A FIRST PHASE CULTURAL HERITAGE IMPACT ASSESSMENT OF THE PROPOSED REHABILITATION OF THE P393 (R34) ROAD AND UPGRADE OF THE DANGO BRIDGE (B1372) AND BEDLANE BRIDGE (B1330) NEAR ESHOWE, KWAZULU-NATAL.



ACTIVE HERITAGE cc.

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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
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 of the proposed rehabilitation of the P 393 (R34) road and upgrade of the Dango Bridge (B1372) and Bedlane Bridge (B 1330) near Empangeni, KwaZulu-Natal identified no heritage sites on the actual footprint. However, the two bridges were constructed in 1958 meaning that they will be 60 years old in 2018. At present they are not protected by heritage legislation but in 2018 they will be regarded in terms of provincial legislation, to be heritage features. Therefore no mitigation is needed in order to alter these bridges if the proposed development is scheduled for 2017. However, if the proposed development proceed in 2018 or thereafter then the developers will have to appoint an Amafa accredited built heritage specialist in order to conduct a Phase Two Heritage Impact Assessment of the relevant bridges. Mitigation will have to be implemented as both these structures will be protected by heritage legislation. 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 expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency.

Details and experience of independent Heritage Impact Assessment Consultant

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Frans received his MA (Archaeology) from the University of Stellenbosch and is presently a PhD candidate on social anthropology at Rhodes University. His PhD research topic deals with indigenous San perceptions and interactions with the rock art heritage of the Drakensberg.

Frans was employed as a junior research associate at the then University of Transkei, Botany Department in 1988-1990. Although attached to a Botany Department he conducted a palaeoecological study on the Iron Age of northern Transkei - this study formed the basis for his MA thesis in Archaeology. Frans left the University of Transkei to accept a junior lecturing position at the University of Stellenbosch in 1990. He taught mostly undergraduate courses on World Archaeology and research methodology during this period.

From 1991 – 2001 Frans was appointed as the head of the department of Historical Anthropology at the Natal Museum, Pietermaritzburg. His tasks included academic research and publication, display conceptualization, and curating the African ethnology collections of the Museum. He developed various displays at the Natal Museum on topics ranging from Zulu material culture, traditional healing, and indigenous classificatory systems. During this period Frans also developed a close association with the Departments of Fine Art, Psychology, and Cultural and Media Studies at the then University of Natal. He assisted many post-graduate students with projects relating to the cultural heritage of South Africa. He also taught post-graduate courses on qualitative research methodology to honours students at the Psychology Department, University of Natal. During this period he served on the editorial boards of the *South African Journal of Field Archaeology* and *Natalia*.

Frans left the Natal Museum in 2001 when approached by a Swiss funding agency to assist an international NGO (Working Group for Indigenous Minorities) with the conceptualization of a San or Bushman museum near Cape Town. During this period he consulted extensively with various San groupings in South Africa, Namibia and Botswana. During this period he also made major research and conceptual contributions to the Kamberg and Didima Rock Art Centres in the Ukhahlamba Drakensberg World Heritage Site.

Between 2003 and 2007 Frans was employed as the Cultural Resource Specialist for the Maloti Drakensberg Transfrontier Project – a bilateral conservation project funded through the World Bank. This project involved the facilitation with various stakeholders in order to produce a cultural heritage conservation and development strategy for the adjacent parts of Lesotho and South Africa. Frans was the facilitator for numerous heritage surveys and assessments during this project. This vast area included more than 2000 heritage sites. Many of these sites had to be assessed and heritage management plans designed for them. He had a major input in the drafting of the new Cultural Resource Management Plan for the Ukahlamba Drakensberg World Heritage site in 2007/2008. A highpoint of his career was the inclusion of Drakensberg San indigenous knowledge systems, with San collaboration, into the management plans of various rock art sites in this world heritage site. He also liaised with the tourism specialist with the drafting of a tourism business plan for the area.

