



- 18 August 2016 -

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Letter of Recommendation for Exemption from a Phase 1 Archaeological & Cultural Heritage Impact Assessment (Phase 1 AIA) –

UPGRADE OF THE QUMZA HIGHWAY – PHASE 7, MDANTSANE, BUFFALO CITY METROPOLITAN MUNICIPALITY, EASTERN CAPE

UPGRADE OF THE QUMZA HIGHWAY – PHASE 7, MDANTSANE, BUFFALO CITY METROPOLITAN MUNICIPALITY, EASTERN CAPE

Executive Summary

PROJECT DESCRIPTION –

Royal HaskoningDHV have been appointed as independent EAP by the project proponent, the BCMM, to apply for EA, including a BAR and EMPr to the Eastern Cape DEDEAT for the proposed *Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape*, development. The proposed development comprises an approximate 4.21km road upgrade of the Qumza Highway between Jiba Road, at the entrance to the Mdantsane City Mall (S32°56'10.0"; E27°44'19.4") and the Golden Highway (S32°55'33.0"; E27°42'15.2"). The road upgrade is proposed with the aim to alleviate traffic congestion and improve the safety of road users. The existing road comprise a single carriageway, 6.8m wide; the road will be upgraded to a 14m wide carriageway with two (2) traffic lanes in each direction. Widening of the carriageway includes widening of drainage structures, reconstruction of pavement structures and relocation of services to the new road edge.

LoR FOR EXEMPTION FROM A PHASE 1 AIA –

Project Name & Locality: *Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape* [1:50,000 Map Ref – 3227DC].

Summary:

- Archaeological and cultural heritage desktop information indicates a low probability of the likelihood of protected heritage resources in the vicinity of the study site.
- No geo-referenced declared PHS is situated within an approximate 10km radius from the study site.
- The proposed development poses no 'fatal flaws' with reference to known, or aerially identifiable (Google Earth) heritage resources, being primarily an in-situ upgrade development proposal. Accordingly, the development poses no threat to archaeological or cultural heritage resources with reference to cumulative impact or impact on the cultural landscape.
- [In the event of any incidental archaeological and cultural heritage resources, as defined and protected by the NHRA 1999, being identified during the course of development the process described in 'Appendix A: Heritage Protocol for Incidental Finds during the Construction Phase' should be followed.]

RECOMMENDATIONS –

With reference to archaeological and cultural heritage compliance, as per the requirements of the NHRA 1999, it is recommended that the EC PHRA accepts this report as sufficient for the proposed *Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape*, development: It is recommended that development proceeds as applied for, without the developer having to comply with additional heritage compliance requirements.

The EC PHRA-APM Unit HIA Comment will state legal requirements for development to proceed, or reasons why, from a heritage perspective, development may not be further considered.

CONTENTS

1) PROJECT DESCRIPTION AND TERMS OF REFERENCE.....	3
2) ARCHAEOLOGICAL AND CULTURAL HERITAGE DESKTOP (PRE-FEASIBILITY) ASSESSMENT	6
2.1) Pre-feasibility Summary.....	6
2.2) The SAHRA 2009 MPD & SAHRIS.....	6
2.3) SAHRA Provincial Heritage Site Database – Eastern Cape	7
2.4) General Discussion	8
3) CONCLUSION AND RECOMMENDATIONS.....	8
4) REFERENCES	9

Appendix A:

Heritage Protocol for Incidental Finds during the Construction Phase

Appendix B:

Resumé: Karen van Ryneveld

LIST OF MAPS

Map 1: Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape (courtesy Royal HaskoningDHV).....	3
Map 2: Proposed Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape [1:50,000 Map Ref – 3227DC]	4
Map 3: Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape.....	5
Map 4: Spatial distribution of geo-referenced PHSs in the SAHRA – Eastern Cape database in relation to the Upgrade of the Qumza Highway – Phase 7 study site (https://en.wikipedia.org/wiki/List_of_heritage_sites_in_Eastern_Cape).....	7

LIST OF TABLES

Table 1: Extract from the NHRA 1999, Section 38	3
Table 2: Archaeological and basic cultural heritage probability assessment.....	6

SPECIALIST DECLARATION OF INTEREST

I, Karen van Ryneveld (Company – ArchaeoMaps; Qualification – MSc Archaeology), declare that:

- I am suitably qualified and accredited to act as independent specialist in this application;
- I do not have any financial or personal interest in the application, its' proponent or subsidiaries, aside from fair remuneration for specialist services rendered; and
- That work conducted have been done in an objective manner – and that any circumstances that may have compromised objectivity have been reported on transparently.



