

**A CULTURAL HERITAGE IMPACT ASSESSMENT OF
THE PROPOSED ESTABLISHMENT OF THE WHITE
MFOLOZI BRIDGE AND LINK ROAD (L2598) IN THE
ULUNDI MUNICIPALITY, NORTHERN KWAZULU-
NATAL.**



ACTIVE HERITAGE cc.
FOR: ROYAL HASKONING DHV

Frans Prins

MA (Archaeology)

P.O. Box 947

Howick

3290

Activeheritage@gmail.com

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Cell: 0834739657

Fax: 0867636380

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LIST OF ABBREVIATIONS AND ACRONYMS

EIA	Early Iron Age
ESA	Early Stone Age
HISTORIC PERIOD	Since the arrival of the white settlers - c. AD 1820 in this part of the country
IRON AGE	Early Iron Age AD 200 - AD 1000 Late Iron Age AD 1000 - AD 1830
IIA	Intermediate Iron Age
ISA	Intermediate Stone Age
LIA	Late Iron Age
LSA	Late Stone Age
MSA	Middle Stone Age
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998 and associated regulations (2006).
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999) and associated regulations (2000)
SAHRA	South African Heritage Resources Agency
STONE AGE	Early Stone Age 2 000 000 - 250 000 BP Middle Stone Age 250 000 - 25 000 BP Late Stone Age 30 000 - until c. AD 200

EXECUTIVE SUMMARY

A first phase cultural heritage survey was conducted of the proposed White Mfolozi Bridge and associated link road (L2598) in the Ulundi Municipality, northern KwaZulu-Natal. Eight grave sites were located within 50m from link road alternative 1 (the preferred option) during the ground survey. Three graves are situated adjacent to alternative option 3 and will be affected by the proposed development. These graves are all protected by heritage legislation and mitigation procedures should be followed. A Shembe Site of Worship is situated on the edge of the footprint (near alternative option 3) but it will not be affected by the proposed development. A few Early Stone Age tools occurs on erosion dongas adjacent to the existing track (L2598) near the preferred bridge crossing. These tools, however, are out of context and they have a low heritage rating. There is no need for mitigation. Interviews with the members of two traditional councils in the area indicate that there are no sources of clay, medicinal plants, or other 'cultural sites' that will be affected by the proposed development. The project area is not part of any known cultural landscape, in fact, the present landscape has been altered and modified from a human settlement point of view. It is the opinion of the consultant that the proposed bridge will not be an 'intrusion' on the existing landscape. There is no known archaeological reason why the development may not proceed on the rest of the link road, including the proposed bridge, as planned. However, it should be noted that the general area is rich in archaeological sites as well as more recent grave sites in the locales of rural settlements. Construction work may expose material and attention is drawn to the South African Heritage Resources Act, 1999 (Act No. 25 of 1999) and the KwaZulu-Natal Heritage Act (Act no 4 of 2008) which, requires that operations that exposed archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1. Background information

Consultant:	Frans Prins (Active Heritage cc) for Royal Haskoning DHV
Type of development:	<p>In July 2016, Royal Haskoning DHV were appointed by the KwaZulu-Natal Department of Transport to carry out the detailed design, tender documentation and construction management of the new river crossing over the White Mfolozi River on link Road L2598 in the Ulundi Municipality. The appointment includes the upgrading of this link road which joins Main Road P734 to District Road D2047.</p> <p>Originally the site had been earmarked for a pedestrian bridge; however the KwaZulu-Natal Department of Transport Bridge Office and the district engineer, Ingerop, in liaison with the locals upgraded the development to a river bridge to fully address community requirements. Currently the local residents in the KwaMbambo and Sigodiphola area along the White Mfolozi River have to use the D2047 which links to P47 then P52 for them to get to Ulundi which would be more than 40km. Construction of the new bridge and upgrading of the L2598 will cut their travelling distance by more than half to about 15km. Presently at the site there is a disused track only trafficable by 4x4 vehicles and there is no crossing structure over the White Mfolozi river at this site.</p>
Rezoning or subdivision:	Rezoning
Terms of reference	To carry out a Heritage Impact Assessment as subcontracted by Royal Haskoning DHV
Legislative requirements:	The Heritage Impact Assessment was carried out in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) and following the requirements of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act, 1997 (Act No. 4 of 2008)

1.1. Details of the area surveyed:

The proposed bridge is situated adjacent to the White Mfolozi River approximately 11km to the west of Ulundi, in northern KwaZulu-Natal (Figs 1). The co-ordinates for the bridge are 28° 19' 21.8" S and 31° 18' 07.49" E. The proposed dimensions of the bridge are given in Table 2. However, these may change following further investigations by the engineer.

Table 2. Proposed bridge dimensions

Carriageway width(m)	7,000
Width of sidewalk (one number on upstream)(m)	1,500
Total width between parapets (m)	8,500
Total Width (m) Including Parapets	9,620
Total length (m)	180,000

The appointment also includes the upgrading of this link road which joins Main Road P734 to District Road D2047 (Fig 1). The link road is a local road (L2598) with a road reserve of 20m. Three alternative link roads have been proposed (Fig 2) with alternative 1 being the road favoured by the consulting engineers.

Originally the site had been earmarked for a pedestrian bridge; however the KwaZulu-Natal Department of Transport Bridge Office and the district engineer, Ingerop, in liaison with the locals upgraded the development to a river bridge to fully address community requirements. Currently the local residents in the KwaMbambo and Sigodiphola area along the White Mfolozi River have to use the D2047 which links to P47 then P52 for them to get to Ulundi which would be more than 40km. Construction of the new bridge and upgrading of the L2598 will cut their travelling distance by more than half to about 15km. Presently at the site there is a disused track only trafficable by 4x4 vehicles and there is no crossing structure over the White Mfolozi river at this site.

The co-ordinates for the preferred alternative of the proposed development (bridge together with the relevant road work) are as follows:

Start: S 28° 21' 04.17" E 31° 59' 46.04"

End: S 28° 22' 04.56" E 31° 59' 36.82"

Two alternatives to this above mentioned preferred option has also been considered. These options are located to the south of the preferred route (Fig 2).

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

2.1 Archaeology

The greater Ulundi area has been sporadically surveyed for archaeological heritage sites by archaeologists previously employed by the Natal Museum, the Ondini Cultural Museum and Amafa. The most systematic surveys occurred recently in the Emakhosini Oplate Park (Pelser 2013) and further south at the Umfolozi-Hluluwe Nature Reserve. It is especially the extensive surveys conducted by Penner (1970), and Hall (1980) but also subsequent research by Feely (1980) and Anderson (1988) that has thrown light on the heritage resources of this nature reserve.