During April 2008 Frans accepted employment at the environmental agency called Strategic Environmental Focus (SEF). His main task was to set-up and run the cultural heritage unit of this national company. During this period he also became an accredited heritage impact assessor and he is rated by both Amafa and the South African Heritage Resources Agency (SAHRA). He completed almost 50 heritage impact assessment reports nation-wide during an 18th month period.

Frans left SEF and started his own heritage consultancy called "Active Heritage cc" in July Although mostly active along the eastern seaboard his clients also include international companies such as Royal Dutch Shell through Golder Associates, and UNESCO. He has now completed almost 100 heritage conservation and management reports for various clients since the inception of "Active Heritage cc". Amongst these was a heritage study of the controversial fracking gas exploration of the Karoo Basin and various proposed mining developments in South Africa and proposed developments adjacent to various World Heritage sites. Apart from heritage impact assessments (HIA's) Frans also assist the National Heritage Council (NHC) through Haley Sharpe Southern Africa', with heritage site data capturing and analysis for the proposed National Liberation Route World Heritage Site and the national intangible heritage audit. In addition, he is has done background research and conceptualization of the proposed Dinosaur Interpretative Centre at Golden Gate National Park and the proposed Khoi and San Interpretive Centre at Camdeboo, Eastern Cape Province. During 2009 he also produced the first draft dossier for the nomination of the Sehlabathebe National Park, Lesotho as a UNESCO inscribed world heritage site.

Frans was appointed as temporary lecturer in the department of Heritage and Tourism, UKZN in 2011. He is also a research affiliate at the School of Cultural and Media Studies in the same institution.

Frans's research interests include African Iron Age, paleoecology, rock art research, San ethnography, traditional healers in South Africa, and heritage conservation. produced more than forty publications on these topics in both popular and academic publications. He is frequently approached by local and international video and film productions in order to assist with research and conceptualization for programmes on African heritage and culture. He has also acted as presenter and specialist for local and international film productions on the rock art of southern Africa. has a wide Frans experience in the fields of museum and interpretive centre display and made a significant contribution to the conceptual planning of displays at the Natal Museum, Golden Horse Casino, Didima Rock Art Centre and !Khwatu San Heritage Centre. Frans is also the cofounder and active member of "African Antiqua" a small tour company who conducts archaeological and cultural tours world-wide. He is a Thetha accredited cultural tour guide and he has conducted more than 50 tours to heritage sites since 1992.

Declaration of Consultants independence

Frans Prins is an independent consultant to Royal HaskoningDHV and has no business, financial, personal or other interest in the activity, application or appeal in respect of which he was appointed other than fair remuneration for work performed in connection with the activity, application or appeal. There are no circumstances whatsoever that compromise the objectivity of this specialist performing such work.

Frans Prins

1 BACKGROUND INFORMATION ON THE PROJECT

Table 1: Background Information

Consultant:	Frans Prins (Active Heritage cc) for Royal HaskoningDHV
Type of development:	Rehabilitation of the P 393 (R34) road and upgrade of the Dango Bridge (B1372) and Bedlane Bridge (B 1330). The bridges will be demolished and reconstructed to fit in with the road rehabilitation.
Rezoning or subdivision:	Not applicable
Terms of reference	To carry out a First Phase Heritage Impact Assessment (HIA).
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 project entails the proposed rehabilitation of the P 393 (R34) road and upgrade of the Dango Bridge (B1372) and Bedlane Bridge (B 1330) near Empangeni. These bridges are located on the P 393 (R34) road between the Nkwalini Pass (km 0) and Empangeni (km 24.0) approximately 14km to the north of Eshowe (Figs 1 - 3). The P 393 is bordered onto by commercial farms.

