

HERITAGE IMPACT ASSESSMENT OF PROPOSED FIBRE OPTIC DUCTS ALONG SECTIONS OF SIR LOWRY'S PASS ROAD AND GORDON'S BAY (W51P79)

Case number 130812GT13

(In terms of Section 38 of the NHRA of 1999)

Prepared for

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On behalf of

Dark Fibre Africa

October 2013



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EXECUTIVE SUMMARY

An extensive network of fibre optic cables already exists throughout metropolitan area but additional ducts need to be installed between Sir Lowry's Pass Village and Gordon's Bay (Figure 1). A generic Environmental Management Plan (EMP) has been prepared for the work.

An NID application was submitted to Heritage Western Cape (HWC) who in response indicated to Dark Fibre Africa that: "the cable passes along the edge of an area of archaeological sensitivity as identified by the City of Cape Town's Archaeological sensitivity map".

The decision in terms of S38 (3) of the NHRA required that an HIA consisting of an Archaeological and Palaeontological study must be submitted for the duct route. ACO Associates cc was appointed by Kevyn Weber Consulting Engineers to conduct an HIA. Archaeological fieldwork was conducted by David Halkett on the 8th September and by Lita Webley on the 28 October 2013. Mr John Pether was consulted regarding the Palaeontology.

Due to significant modifications to the receiving environment over the years, we believe that the impacts on heritage are likely to be limited.

However, a section of the proposed trench lies on the edge of the City's sensitive archaeological area and passes within 5-10 m of the Gordon's Bay Midden. There is a small possibility of human remains being uncovered along Faure Marine Drive.

The possibility of finding archaeological material along the remainder of Sir Lowry's Pass road is considered to be very low. Historical archaeological material may be uncovered in the older section of Gordon's Bay and in Sir Lowry's Pass Village but it is unlikely that the material will be in primary context.

Palaeontological resources are likely to lie at depths greater than 1 meter and are therefore unlikely to be affected by the proposed activities. The 20 meter contour is crossed along Sir Lowry's Pass Road and that area may be sensitive depending on the level of pre-existing disturbance.

Given these conclusions we recommend:

1. The archaeologist should inspect any test pits dug along that section of Faure Marine Drive indicated in Figure 6, prior to the main trenching to determine the nature of the sub-surface deposits. In this way we may be able to identify any archaeological or palaeontological issues that could arise in the course of digging along the route. The particular focus should be on the trench section along Faure Marine Drive in proximity to the Gordon's Bay Midden, a distance of ~700 m. If it can be determined that the ground is disturbed (pre-existing services) then regular monitoring will not be required. If however there is evidence of in situ shell lenses, some monitoring of the trench will be required, and sampling of the content may be necessary. A permit from HWC will be required for any sampling, and must be applied for as soon as we have determined if there are any in situ archaeological remains;
2. If any palaeontological material is detected during monitoring, a palaeontologist should be consulted with respect to commenting and possible sampling;
3. If any human remains are identified anywhere along the route, work at that location must cease until a permit has been obtained for the forensic assessment and removal thereof. HWC must be informed of any such finds. There is an increased risk of human remains in proximity of the Gordon's Bay midden;
4. Any other significant heritage, such as historical archaeological material, which is uncovered along the route that requires further mitigation, may also require permits from Heritage Western Cape in order to carry out the mitigation.

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1. INTRODUCTION

An extensive network of fibre optic cables already exists throughout metropolitan area, and as part of ongoing expansion of the network. Additional ducts need to be installed to the west of Somerset West, along Sir Lowry's Pass Road and through Sir Lowry's Pass Village, to Gordon's Bay (Figure 1). A generic Environmental Management Plan (EMP) has been prepared for the work.

An NID application was submitted to Heritage Western Cape (HWC) who in response indicated to Dark Fibre Africa that: "the cable passes along the edge of an area of archaeological sensitivity as identified by the City of Cape Town's Archaeological sensitivity map".

The decision in terms of S38 (3) of the NHRA required that an HIA consisting of an Archaeological and Palaeontological study must be submitted for the duct route.

2. DETAILED SPECIFICATIONS

A trench will be excavated by hand from approximately the corner of Sir Lowry's Pass Road and Bizweni Road, to the south-east of Somerset East (Figure 1). It will follow the road to Sir Lowry's Pass Village, making a loop in the village to include Barnabas Shaw Road, before following Sir Lowry's Pass Road to the N2. It will then turn west to follow the N2 for 1.2 km before turning south into an unnamed road at the Shell Service Station. After re-joining Sir Lowry's Pass Road it will travel in a south-westerly direction to Faure Marine Drive. It will follow this road until approximately the intersection with Oak Road.

