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**First phase heritage impact assessment for the LETHABONG HOUSING
DEVELOPMENT (contract no 19080) in Sebokeng.**

For the client

Set Square Developments (Pty) Ltd.

August 2020.



Headstone of David Molebatsi 1854 to 1929 in the Lethabong (Kwaggafontein?) cemetery.

Through project coordinator: -

Lee-Anne Fellows
Shangoni Environmental Consultants +27 (0)12 807 7036

Report prepared by: -

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1. Contact Details.

Client	Environment.	Heritage	Consulting Engineers
Set Square Developments (Pty) (Ltd)	Shangoni Management Services (Pty.) Ltd.	Sidney Miller Heritage Consultant	Neil Lyners and Associates (RF) (Pty) Ltd
William Mac Robert	Lee-Anne Fellows.	Sidney Miller.	Wihan Swart
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william@slmdev.co.za	leeanne@shangoni.co.za .	sidneymears@gmail.com .	wihan@lyners.cp.za .

1.2. Type of Development.

Lethabong housing infrastructure in Sebokeng.

1.3. Zoning of Site.

Urban.

1.4. Description of the site.

The site (originally farmland) is situated to the east of Sebokeng, being part of the former Kwaggafontein or Lapdoorns 548 IQ. It is now developed as a new suburb called Lethabong by the Set Square Developments (Pty) Ltd.

2. Location and GPS Coordinates of the site investigated.



Fig. 01. Above is a 2020 Google Earth image showing the location of the Lethabong site, as well as the location of the graves and the 1920's farmhouse.

Marker	Degrees South	Degrees East
1	26°35'35.29"S	27°51'08.42"E
2	26°35'53.74"S	27°51'10.07"E
3	26°35'51.77"S	27°51'26.47"E
4	26°35'50.17"S	27°51'33.56"E
5	26°34'46.38"S	27°52'09.65"E
6	26°34'49.21"S	27°52'00.30"E
7	26°34'39.42"S	27°51'46.36"E
8	26°34'39.48"S	27°51'30.15"E
Graves n	26°34'41.23"S	27°51'28.66"E
Graves s	26°34'43.52"S	27°51'27.93"E
ZK possible grave	26°35'4.00"S	27°51'47.00"E
1920's farmhouse	26°34'54.13"S	27°51'48.48"E

Fig. 02. Table left shows the G.P.S. coordinates for the property boundaries as well as the position of approximately 40 graves and the old farmyard.

3. Executive Summary.

3.1. Mandate of the heritage consultant.¹

To obtain a first phase Heritage Impact Assessment of the proposed establishment of the Lethabong suburb by the developer Set Square Developments (Pty) Ltd.

3.2. Intent of the Set Square Developments (Pty) Ltd.

Set Square Developments (Pty) Ltd intends to develop a new suburb, Lethabong, to the east of the existing Sebokeng.

3.3 The project description.

The site (originally farmland) is situated to the east of Sebokeng, being part of the former Kwaggafontein or Lapdoorns 548 IQ. It is now being developed as a new suburb called Lethabong by Set Square Developments (Pty) Ltd.²

3.4. Historical milieu.

The well-watered but climatically cold Highveld region surrounding the Vaal River has been a viable habitation for mankind since the earliest times. In the 1940's the well-known Dr van Riet Lowe described substantial Acheulian stone tool assemblages in the Vereeniging area that shows the use of the area by the ancestors of Homo Sapience. Furthermore the rock art engravings at Redan, in the Vredefort dome, and along the Vaal River also indicate the presence of Later Stone Age people in the area. In the last period of the Iron Age, we also find the presence of Afro-pastoralists living in large numbers in villages demarcated by stone walling throughout the region, especially on hill-top vantage points such as on Kliprivierberg and to the east at Suikerbosrand. From the 1840's onward European pioneers settled the area, living from the land as well as from producing farming produce such as grains, vegetables and domesticated animals. In the latter part of the 19th century the occupational character of the region changed dramatically with the discovery and large scale mining of gold on the Rand. After WWII, the establishment of the Van der Bijl Park iron foundries became a reality owing to the large coal deposits at Vereeniging. This brought on the industrialization of the region, and after the 1948 elections and the advent of the Nationalist Party, came the formalization of the Apartheid system. Owing to the large demand for, and the influx of African Labour, formal and separate areas were denominated as living areas for different sections of the population. This led to uprisings such as at Sharpeville in 1960 and at Sebokeng in 1990, and eventually the release of Nelson Mandela in 1992 and the fall of the National Party in 1994.

3.5. Environmental milieu.

3.5.1. Geology.

Not applicable in this contract. See section 7 for general description of geology of the area.

3.5.2. Vegetation.

Not applicable in this contract. See section 7 for general description of the original vegetation of the area.

3.6. Summary of findings.

3.6.1. The site has been ploughed over during the twentieth century. This would have disturbed all heritage residue that may have existed.³

¹ See appointment letter of Heritage consultant in Appendix 3.

² See development plan fig.09 on page 13.

³ See 1989 aerial photograph in fig. 08 on page 12

3.6.2. The general area has been under severe “development stress” over the last ten years, and this disturbance would have worsened the ploughing disturbances of the twentieth century.

3.6.3. The 1920’s farmhouse has survived the development stress, but as it is of relative low field rating ‘**General’ Protection B. (Field Rating IV B)**’. It should be attempted to retain it on the proposed new school premises. Demolition, if so wished by the developer, may only take place if a demolition permit is obtained from PHRA-G after a second phase HIA.

3.6.4. The graves in the northwest corner of the site (+- 40) ought to be properly investigated, cleaned of vegetation and dumped rubble, and fenced off as a first step in action. Negotiations with Set Square Developments (Pty) Ltd must be undertaken as a second step, so as to decide over either the retention or the relocation of the graves.

3.6.5. The “ZK possible grave” noted by the landscape architect Ziegwald Kūsel and shown in *fig. 01* must be treated as a grave site until otherwise proved by a second phase investigation.

3.7. Recommendation.

3.7.1. *It is recommended that the proposed development may proceed with provision of the positive outcome of the negotiations regarding 3.7.2, 3.7.3 and 3.7.4 below.*

3.7.2. *It is recommended that Set Square Developments (Pty) Ltd decide on a policy to deal with the burials. (Either retention and long term maintenance or relocation.)*

3.7.3. *It is recommended that the 1920’s farmhouse should be retained as a janitors residence as part of the future school site on which it is located.*

3.7.4. *The 1920’s farmhouse may not be demolished without a second phase study and the obtaining of a demolition permit from PHRA-G.*

3.7.5. *PGS Heritage (Henk Steyn) & (Polke Birkholtz) have been appointed by Set Square Developments (Pty) Ltd and will be dealing with the Graves Assessment and farm House and out buildings on the School site in Phase 4.*



Sidney Miller

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4. Definitions.

The broad generic term *Cultural Heritage Resources* refers to any physical and spiritual property associated with past and present human use or occupation of the environment, cultural activities and history. The term includes sites, structures, places, natural features and material of paleontological, archaeological, historical, aesthetic, scientific, architectural, religious, symbolic or traditional importance to specific individuals or groups, traditional systems of cultural practice, belief or social interaction.