Signature –

- 18 August 2016 -

1) PROJECT DESCRIPTION AND TERMS OF REFERENCE

Royal HaskoningDHV have been appointed as independent Environmental Assessment Practitioner (EAP) by the project proponent, the Buffalo City Metropolitan Municipality (BCMM), to apply for Environmental Authorization (EA), including a Basic Assessment Report (BAR) and Environmental Management Plan (EMPr) to the Eastern Cape Department of Economic Development, Environmental Affairs and Tourism (DEDEAT) for the proposed *Upgrade of the Qumza Highway – Phase 7*, Mdantsane, BCMM, Eastern Cape, development. The proposed development comprises an approximate 4.21km road upgrade of the Qumza Highway between Jiba Road, at the entrance to the Mdantsane City Mall (S32°56'10.0"; E27°44'19.4") and the Golden Highway (S32°55'33.0"; E27°42'15.2"). The road upgrade is proposed with the aim to alleviate traffic congestion and improve the safety of road users. The existing road comprise a single carriageway, 6.8m wide; the road will be upgraded to a 14m wide carriageway with two (2) traffic lanes in each direction. Widening of the carriageway includes widening of drainage structures, reconstruction of pavement structures and relocation of services to the new road edge (Royal HaskoningDHV 2016).

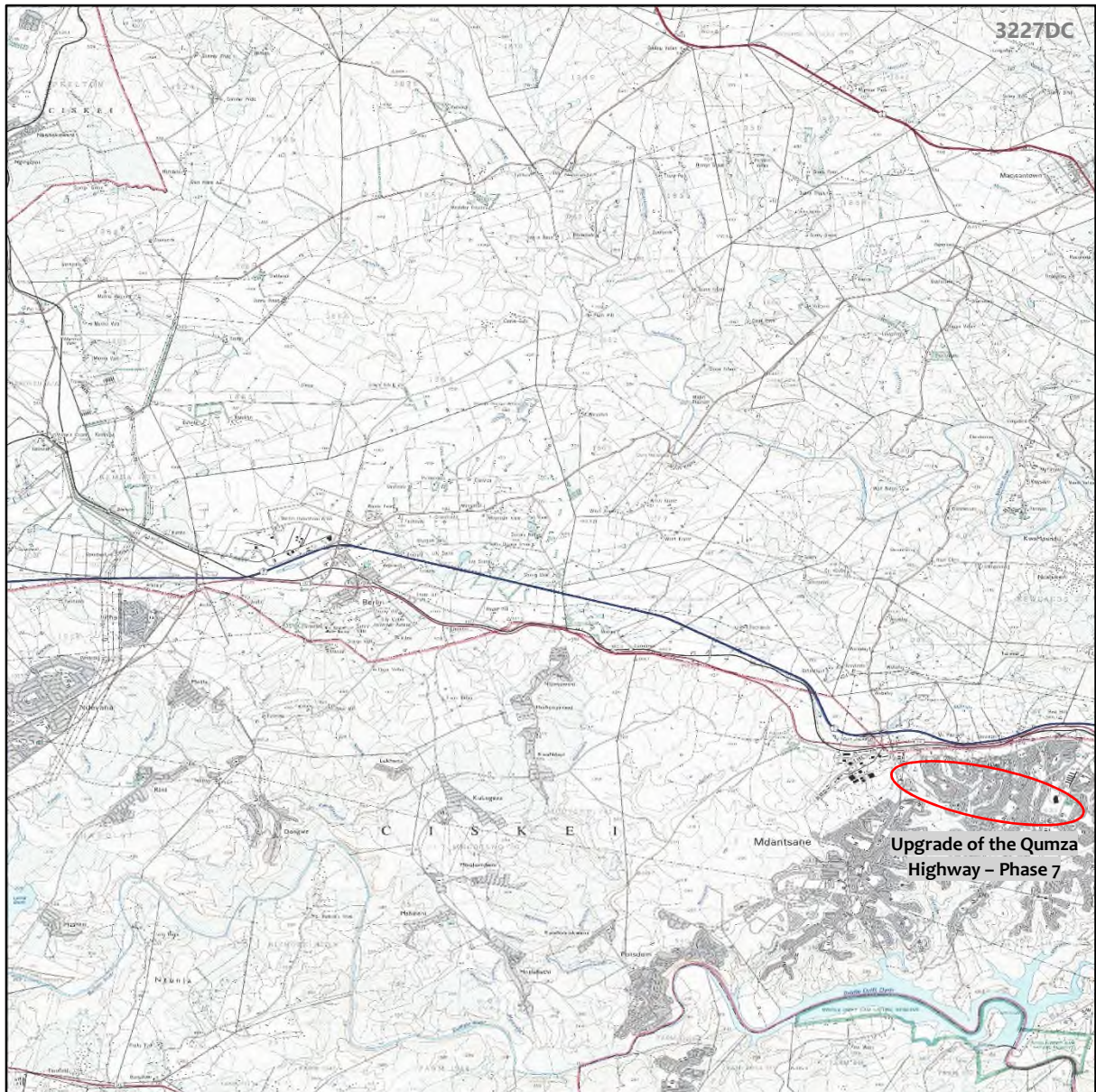
ArchaeoMaps have been appointed by Royal HaskoningDHV to compile a Letter of Recommendation (LoR) for Exemption from a Phase 1 Archaeological and Cultural Heritage Impact Assessment (Phase 1 AIA) for the proposed development. This LoR is compiled with reference to a basic desktop assessment coined with the feasibility of heritage resources, as defined and protected by the National Heritage Resources Act, No 25 of 1999, that may be impacted by the proposed development. The proposed development triggers the NHRA 1999, (Heritage Resources Management) Section 38(1)(a).