At one point, the trench will cross private land, namely erf 5116 and 5117, 33695 and 5123. Trenches will be at maximum 1 meter deep and at maximum 0.45 meters wide and will be predominantly located in existing road reserves and on pavements or in the road. Faure Marine Drive and the N2 will be crossed.



Figure 1: The proposed fibre optic duct route is shown in red. The Gordon's Bay Midden is shown as a yellow polygon. The areas to the west of the green line are identified by the city as archaeologically "sensitive". The purple polygons and purple lines indicate properties and routes previously assessed for archaeology.

3. ASSESSMENT

3.1 Archaeology

ACO Associates has examined the proposed route for the cable at a desktop level, as well as physically inspecting sections of the route (on the 8th September 2013 and 28 October 2013) in as far as it is possible, to make a heritage risk assessment.

Broadly we note that many of the roads and pavements are already considerably disturbed by existing services and building activities over the years and having inspected some areas can report that surface visibly is highly restricted by grass, artificial surfacing or artificial fill. There were no opportunities to inspect the sub-surface.

The City of Cape Town's Archaeological Sensitivity map has been cited as one of the reasons for requesting an HIA. It should be noted that the Archaeological Sensitivity map has not yet been made available for public consumption and is a draft document. However, I consulted with Ms Clift of the Heritage Branch at the City, who sent me an excerpt of the map which indicates that for the most part, the trench does not enter the sensitive area. It does traverse a section of the route along Faure Marine Drive. I have indicated the City's sensitive area on Figure 1 as the area to the west of the green line. This is a generic zone to indicate increased sensitivity along the coastal strip and does not necessarily mean that there is definitely archaeology present. Included in that area is the fairly well known "Gordon's Bay Midden" (Van Noten 1974), which lies 5-10 meters to the west of the proposed fibre optic trench (Figure 2).



Figure 2: The location of the Gordon's Bay Midden shown in yellow. The border of the midden is merely notional and it is quite likely that there will be a spread of archaeological material in all directions beneath the covering vegetation. Shell midden material was recorded in the location of the white star during the field survey. The proposed fibre optic trench will run some 5-10 m to the east of the midden.

In his description of the site, van Noten records the following: *"The dune is 6 metres high and the base is 6 metres above sea-level. A survey beacon on the top is 14 metres above sea-level. Known*

as 'Dune 111', it is the highest dune of an originally extensive dune area which was covered by dense bush until the 1920's. Since then the vegetation has been cut and sand removed for building purposes..."

The reason the Gordon's Bay Midden survived as long as it has is that it is located within a Municipal camp site. There is otherwise scant evidence of any dune system in the area today, and sadly, much of the archaeological content may have been removed along with the sand. That being said, we do not anticipate any direct impact on the Gordon's Bay midden. An ephemeral spread of shell midden material was observed outside the fence, and between the fence and Faure Marine Drive (Figures 3 & 4).



Figure 3: Fence around midden with material in foreground; **Figure 4:** Shells outside the fence.

Morris (1992:34-35) lists 11 burials from Gordon's Bay. At least one of these (SAM5042) was found by Van Noten in 1964 to the west of the midden. Precise geospatial information relating to the other burials is limited, but the brief descriptions of some suggest they may have been found closer to the beach where additional middens were also likely to have been located. Chance finds of human remains or other significant heritage remains cannot be completely excluded along the sections of the route along Faure Marine Drive.

3.1.1 Other archaeological studies

Finnegan (2008) undertook a survey of the length of Sir Lowry's Pass River but found no archaeological sites (Figure 1). She noted that regular flooding of the river in the past has precluded the preservation of any intact material.

Finnegan and Orton (2011) investigated proposed alternative Bloubos and Gustrow north-south road alignments between Sir Lowry's Pass Village Road and Faure Marine Drive (Figure 1). One of the alternatives they investigated follows a section of the proposed fibre optic duct route. They refer to sporadic Early Stone Age (ESA) artefacts which have been documented at various sites in the general area (e.g. Halkett & Hart 1996; Hart 2004; Orton 2004, 2008), but they found only a single Early Stone Age flake – considered to be of low archaeological significance. These artefacts are always in secondary contexts and are usually exposed in earthworks that penetrate the rocky substrate beneath the surface sands.

Kaplan (2002; 2006(a)) has reported that only a small percentage of erven which he has surveyed in Gordon's Bay, contained archaeological remains. One erf, located on steep slopes overlooking the harbour, contained some ESA stone tools. One of the purple polygons indicated in Figure 1 has been assessed for archaeological remains (Kaplan 2006b) and contains no archaeological remains. Kaplan considered the likelihood of finding additional material there as "highly improbable" (2006(b): 2).