5. Protected Sites in Terms of the National Heritage Act, Act no 25 of 1999.⁴

The following are the most important sites and objects protected by the National Heritage Act:

- a. **Structures or parts of structures older than 60 years**
- b. Archaeological sites and objects
- c. Paleontological sites
- d. Meteorites
- e. Ship wrecks
- f. **Burial grounds**
- g. Graves of victims of conflict
- h. Public monuments and memorials
- i. Structures, places and objects protected through the publication of notices in the Gazette and Provincial Gazette
- j. Any other places or object which are considered to be of interest or of historical or cultural significance
- k. Geological sites of scientific or cultural importance
- l. Sites of significance relating to the history of slavery in South Africa
- m. Objects to which oral traditions are attached
- n. **Sites of cultural significance or other value to a community or pattern of South African history**

6. Methodology.

- 6.1. The heritage consultant visited the site on the 11th of August, 2020.
- 6.2. He reported to the site office of Set Square Developments (Pty) Ltd and informed the Site Engineer that he was to complete a Heritage Survey of the property
- 6.3. The site was traversed in an appropriate manner so as to collect photographic data for the evaluation of the heritage status of the site under investigation. The routes taken during the on-foot and vehicle inspection was recorded as indicated in *fig. 03* below.
- 6.4. Desktop research was undertaken to establish any available history of the site and such is reflected in section 8 of this report.
- 6.5. Some environmental facts were included in section 7 of this report
- 6.6. Proposed and relevant engineering details are shown with the photographic recording in sections 8 and 9 of this report.
- 6.7. The relevant heritage remains encountered were field rated and statements of significance were allocated in sections 10 and 11 of this report.
- 6.6. All the above information are collated in the summary in section 12 and recommendations are made in section 13.
- 6.9. An executive summary of all relevant facts can be found in section 3 of this report.
- 6.10. In Appendix 3 can be found the Shangoni impact and mitigation monitoring analysis.
- 6.11. Communication with the landscape architect after the site inspection led to the belief that a “possible grave” exists at 26°35'4.00"S, 27°51'47.00"E.

⁴ For the present study the highlighted lines are applicable.

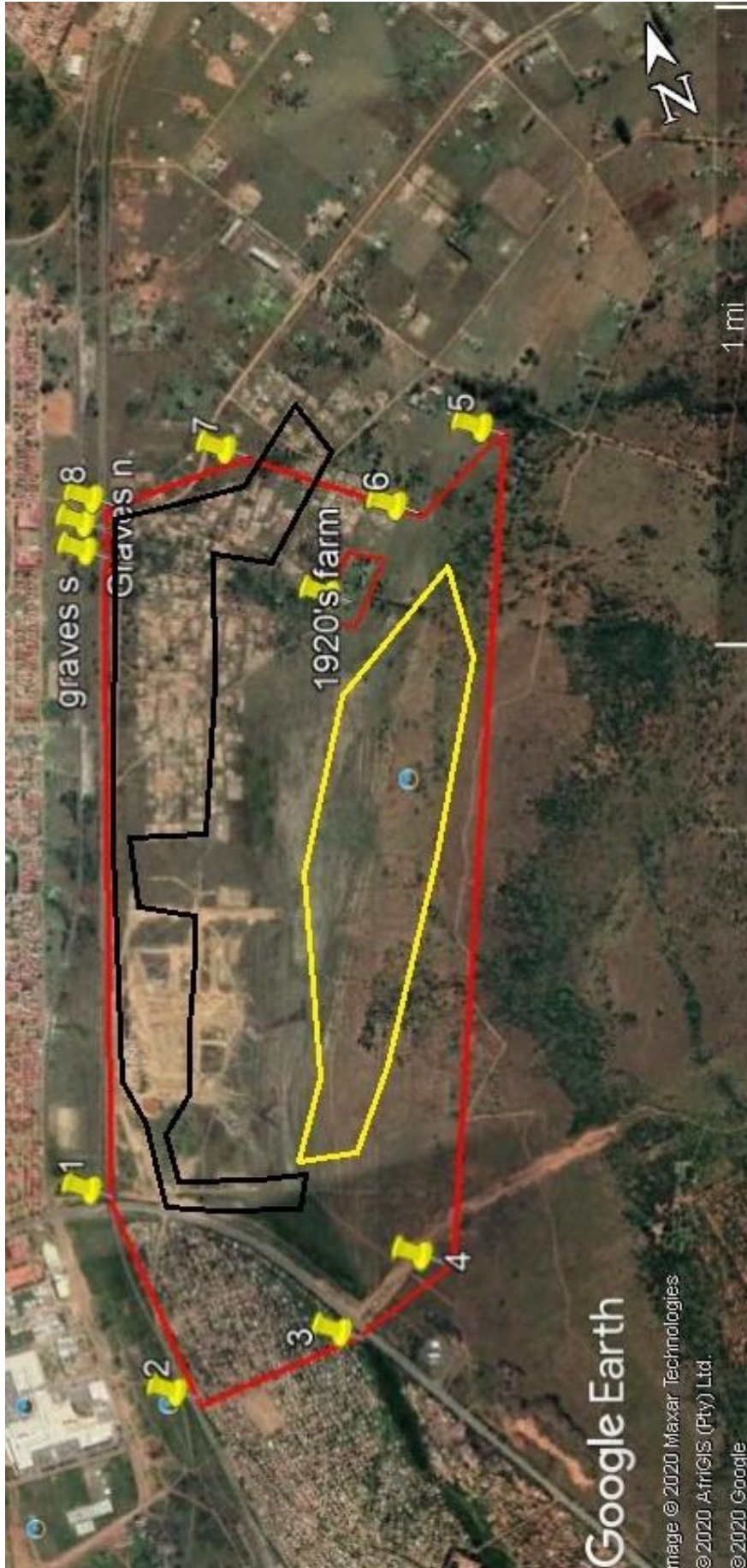


Fig. 03. The above 2020 Google Earth image shows the vehicular (black line) rout and the on-foot (yellow line) routes undertaken during the survey by the Heritage Consultant. From an earlier 1989 aerial photograph (fig. 08) the site was completely disturbed by ploughing during the twentieth century, so no heritage remains would have been left undisturbed. Furthermore, owing to the informal settlement that was formalised and the construction work undertaken over the last five years by Set Square Developments (Pty) Ltd (according to the site engineer) the area to the west of the drainage-line was completely disturbed in recent times. The only heritage remains encountered during the field survey was the approximately 40 graves. During fine combing of the time-lapse Google Earth images the 1920s farmyard and farmhouse was identified. Photographic images taken of the dwelling by the Landscape Architect, Ziegwald Küssel was included in this report. He also noted a “ possible grave “ that is included in this report.