The available evidence, as captured in the KwaZulu-Natal Museum heritage site inventories, indicates that this area contains a wide spectrum of archaeological sites covering different time-periods and cultural traditions. Six Early Stone Age sites have been recorded. These sites date back to between 300 000 and 1.5 million years ago. Most of these are situated in dongas close to water with little in-situ material. An astonishing 59 Middle Stone Age sites have been recorded in the Umfolozi-Hluluwe Nature Reserve. Middle Stone Age sites are associated with anatomically modern people and dates back to approximately 40 000 to 200 000 years ago. The vast majority of Middle Stone Age sites in the nature reserve are open-air sites. They therefore do not occur in archaeological context and have limited excavation value. Later Stone Age sites occur in various localities in the nature reserve. Thirty five Later Stone Age sites have been recorded. Although the majority of these sites are situated in open air context some are also associated with small shelters and caves. These shelters have archaeological excavation potential. The Later Stone Age is usually associated with San hunter-gatherers or their immediate predecessors and dates back to between 200 years and 30 000 years ago. Interestingly, the nature reserve also contains 11 rare examples of Zululand rock art sites. Although not as well-known as the rock art of the Drakensberg the art of this region is nevertheless unique as it is probably older and executed in a different style from the Drakensberg art.

Archaeological sites have also been recorded outside of the Umfolozi-Hluluwe Nature Reserve although our knowledge of these is more limited. An Early and Middle Stone Age Site has been recorded on the farm Moordplaas that is situated directly adjacent

to the study area. These tools are associated with erosion dongas and associated paleo-soils. Amafa staff also indicated that unrecorded Later Iron Age material have been noted on the farm Moordplaas (Roodt pers com). These sites, however, were not surveyed in terms of the objectives of the present project.

2.2 Historical past of the greater Ulundi area

The greater Ulundi area is particularly well known for its central situation relative to the development of the Zulu state of King Shaka Zulu in the early 1800's. The Emakhosini valley (Valley of the Kings) is situated in the immediate environs to the south-west of Ulundi. Surrounding the valley are several stone-walled structures associated with the once powerful Buthelezi and Khumalo clans. These clans later played a significant role in the formation of the Zulu kingdom. The famous king, Shaka Zulu, was born in the valley around 1785, and it is here that his forebears, King Nkosinkulu Zulu, King Phunga, King Mageba, King Ndaba, King Jama and King Senzangakhona, lie buried. The graves and royal residences of four Zulu rulers - King Shaka, King Dingane, King Mpande and King Cetshwayo, who ruled in succession from 1816 to 1884 – are located in the area around eMakhosini (Derwent 2006). The valley is regarded as the ancestral homeland of the Zulu nation as such this valley can be classified as a cultural landscape. However, it is interesting to note that Emakhosini has not been nominated as such by the provincial heritage agency.

The colonial history of the greater Ulundi area starts around 1820 when early English ivory traders established themselves at Port Natal (Durban). Dutch descendants (i.e. Voortrekkers) moved into the area soon after 1834 and established a short lived Boer republic called Natalia to the south of the Tugela River. However, by 1845 Natal became a British colony. In 1879 Zulu-land was invaded by British forces and the area annexed soon thereafter.

Significant heritage sites in the greater Ulundi area include the following:

1. King Dingane's Royal Residence (uMgungundlovu). Occupied between 1829 & 1838.
2. Piet Retiefs Grave and Monument. Voortrekker leader Piet Retief and a group of his followers were put to death on King Dingane's orders at uMgungundlovu, and were buried here at kwaMatiwane, the Hill of Execution.
3. Biyaela Ancestral Sites
4. Spirit of eMakhosini Monument
5. Mtonjaneni Heights: Several earthen mound British fortifications and King Dingane's Spring

6. Opathe Game Reserve and battle sites
7. KwaGqokli Hill – the site of Shaka’s most significant military victory
8. Fort Nolela – The British camped here prior to the Battle of Ulundi in 1879
9. Ondini Historical Reserve. Residence of King Cetshwayo. KwaZulu Cultural Museum also located here
10. Nodwengu – Residence of King Mpande
11. Ulundi Battlefield & Monument

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

- A desktop study was conducted of all the relevant archaeological databases housed in the KwaZulu-Natal Museum.
- The available archaeological and historical literature covering the greater Ulundi area was consulted.
- The SAHRIS website was studied and relevant heritage impact assessment reports consulted.
- Aerial photographs of the area were studied to identify potential Iron Age and historical period sites.
- A ground survey of the project area following standard and accepted archaeological procedures, was conducted on the 4 and 5th April 2017 and again on the 6th and 11th October 2017. Particular care was taken to identify potential graves in the environs of rural settlements adjacent to the proposed link road and bridge crossing. The ground survey was conducted with the help of local community members who also pointed out relevant sites and features.
- Interviews were conducted with local community members including the councillors and headmen of the two major traditional councils in the project area (i.e. Nobamba and Mbatha) in order to ascertain local views regarding the effect of the development on ‘cultural sites’ in the area (Figs 31 - 34)(Appendix

2). Community members also assisted to locate potential heritage sites. Interviews were conducted on the 6th and again on the 11th October 2017.

3.2 Restrictions encountered during the survey

3.2.1 Visibility

Visibility was good.

3.2.2 Disturbance

No disturbance of any potential heritage features was noted. However, some Early Stone Age tools were observed in erosion dongas directly adjacent to the L2598 in the near vicinity of the proposed bridge crossing. These, however, are out of context and they have a low heritage rating (see below).

3.3 Details of equipment used in the survey

GPS: Garmin Etrek

Digital cameras: Canon Powershot A460

All readings were taken using the GPS. Accuracy was to a level of 5 m.

4 DESCRIPTION OF SITES AND MATERIAL OBSERVED

4.1 Locational data

Province: KwaZulu-Natal

Towns: Ulundi

Municipality: Ulundi Municipality

4.2 Description of the general area surveyed

The greater Ulundi area contains many heritage sites and features (Fig 3). It was therefore expected to locate some sites in the project area.

4.2.1 Early Stone Age Artefacts

Some Early Stone Age tools occurs in erosion dongas directly adjacent to the L2598 in the near vicinity of the proposed bridge crossing (between alternative 1 and alternative 3) (Figs 4a & b). These tools, however, are out of context and they have little research value. Consequently they have a low heritage rating (Tables 3 & 4) (Figs 8, 13, 14, 15, 16, 17).