The GPS coordinates for the road earmarked for upgrading are as follows:

P 393 (R34):

Start: S 28° 43 16.81" E 31° 31' 53.83" End: S 28° 44' 27.53" E 31° 48' 08.97"

Dango Bridge:

28° 43' 28.12" S 31° 34' 2.68" E

Bedlane Bridge:

28° 43' 17.14" S 31° 33' 19.61" E

1.2. Assumption and limitations

Limited 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 is necessary to realize that the heritage resources located during the fieldwork do not necessarily represent all the possible heritage resources present within the area. It was assumed that the information as provided by Royal HaskoningDHV was accurate. We assumed that the public participation process performed as part of the environmental impact assessment was sufficiently encompassing not to be repeated in the Heritage Assessment Phase.

2 BACKGROUND TO ARCHAEOLOGICAL HISTORY OF AREA

The archaeological history of the Province of KwaZulu-Natal (KZN) dates back to about 2 million years and possibly older, which marks the beginning of the Stone Age. The Stone Age in KZN was extensively researched by Professor Oliver Davies formerly of the Natal Museum. The Stone Age period has been divided in to three periods namely: Early Stone Age (ESA) dating between 2 million years ago to about 200 000 years ago, Middle Stone Age (MSA) dating between 200 000 years ago to about 30 000 years ago, and the Later Stone Age (LSA) which dates from 30 000 to about 2 000 year ago. The Stone Age period ends around approximately 2 000 years ago when Bantu speaking Age farmers from the north arrived in southern Africa. The Iron Age is also divided into three periods, namely: Early Iron Age (EIA) dating between AD 200 and AD 900, Middle Iron Age (MIA) dating between AD 900 and AD 1300, Late Iron Age (LIA) dating between AD 1 300 and 1 820.

2.1 Stone Age

2.1.1 Early Stone Age (ESA)

The ESA is considered as the beginning of the stone tool technology. It dates back to over 2 million years ago until 200 000 years ago. This period is characterised by Oldowan and Acheulean industries. The Oldowan Industry, dating to approximately between over 2 million years and 1.7 million years predates the later Acheulean. The Oldowan Industry consists of very simple, crudely made core tools from which flakes are struck a couple of times. To date, there is no consensus amongst archaeologists as to which hominid species manufactured these artefacts. The Acheulean Industry lasted from about 1.7 million years until 200 thousand years ago. Acheulean tools were more specialized tools than those of the earlier industry. They were shaped intentionally to carry out specific tasks such as hacking and bashing to remove limbs from animals and marrow from bone. These duties were performed using the large sharp pointed artefacts known as handaxes. Cleavers, with their sharp, flat cutting edges were used to carry out more heavy duty butchering activities (Esterhuysen, 2007). The ESA technology lasted for a very long time, from early to middle Pleistocene and thus seems to have been sufficient to meet the needs of early hominids and their ancestors. Although not identified on the footprint, ESA tools occurrence have been reported in other

sites in KZN. Apart from stone artefacts, the ESA sites in this Province have produced very little as regards other archaeological remains. This has made it difficult to make inferences pointing to economical dynamics of the ESA people in this part of the world. The diet of ESA peoples has therefore had to be reconstructed on the basis of evidence from elsewhere that it comprised primarily of animal and plant foods (Mazel 1989).

2.1.2 Middle Stone Age (MSA)

The MSA dates to between 200 000 and 30 000 years ago, coinciding with the emergence of modern humans. The MSA technology is therefore believed to have been manufactured by fully modern humans known as Homo sapiens who emerged around 250 000 years ago. While some of the sites belonging to this time period occur in similar contexts as those of ESA, most of the MSA sites are located in rock shelters. Palaeoenvironmental data suggest that the distribution of MSA sites in the high lying Drakensberg and surrounding areas was influenced by the climate conditions, specifically the amount and duration of snow (Carter, 1976). In general, the MSA stone tools are smaller than those of the ESA. Although some MSA tools are made from prepared cores, the majority of MSA flakes are rather irregular and are probably waste material from knapping exercises. A variety of MSA tools include blades, flakes, scrapers and pointed tools that may have been hafted onto shafts or handles and used as spearheads. Between 70 000 and 60 000 years ago new tool types appear known as segments and trapezoids. These tool types are referred to as backed tools from the method of preparation. Residue analyses on the backed tools from South African MSA sites including those in KZN indicate that these tools were certainly used as spear heads and perhaps even arrow points (Wadley, 2007). A few sites with impressive MSA deposits have been excavated in KZN. Perhaps the best known ones are Sibudu Cave and Umhlatuzana Cave to the south of the study area, and Border Cave to the north of the study area. All these sites provided impressive evidence for fine resolution data and detailed stratigraphy (Wadley & Jacobs, 2006).

