, K. n.d.: Vmgungundlovu- Dingaarns Kraal: Unpublished MS. Killie Campbell Africana Library, Durban.

Stuart, J. n.d. Unpublished papers. Killie Campbell African Library, Durban.

Stuart, J. & McMalcolm, D. eds. 1969. The diary of Henry Francis Fynn. Pietermaritzburg: Shuter and Shooter.

Volman, T. P. (1984). Early prehistory of southern Africa. In Klein, R. G. (ed.),Southern African Prehistory and Paleoenvironments, Balkema, Rotterdam, pp. 169–220.

Wadley, L & Jacobs, Z. 2004. Sibudu Cave, KwaZulu-Natal: Background to the excavations of Middle Stone Age and Iron Age occupations. South African Journal of Science 100: 145-151.

Wadley, L. 2005. A typological study of the final Middle Stone Age stone tools from Sibudu Cave, KwaZuluNatal. South African Archaeological Bulletin 60: 51–63.

Webb, C. de B., & Wright, J. 1977. The Stuart Archives, Vol. I. Pietermaritzburg: Natal University Press.

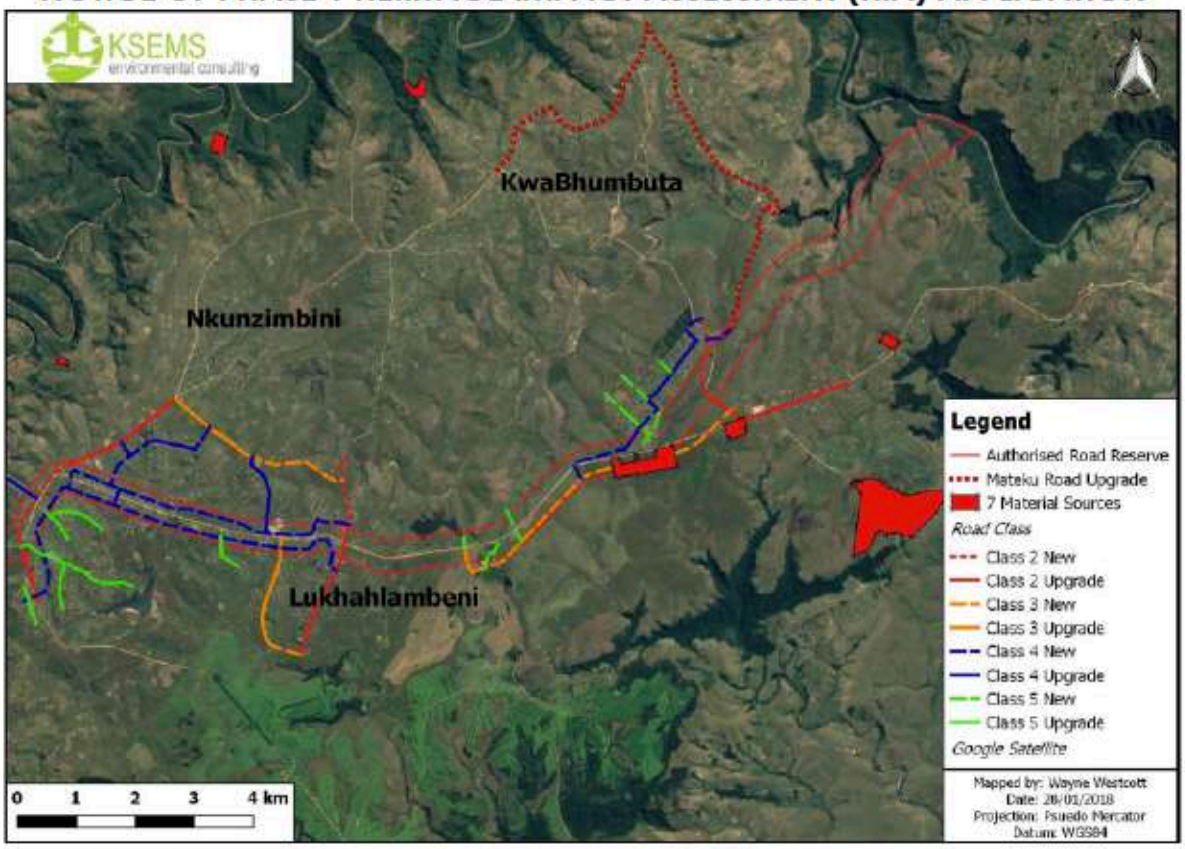
Whitelaw, G. D. 1994. KwaGandaganda: settlement patters in the Natal Early Iron Age. Natal Museum Journal of Humanities, 6: 1-64.