4.2.2 Early Iron Age

The expansive flat areas adjacent to the White Mfolozi River are potentially ideal Early Iron Age locales but none of those in the near environs of the proposed development contain any archaeological material (Fig 11).

4.2.3 Graves

Some contemporary homesteads occur adjacent to alternative crossing 1 on the western side of the White Mfolozi River (Fig 18). However, none of these had graves situated closer than 50m to the proposed link road alignment. Grave sites 1, 2 & 3 are situated in the close proximity of alternative route 1 (Figs 4a & 4b). Grave sites 6, 7 & 8 are situated in the close environs of alternative route 3 (Figs 6a & 6b). Various graves do occur within the near environs of the preferred link road option (alternative 1) (Figs 4a & 4b, 5, 6 & 7, 19-25). A description of these follows in Table 3. The land surveyor identified some stone heaps and stone walling as potential grave sites (Figs 4b & 6b). However, the consultant visited those features and came to the conclusion that these are simply low stone walling associated with abandoned homesteads or stone heaps created during field clearance for agricultural purposes. The features have no heritage value and are not classified or listed as such.

4.2.4 Cultural Landscapes

The greater project area has been modified in terms of traditional settlement patterns during the last 10 years or so. The traditional dispersed Nguni settlement pattern, with the associated semi-circular patterning of huts around a central cattle byre, has been replaced by the more modern linear spatial arrangement in recent years (Figs 28 & 29). The present trend is for Zulu homesteads (*Umuzi*) to be clustered along the L2589 and other roads in the area rather than dotted all over the landscape. Given these changes in settlement layout it is unlikely that the area forms part of any cultural landscape. In fact, communications with council members of two traditional authorities

in the area (i.e. Nobamba and Mbatha Traditional Authorities) confirmed these initial impressions that the area has no cultural landscape significance.

4.2.5 Sense of Place

Given the modification of the landscape and the change in settlement pattern it is also the view of the consultant that the proposed bridge will not be an intrusion on the 'sense of place' of the area. Powerlines already run across the White Mfolozi River in the immediate vicinity of the proposed bridge crossing (Fig 30). Homesteads in the near vicinity of the proposed bridge crossing site (western bank of the White Mfolozi River) do not reflect the traditional 'central cattle pattern' arrangement as was common in Zululand in the colonial and pre-colonial periods. Today they are clustered together in a linear pattern and are constantly being modified and altered (Fig 28 & 29). Interestingly, local community members interviewed also felt that the proposed bridge will not alter the 'sense of place' of the general area.

4.3 Heritage Sites Identified

All the heritage sites located during the survey is described in Table 3 (below).

Table 3. Heritage Sites in the Study Area.

Number	Heritage Site Category	Brief Description	Rating	GPS Latitude and Longitude
1	Grave site 1	Informal and unmarked grave. Covers an area of approximately 2m x 1.5m. The grave is situated approximately 10m from the proposed link road (Option 1). It appears to be older than 60 years.	High Significance Locally (Local Grade 111B)	S 28° 19' 22.60" E 31° 17' 51.25"
2	Grave site 2	Two informal graves indicated by stone heaps. The grave site covers an area of approximately 7m x 4m. The graves are	High Significance Locally (Local Grade 111B)	S 28° 19' 20.04" E 31° 17' 54.23"

		situated approximately 35m from the proposed link road (Option 1). They appear to be younger than 60 years.		
3	Grave site 3	An informal grave indicated by a raised soil profile and a heap of stones. The grave covers an area of approximately 1.8m x 1.3m. The grave site is situated approximately 50m from the proposed link road (Option 1). It appears to be younger than 60 years old.	High Significance Locally (Local Grade 111B)	S 28° 19' 19.29" E 31° 17' 55.00"
4	Grave site 4	A small cluster of 5 graves (indicated by informal stone heap structures). The grave site covers an area of approximately 12m x 15m. It is situated approximately 40m from the proposed link road (Option 1). It appears to be younger than 60 years old.	High Significance Locally (Local Grade 111B)	S 28° 19' 20.75" E 31° 18' 12.05"
5	Grave site 5	Singular grave indicated by informal stone heap. It covers an area of approximately 1m x 1.5m. The grave is situated approximately 42m from the proposed link road (Option 1). The grave appears to be older than 60 years.	High Significance Locally (Local Grade 111B)	S 28° 19' 20.68" E 31° 18' 12.64"
6	Grave site 6	Singular grave indicated by informal stone heap. It covers an area of approximately 1.2m x 1.8m. The grave is situated approximately 16m from the proposed	High Significance Locally (Local Grade 111B)	S 28° 19' 20.93" E 31° 18' 47.28"

		link road (Option 1). The grave appears to be older than 60 years.		
7	Grave site 7	A small cluster of 5 graves (indicated by informal stone head structures). The grave site covers an area of approximately 10 m x 20m. It is situated approximately 3m from the proposed link road (Option 1). It appears to be older than 60 years.	High Significance Locally (Local Grade 111B)	S 28° 19' 19.63" E 31° 18' 50.15"
8	Grave site 8	A grouping of 2 graves (indicated by informal stone heap structures). The grave site covers an area of approximately 4m x 25m. It is situated approximately 30m from the proposed link road (Option 1). It appears to be older than 60 years.	High Significance Locally (Local Grade 111B)	S 28° 19' 8.47" E 31° 19' 21.32"
9	Shembe 'Site of Worship'	A stone circle (painted white) with a diameter of approximately 25m. Modified trees also painted partially white, is placed in the centre of the stone circle. This is a recent feature and has been in existence for the last 6 years. However, it is a place of worship combining indigenous with Christian elements. The site has living heritage values.	This site is of local significance (Local grade 111B It is still in use and has living heritage values. It is therefore protected by heritage legislation.	S 28° 18' 13.08" E 31° 20' 51.46"
10	Early Stone Age "tool scatter"	A thin scatter of Early Stone Age tools occurs approximately 30m – 200m from the edge of the White Mfolozi River	The site has a low heritage rating as it is out of context and of	S 28° 19' 24.19" E 31° 18' 18.52"

		<p>directly adjacent to the L2598. Stone tools include, choppers, cleavers, a possible pick and associated flakes. Most of the tools are made from quartzitic sandstone. However, these stone tools are all out of context and some has clearly been washed down from a higher altitude locality. As they are not in context, they are of little research value. Nevertheless, they may have some educational value and they should be collected, under the auspices of Amafa, before the construction of the link road commences.</p>	<p>little research value. In addition, similar sites occur widely in parts of Zululand and in similar settings.</p>	

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

The preferred link road option (alternative 1) is significant in terms of grave site location as graves sites 1, 2, & 3 are situated in its close proximity. Grave sites 6, 7, and 8 are affected by alternative option 3. These graves will need to be exhumed should the developer not be able to change the trajectory of the relevant road. No graves are affected by alternative option 2.