NHRA 1999, Section 38	
1)	Subject to the provisions of subsections 7), 8) and 9), any person who intends to undertake a development categorized as –
a)	The construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
b)	The construction of a bridge or similar structure exceeding 50m in length;
c)	Any development or other activity which will change the character of a site –
i.	Exceeding 5,000m ² in extent; or
ii.	Involving three or more existing erven or subdivisions thereof; or
iii.	Involving three or more erven or subdivisions thereof which have been consolidated within the past five years; or
iv.	The costs which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
d)	The rezoning of a site exceeding 10,000m ² in extent;
e)	Any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority,
Must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.	

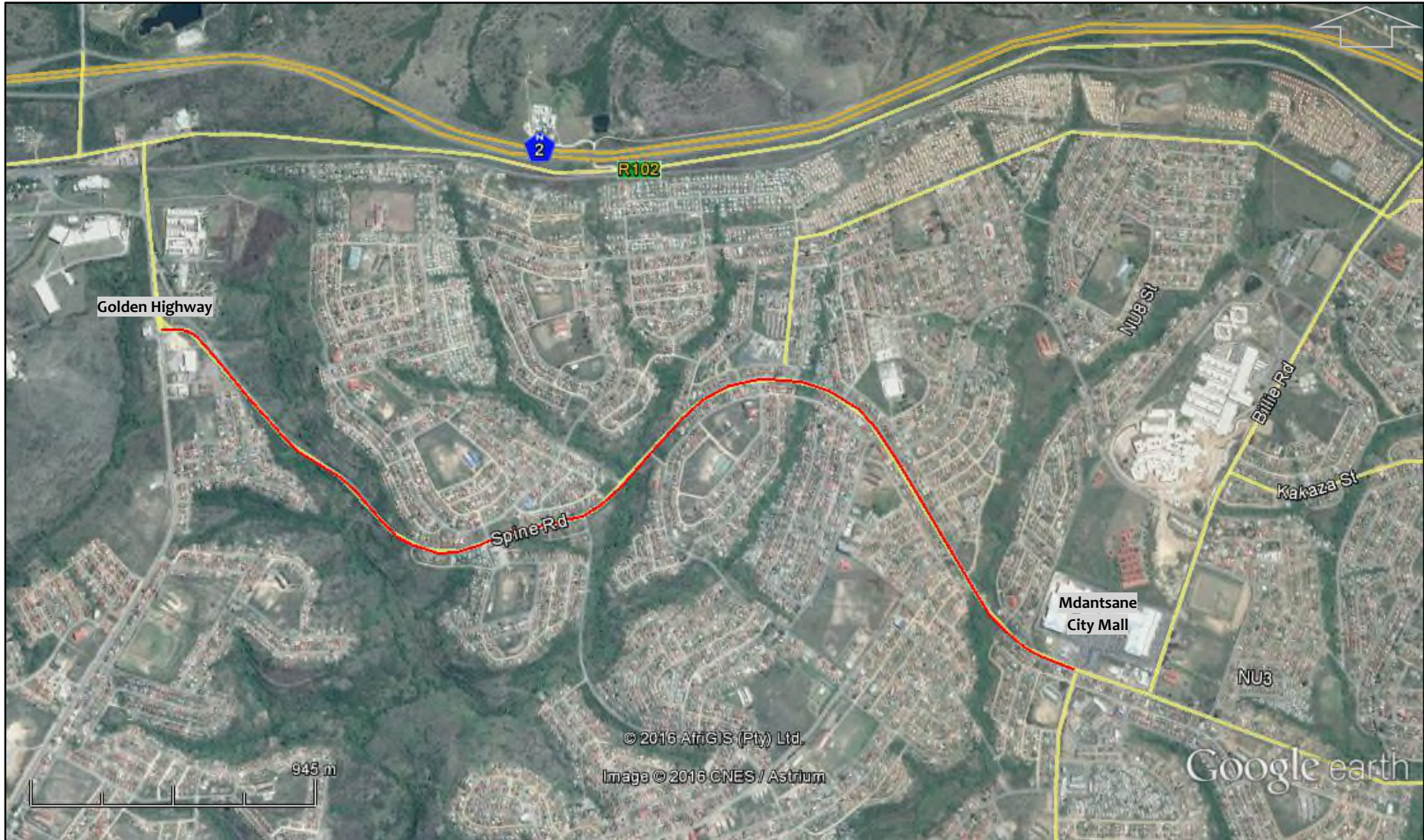
Table 1: Extract from the NHRA 1999, Section 38



Map 1: Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape (courtesy Royal HaskoningDHV)



Map 2: Proposed Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape [1:50,000 Map Ref – 3227DC]



Map 3: Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape

2) ARCHAEOLOGICAL AND CULTURAL HERITAGE DESKTOP (PRE-FEASIBILITY) ASSESSMENT

2.1) Pre-feasibility Summary

The probability of archaeological and cultural heritage resources situated in proximity to the proposed *Upgrading of the Qumza Highway – Phase 7*, Mdantsane, BCMM, Eastern Cape, study site can briefly be described as:

Archaeological and Basic Cultural Heritage Probability Assessment – Upgrade of the Qumza Highway – Phase 7, Mdantsane, BCMM, Eastern Cape			
Primary Type / Period	Sub-period	Sub-period type site	Probability
EARLY HOMININ / HOMINID	-	-	None
	Graves / human remains: High scientific significance		
STONE AGE	Earlier Stone Age (ESA)		Low
	Middle Stone Age (MSA)		Low
	Later Stone Age (LSA)		None-Low
		Rock Art	None
		Shel Middens	None
	Graves / human remains: ESA & MSA - High scientific significance; LSA – High scientific & social significance		
IRON AGE	Early Iron Age (EIA)		None-Low
	Middle Iron Age (MIA)		None
	Later Iron Age (LIA)		Medium-High
	Graves / human remains: EIA – High scientific significance; MIA & LIA – High scientific & social significance		
COLONIAL PERIOD	Colonial Period		None
		LSA – Colonial Period Contact	None-Low
		LIA – Colonial Period Contact	Low-Medium
		Industrial Revolution	Low
		Apartheid & Struggle	High
	Graves / human remains: Medium-high scientific & high social significance		

Table 2: Archaeological and basic cultural heritage probability assessment

2.2) The SAHRA 2009 MPD & SAHRIS

Eight (8) archaeological Cultural Resources Management (CRM) reports are recorded in the SAHRA 2009 Mapping Project Database (MPD) situated within an approximate 15km radius from the proposed *Upgrading of the Qumza Highway – Phase 7* study site, referenced as:

- Binneman, J. & Webley, L.E. 1996. (Albany Museum). *Proposed Eastern Cape Zinc and Phosphoric Acid Project. Baseline Report: Sensitivity of Cultural Sites.*
- Hirst, M. & Victor, S. 2004. (Amathole Museum). *A Heritage Impact Assessment of the Development of the East London Regional Waste Disposal Site on the Grave of the Xhosa Poet Laurette, S.E.K. Mqhayi (1875-1945), at Ntab'Ozuko, Berlin, Eastern Cape.*
- Van Ryneveld, K. 2007. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Mnt. Coke Eco-residential and Golf Estate, East London, Eastern Cape, South Africa.*
- Van Ryneveld, K. 2008a. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Development of a Shopping Mall and Commercial Offices, Portions 21, 22 and 23 of Farm 925, Cove Rock, East London, Eastern Cape, South Africa.*
- Van Ryneveld, K. 2008b. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Industrial Development, Erven 17532 and 49336, Orange Grove, East London, Eastern Cape, South Africa.*
- Van Ryneveld, K. 2008c. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Warehouse and Related Infrastructure, Portion 19 of Farm 925, Cove Rock, East London, Eastern Cape, South Africa.* [Not available on SAHRIS].
- Van Ryneveld, K. 2008d. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Warehouse and Light Industrial development, Farm 922, Cove Rock, East London, Eastern Cape, South Africa.*
- Van Ryneveld, K. 2008e. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Rezoning and Subdivision for Mixed-use Development, Farm 939, Cove Rock, East London, Eastern Cape, South Africa.*

Post compilation of the SAHRA 2009 MPD fourteen (14) SAHRIS cases have been recorded, with study sites situated within the rough 15km radius from the proposed *Upgrading of the Qumza Highway – Phase 7* study site. Of the 14 recorded SAHRIS cases six (6) comprise mining development applications recorded as 'For Noting' only, without associated

archaeological CRM reports, including SAHRIS CaseIDs 1010, 2401, 2414, 2434, 2484 and 2594. Eight (8) SAHRIS cases are associated with archaeological CRM reports, with these listed as:

- Booth, C. 2015. (Booth Heritage Consulting). *Addendum: Archaeological and Heritage Investigation of Proposed Deviations and Repeater Sites for an Environmental Authorization Amendment for Fibreco Route 4 (George to Port Elizabeth) and Route 5 (Port Elizabeth to Durban)*. [SAHRIS CaseID 7631].
- Van Ryneveld, K. 2014a. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment – Proposed Utilization of the Needs Camp / Potsdam Borrow Pit [NCP_BP01], (near East London), BCMM, Eastern Cape, South Africa*. [SAHRIS CaseID 6913].
- Van Ryneveld, K. 2014b. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment – Proposed Construction of the Needs Camp / Potsdam Bridge and Access Road, (near East London), BCMM, Eastern Cape, South Africa*. [SAHRIS CaseID 6769].
- Van Ryneveld, K. 2014c. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment – Calypso Heights Commercial and Residential Development, off Woolwash Road, Amalinda, East London, BCMM, Eastern Cape, South Africa*. [SAHRIS CaseID 5891].
- Van Ryneveld, K. 2015a. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessments – Haven Hills Cemetery Expansion, Erven 1829, 1830, 2382, 2383, 2385, 2388 and 2389, East London, Buffalo City Metropolitan Municipality, Eastern Cape*. [SAHRIS CaseID 9249].
- Van Ryneveld, K. 2015b. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment – Orange Grove Residential Development, Farm RE/862, East London, BCMM, Eastern Cape*. [SAHRIS CaseID 8577].
- Van Ryneveld, K. 2016. (ArchaeoMaps). *Phase 1 Archaeological and Cultural Heritage Impact Assessment – Proposed Bengal Heights Residential Development, Erf RE/2368, Amalinda, East London, Buffalo City Metropolitan Municipality, Eastern Cape*. [SAHRIS CaseID 9145].
- Van Schalkwyk, J. 2011. (Private). *Heritage Impact Assessment for the Proposed Eskom 400kV Electricity Transmission Line, Neptune to Poseidon Substations, East London to Cookhouse, Eastern Cape Province*. [SAHRIS CaseID 1886].