Wood, W. 1840. Statements respecting Dingaan, King of the Zoolahs, with some particulars relative to the massacres of Messrs. Retief and Biggars, and their parties. Cape Town: Collard & Co.

Zubrow, E.B.A. 1984. Small-Scale Surveys: A Problem for Quality Control. American Archaeology 4(1):16-27.

ADDENDUM 1
PUBLIC PARTICIPATION
SITE SIGNAGE

NOTICE OF PHASE 1 HERITAGE IMPACT ASSESSMENT (HIA) APPLICATION



Notice is hereby given that an application for a Phase 1 Heritage Impact Assessment (HIA) in terms of Section 38 of the National Heritage Resources Act (Act 25 of 1999) will be lodged with the Provincial Heritage Resources Authority of Gauteng (PHRA-EC).

Project Name: The Proposed Upgrade and Construction of Road Construction Activities Outside of the Proposed National Route N2 Wild Coast Toll Highway Road Reserve.

Proponent: Aurecon Group (Pty) Ltd on behalf of the South African National Roads Agency SOC Limited (SANRAL).

Location: Located in the Ingquza Hill Local and O.R. Tambo District Municipalities, Eastern Cape Province.

Project & Property Description: SANRAL proposes the upgrade to and construction of the auxiliary roads and materials sources associated with Section 20 of the National Route (N2) Wild Coast Toll Highway (WCTH) between the Lingeni Interchange and Msikaba Bridge within the Ingquza Hill Local and O.R. Tambo District Municipalities, Eastern Cape Province. These activities include, but are not limited to, access roads, traffic management routes, haulage roads, the Mateku road upgrade, seven (7) material sources and water sources for abstraction purposes during the construction phase of the proposed development.

Section 20 of the proposed N2 WCTH extends from the Lingeni Intersection at 15.40km (31° 21' 25.77'' S, 29° 37' 30.37'') to the Msikaba Bridge at 33.02km (31° 17' 42.84'', 29° 47' 36.73''). The total length of the road is approximately 17.62km.

Grave locations should be reported by the community.

Material sources locations:

Material Source	Exaggerated Extent	Centre Point Coordinate	
BP2	29.5 ha	31° 20' 41.36" S	29° 44' 30.26" E
BP3	8.80 ha	31° 20' 22.05" S	29° 45' 27.68" E
BP1366	5.25 ha	31° 19' 33.76" S	29° 47' 9.19" E
Ntlavukazi Dolerite Quarry	111 ha	31° 21' 8.63" S	29° 47' 10.55" E
Potential 1	1.86ha	31° 19' 44.51" S	29° 38' 17.55" E
Potential 2	6.6ha	31° 17' 45.01" S	29° 39' 59.19" E
Potential 11	7.13ha	31° 17' 16.07" S	29° 42' 4.69" E

Date of Notice: 11 August 2018
The comment period for the Phase 1 Heritage Impact Assessment (HIA) is 30 Days.
Queries regarding this matter should be referred to:
G&A Heritage Properties (Pty) Ltd.
Public Participation Registration and Enquiries
P.O. Box 522
Louis Trichardt
0920
LESLEY GAIGHER
C: 082 551 5082
E: pp@gaheritage.co.za
www.gaheritage.co.za

G&A Heritage
Heritage Management Consultants

G&A Heritage
Heritage Management Consultants

Figure 141. Site Signage

Figure 142. Site Signage

Figure 143. Site Signage

Figure 144. G&A Heritage specialist with Mr & Mrs Xumalo, whose homestead will be affected by the development

Figure 145. A local community member showing potential heritage resources to G&A Heritage Specialist

Figure 146. A local member of the community pointing to nearby graves