One Shembe Site of Worship occurs near alternative option 3. This site is significant for the local population as it is still in use. However it is not threatened by the proposed development.

A thin scatter of Early Stone Age tools occur on the L2589 near the proposed Bridge crossing (between alternative options 1 & 3). However, this site has a low heritage

rating as it is out of context and similar to numerous Early Stone Age occurrences in Zululand.

The project area has been modified during the last 10 years, traditional settlement patterns have been altered and powerlines and rural roads have changes the ambiance of the area. The footprint is not part of any known cultural landscape (Table 4). It is the opinion of the consultant, as well as the local community, that the proposed bridge will not significantly alter the 'sense of place' of the area.

Table 4. Evaluation and statement of significance.

Significance criteria in terms of Section 3(3) of the NHRA		
	Significance	Rating
1.	Historic and political significance - The importance of the cultural heritage in the community or pattern of South Africa's history.	None.
2.	Scientific significance – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	The Early Stone Age site is of low significance. It has little research value as the site is out of context. However, it contributes to a growing body of data on the Early Stone Age of Zululand
3.	Research/scientific significance – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	None.
4.	Scientific significance – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	None.
5.	Aesthetic significance – Importance in exhibiting particular aesthetic characteristics valued by a community or cultural group.	None.
6.	Scientific significance – Importance in demonstrating a high degree of creative or technical achievement at a particular period.	None.
7.	Social significance – Strong or special association with a particular community or cultural group for social, cultural or spiritual reasons.	Yes, the Shembe Site of worship is locally significant. However, it is not threatened by the proposed development
8.	Historic significance – Strong or special association with the life and work of a person, group or organization of importance in the history of South Africa.	None.
9.	The significance of the site relating to the history of slavery in South Africa.	None.

5.1 Field Rating

The identified grave sites have all been rated as locally significant (Table 5) as they relate to the local community that lives adjacent to the proposed link road. These sites should therefore be mitigated. The Shembe Site of Worship has been rated as locally significant (Table 5) as it is still in use and maintained by the local community. However, this site is not threatened by the proposed development. The Early Stone Age Site has been afforded a low significance (Table 5). No further recording is required before destruction. However, it is strongly advised that a surface collection is made of the stone tools, under the auspices of Amafa, before development takes place. The collection will have value in terms of teaching purposes

Table 4. Field rating and recommended grading of sites (SAHRA 2005)

Level	Details	Action
National (Grade I)	The site is considered to be of National Significance	Nominated to be declared by SAHRA
Provincial (Grade II)	This site is considered to be of Provincial significance	Nominated to be declared by Provincial Heritage Authority
Local Grade IIIA	This site is considered to be of HIGH significance locally	The site should be retained as a heritage site
Local Grade IIIB	This site is considered to be of HIGH significance locally	The site should be mitigated, and part retained as a heritage site
Generally Protected A	High to medium significance	Mitigation necessary before destruction
Generally Protected B	Medium significance	The site needs to be recorded before destruction
Generally Protected C	Low significance	No further recording is required before destruction

6 RECOMMENDATIONS

Eight grave sites have been identified within 50m from the proposed White Mfolozi Bridge and associated link road (L2598) (alternative option 1). These sites have all been rated as locally significant. They are all protected by provincial heritage legislation and may not be removed or altered. In terms of mitigation the following is suggested:

- Grave Sites 1, 2, 3, 4, 5, 6, 7 & 8 should have buffer zones of at least 10m. No development or alteration may take place within this buffer zone.
- It is also important to note that Grave Sites 6, 7 and 8 are situated within the developmental zone of alternative route 3.
- Grave Sites 1, 2 & 3 are situated within the developmental zone of alternative route 1.
- Grave Site 1 should have a buffer zone of at least 2m due to their close proximity to the proposed link road (and existing road trajectory).
- Should it not be possible to implement these buffer zones then it is suggested that the developer alter the link road trajectory, in the near vicinity of these grave sites, in order to ensure the integrity of these graves. A heritage consultant would need to inspect the new road trajectory before any development may occur.
- Should it not be possible to implement any of the above mentioned suggestions then the developer may call for a Phase Two Heritage Impact Assessment by a grave relocation specialist. This second phase may entail grave exhumation and reburial following a lengthy community consultation process (Appendix 1). There is no need for mitigation for the identified Shembe Site of Worship as this site is situated outside of the footprint near alternative route 3. The site is not threatened by the proposed development.
- However, it is strongly advised that the developers maintain a buffer zone of 20m around this locally important site. The Early Stone Age Site is rated as having a low significance. However, it is situated on the L2589 approximately 150m – 200m from the preferred bridge crossing over the White Mfolozi River.
- It is strongly advised that a surface collection of all the stone artefacts be made by a heritage consultant or Amafa prior to any construction activities.
- These artefacts are out of context and of little research value, however, the collection can be used for teaching purposes.
- Interviews with local community members supported the independent point of view of the consultant that the proposed development will not have any major effect on the known heritage resources of the project area. These included, archaeological and historical sites, living heritage sites (including Shembe Sites of Worship), sources of clay for pottery and medicinal purposes, areas used by traditional healers for the harvesting of medicinal herbs, and cultural landscape values. These views were also reflected by two community and feedback

meetings arranged by Royall Haskoning in the project area on the 5th September 2017 (Appendix 3).

7 UNCERTAINTIES, GAPS AND ASSUMPTIONS

It must be pointed out that the greater project area is relatively rich in archaeological sites and features. It is also possible that “invisible” graves may occur in association with rural homesteads situated along local road (L2598) leading towards the proposed White Mfolozi Bridge. It would therefore be wise to avoid existing homesteads and allow a buffer of at least 15m around these. Construction activities may expose grave sites and archaeological artefacts not visible on the surface. The KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues should cease immediately pending an evaluation by the heritage authorities.

8 MAPS AND PHOTOGRAPHS



Figure 1. Google aerial photograph showing the location of the proposed White Mfolozi Bridge near Ulundi in northern KwaZulu-Natal (Source: Royal Haskoning DHV).