2.1.3 Late Stone Age (LSA)

Compared to the earlier MSA and ESA, more is known about the LSA which dates from around 30 000 to 2 000 (possibly later) years ago. This is because LSA sites are more recent than ESA and MSA sites and therefore achieve better preservation of a greater variety of organic archaeological material. The Later Stone Age is usually associated with the San (Bushmen) or their direct ancestors. The tools during this period were even smaller and more diverse than those of the preceding Middle Stone Age period. LSA tool technology is observed to display rapid stylistic change compared to the slower pace in the MSA. The rapidity is more evident during the last 10 000 years. The LSA tool sequence includes informal small blade tradition from about 22 000 – 12 000 years ago, a scraper and adze-rich industry between 12 000 – 8 000 years ago, a backed tool and small scraper industry between 8 000 – 4 000 years

and ending with a variable set of other industries thereafter (Wadley, 2007). Adzes are thought to be wood working tools and may have also been used to make digging sticks and handles for tools. Scrapers are tools that are thought to have been used to prepare hides for clothing and manufacture of other leather items. Backed tools may have been used for cutting as well as tips for arrows. It was also during Later Stone Age times that the bow and arrow was introduced into southern Africa - perhaps around 20 000 years ago. Because of the bow and arrow and the use of traps and snares, Later Stone Age people were far more efficient in exploiting their natural environment than Middle Stone Age people. Up until 2 000 years ago Later Stone Age people dominated the southern African landscape. However, shortly after 2 000 years ago the first Khoi herders and Bantu-speaking agro pastoralists immigrated into southern Africa from the north. This led to major demographic changes in the population distribution of the subcontinent. San hunter-gatherers were either assimilated or moved off to more marginal environments such as the Kalahari Desert or some mountain ranges unsuitable for small-scale subsistence farming and herding. The San in the coastal areas of KZN were the first to have been displaced by incoming African agro pastoralists. However, some independent groups continue to practice their hunter gatherer lifestyle in the foothills of the Drakensberg until the period of white colonialisation around the 1840's (Wright & Mazel, 2007). According to the Natal Museum archaeological database Later Stone Age sites have been located in the near vicinity of the footprint but these are mostly restricted to surface scatters. Also dating to the LSA period is the impressive Rock Art found on cave walls and rock faces. Rock Art can be in the form of rock paintings or rock engravings. The province of KZN is renowned for the prolific San rock painting sites concentrated in the Drakensberg. Rock art sites do occur outside the Drakensberg including Zululand, however, these sites have not been afforded similar research attention as those sites occurring in the Drakensberg. However, there are no rock art sides found within the immediate vicinity of study area, which may be due to the lack of the suitable geology.

2.2 Iron Age

2.2.1 Early Iron Age (EIA)

Unlike the Stone Age people whose life styles were arguably egalitarian, Iron Age people led quite complex life styles. Their way of life of greater dependence on agriculture necessitated more sedentary settlements. They cultivated crops and kept domestic animals such as cattle, sheep, goats and dogs. Pottery production is also an important feature of Iron Age communities. Iron smelting was practised quite significantly by Iron Age society as they had to produce iron implements for agricultural use. However no smelting sites were

discovered in the study area as it is the northern KZN that is rich in abandoned iron smelting sites (Maggs, 1989). Although Iron Age people occasionally hunted and gathered wild plants and shellfish, the bulk of their diet consisted of the crops they cultivated as well as the meat of the animals they kept. EIA villages were relatively large settlements strategically located in valleys beside rivers to take advantage of the fertile alluvial soils for growing crops (Maggs, 1989). The EIA sites in KZN date to around AD 500 to AD 900. Extensive research in the province of this period led to it being divided in the following time lines according to ceramic styles (Maggs, 1989; Huffman 2007):

- _ Msuluzi (AD 500);
- _ Ndondondwane (AD 700 800);
- Ntshekane (AD 800 900).