7. Environment.

7.1. Geology.⁵

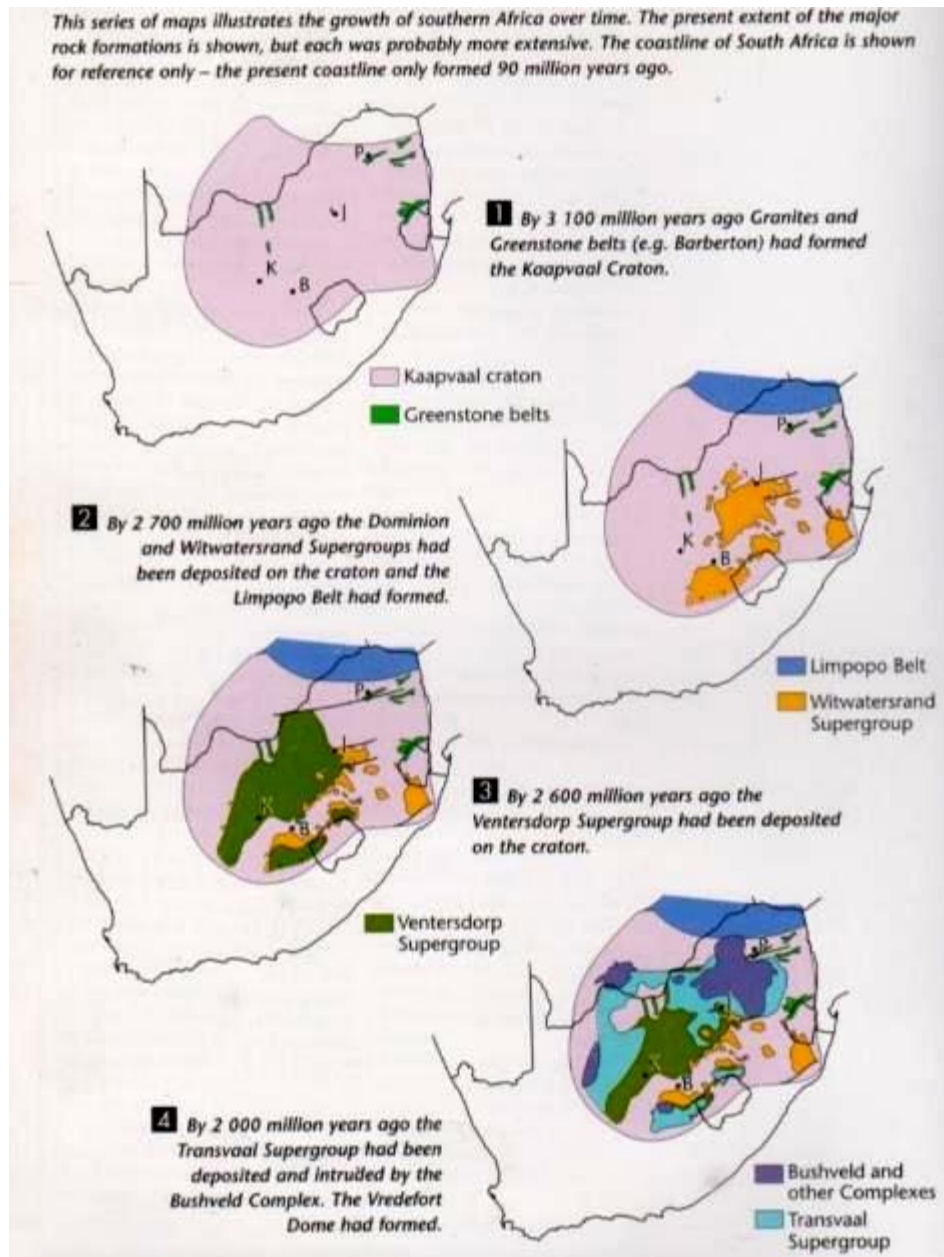


Fig. 04. Above is illustrated the formation of the South African geological substructure between 3100 million years ago and 2000 million years ago. In our present study area the Kaapvaal Craton had formed and the Transvaal Supergroup had been deposited. The Bushveld Complex had appeared and the Vredefort meteorite impact had occurred. J in the illustrations marks Johannesburg, the study area. (McCarthy & Rubidge: 334.)

⁵ See McCarthy & Rubidge 2005 and Haughton 1940 for full description.

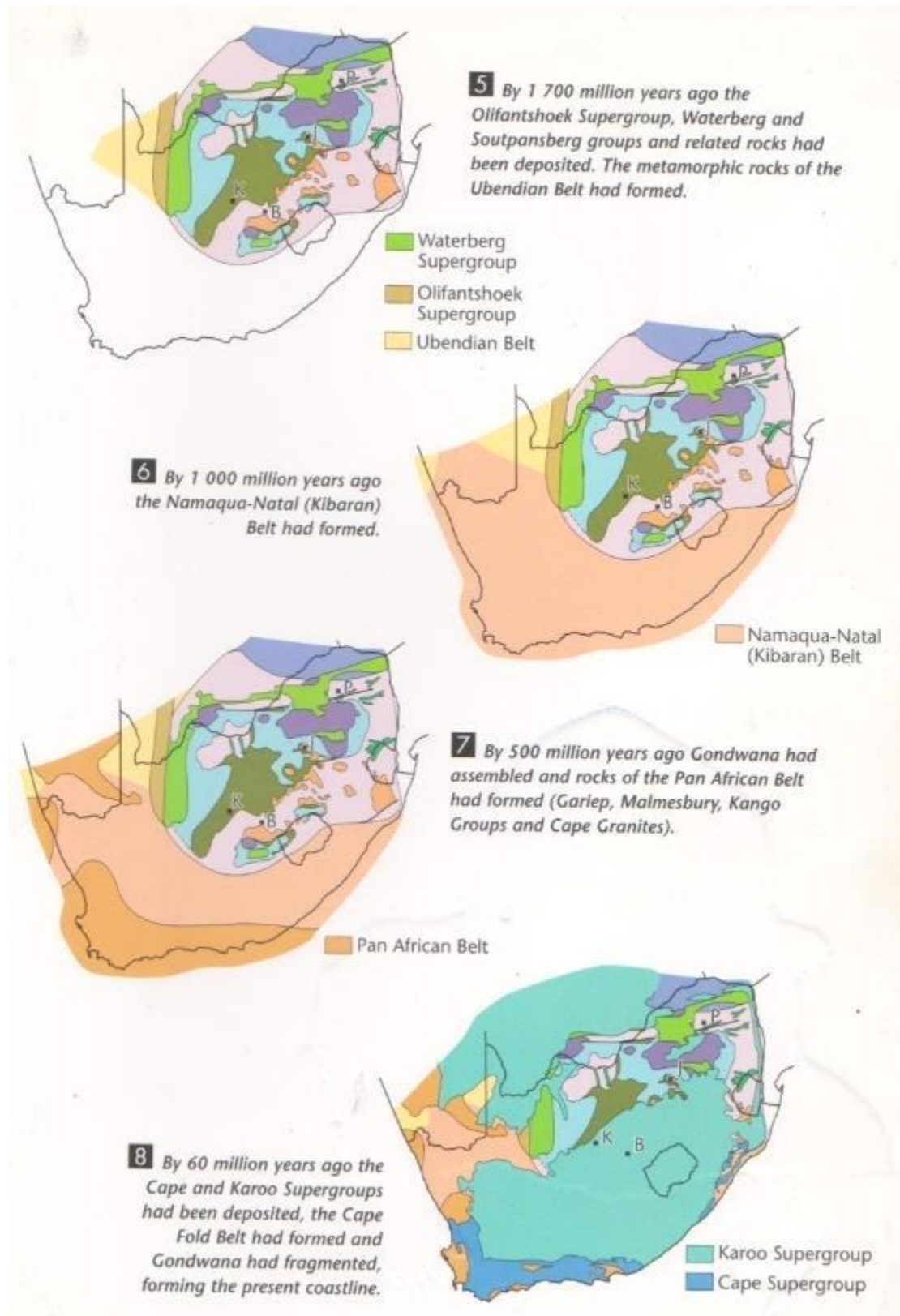


Fig. 05. Above is illustrated the formation of the South African geological substructure between 2000 million years ago and 60 million years ago. As can be seen above it is only the Karoo Supergroup that had any further significant impact on the study area. J, in the illustrations, marks Johannesburg. (McCarthy & Rubidge: 335.)