2.3) SAHRA Provincial Heritage Site Database – Eastern Cape

No geo-referenced declared Provincial Heritage Sites (PHS) are recorded in the SAHRA – Eastern Cape database (https://en.wikipedia.org/wiki/List_of_heritage_sites_in_Eastern_Cape) and situated within an approximate 10km radius from the proposed *Upgrade of the Qumza Highway – Phase 7* study site, with a number of declared PHS, specifically in the East London Central Business District (CBD), situated on the rough perimeter of an approximate 15km radius from the study site.



Map 4: Spatial distribution of geo-referenced PHSs in the SAHRA – Eastern Cape database in relation to the *Upgrade of the Qumza Highway – Phase 7* study site (https://en.wikipedia.org/wiki/List_of_heritage_sites_in_Eastern_Cape)

2.4) General Discussion

Van Schalkwyk (2011) commented on the presence of low density Earlier (ESA), Middle (MSA) and Later Stone Age (LSA) occurrences across the length of the Neptune-Poseidon Eskom power line route, while further low density ESA and MSA lithic artefacts were reported on from the Needs Camp / Potsdam area (Van Ryneveld 2014b). LSA shell midden sites were observed by Binneman & Webley (1996), with type sites present up to approximately 5km inland from the coast, but as a norm restricted to within the rough 800m-1km zone from the shoreline. The proposed *Upgrade of the Qumza Highway – Zone 7* study site, situated roughly 18km inland, thus by virtue of its distance from the coastline not sensitive to LSA shell midden type sites.

The Earlier Iron Age (EIA) is identified to as far south as the greater East London area, with Canasta Place, located approximately 20km west of East London being the southern-most recorded LIA site to date, confirming the presence of Iron Age communities in the area as early as 700-1,000AD (Nogwaza 1994). Whilst the Middle Iron Age (MIA) is restricted to the northern parts of South Africa, a number of Later Iron Age (LIA) sites are reported on in archaeological CRM reports: Towards the south of the Buffalo River the intangible LIA site of Cove Rock remain of importance (Binneman & Webley 1996; Van Ryneveld 2008d, 2008e). A large LIA homestead site, with livestock enclosure structures identifiable on aerial imagery was reported on, located in the Amalinda suburb of East London (Van Ryneveld 2016). A significant LIA / contemporary period cemetery was recorded in the Haven Hills area (Van Ryneveld 2015a) and a LIA / contemporary period place of worship was documented from the Needs Camp / Potsdam area (Van Ryneveld 2014b). Of significance is the report by Hirst & Victor (2004), reporting on the grave, and associated family cemetery, of the Xhosa Poet Laureate S.E.K. Mqhayi (1875-1945), situated in close proximity to the East London regional waste disposal site.

Colonial Period resources are fairly ample, with records from archaeological CRM reports including Colonial Period farmstead structure remains and a memorial plaque from the Mnt. Coke study site (Van Ryneveld 2007). Booth (2015) reported on a number of Colonial Period buildings, mainly from urban areas through which the Fibreco line route passes, with the closest being King Williams Town to the *Upgrade of the Qumza Highway – Zone 7* study site. In addition, Van Schalkwyk (2011) commented on a number of Colonial Period farmsteads situated along the Neptune-Poseidon line route, some associated with family cemeteries of varying sizes, but including also farmworker cemetery sites.

The township of Mdantsane is situated north-west of East London, on route to King Williams Town. Mdantsane was established in 1962 as part of the Apartheid government's program of forced removals, with the first inhabitants of Mdantsane believed to have originally been from the West Bank. It is reported that between 1964-1970 thousands of families were resettled in Mdantsane, then forming part of the Ciskei, and having had expanded to the township being the second largest in South Africa today, and second only to Soweto (www.mdantsaneway.com/p/history.html). Significant recent economic development includes, amongst others, the Cecilia Makiwane Hospital and the Mdantsane City Mall. It is believed that the name Mdantsane (also 'Dontsane' and 'Umdanzani') was derived from a stream that ran from the Nahoon River to the Buffalo River, with a nearby farm, Umdanzani (today Mdantsane Zone 1) said to mean 'to pull hard', but with 'Mdantsane' itself not having a meaning; notably curious to African tradition (www.dispatchlive.co.za/mdantsane-a-name-without-a-meaning).