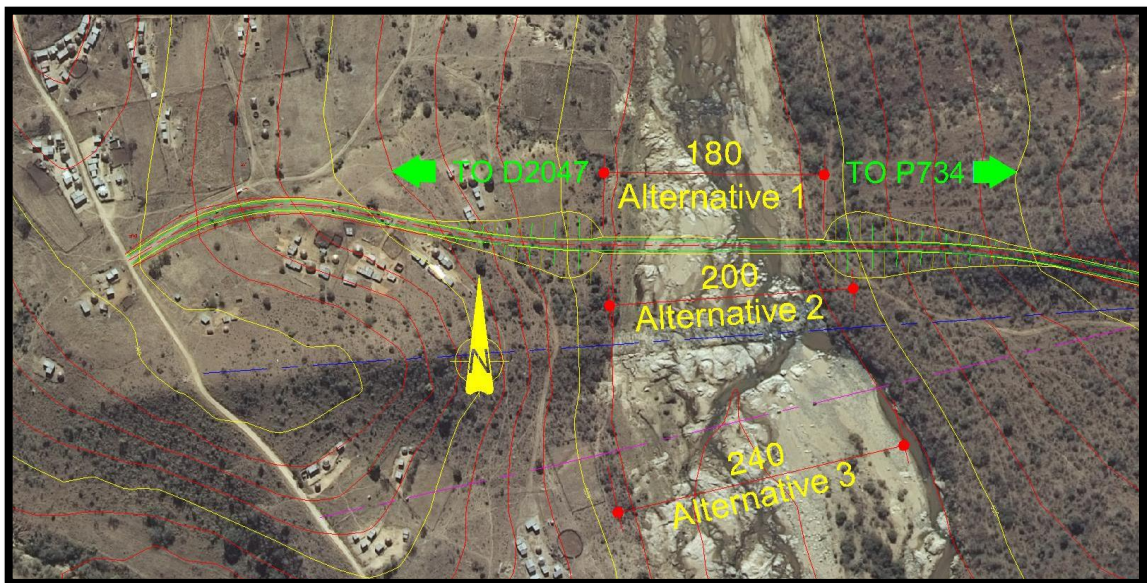


Figure 2. Map of alternative crossing alignments (source: Royal Haskoning DHV).



Figure 3. Google aerial photograph showing the location archaeological (purple polygons) and historical sites (yellow polygons) in the greater Ulundi area. None of these heritage sites occur closer than 4.5km to the proposed development.



Figure 4a. Google aerial photograph showing the location of Grave Sites 1-3 relative to the preferred link road option (alternative 1).

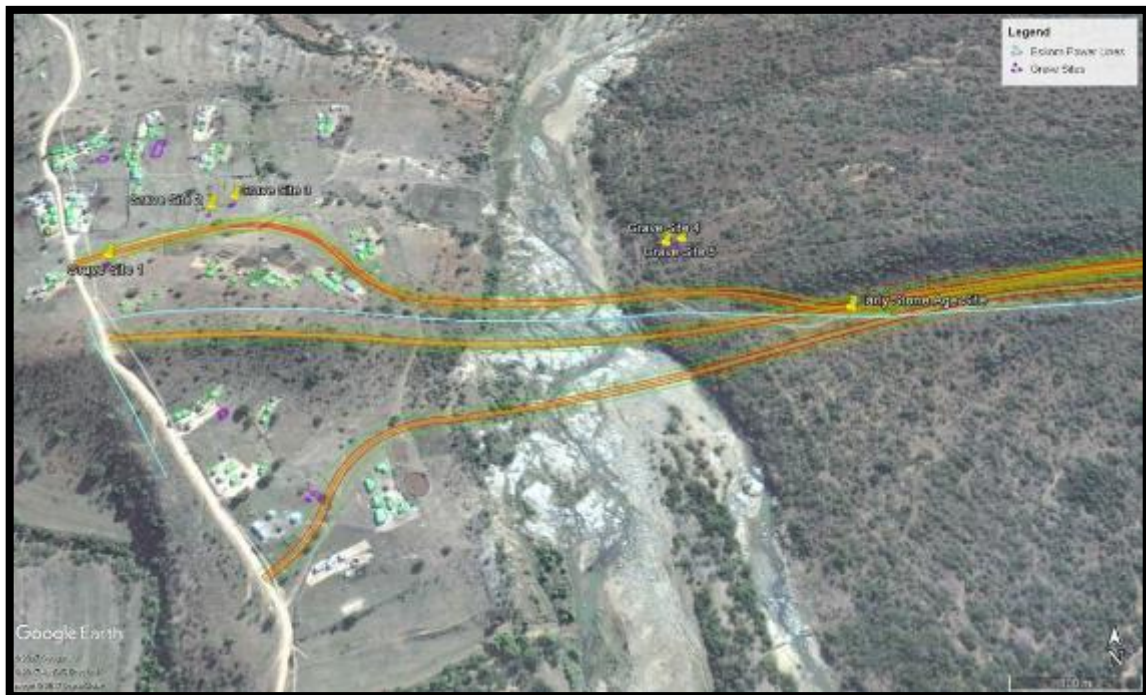


Figure 4b. Aerial photograph showing the three alternative options in the vicinity of the White Mfolozi River. The yellow markers indicate heritage sites. The purple polygons indicate the location of low stone heaps and walling previously thought to be potential grave sites (Source: Royal Haskoning).



Figure 5. Google aerial photograph showing the location of Grave Sites 4 & 5 relative to the preferred link route option (alternative 1).