3.2 Historical Archaeology

The VOC recognised the quality of the grazing in the Hottentots-Holland region and stock-bartering with the Khoekhoen groups commenced soon after the settlement was established. An agricultural and cattle post was quickly established and in 1678 free burgher settlement began. The farm De Fortuin ('Fortuintje', now Broadlands) was granted in 1711 (Heap 1977).

Sir Lowry's Pass Village is situated on an old outspan. This was a popular stop for travellers over the Hottentots Holland Kloof. In 1889, a portion of the outspan was surveyed and seventeen small allotments laid out (Heap 1977). By 1890 the village included a post office, shop, mill and stable and the railway line reached the village in this year. The railway station at Sir Lowry's Pass Village is a Provincial Heritage Site (it was declared a National Monument in March 1986) but it is a considerable distance from the route will not be impacted by the trench.

The majority of houses along Barnabas Shaw Road and Sir Lowry's Pass Road (which run through the village) have been constructed within the last 60 years, and are of no heritage significance. Finnegan (2008) reported no historical archaeological material along the length of the Sir Lowry's Pass River. Finnegan & Orton (2011) identified an historic alignment of very large gum trees alongside the road reserve at the southern end of the Broadlands Farm which they recommended should be retained.

It is likely that occasional derived artefactual material may be encountered in the form of colonial ceramics, glass and bone, much of which will not be in primary context.

3.3 Palaeontology

Since a palaeontological study was requested, I consulted Dr J Pether with regard to the nature and likelihood of palaeontological resources being found in the proposed trench. I have included a portion of the 1:50 000 map with the 20 m contour highlighted for clarity when reading his comment (Figure 5).

Dr Pether noted the following in his e-mail: *"The oldest raised cobble beach in the area was intersected at ~33 m asl. along Faure Marine Drive. Rounded cobbles and gravel occur on the wave-cut platform down from ~20 m asl., but these relate to the ~30 m asl. highstand of the mid-Pliocene Warm Period ~3 Ma. This is the youngest marine package of the De Hoopvlei Formation. No fossils have been recorded from it in this area. Below ~12 m asl. it is possible that Quaternary raised beaches of the Klein Brak Formation (= Velddrif Formation) may be encountered, with fossil shell, but probably not shallower than ~1 m. Archaeological monitoring with an alert for fossil shell is adequate.*

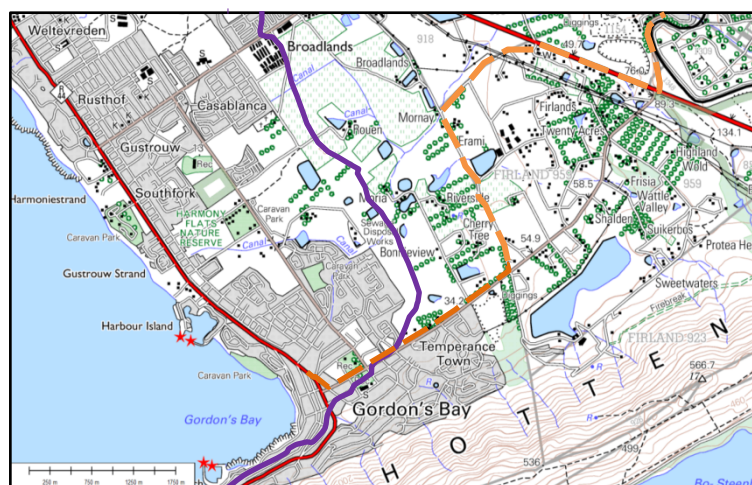


Figure 5: A section of the 1:50 000 map with the 20 meter contour highlighted (purple). Trench route (brown dashed) - (3418BB Somerset West, Dept of Land Affairs and Mapping. Contour interval 20m)

4. CONCLUSIONS AND RECOMMENDATIONS

Due to significant modifications to the receiving environment over the years, we believe that the impacts on heritage are likely to be limited.

However, a section of the proposed trench lies on the edge of the City's sensitive archaeological area and passes within 5-10 m of the Gordon's Bay Midden. There is a small possibility of human remains being uncovered along Faure Marine Drive.

The possibility of finding archaeological material along the remainder of Sir Lowry's Pass road is considered to be very low. Historical archaeological material may be uncovered in the older section of Gordon's Bay and in Sir Lowry's Pass Village but it is unlikely that the material will be in primary context.

Palaeontological resources are likely to lie at depths greater than 1 meter and are therefore unlikely to be affected by the proposed activities. The 20 meter contour is crossed along Sir Lowry's Pass Road and that area may be sensitive depending on the level of pre-existing disturbance.