3) CONCLUSION AND RECOMMENDATIONS

With reference to archaeological and cultural heritage compliance, as per the requirements of the NHRA 1999, it is recommended that the EC PHRA accepts this report as sufficient for the proposed *Upgrade of the Qumza Highway – Phase 7*, Mdantsane, BCMM, Eastern Cape, development: It is recommended that development proceeds as applied for, without the developer having to comply with additional heritage compliance requirements.

- Archaeological and cultural heritage desktop information indicates a low probability of the likelihood of protected heritage resources in the vicinity of the study site.
- No geo-referenced declared PHS is situated within an approximate 10km radius from the study site.
- The proposed development poses no 'fatal flaws' with reference to known, or aerially identifiable (Google Earth) heritage resources, being primarily an in-situ upgrade development proposal. Accordingly, the development poses no threat to archaeological or cultural heritage resources with reference to cumulative impact or impact on the cultural landscape.
- [In the event of any incidental archaeological and cultural heritage resources, as defined and protected by the NHRA 1999, being identified during the course of development the process described in 'Appendix A: Heritage Protocol for Incidental Finds during the Construction Phase' should be followed.]

The EC PHRA-APM Unit HIA Comment will state legal requirements for development to proceed, or reasons why, from a heritage perspective, development may not be further considered.

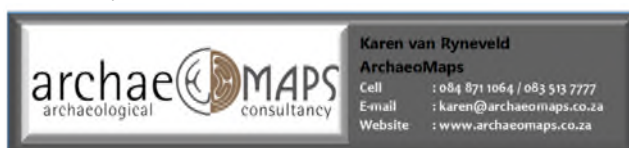
4) REFERENCES

1. Binneman, J. & Webley, L.E. 1996. (Albany Museum). *Proposed Eastern Cape Zinc and Phosphoric Acid Project. Baseline Report: Sensitivity of Cultural Sites.*
2. Booth, C. 2015. (Booth Heritage Consulting). *Addendum: Archaeological and Heritage Investigation of Proposed Deviations and Repeater Sites for an Environmental Authorization Amendment for Fibreco Route 4 (George to Port Elizabeth) and Route 5 (Port Elizabeth to Durban).*
3. Hirst, M. & Victor, S. 2004. (Amathole Museum). *A Heritage Impact Assessment of the Development of the East London Regional Waste Disposal Site on the Grave of the Xhosa Poet Laurette, S.E.K. Mqhayi (1875-1945), at Ntab'Ozuko, Berlin, Eastern Cape.*
4. Nogwaza, T. 1994. *Early Iron Age Pottery from Canasta Place, East London.* Southern African Field Archaeology 3(2): 103-106.
5. Royal HaskoningDHV. 2016. *Buffalo City Metropolitan Municipality, Mdanstane Urban Renewal Programme – Upgrading of the Qumza Highway Phase 7. Updated Design Report – April 2016.*
6. South African Government. (No 25 of) 1999. *National Heritage Resources Act.*
7. Van Ryneveld, K. 2007. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Mnt. Coke Eco-residential and Golf Estate, East London, Eastern Cape, South Africa.*
8. Van Ryneveld, K. 2008d. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Warehouse and Light Industrial development, Farm 922, Cove Rock, East London, Eastern Cape, South Africa.*
9. Van Ryneveld, K. 2008e. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment: Rezoning and Subdivision for Mixed-use Development, Farm 939, Cove Rock, East London, Eastern Cape, South Africa.*
10. Van Ryneveld, K. 2014b. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessment – Proposed Construction of the Needs Camp / Potsdam Bridge and Access Road, (near East London), BCMM, Eastern Cape, South Africa.*
11. Van Ryneveld, K. 2015a. (ArchaeoMaps). *Phase 1 Archaeological Impact Assessments – Haven Hills Cemetery Expansion, Erven 1829, 1830, 2382, 2383, 2385, 2388 and 2389, East London, Buffalo City Metropolitan Municipality, Eastern Cape.*
12. Van Ryneveld, K. 2016. (ArchaeoMaps). *Phase 1 Archaeological and Cultural Heritage Impact Assessment – Proposed Bengal Heights Residential Development, Erf RE/2368, Amalinda, East London, Buffalo City Metropolitan Municipality, Eastern Cape.*
13. Van Schalkwyk, J. 2011. (Private). *Heritage Impact Assessment for the Proposed Eskom 400kV Electricity Transmission Line, Neptune to Poseidon Substations, East London to Cookhouse, Eastern Cape Province.*
14. www.dispatchlive.co.za/mdantsane-a-name-without-a-meaning [Accessed: 16 August 2016].
15. www.mdantsaneway.com/p/history.html [Accessed: 16 August 2016].

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Heritage Impact Assessment (HIA) – Upgrade of the Qumza Highway – Phase 7, Mdantsane, Buffalo City Metropolitan Municipality, Eastern Cape

Heritage Protocol for Incidental Finds during the Construction Phase

Should any palaeontological, archaeological or cultural heritage resources, including human remains / graves, as defined and protected by the NHRA 1999, be identified during the construction phase of development (including as a norm during vegetation clearing, surface scraping, trenching and excavation phases), it is recommended that the process described below be followed.