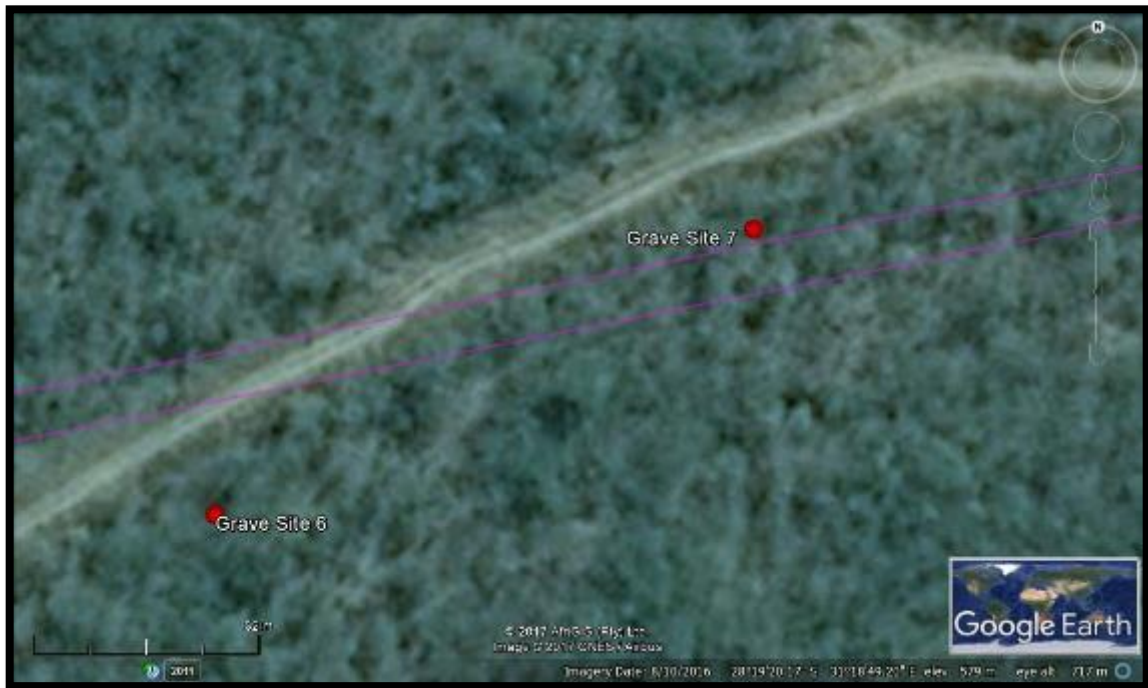


Figure 6a. Google aerial photograph showing the location of Grave Sites 6 & 7 relative to the preferred link route option (alternative 1).



Figure 6b. Aerial photograph showing the location of Grave Sites 6 & 7 relative to alternative 1 and alternative 3. The sites are situated within the developmental zone of alternative route 3 (Source: Royal Haskoning).



Figure 7. Google aerial photograph showing the location of Grave Site 8 relative to the preferred link road option (situated near alternative 3).



Figure 8. Google aerial photograph showing the location of the Early Stone Age tool scatter on the L2985 adjacent to the White Mfolozi (situated between alternative 1 & 3).



Figure 9. Google aerial photograph showing the location of the Shembe Site of Worship near alternative route 3. This site is not threatened by the proposed development.



Figure 10. Photograph showing the location of the proposed bridge on alternative alignment 1 (east bank). The location is indicated by the community liaison officer Mr Daniel Sikhakhane.



Figure 11. Flat areas adjacent to the White Mfolozi River may have been settled by Early Iron Age agropastoralists but no archaeological material was observed at these locales.

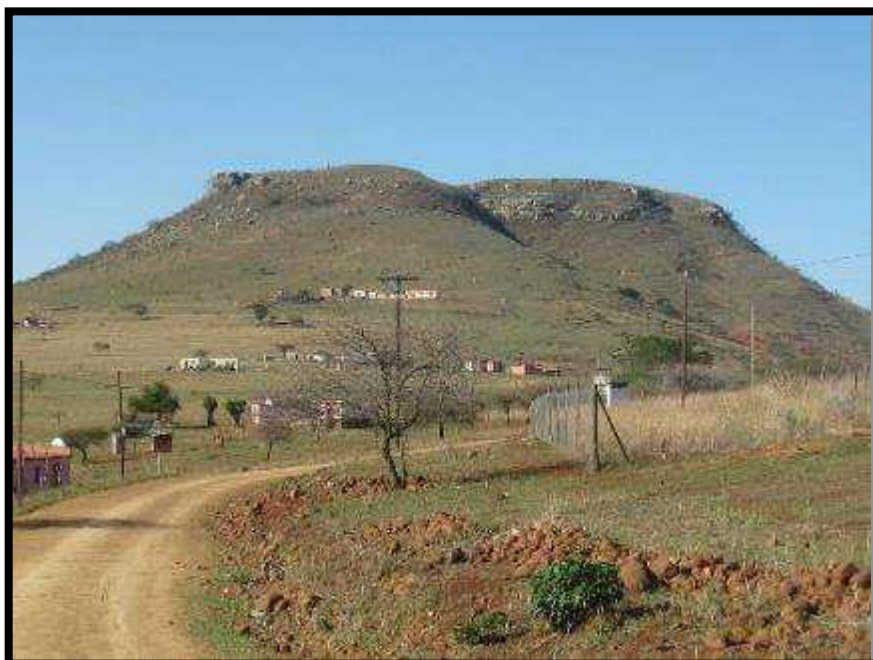


Figure 12. The prominent amaBedlana hills at the eastern end of the project area. No shelters with possible rock art or Later Stone Age material occurs here. There are also no 'living heritage' values associated with these hills.



Figure 13. Early Stone Age cleaver



Figure 14. Early Stone Age chopper



Figure 15. Early Stone Age cleaver



Figure 16. Early Stone Age chopper



Figure 17. Locality of Early Stone Age tool 'scatter' approximately 150m from the edge of the White Mfolozi River.



Figure 18. No graves were observed in association with modern homesteads in the close environs of the footprint. Homestead adjacent to White Mfolozi (west bank)



Fig 19. Grave Site 1



Figure 20. Grave Site 2.



Figure 21. Grave Sites 3 & 4.



Figure 22. Grave Site 5.



Figure 23. Grave Site 6.



Figure 24. Grave Site 7



Figure 25. Grave Site 8



Figure 26. Shembe 'Place of Worship' at the outside edge of the project area near alternative trajectory 3. (View from the south)



Figure 27. Shembe 'Place of Worship' view from the north.



Figure 28. Zulu homesteads arranged in linear-style along the L2589. The traditional dispersed Nguni settlement pattern and associated semi-circular arrangements of huts around a cattle byre is already something of the past in this area.



Figure 29. Cluttered homesteads arranged in linear spatial arrangement adjacent to the L2589 near the proposed bridge crossing (west bank of the White Mfolozi River).



Figure 30. Powerlines crossing the White Mfolozi River directly adjacent to the L2589. The 'sense of place' has already been disturbed.



Figure 31. The Nobamba Tribal Court where the consultant had a meeting with the local tribal authority on 11 October 2017.



Figure 32. Council members and iziNduna of the Nobamba Tribal authority



Figure 33. The Mbatha Tribal Court where the consultant had a meeting with the tribal authority on 11 October 2017.