The archaeological data base of the KwaZulu-Natal Museum indicates that ten Early Iron Age sites occur to the immediate west of the study area in the Thukela River basin. Some well known excavated sites such as Mamba, Whosi and Ndondondwane (Huffman 2007) occur on the banks of the Thukela River.

2.2.2 Late Iron Age (LIA)

The LIA is not only distinguished from the EIA by greater regional diversity of pottery styles but is also marked by extensive stone wall settlements. However, in this part of the world, stone walls were not common as the Nguni people used thatch and wood to build their houses. This explains the failure to obtain sites from the aerial photograph investigation of the study area. Trade played a major role in the economy of LIA societies. Goods were traded locally and over long distances. The main trade goods included metal, salt, grain, cattle and thatch. This led to the establishment of economically driven centres and the growth of trade wealth. Keeping of domestic animals, metal work and the cultivation of crops continued with a change in the organisation of economic activities. Evidence for this stems from the fact that iron smelting evidence was not found in almost every settlement (Maggs, 1989; Huffman 2007).

2.3 Historic Period

Oral tradition is the basis of the evidence of historical events that took place before history could be recorded. This kind of evidence becomes even more reliable in cases where archaeology could be utilised to back up the oral records. Sources of evidence for socio political organization during the mid-eighteenth to early nineteenth century in the study area and the larger former Natal Province suggest that the people here existed in numerous small-scale political units of different sizes, population numbers and political structures

(Wright & Hamilton, 1989). This period was largely characterised by rage and instability as political skirmishes broke due to the thirst for power and resources between chiefdoms. During the 2nd half of the eighteenth century, stronger chiefdoms and paramouncies emerged. However, these were not fully grown states as there was no proper formal central political body established. This changed in the 1780's when a shift towards a more centralized political state occurred. This shift was mainly characterized by population growth and geographical expansion of states. The most important and largest and strongest states at the time were the Mabhudu, Ndwandwe and Mthethwa. However, other smaller states, also established themselves in the greater Tugela Region. These included in the south the Qwabe, Bhaca, Mbo, Hlubi, Bhele, Ngwane and many others (Wright & Hamilton, 1989). The Zulu kingdom, established by King Shaka however remained the most powerful in the region in the early years of the 19th century. Shaka fought ruthlessly and often defeated his rivals and conquered their cattle, wives and even burnt their villages. These wars are often referred to as Difagane and this period was characterised by rage and blood shedding. Shaka was assassinated in 1828 at which time he had transformed the nature of the society in the Natal and Zululand regions. He was succeeded by King Dingane (Wright & Hamilton, 1989).

One of the first things Shaka did after he became King in 1819 was to establish his new military headquarters and royal palace, which he called Kwa-Bulawayo, meaning the oppressed one. This name marked the indignities, sufferings and ill-treatment that he, as a young boy, suffered under his father Senzangakhona. Archaeological surveys done during the 1980"s confirm that KwaBulawayo was more than 350 metres across at its widest, the distance between the isigodlo at the top and the lowest gate. Its general layout was similar to King Dingane's better-preserved capital uMgungundlovu and King Cetshwayo's capital oNdini. These establishments were very large indeed and Henry Fynn, an ivory trader in south east Africa in the early 19th century who made several journeys into Zulu territory at the time of King Shaka, estimated that KwaBulawayo was surrounded by an outer palisade over three kilometers in circumference, while his colleague Nathaniel Isaacs believed it contained 1 400 huts. This palace could house about 10 000 warriors. Kwa-Bulawayo was originally built on the southern side of the Mhlathuzi Valley, not far from his ancestor Malandela's capital, Odwini. This spot was chosen because Shaka probably wanted to be in close proximity of his ancestors. It is situated between Empangeni and Eshowe on Ingonyama Trust Land. KwaBulawayo kraal was one of the biggest kraals in Zululand. It is the first Zulu capital visited by whites, amongst them the early English settlers Henry Francis Fynn, Captain Farewell and Nathaniel Isaacs. The erstwhile Historical Monuments