➤ On-site Reporting Process:

1. The identifier should immediately notify his / her supervisor of the find.
2. The identifier's supervisor should immediately (and within 24 hours after reporting by the identifier) report the incident to the on-site SHE / SHEQ officer.
3. The on-site SHE / SHEQ officer should immediately (and within 24 hours after reporting by the relevant supervisor) report the incident to the appointed ECO / ELO officer. [Should the find relate to human remains the SHE / SHEQ officer should immediately notify the nearest SAPS station informing them of the find].
4. The ECO / ELO officer should ensure that the find is within 72 hours after the SHE / SHEQ officers report reported on SAHRIS and that a relevant heritage specialist is contacted to make arrangements for a heritage site inspection. [Should the find relate to human remains the ECO / ELO officer should ensure that the archaeological site inspection coincides with a SAPS site inspection, to verify if the find is of forensic, authentic (informal / older than 60 years), or archaeological (older than 100 years) origin].
5. The appointed heritage specialist should compile a 'heritage site inspection' report based on the site specific findings. The site inspection report should make recommendations for the destruction, conservation or mitigation of the find and prescribe a recommended way forward for development. The 'heritage site inspection' report should be submitted to the ECO / ELO, who should ensure submission thereof on SAHRIS.
6. SAHRA / the relevant PHRA will state legal requirements for development to proceed in the SAHRA / PHRA Comment on the 'heritage site inspection' report.
7. The developer should proceed with implementation of the SAHRA / PHRA Comment requirements. SAHRA / PHRA Comment requirements may well stipulate permit specifications for development to proceed.
 - Should permit specifications stipulate further Phase 2 archaeological investigation (including grave mitigation) a suitably accredited heritage specialist should be appointed to conduct the work according to the applicable SAHRA / PHRA process. The heritage specialist should apply for the permit. Upon issue of the SAHRA / PHRA permit the Phase 2 heritage mitigation program may commence.
 - Should permit specifications stipulate destruction of the find under a SAHRA / PHRA permit the developer should immediately proceed with the permit application. Upon the issue of the SAHRA / PHRA permit the developer may legally proceed with destruction of the palaeontological, archaeological or cultural heritage resource.
 - Upon completion of the Phase 2 heritage mitigation program the heritage specialist will submit a Phase 2 report to the ECO / ELO, who should in turn ensure submission thereof on SAHRIS. Report recommendations may include that the remainder of a heritage site be destroyed under a SAHRA / PHRA permit.
 - Should the find relate to human remains of forensic origin the matter will be directly addressed by the SAPS: A SAHRA / PHRA permit will not be applicable.

NOTE: Note that SAHRA / PHRA permit and process requirements relating to the mitigation of human remains requires suitable advertising of the find, a consultation, mitigation and re-interment / deposition process.

➤ **Duties of the Supervisor:**

1. The supervisor should immediately upon reporting by the identifier ensure that all work in the vicinity of the find is ceased.
2. The supervisor should ensure that the location of the find is immediately secured (and within 12 hours of reporting by the identifier), by means of a temporary conservation fence (construction netting) allowing for a 5-10m heritage conservation buffer zone around the find. The temporary conserved area should be sign-posted as a 'No Entry – Heritage Site' zone.
3. Where development has impacted on the resource, no attempt should be made to remove artefacts / objects / remains further from their context, and artefacts / objects / remains that have been removed should be collected and placed within the conservation area or kept for safekeeping with the SHE / SHEQ officer. It is imperative that where development has impacted on palaeontological, archaeological and cultural heritage resources the context of the find be preserved as good as possible for interpretive and sample testing purposes.
4. The supervisor should record the name, company and capacity of the identifier and compile a brief report describing the events surrounding the find. The report should be submitted to the SHE / SHEQ officer at the time of the incident report.

➤ **Duties of the SHE / SHEQ Officer:**

1. The SHE / SHEQ officer should ensure that the location of the find is recorded with a GPS. A photographic record of the find (including implementation of temporary conservation measures) should be compiled. Where relevant a scale bar or object that can indicate scale should be inserted in photographs for interpretive purposes.
2. The SHE / SHEQ officer should ensure that the supervisors report, GPS co-ordinate and photographic record of the find be submitted to the ECO / ELO officer. [Should the find relate to human remains the SHE / SHEQ officer should ensure that the mentioned reporting be made available to the SAPS at the time of the incident report].
3. Any retrieved artefacts / objects / remains should, in consultation with the ECO / ELO officer, be deposited in a safe place (preferably on-site) for safekeeping.