Figure 34. Council members and iziNduna of the Mbatha Tribal Authority

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APPENDIX 1

RELOCATION OF GRAVES

Burial grounds and graves older than 60 years are dealt with in Article 36 of the NHR Act, no 25 of 1999. The Human Tissues Act (65 of 1983) protects graves younger than 60 years. These fall under the jurisdiction of the National Department of Health and the Provincial Health Departments. Approval for the exhumation and reburial must be obtained from the relevant Provincial MEC as well as the relevant Local Authorities.

Below follows a broad summary of how to deal with grave in the event of proposed development.

- If the graves are younger than 60 years, an undertaker can be contracted to deal with the exhumation and reburial. This will include public participation, organising cemeteries, coffins, etc. They need permits and have their own requirements that must be adhered to.
- If the graves are older than 60 years old or of undetermined age, an archaeologist must be in attendance to assist with the exhumation and documentation of the graves. This is a requirement by law.

Once it has been decided to relocate particular graves, the following steps should be taken:

- Notices of the intention to relocate the graves need to be put up at the burial site for a period of 60 days. This should contain information where communities and family members can contact the developer/archaeologist/public-relations officer/undertaker. All information pertaining to the identification of the graves needs to be documented for the application of a SAHRA permit. The notices need to be in at least 3 languages, English, and two other languages. This is a requirement by law.
- Notices of the intention needs to be placed in at least two local newspapers and have the same information as the above point. This is a requirement by law.
- Local radio stations can also be used to try contact family members. This is not required by law, but is helpful in trying to contact family members.
- During this time (60 days) a suitable cemetery need to be identified close to the development area or otherwise one specified by the family of the deceased.
- An open day for family members should be arranged after the period of 60 days so that they can gather to discuss the way forward, and to sort out any problems. The developer needs to take the families requirements into account. This is a requirement by law.

- Once the 60 days has passed and all the information from the family members have been received, a permit can be requested from SAHRA. This is a requirement by law.
- Once the permit has been received, the graves may be exhumed and relocated.
- All headstones must be relocated with the graves as well as any items found in the grave

APPENDIX 2

Names of Tribal Councillors who attended meeting with heritage consultant on 11 October 2017.

a) Nomamba Tribal Court

BJ Mbatha
E Mchunu
MT Mbatha
MA Dunge
M Sibiya
M M Mbatha
B Khumalo
B Macube
H Dlamini
MA Sibiya
SM Masuku
R Zungu
Z Buthelezi
B Mbuyisa
SM Kubela
Z Mbatha
Z Buthelezi
SN Khubeka

b) Mbatha Tribal Court

D Gumede
M Cebekhulu
MW Mbatha
BS Mbatha
G Mbatha
LM Mbatha
SS Mbuyswa
K Shandu
M Shandu
P Masondo

APPENDIX 3

Royal Haskoning Public Meeting 1 (5 September 2017 – Landulwazi Primary School)

10 NUMBER	11 DETAILS	12 ACTION
1.	<p>Welcome & Purpose of the Meeting</p> <ul style="list-style-type: none"> ▪ Daniel Sikhakhane (DS) (Community Liaison Person) welcomed all present and an opening prayer was observed. ▪ Introductions of the community leaders in attendance, councillors, NGOs and project team were made. ▪ The leadership communicated some words of support for the proposed bridge project. ▪ The leadership acknowledged the good turnout for the meeting and were pleased the women were present. ▪ Mandla Biyela (MB) (Royal HaskoningDHV) explained the purpose of the meeting to: <ul style="list-style-type: none"> ○ Introduce Interested & Affected Parties (I&APs) to the Proposed Project ○ Present the Development Proposal ○ Explain the Environmental Regulatory Process Underway ○ Explain How I&APs can Get Involved & Hear Your Views ○ Indicate the Way Forward 	N/A
2.	<p>Presentation Slides</p> <ul style="list-style-type: none"> ▪ Presented as per the presentation slides. ▪ Included presentation of the project background, scope, need & desirability and presentation of alternatives considered. ▪ Included presentation of the design details, environmental considerations (including proximity to Community Conservation Areas, Protected Areas and potential future tourism opportunities), grave identification and potential properties affected. ▪ Included a description of the proposed culvert replacement. ▪ Included a description of the environmental regulatory process to be followed, specialist studies, activities identified and potential impacts. ▪ The public participation process to be followed was also detailed. 	N/A
3.	Discussion Session	Refer to Table

10 NUMBER	11 DETAILS	12 ACTION
	<ul style="list-style-type: none"> ▪ As detailed in Table 1. 	1
4.	<p>Way Forward & Closure</p> <ul style="list-style-type: none"> ▪ It was explained that the draft Consultation Basic Assessment Report would be made available for public review and comment for a period of 30 days – dates to be advertised. Copies of the report would be made available at the Traditional Councils. ▪ Draft cBAR will be prepared in English with the Executive Summary in isiZulu. Any questions/clarification/discussions can be raised with Clive Zwane in isiZulu. ▪ MB closed the meeting. 	As detailed.

Table 1: Discussion Session Minutes

Comment	Raised By	Response
Clive Zwane - Are you in support of the project or do you have concerns? How will the bridge benefit the community?		
We are happy with the construction of the bridge and support the initiative. It is long overdue.	Various Community Members	The support for the project is noted.
I am pleased to see that the project is nearing construction. Current taxi fares are crippling due to the distance we travel. I hope that with the new bridge prices may decrease as travel distance would be reduced by more than half.	Mr Dlamini	The support for the project is noted.
Will my property near Matshitsholo be affected?	MJ Ntombela	Mandla Biyela presented a map detailed the properties to be affected. He explained that further consultation would occur with affected homesteads by the DoT's independent evaluator and compensated by the DoT as per their compensation process.
The bridge will provide access to hospitals, police stations and other social services. Opportunities for emerging	Various Community Members	The support for and need for the bridge are noted.