7.2. Vegetation. ⁶



Fig. 06. The site under investigation, Lethabong, is located on the veldt type zone 48. But seeing that it has been mostly utilized as ploughing- fields for most of a century and for property development the last five years it can be expected that little of the original veld type remains (Acocks, 1988.)⁷

According to Acocks the veldt type 48 is a CYMBOOGON-THEMEDA VELDT TYPE. (Acocks, 1968, p100.) Apparently it is the veld of the sandy parts of the wetter higher-lying portion of the Highveld in the north-eastern Cape, Orange Free State and the south-central Transvaal, normally being undulating to flat country. Altitude ranges from 1359 to 200 m above sea level, and rainfall varies between 450 and 750 mm per annum, falling in summer. Winters are severely frosty. Under these circumstances a mixed to sour grassveld is the climax.

Already in 1948 Acocks remarks that “much of it has been ploughed-up and the sandy soils is beginning to break down into sand.”

According to him two sub veld-types can be recognised: - 48a the southern variation, and 48b the Transvaal variation. For the present study area in type 48b, he tabulates as generally occurring the following species.

Setaria flabellate
Themeda triandra
Heteropogon contortus
Eragrostis racemose and *E chloromelas*
Elionurus muticus
Cymbopogon plurinodus
Brachiaria serrata

And 10 others while at least 10 more species occurs in lesser densities.

Note the environmental impact by 20th century ploughing in *fig. 08* on page 12 below.

8. Archaeological and Historical Background.

8.1. Archaeology

8.1.1. Stone and Iron Age. ^{8,9}

The well-watered but climatically cold Highveld region surrounding the Vaal River has been viable habitation for mankind since the earliest times. In the 1940's the well-known Dr van Riet Lowe described substantial Acheulian stone tool assemblages in Vereeniging that shows the use of the area by the ancestors of Homo Sapience. Furthermore the rock art engravings at

⁶ For a full and accurate description of the vegetation see Mucina & Rutherford, 2006.

⁷ The author is aware of the updated version of Acocks's work by Mucina & Rutherford, 2010, but for the purposes of this investigation Acocks version is preferred by the present author.

⁸ See Mason, R. 1969. *Prehistory of the Transvaal*.

⁹ See Huffman, T. 2007. *Handbook to the Iron Age. The Archaeology of Pre- Colonial Farming Societies in Southern Africa*.

Redan, in the Vredefort Dome and along the Vaal River at Vereeniging also indicate the presence of Later Stone Age people in the Area. In the last period of the Iron Age, we also find the presence of Afro-pastoralists living in large numbers in villages demarcated by stone walling throughout the region, especially on hill-top vantage points such as on Kliprivierberg and to the east at Suikerbosrand.

Regarding the Lethabong site it is expected that neither Stone Age nor Iron Age remains may be encountered during the proposed work.

8.2. Historical Period.¹⁰

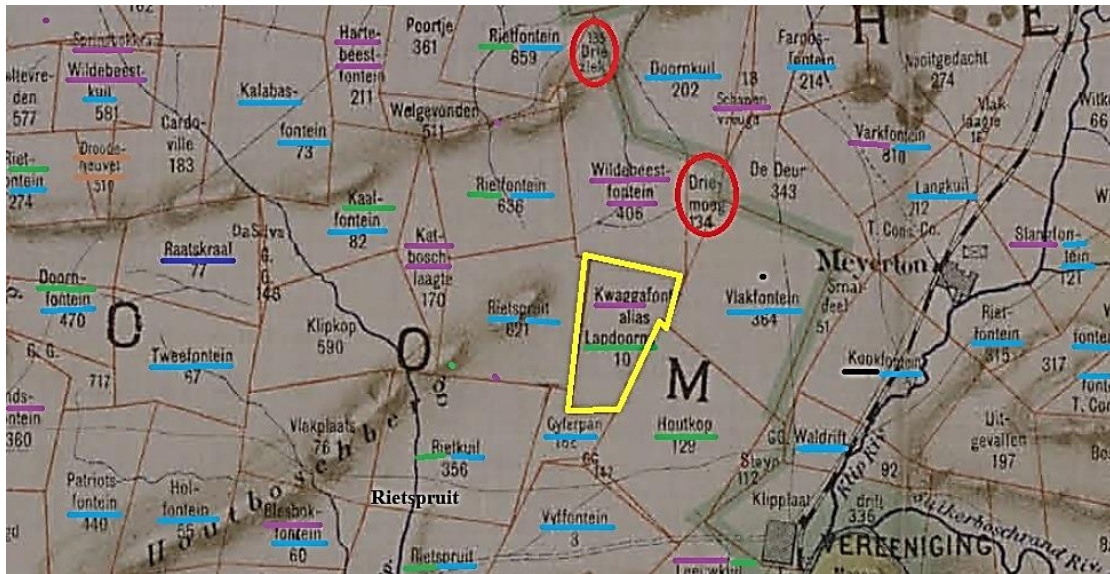


Fig. 07. Lethabong is located on the original farm Kwaggafontein (alias Lapdoorns) 10, here captured by Jeppe in 1899. (Map of the Transvaal, sheet 5.) Note how the farm names captures the general environment of the region as being water rich, devoid of trees and populated with plains animals including Springbuck, Wildebeest, Kwagga, Blesbuck, Hartebeest, Warthog, “Snakes” and Lion. Between Vereeniging and Meyerton there is even a “Kookfonteien” showing thermal activity. Some personal issues are reflected in “Nooitgedagt”, Welgevonden, “Patriotsfontein”, “Drie Moeg” and “Drie Ziek. When a “kraal” appears in a farm name it is normally associated with an existing African village, in this case that of “Raat”.

From the 1840's onward European pioneers settled the area, living from the land as well as from producing farming produce such as grains, vegetables and domesticated animals.

In the latter part of the 19th century the occupational character of the region changed dramatically with the discovery and large scale mining of gold. This brought on the industrialization of the region. It all started when Dr HJ van der Bijl, a brilliant young scientist working in the United States at the time, was called back to South Africa in 1920 by the then Prime Minister Jan Smuts to advise the government on planning South Africa's industrial development. Van der Bijl oversaw the Iron and Steel Corporation's first plant at Pretoria, but with the increased demand after World War II, 100 km² was bought to build a large steel works and model town. The steel works began operating in 1947 and the town was proclaimed in 1949. The town attained municipal status in 1952 when Governor General Dr EG Jansen opened ISCOR's second steel works.

¹⁰See Potgieter, F. J. 1959. *Die Vestiging van die Blanke in die Transvaal. (1837 – 1886.)*

Then in 1948 came the formalization of the Apartheid system. Owing to the large demand for and the influx of African Labour, formal and separate areas were denominated as living areas for different sections of the population. More “Locations” were founded, amongst others, Sebokeng, which literally means "gathering place" in Sesotho. It was established by the then apartheid government in 1965 when 18,772 houses were erected. In September 1984 there were violent clashes between the South African security forces and the residents of Sebokeng, who were boycotting rent and service tariffs. The cessation of fighting in 1994 allowed citizens to begin forming a stable community. The proposed new Lethabong development is now a natural extension of Sebokeng.

Regarding the history of the Kwaggafontein/Lethabong site it is expected that historical remains such as grave sites and old farmyards may be encountered on the site proposed for development.