Commission has erected a monument and plaque on the site (Derwent 2006). In July 2009, Kwa-Bulawayo was still under reconstruction, with six huts and one big cattle-byre at the centre and offices on the site. It is earmarked by Uthungulu District Municipality as a community development project. Amafa aKwaZulu-Natali is managing the project.

Dutch farmers unhappy with the British rule in Cape Town decided to explore into the interior of the country, away from British rule. Some groups remained in the Eastern Cape, others kept going and a few settled in the Orange Free State and the Transvaal. A great number, led by Piet Retief and Gerrit Maritz, crossed the Drakensberg into Natal.

Here they encountered the Zulus who lured them into a trap and brutally massacred many of them. This was only one of the many failures of the white settler expeditions in the frontier areas and when the shocking news reached the Cape, more groups were sent to the interior to revenge. A series of battles were fought but the most notable was the Battle of Blood River in 1838 where the Boers defeated the Zulus. This ended the Zulu threat to the white settlers and a permanent and formal settlement in Natal was established. However the Zulu kingdom remained independent for a couple of decades. The Republic of Natalia was annexed by the British in 1845 and in 1879 the Zulu kingdom was also invaded (Wright & Hamilton, 1989). The Anglo-Zulu War has been well recorded and an important occurrence took place at Jamesons Drift, to the west of the project area, when a few British soldiers attempted to cross the Thukela River after their defeat at the battle of Isandlwana. Although no relicts or artefacts survive from this encounter the surrounding landscape is still imbued with the meaning of this important period in the colonial history of KwaZulu-Natal.

3 BACKGROUND INFORMATION OF THE SURVEY

3.1 Methodology

A desktop study was conducted of the archaeological databases housed in the KwaZulu-Natal Museum. In addition, the available archaeological and historical literature covering the greater Eshowe was also consulted. The SAHRIS website was consulted to assess previous heritage surveys done in the area. Aerial photographs of the area was scrutinised for potential heritage sites. The project area was visited on 2 July 2017. A ground survey following accepted archaeological methods and practise was conducted during the site visit. A zone of 50m on either side of the P393 (R34) was surveyed.

P393 (R34) Road Upgrade

Restrictions encountered during the survey

3.2.1 Visibility

Site visibility was good.

3.2.2 Disturbance

No disturbance of any potential heritage features was noted.

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.

DESCRIPTION OF SITES AND MATERIAL OBSERVED

Locational data

Province: KwaZulu-Natal

Towns: Empangeni and Eshowe

Municipality: King Cetshwayo District Municipality

4.2 Archaeological description of the general area surveyed

The middle reaches of the Thukela River Valley to the immediate south west of the project area has been thoroughly surveyed by archaeologists during the last 30 years or so. This area was the focus of various research projects by archaeologists associated with the then Natal and Ondini Museums respectively (Huffman 2007). Three Early Iron Age sites have also been excavated in the recent past notably by archaeologist Len van Schalkwyk who has been working in this area for many years (ibid). The records of the KwaZulu-Natal Museum indicate the presence of 2 Early Stone Age sites, 3 Middle Stone Age sites, 6 Intermediate Stone Age sites, 8 Early Iron Age sites, 3 Later Iron Age sites, and 2 Historical sites in this area. However, none of these occur on the actual footprint.