Comment	Raised By	Response
contractors as well as vendors will be realised.		
Will properties on the kwaMbambo side be affected by the road?	Mr Xulu	
Are you concerned that the bridge will cause a visual intrusion?		
No.	Various community members	Noted.
Are there any grave sites that have not been presented that should be included? (A map of the grave sides identified was presented).		
We are satisfied that all known grave sites have been identified.	Various community members	Noted.
Do you know of any Shembe sites affected by the proposed road or bridge?		
No.	Various community members	Noted.
Will the project impact on sources of herbs and other such medicinal uses?		
No.	Various community members	Noted.
Are you concerned that the project will deter future tourism potential in the area?		
No.	Various community members	Noted.
Would you like us to consider other impacts or specialist studies not identified?		
Will blasting be undertaken?	Community member	Mandla Biyela explained that one of the Alternative options (Option 2) has large rocks and so it was avoided as a preferred route. If there will be blasting then the community would be notified in advanced so they know which area will be affected and when this will occur to ensure the safety of the community.
What are the employment opportunities?	Community member	Mncedisi Khumalo explained that based on the type of work taking place on site there will potentially be 60 employed people. The government has

Comment	Raised By	Response
		requested (due to high unemployment) that where possible machinery is used less and people do the majority of the work. The DoT has also requested that there be JV partners. There will be training opportunities to empower workers on site.
Is livestock theft a concern for the community?		
No.	Various community members	Noted.

Royal Haskoning Public Meeting 2 (5 September 2017 – KwaMphothi Primary School)

13 NUMBER	14 DETAILS	15 ACTION
1.	<p><i>Welcome & Purpose of the Meeting</i></p> <ul style="list-style-type: none"> ▪ Daniel Sikhakhane (DS) (Community Liaison Person) welcomed all present and an opening prayer was observed. ▪ Introductions of the community leaders in attendance, councillors, NGOs and project team were made. ▪ The leadership communicated some words of support for the proposed bridge project. ▪ Mandla Biyela (MB) (Royal HaskoningDHV) explained the purpose of the meeting to: <ul style="list-style-type: none"> ○ Introduce Interested & Affected Parties (I&APs) to the Proposed Project ○ Present the Development Proposal ○ Explain the Environmental Regulatory Process Underway ○ Explain How I&APs can Get Involved & Hear Your Views ○ Indicate the Way Forward 	N/A
2.	<p><i>Presentation Slides</i></p> <ul style="list-style-type: none"> ▪ Presented as per the presentation slides. 	N/A

13 NUMBER	14 DETAILS	15 ACTION
	<ul style="list-style-type: none"> ▪ Included presentation of the project background, scope, need & desirability and presentation of alternatives considered. ▪ Included presentation of the design details, environmental considerations (including proximity to Community Conservation Areas, Protected Areas and potential future tourism opportunities), grave identification and potential properties affected. ▪ Included a description of the proposed culvert replacement. ▪ Included a description of the environmental regulatory process to be followed, specialist studies, activities identified and potential impacts. ▪ The public participation process to be followed was also detailed. 	
3.	<p>Discussion Session</p> <ul style="list-style-type: none"> ▪ As detailed in Table 1. 	Refer to Table 1
4.	<p>Way Forward & Closure</p> <ul style="list-style-type: none"> ▪ It was explained that the draft Consultation Basic Assessment Report would be made available for public review and comment for a period of 30 days – dates to be advertised. Copies of the report would be made available at the Traditional Councils. ▪ Draft cBAR will be prepared in English with the Executive Summary in isiZulu. Any questions/clarification/discussions can be raised with Clive Zwane in isiZulu. ▪ MB closed the meeting. 	As detailed.

Table 1: Discussion Session Minutes

Comment	Raised By	Response
Thanks Mr Sikhakhane, Mr Biyela and the Izinduna. Whilst the meeting is appreciated, it will be appreciated if in the future, the meeting is organised through the Councillor and the Councillor is requested to chair the meeting. This would be the	Councillor J. Ngema	Mandla Biyela explained that the Councillor's concerns regarding protocol are noted but that the meeting is a public meeting which must be facilitated outside of the political landscape. Furthermore, the meeting was advertised

Comment	Raised By	Response
appropriate protocol / procedure to be followed. Despite the lack of protocol followed, we are also happy that the bridge and road will be constructed because there is a serious problem of lives being lost due to people drowning.		publically in the press and open to all parties.
Clive Zwane - Are you in support of the project or do you have concerns? How will the bridge benefit the community?		
The bridge and link road is welcomed and needed by the community as many people have drowned attempting to cross the river in order for them to get back to their homes. This is why the bridge has been requested by the community, as too many people have died.	Community Member	The support for the project is noted.
Why is the environmental process at such an early stage, even though the community was expecting a contractor on site already?	Mr Zuma	Mandla Biyela explained that there is a process that needs to be followed which has been put forward by the Authorities. These processes are long and thorough for a reason, in previous experiences projects have been stopped due to correct processes not being followed.
I urge the design team to speed up the construction process because the bridge is really needed by the community. Additionally, if there was a complaint that one wanted to raise, how would they go about this process	Community Member	Clive Zwane explained that Community members can raise any complaints they may have in this meeting, or they can contact him or Humayrah Bassa directly and all contact details are provided within the BID that has been distributed to all community members that have attended the meeting.
We emphasize that the community really needs the bridge. I was also under the impression that this meeting was to discuss when construction	Mr Zuma	Mandla Biyela - The community can request that the department of DoT upgrade the road to blacktop, however, for now it will be gravel as per the

Comment	Raised By	Response
starts. Some members of the community are also hoping that the link road would be a surfaced road and not a gravel one, would it be possible to change this? The bridge and link road will reduce travel time and therefore save on petrol prices when travelling.		proposal presented and applied for.
Are you concerned that the bridge will cause a visual intrusion?		
No.	Various community members	Noted.
Are there any grave sites that have not been presented that should be included? (A map of the grave sides identified was presented).		
We are satisfied that all known grave sites have been identified.	Various community members	Noted.
Do you know of any Shembe sites affected by the proposed road or bridge?		
No.	Various community members	Noted.
Will the project impact on sources of herbs and other such medicinal uses?		
No.	Various community members	Noted.
Are you concerned that the project will deter future tourism potential in the area?		
I do not understand how the bridge and link road will impact on tourism. The needs of the environment have always come before the needs of the people which is very frustrating.	Mr Sikhakhane	Whilst your frustrations are noted, the environmental regulatory process must be followed and this process considers the social, economic and biophysical impacts.
Would you like us to consider other impacts or specialist studies not identified?		
The community does not care about environmental concerns and processes all the community wants is for the engineering team to give them a construction start date and build the bridge.	Councillor J. Ngema	Clive Zwane – A date of when the project will start due cannot be committed to due to the fact that there is a process that needs to be followed and there may be many determining factors that may delay the process of obtaining the required approvals and impact

Comment	Raised By	Response
		the start date of construction.
Is livestock theft a concern for the community?		
No.	Various community members	Noted.