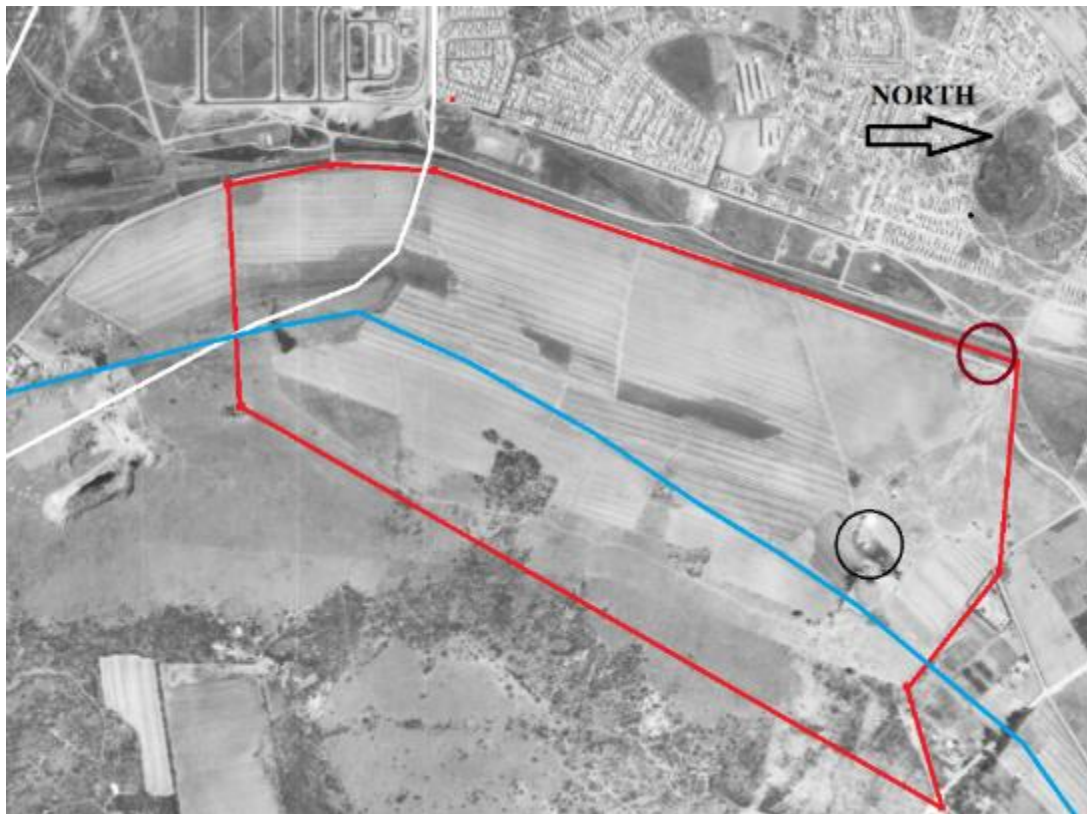


Fig. 08. The 1989 aerial photograph of Kwaggafontein (the now Lethabong development area) clearly shows the long and continuous use of the site as fields for ploughing. Even the area to the east of the drainage-line and the drainage-line itself appears to have been ploughed in a modern structured manner. The red line demarcates the development area, the blue line the drainage line, the white line the recent tar road bisecting the site, the black circle the location of the farmhouse and the brown circle the location of the graves. (Source Ziegwald Kūsel, Landscape Architect. Aerial photo 1989_498_258_002_00677.jpg)

8.3. Technical detail of the proposed development of Lethabong.

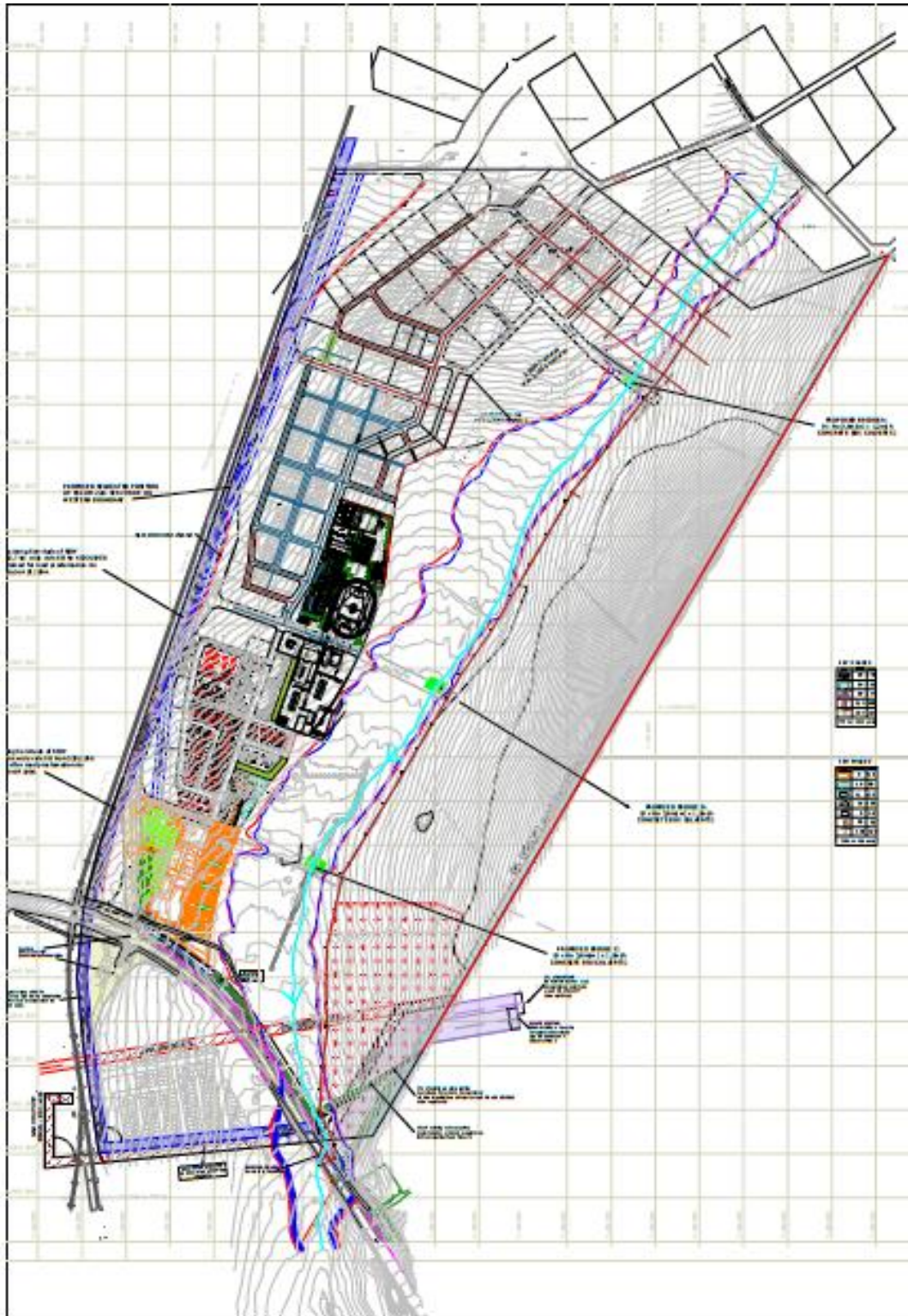


Fig. 09. The above drawing shows the total proposed development impact on the Lethabong site.¹¹

¹¹ This drawing by Neil Lyners and Associates (RF) (Pty) Ltd Consulting Engineers and Project Managers is (A.) Lethabong Whole Site 4-8-2020. Also note the existence of drawings (B.) 19080-FS-001-Rev D6, (C.) 19080-wat-001-Water overall and (D.) 19080-SW-001-STORMWATER REMEDIAL WORKS.8. All drawings available from wihan@lyners.co.za.