Given these conclusions we recommend:

1. The archaeologist should inspect any test pits dug along that section of Faure Marine Drive indicated in Figure 6, prior to the main trenching to determine the nature of the sub-surface deposits. In this way we may be able to identify any archaeological or palaeontological issues that could arise in the course of digging along the route. The particular focus should be on the trench section along Faure Marine Drive in proximity to the Gordon's Bay Midden, a distance of ~700 m. If it can be determined that the ground is disturbed (pre-existing services) then regular monitoring will not be required. If however there is evidence of in situ shell lenses, some monitoring of the trench will be required, and sampling of the content may be necessary. A permit from HWC will be required for any sampling, and must be applied for as soon as we have determined if there is any in situ archaeological remains.
2. If any palaeontological material is detected during monitoring, a palaeontologist should be consulted with respect to commenting and possible sampling.



Figure 6: The proposed route along Faure Marine Drive which should be monitored for archaeological heritage.

- 3 If any human remains are identified anywhere along the route, work at that location must cease until a permit has been obtained for the forensic assessment and removal thereof. HWC must be informed of any such finds. There is an increased risk of human remains in proximity of the Gordon's Bay midden.
4. Any other significant heritage, such as historical archaeological material, which is uncovered along the route that requires further mitigation, may also require permits from Heritage Western Cape in order to carry out the mitigation.

5. REFERENCES

Finnegan, E. 2008. Heritage Assessment for proposed upgrading of Sir Lowry's Pass River, Sir Lowry's Pass Village and Gordon's Bay Development Areas. Unpublished report for CCA Environmental (Pty) Ltd. Archaeology Contracts Office, University of Cape Town.

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van Noten, F.L. 1974. Excavations at the Gordon's Bay Shell Midden, south-western Cape. South African Archaeological Bulletin, V 29, No. 115/116. 122-142.

6. PHOTOGRAPHS

General photographic views of the receiving environment



(l) The trench begins on Sir Lowry's Road, just outside of Somerset West. The route makes a loop through Sir Lowry's Pass Village, here running down Barnabas Shaw Road (r).



(l) and (r) The trench travels through Sir Lowry's Pass Village, here along Sir Lowry's Pass Road.



(l) The trench follows the N2 for a short section of 1.2 km, then turns into an unnamed road (r) which winds through small holdings.



(l) The trench then turns back onto Sir Lowry's Pass Road and follows it into Gordon's Bay (r).



(l) looking along Sir Lowry's Pass Road (r) the trench will cross through erven 5116 and 5117 inside the walled area



(l) The trench crosses from Grens Weg into Faure Marine Drive and will cross the road to approximately where the vehicle is parked (r).



The trench will follow Faure Marine Drive, in the road reserve above to the intersection of Oak Road.

Annexure 1: Responses to Nid



Enquiries: Guy Thomas

Date:

21 August 2013

Tel: 021 483 9685

Case No:

130812GT13

Email: jenna.lavin@pgwc.gov.za

Auto IDs:

2269 - 2547

RESPONSE TO NOTIFICATION OF INTENT TO DEVELOP
In terms of section 38(8) of the National Heritage Resources Act (Act 25 of 1999)
and the Western Cape Provincial Gazette 6061, Notice 298 of 2003

Attention: Ms Ilse Hunsinger

Private Bag X2

Durbanville

7551

CASE NUMBER: 130812GT13

NID: PROPOSED OPTIC FIBRE DUCT ROUTE FOR DARK FIBRE AFRICA- W51P79, SIR LOWRY TO GORDONS BAY.

The matter above has reference.

Your NID dated 5 August 2013 was tabled and the following was discussed:

1. Cable mostly falls in the existing road reserve.
2. The cable will be excavated to a depth of 1 m, with a width of 30 to 45 cm along the course of the line.
3. The cable passes on the edge of an area of archaeological sensitivity as identified by the city of Cape Town's Archaeological sensitivity map.

Decision:

1. Since there is reason to believe that heritage resources will be impacted upon, HWC requires an HIA in terms of S. 38(3) of the NHRA (Act 25 of 1999) assessing the impacts on the following heritage resources which it has identified;
2. An HIA is required consisting of an archaeological study and a palaeontological study.

Terms and Conditions:

Heritage Western Cape reserves the right to request additional information as required. This letter does not constitute conclusion of processes under the National Heritage Resources Act (Act 25 of 1999). These processes may only proceed further once the contents of this letter have been adhered to. Please note that no final documentation may be submitted to the Environmental Authority until the process under the NHRA has been concluded.

Should you have any further queries, please contact the official above and quote the case number above.

Yours faithfully

Andrew B Hall
Chief Executive Officer
Heritage Western Cape