The greater Eshowe area was pivotal in the rise and development of the Zulu kingdom in the 1820's, the Anglo Zulu-War of 1979, and the Bambatha Rebellion of 1910 (Derwent 2006). Various historical period sites occur in or adjacent to Eshowe. These include Queen Nandi's grave, the Manadawe Cross, Norwegian Soldiers Grave, Fort Kwa Mondi, King Cethswayo's Grave, The Eshowe Jail, the Old Residency, Fort Nongqayi, and the military Ikhanda of King Shaka – KwaBuluwayo. None of these sites are located closer than 1km to the proposed development (Fig 1). They are therefore not threatened and merits no further discussion.

No archaeological and heritage sites was located adjacent to the P 393 (R34). However, both the Bedlane and Dango Bridges that is located on the P 393 merits further discussion (see below).

4.3 Bedlane Bridge

The Bedlane Bridge is situated approximately 3km to the east of the R66 on the P393. The GPS coordinates for this structure are: 28° 43′ 17.14″ S 31° 33′ 19.61″ E (Figs 2 & 3) It spans a small river and is approximately 32m long. The surface of the bridge is tarred but the metal railing has been damaged (Figs 4 & 5). The bridge is not unique and is characteristic of many structures and similar bridges build during the 1950's and 1960's. It is rated as having low heritage value (Table 2). However, it is important to notice that a built heritage specialist, following a thorough investigation, may give the structure a different rating. A date of 1958 is inscribed on the side of the bridge and indicates the period of construction (Fig 6).

4.3.1 Mitigation

The bridge is younger than 60 years old and is therefore not protected by provincial heritage legislation. However, in 2018 the bridge will be 60 years old and mitigation will be necessary in order to alter the structure if development is planned to take place after 2017.

4.4 Dango Bridge

The Dango Bridge is situated approximately 3.8 km to the east of the R66 on the P393. The GPS coordinates for this structure are: 28° 43' 28.12" S 31° 34' 2.68" E (Figs 1 & 2). It spans a small river and is approximately 30m long. It appears to be almost identical to Bedlane Bridge and was also constructed in 1958 (Fig 9). The surface of the bridge is tarred and the

metal railing is in a better condition that those on the Bedlane Bridge (Figs 7 & 8). The bridge is not unique and is characteristic of many structures and similar bridges build during this period. It is rated as having low heritage value (Table 2). However, it is important to notice that a built heritage specialist, following a thorough investigation, may give the structure a different rating. A date of 1958 is inscribed on the side of the bridge and indicates the period of construction.

4.4.1 Mitigation

The bridge is younger than 60 years old and is therefore not protected by provincial heritage legislation. However, in 2018 the bridge will be 60 years old and mitigation will be necessary in order to alter the structure if development is planned to take place after 2017.

5 STATEMENT OF SIGNIFICANCE (HERITAGE VALUE)

5.1 Field Rating

Both the Dango and Bedlane Bridges have been rated as Generally Protected C and have a low significance (Table 2). Again it is important to mention that these rating values may differ significantly from those afforded by a built heritage specialist.

Table 2: 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

Table 3: Evaluation of Dango and Bedlane Bridges

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.	Low
2.	Scientific significance – Possession of uncommon, rare or endangered aspects of South Africa's cultural heritage.	None.
3.	Research/scientific significance – Potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage.	Low
4.	Scientific significance – Importance in demonstrating the principal characteristics of a particular class of South Africa's cultural places/objects.	Low
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, cultu-ral or spiritual reasons.	None
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.