9. Documentation of Photographic Data of the Lethabong site.

9.1. Photo documentation of the burial area.

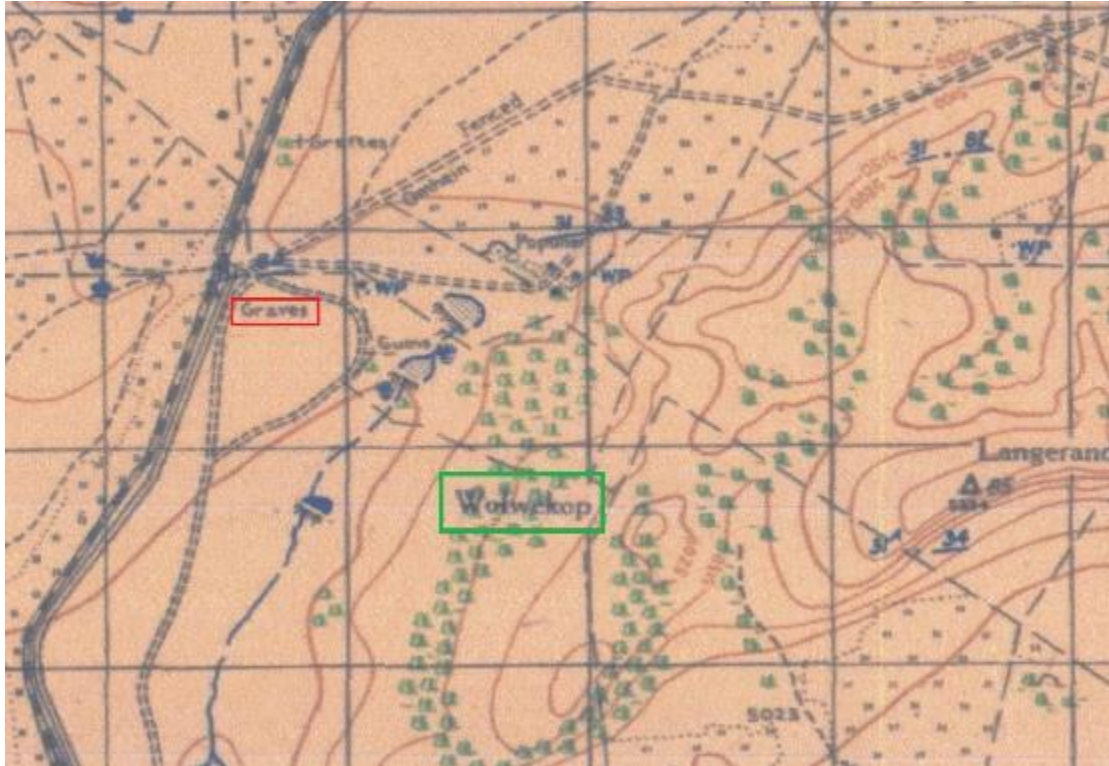


Fig. 10. First edition (1941) 1:50000 map 2627 BD Vereeniging of Surveyor General (Now National Geospatial Information or NGI) showing clearly the grave site on the Lethabong development area. Its location is substantiated by the rail line, the farm roads, the dams in the drainage line and the name Wolwekop that can be compared in fig. 39 on page 20 below on the 1: 50 000 map 2627 BD Vereeniging fifth edition 2006.



Fig. 11. Google Earth image 2020 of the proposed Lethabong development. The numbers indicate positions from where photographs were taken, as well as the on foot inspection route.



Fig. 12. Area directly north of the cemetery area. Outside the cemetery itself these demolished culverts give incorrect impressions of grave headstones. (Photo S.M. Miller 2020.)



Fig. 13. Area directly east of the cemetery area. In the foreground is the remains of an informal settlement dwelling. (Photo S.M. Miller 2020.)



Figs. 14 and 15. These images were taken at marker 1 in fig.11 above. It is the grave of a young child, the grave's extent is defined by the line to the right of the photographer's leg, and next to it a cavity of a robbed grave. (Photos S.M. Miller 2020.)



Figs. 16 and 17. These images were taken just above marker 2 in fig.11 above. It is images of graves covered with rubble and a grave partially disturbed. (Photos S.M. Miller 2020.)



Figs. 18 and 19. These images were taken at marker 2 in fig.11 above. The first is an image of a well-defined grave with a porcelain piggy as grave goods and a vandalised headstone. The second is a typical grave in the cemetery identifiable only through the cobbles infill remaining above normal ground level. (Photos S.M. Miller 2020.)



Figs. 20 and 21. These images were taken at marker 3 in fig.11 above. The first is next to the roadway and the second closer to the railway reserves. Both shows material dumped on graves. (Photos S.M. Miller 2020.)



Figs. 22 and 23. These images were taken at marker 4 in fig.11 above. Both shows material dumped on graves, unmarked graves and graves overgrown with a variety of pioneer plants. (Photos S.M. Miller 2020.)



Figs. 24 and 25. These images were taken at marker 5 in fig.11 above. These are both of the same headstone showing the remarkable quality of workmanship (Photos S.M. Miller 2020.)



Fig. 26. This image was taken at marker 5 in fig.11 above. This is the typical demeanour of the graves, explaining why material was dumped in the cemetery out of ignorance. Also note the hoof prints captured in mud during the wet season. (Photo S.M. Miller 2020.)



Fig. 27. This image was taken between markers 5 and 6 in fig.11 above. Here where fire had destroyed dry pioneer vegetation the extent of the cemetery can better be observed. Also note that a very low percentage of graves carried headstones, and then again only few are inscribed with details of the deceased. (Photo S.M. Miller 2020.)



Figs. 28 and 29. These images were taken between markers 5 and 6 in fig.11 above. These headstones are cast in concrete and only inscribed with a cross. (Photos S.M. Miller 2020.)



Figs. 30 and 31. These images were taken between markers 5 and 6 in fig.11 above. A well-defined grave covered with large rocks that could have been “built-in” originally and a high quality scrolled headstone that announces David Molebatsi that lived between 1854 and 1921. (Photos S.M. Miller 2020.)



Figs. 32 and 33. These images were taken at marker 6 in fig.11 above. The modern Ntuli headstone are meant to commemorate a number of people, apparently all female. It appears as if the displaced headstone may have been the original headstone from the mid 1900's. (Photos S.M. Miller 2020.)



Fig. 34. Inscription on the modern Ntuli headstone (Photo S.M. Miller 2020.)



Figs. 35 and 36. Detail of the inscription on the modern Ntuli headstone. (Photos S.M. Miller 2020.)



Figs. 37 and 38. These images were taken at marker 7 in fig.11 above. These two unmarked grave to the south of the modern Ntuli headstone appears to herald the boundary of the cemetery. (Photos S.M. Miller 2020.)

9.2. Photo documentation of the 1920's Kwaggafontein farmhouse.



Figs. 39 and 40. Left is the location of the historical farmhouse on the 1: 50 000 map 2627 BD Vereeniging fifth edition 2006, and on the right its location on the development framework plan of Lethabong.¹²



Fig. 41. Google Earth image from 2013 showing point from where photos were taken for the Kwaggafontein farmhouse.