➤ **Duties of the ECO / ELO officer:**

1. The ECO / ELO officer should ensure that the incident is reported on SAHRIS. (The ECO / ELO officer should ensure that he / she is registered on the relevant SAHRIS case with SAHRIS authorship to the case at the time of appointment to enable heritage reporting].
2. The ECO / ELO officer should ensure that the incident report is forwarded to the heritage specialist for interpretive purposes at his / her soonest opportunity and prior to the heritage site inspection.
3. The ECO / ELO officer should facilitate appointment of the heritage specialist by the developer / construction consultant for the heritage site inspection.
4. The ECO / ELO officer should facilitate access by the heritage specialist to any retrieved artefacts / objects / remains that have been kept in safekeeping.
5. The ECO / ELO officer should facilitate coordination of the heritage site inspection and the SAPS site inspection in the event of a human remains incident report.
6. The ECO / ELO officer should facilitate heritage reporting and heritage compliance requirements by SAHRA / the relevant PHRA, between the developer / construction consultant, the heritage specialist, the SHE / SHEQ officer (where relevant) and the SAPS (where relevant).

➤ **Duties of the Developer / Construction Consultant:**

The developer / construction consultant should ensure that an adequate heritage contingency budget is accommodated within the project budget to facilitate and streamline the heritage compliance process in the event of identification of incidental palaeontological, archaeological and cultural heritage resources during the course of development, including as a norm during vegetation clearing, surface scraping, trenching and excavation phases, when resources not visible at the time of the surface assessment may well be exposed.

Resumé
Karen van Ryneveld
2016

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- 2) E-mail – karen@archaeomaps.co.za
- 3) Website – www.archaeomaps.co.za
- 4) Postal address – Postnet Suite 239, Private Bag X3, Beacon Bay, 5205

Company: ArchaeoMaps cc

Occupation: Archaeologist

Qualification: MSc Archaeology (WITS University – 2003)

Accreditation:

- 1) Association of Southern African Professional Archaeologists (ASAPA) accredited Cultural Resources Management gCRM practitioner [member nr – 163]
 - o 2010 – ASAPA CRM Section: Principle Investigator – Stone Age
 - o 2005 – ASAPA CRM Section: Field Director – Iron Age & Colonial Period
- 2) SAHRA, AMAFA, EC PHRA and HWC listed ASAPA accredited CRM archaeologist

Tertiary Education

2015 – Present	University of Fort Hare (UFH), East London (MPhil Environmental Studies)
2010	University of South Africa (UNISA), Pretoria (Project Management 501)
2006 – 2007	Nelson Mandela Metropolitan University (NMMU), Port Elizabeth (Undergraduate Certificate in Geographical Information Systems – GIS)
2001 – 2003	University of the Witwatersrand (WITS), Johannesburg (MSc Archaeology)
1999 – 2000	University of Pretoria (UP), Pretoria (BA Hons. Archaeology)
1991 – 1993	University of Pretoria (UP), Pretoria (BA Archaeology & History of Art)

Courses

2016/01	SPA (Safety Passport Alliance) – Petrol Retail [SA Safety Management Training Services – SMST]
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Employment – Professional Archaeology

2007/04 – Present	ArchaeoMaps [Self-employed] (Archaeologist – CRM)
2006/06 – 2007/03	National Museum, Bloemfontein (Archaeologist – CRM, Dept. of Archaeology)
2005/04 – 2006/05	McGregor Museum, Kimberley (Archaeologist – CRM / Research, Dept. of Archaeology)
2004/04 – 2005/01	Amafa aKwaZulu-Natali (HoD: Archaeology, Palaeontology & Meteorites Unit – APM Unit)
2002/09 – 2004/03	McGregor Museum, Kimberley (Archaeologist – CRM / Research, Dept. of Archaeology)

Employment – Freelance: Ground Penetrating Radar

2015/10 – Present	Terra Scan assistant (BCM area, EC) – GPR & underground utilities focussing on petrol retail (oil & gas) industry
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Archaeology – Summary

Karen has been involved in CRM archaeology since 2003 and has been the author (including selected co-authored reports) of approximately 450 Phase 1 AIA studies. Phase 1 AIA work is centred in South Africa, focussing on the Northern and Eastern Cape provinces and the Free State. She has also conducted Phase 1 work in Botswana (2006 / 2007). In 2007 she started ArchaeoMaps, an independent archaeological and heritage consultancy. In 2010 she was awarded ASAPA CRM Principle Investigator (PI) status based on large scale Phase 2 Stone Age mitigation work (De Beers Consolidated Mines – Rooipoort, Northern Cape, 2008 / 2009) and has also been involved in a number of other Phase 2 projects including Stone Age, Shell Middens, Grave / Cemetery projects and Iron Age sites.

In addition to CRM archaeology she has been involved in research, including the international collaborations at Maloney's Kloof and Grootkloof, Ghaap Plateau, Northern Cape (2005 / 2006). Archaeological compliance experience includes her position as Head of the Archaeology, palaeontology and Meteorites (APM) Unit at AMAFA aKwaZulu-Natali (2004).

Company Profile

Company Name	: ArchaeoMaps cc
Registration Number	: 2005/180719/23
VAT Number	: Not VAT Registered
Accountant	: AZIMA Financial Services
Members / Shareholders	: Karen van Ryneveld (100%)
BBBEE Status	: Exempted Micro Enterprise (EME)