6 RECOMMENDATIONS

- The proposed P 393 (R34) Road Upgrade may proceed from a heritage perspective as
 the archaeological and heritage sites on the footprint (with the possible exception of the
 Bedlane and Dango Bridges see below) were not identified. The project area is also not
 part of any known cultural landscape.
- Bedlane Bridge is still younger than 60 years old and is therefore not protected by provincial heritage legislation. It may therefore be altered if construction takes place before 2018. However, if construction is deemed to be initiated after 2017 then the

- developers will have to initiate a Phase Two Heritage Impact Assessment by an Amafa accredited built heritage specialist. Mitigation will be required in this instance.
- Dango Bridge is still younger than 60 years old and is therefore not protected by provincial heritage legislation. It may therefore be altered if construction takes place before 2018. However, if construction is deemed to be initiated after 2017 then the developers will have to initiate a Phase Two Heritage Impact Assessment by an Amafa accredited built heritage specialist. Mitigation will be required in this instance.
- Should the developers initiate the road upgrade after 2017 then the accredited built heritage specialist will have to conduct a Second Phase Heritage Impact Assessment. This study will contain mitigation measures and suggestions. The built heritage specialist will afford the two bridges a heritage rating score. Based on this rating the specialist may have to apply for a destruction permit from Amafa in order to allow the developers to destroy or alter the relevant bridges. However, there is also the possibility (although unlikely in this instance) that the specialist may afford the bridges a high heritage rating. In this instance the complete destruction of the bridges will not be allowed and a different set of mitigation measures will be put into place.
- It is important to note that the greater Eshowe area is very rich from a heritage perspective and there is a slight possibility that excavations and/or ground works may yield "hidden" heritage sites or artefacts. It is therefore important to notice that the KwaZulu-Natal Heritage Act requires that operations exposing archaeological and historical residues, including modern graves, should cease immediately pending an evaluation by the heritage authorities.

7 MAPS AND PHOTOGRAPHS

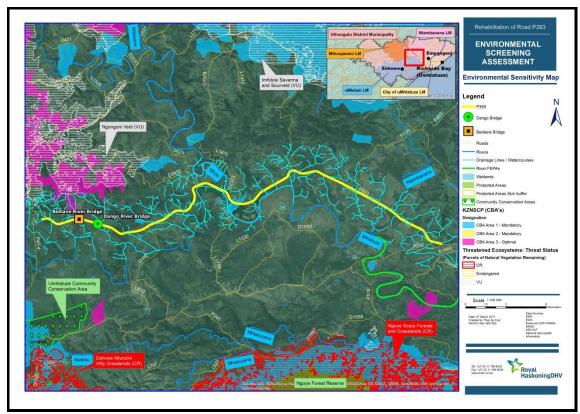


Figure 1: Map showing the location of the P393 and the Bedlane and Dango Bridges near Eshowe, KZN (Source: Royal HaskoningDHV).



Figure 2: Google aerial photograph showing the location of the Bedlane and Dango Bridges relative to Eshowe. The purple polygon indicate the location of a known heritage site in the area.



Figure 3: Google aerial photograph showing the location of the Bedlane and Dango Bridges on the P393 (R34).



Figure 4: The P394 (R34) crossing the Bedlane Bridge.

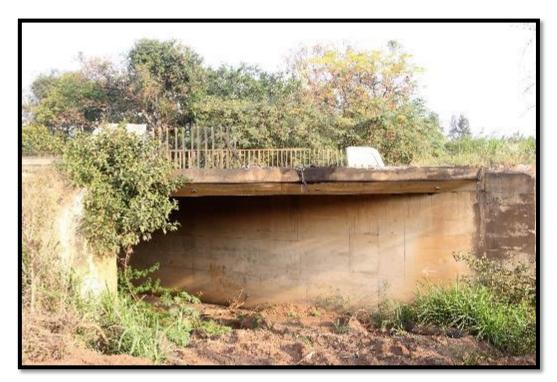


Figure 5: The Bedlane Bridge. Some damage to the existing metal railing is visible.



Figure 6: Inscription of 1958 on Bedlane Bridge showing the construction completion date.

P393 (R34) Road Upgrade



Figure 7: The P393 (R34) in the vicinity of the Dango Bridge.



Figure 8. The Dango Bridge.



Figure 9. Inscription of 1958 – showing the construction completion date of the Dango Bridge.

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