¹² Author's comment: - It is possible that it could be retained as part of the school development. Rather than going through the process of procuring a demolition permit from PHRA-G.



Fig. 42. Eastern elevation of the old Kwaggafontein farmhouse photographed by drone camera. (Photo Ziegwald Kūsel 2020)



Fig. 43. Eastern elevation of the old Kwaggafontein farmhouse. Effort ought to be made to retain this structure. It is structurally sound and with a small investment it can be turned into a useful building on the new proposed schoolyard. (Photo Ziegwald Kūsel 2020)

9.3. Photo documentation of the North zone of the Lethabong housing development.



Fig. 44. Google Earth image 2020 of the north zone. The markers indicate positions from where the following photographs were taken. See fig. 09 for the proposed adapted layout of this portion of Lethabong.



Figs. 45 and 46. Photos 1 and 2. Looking north and northeast from marker 1. General aspects of the site. (Photos S.M. Miller 2020.)



Figs. 47 and 48. Looking east and southeast from marker 1. General aspects of the site showing typical corrugated iron buildings in use. (Photos S.M. Miller 2020.)



Fig. 49. Looking south of southeast from marker 1. General aspects of the site showing typical corrugated iron buildings in use. (Photo S.M. Miller 2020.)



Fig. 50. Looking west from marker 1. Note railway lines unfenced and the rubble in the area between the railway lines and Sebokeng in the background. (Photo S.M. Miller 2020.)



Figs. 51 and 52. Looking northeast and southwest west from marker 1. Note railway lines unfenced. (Photos S.M. Miller 2020.)



Figs. 53 and 54. Looking south and east from marker 2. General aspects of the site showing typical fencing and road conditions. (Photos S.M. Miller 2020.)



Fig. 55. Photo 19. Looking south from marker 3. General aspects of the site showing typical buildings, fencing and road conditions. (Photo S.M. Miller 2020.)



Fig. 56. Photo 28. Looking southeast from marker 4. General aspects of the site showing conditions. (Photo S.M. Miller 2020.)



Fig. 57. Photo 28. Looking southwest from marker 4. General aspects of the site showing fencing, structures and conditions. (Photo S.M. Miller 2020.)



Fig. 58. Photo 28. Looking west from marker 4. Many corrugated iron dwellings are soundly constructed and cared for. Lack of basic services is sadly evident. (Photo S.M. Miller 2020.)



Figs. 59 and 60. Looking west and north from marker 5. On both photographs the effect of ploughing can be observed. (Photos S.M. Miller 2020.)



Fig. 61. Looking southeast from marker 5. Here the effects of ploughing, construction work and dumping can be observed. (Photo S.M. Miller 2020.)



Fig. 62. Looking south from marker 6. Here the effects of ploughing, construction work and dumping can be observed. (Photo S.M. Miller 2020.)



Figs. 63 and 64. Looking west and north from marker 7. Construction ongoing. (Photos S.M. Miller 2020.)



Fig. 65. Looking south from marker 7. Construction work ongoing. (Photo S.M. Miller 2020.)



Figs. 66 and 67. Looking southwest from marker 7. Disturbances in the old fields with the new compacted and serviced platforms for new housing in the background. (Photos S.M. Miller 2020.)



Fig. 68. Looking south from marker 8. Disturbances in the old fields, dumping and the newly constructed housing in the background. (Photo S.M. Miller 2020.)

9.4. Photo documentation of the South zone.



Fig. 69. Google Earth image 2020 of the proposed Lethabong development. The markers indicate positions from where the following photographs were taken. See fig. 09 for the proposed adapted layout of this portion of Lethabong.



Fig. 70. Looking south from marker 9. New dwellings (Photo S.M. Miller 2020.)



Figs. 71 and 72. Looking south from marker 9, new dwellings and looking south from marker 11 the site office of Setsquare. (Photos S.M. Miller 2020.)



Fig. 73. Photo 65. Looking east from marker 11. New dwellings (Photo S.M. Miller 2020.)



Fig. 74. Photo 65. Looking east from marker 12. New dwellings and services under construction. (Photo S.M. Miller 2020.)



Figs. 75 and 76. Looking east and southeast from marker 12. Construction roads and dumping. (Photos S.M. Miller 2020.)



Fig. 77. Photo 65. Looking east from marker 13. Dumping and rouble. (Photos S.M. Miller 2020.)



Fig. 78. Photo 65. Looking northwest from marker 14. New work in progress for roads and storm water. (Photo S.M. Miller 2020.)



Figs. 79 and 80. Looking north and east from west from marker 15. New work in progress for roads and storm water. (Photos S.M. Miller 2020.)

10. Field Rating. (SAHRA minimum standards May 2007.)

No.	Description	Rating according to minimum standards may 07
1.	Grave site/s.	'General' Protection A. (Field Rating IV A: This site must be mitigated before any action is taken
2.	Kwaggafontein farmhouse.	'General' Protection B. (Field Rating IV B: This site must be mitigated before any action is taken
3.	Rest of development site.	No rating necessary
4.	Area east of drainage line.	No rating necessary

11. Statements of Significance. (SAHRA minimum standards May 2007.)

No.	Description	Rating according to minimum standards may 2007
1.	Grave site.	a. its importance in the community, or patterns of South Africa's history; c. its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage; g. its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
2.	Kwaggafontein farmhouse.	a. its importance in the community, or patterns of South Africa's history; c. its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage; g. its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons
3.	Rest of development site.	No significance.
4.	Area east of drainage line.	No significance.

12. Summary.

12.1. Mandate of the heritage consultant.¹³

To obtain a first phase Heritage Impact Assessment of the proposed establishment of the Lethabong suburb by the developer Set Square Developments (Pty) Ltd.

12.2. Intent the developer SETSQUARE Properties.

Set Square Developments (Pty) Ltd intends to develop a new suburb, Lethabong, to the east of the existing Sebokeng.

12.3 The project description.

The site (originally farmland) is situated to the east of Sebokeng, being part of the former Kwaggafontein or Lapdoorns 548 IQ. It is now being developed as a new suburb called Lethabong by Set Square Developments (Pty) Ltd.

12.4. Historical milieu.

The well-watered but climatically cold Highveld region surrounding the Vaal River has been a viable habitation for mankind since the earliest times. In the 1940's the well-known Dr van Riet Lowe described substantial Acheulian stone tool assemblages in the Vereeniging area that shows the use of the area by the ancestors of Homo Sapience. Furthermore the rock art engravings at Redan, in the Vredefort dome, and along the Vaal River also indicate the presence of Later Stone Age people in the area. In the last period of the Iron Age, we also find the presence of Afro-pastoralists living in large numbers in villages demarcated by stone walling throughout the region, especially on hill-top vantage points such as on Kliprivierberg and to the east at Suikerbosrand. From the 1840's onward European pioneers settled the area, living from the land as well as from producing farming produce such as grains, vegetables and domesticated animals. In the latter part of the 19th century the occupational character of the region changed dramatically with the discovery and large scale mining of gold on the Rand. After WWII, the establishment of the Van der Bijl Park iron foundries became a reality owing to the large coal deposits at Vereeniging. This brought on the industrialization of the region, and after the 1948 elections and the advent of the Nationalist Party, came the formalization of the Apartheid system. Owing to the large demand for, and the influx of African Labour, formal and separate areas were denominated as living areas for different sections of the population. This led to uprisings such as at Sharpeville in 1960 and at Sebokeng in 1990, and eventually the release of Nelson Mandela in 1992 and the fall of the National Party in 1994.

12.5. Environmental milieu.

12.5.1. Geology.

Not applicable in this contract. See section 7 for general description of geology of the area.

12.5.2. Vegetation.

Not applicable in this contract. See section 7 for general description of the original vegetation of the area.

12.6. Summary of findings.

12.6.1. The site has been ploughed over during the twentieth century. This would have disturbed all heritage residue that may have existed.¹⁴

12.6.2. The general area has been under severe "development stress" over the last ten years, and this disturbance would have worsened the ploughing disturbances of the twentieth century.

¹³ See appointment letter of Heritage consultant in Appendix 3.

¹⁴ See 1989 aerial photograph in fig. 08 on page 12

12.6.3. The 1920's farmhouse has survived the development stress, but as it is of relative low field rating '**General' Protection B. (Field Rating IV B)**'. It should be attempted to retain it on the proposed new school premises. Demolition, if so wished by the developer, may only take place if a demolition permit is obtained from PHRA-G after a second phase HIA.

12.6.4. The graves in the northwest corner of the site (+- 40) ought to be properly investigated, cleaned of vegetation and dumped rubble, and fenced off as a first step in action. Negotiations with SETSQUARE Properties must be undertaken as a second step, so as to decide over either the retention or the relocation of the graves.

12.6.5. The "ZK possible grave" noted by the landscape architect Ziegwald Kūsel and shown in *fig. 01* must be treated as a grave site until otherwise proved by a second phase investigation.

13. Recommendation.

13.1. *It is recommended that the proposed development may proceed with provision of the positive outcome of the negotiations regarding 13.2, 13.3 and 13.4 below.*

13.2. *It is recommended that SETSQUARE properties decide on a policy to deal with the burials. (Either retention and long term maintenance or relocation.)*

13.3. *It is recommended that the 1920's farmhouse should be retained as a janitors residence as part of the future school site on which it is located.*

13.4. *The 1920's farmhouse may not be demolished without a second phase study and obtaining of a demolition permit from PHRA-G.*

13.5. *PGS Heritage (Henk Steyn) & (Polke Birkholtz) have been appointed by Set Square Developments (Pty) Ltd and will be dealing with the Graves Assessment and farm House and out buildings on the School site in Phase 4.*



Sidney Miller

B.Sc. (Engineering) Civil, M. (Architecture) Conservation. Asapa no 087

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- Prins, M. 2005, (?) From apathy to oblivion? The shameful history of heritage resource management in the Vaal Triangle

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- ICOMOS 1979. The Burra Charter.

Appendix 1: Declaration of Independence.

I, Sidney Mears Miller (ID 5412135029082) declare that:

I act as an independent environmental practitioner in this application;

I will perform the work relating to the application in an objective manner, even if this result in views and findings that is not favourable to the applicant;

I declare that there are no circumstances that may compromise my objectivity in performing such work;

I have expertise in conducting environmental impact assessments, including knowledge of the National Heritage Resources Act (No 25 of 1999) and any guidelines that have relevance to the proposed activity;

I will comply with the Act, regulations and all other applicable legislation;

I will take into account, to the extent possible, the matters listed in regulation 8 of the regulations when preparing the application and any report relating to the application;

I have no, and will not engage in, conflicting interests in the undertaking of the activity;

I undertake to disclose to the applicant and the competent authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the application by the competent authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the competent authority;

I will ensure that information containing all relevant facts in respect of the application is distributed or made available to interested and affected parties and the public and that participation by interested and affected parties is facilitated in such a manner that all interested and affected parties will be provided with a reasonable opportunity to participate and to provide comments on documents that are produced to support the application;

I will ensure that the comments of all interested and affected parties are considered and recorded in reports that are submitted to the competent authority in respect of the application, provided that comments that are made by interested and affected parties in respect of a final report that will be submitted to the competent authority may be attached to the report without further amendment to the report;

I will keep a register of all interested and affected parties that participated in a public participation process;

I will provide the competent authority with access to all information at my disposal regarding the application, whether such information is favourable to the applicant or not; all the particulars furnished by me in this form are true and correct;

will perform all other obligations as expected from an environmental assessment practitioner in terms of the Regulations;

I realize that a false declaration is an offence in terms of regulation 71 and is punishable in terms of section 24F of the Act.

Disclosure of Vested Interest

I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity AND OR proceeding other than remuneration for work performed in terms of the Environmental Impact Assessment Regulations.



SIDNEY MEARS MILLER.

Appendix 2: Provisional indemnity.

Declaration by author.

I Sidney Miller hereby declare that all reasonable steps were taken to identify the heritage resources on the sites under investigation. For obvious reasons heritage remains that occur underground cannot be vouched for. In the event of such remains being uncovered during the operations, work should be stopped and a heritage practitioner or the heritage authorities must be informed. The cost of such new investigation will be for the account of the client.



SIDNEY MEARS MILLER.

Appendix 3: Appointment as Heritage Specialist



Shangoni Management Services Pty (Ltd)
 Reg: 2002/000002/07 VAT: 489 019 1069
 Tel +27(0)12 807 7036 Fax +27(0)12 807 1014
 E-mail info@shangoni.co.za www.shangoni.co.za
 Block C8, Block@Nature 472 Botterklapper Street The Willows 0081
 PO Box 74726 Lynnwood Ridge 0040

Sidney Miller
 Suite 427
 Private Bag X15
 Menlopark
 0102

Attention: Sidney Miller 29 July 2020

APPOINTMENT LETTER: SIDNEY MILLER (THE CONTRACTOR) AS HERITAGE SPECIALISTS RELATING TO LETHABONG MIXED HOUSING DEVELOPMENT IN SEBOKENG, FOR (SETSQUARE DEVELOPMENTS (PTY) LTD) (PROJECT NUMBER DAT-SEB-20-06-29)

Shangoni Management Services (Pty) Ltd (Shangoni) hereby appoints the Contractor as an independent Contractor to deliver the Services, as defined below, as part of the deliverables of Lethabong Mixed Housing Development in Sebokeng, for (Setsquare Developments (PTY) LTD) (PROJECT NUMBER DAT-SEB-20-06-29).

1. The Services:

The Services to be delivered by the Contractor comprises of:
 A First phase heritage study which will consist of one day for the survey and two days for the report writing.

- 2. Quality of service:** 1.1. To demand proper delivery of the services in terms of quality and/ or standard within a certain period of time; and/ or
 1.2. To refuse payment to the Contractor; and/ or
 1.3. To cancel this Agreement; and/ or
 1.4. To claim any damages suffered by Shangoni as a result of the breach of contract by the Contractor (if any).

The Services, as described above, shall be of acceptable quality and standard equivalent to the quality and standard of work reasonably expected from a qualified specialist in the field similar to the field of specialisation of the Contractor. Should Shangoni not be completely satisfied with the quality and/ or standard of the services provided by the Contractor, Shangoni has the following rights:

3.

4.

5. Timeframe for delivery of the Services 5.1. The timeframe for the delivery of the Services will be as follows:

PHASE		2020											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Des
Appointment of Contractor							29						

Site Visit									14			
Draft Report									21			
Comments									24			
Final Report									28			

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Other terms and conditions, site details and acceptance by heritage specialist.

DECLARATION AND UNDERTAKING BY THE CONTRACTOR: APPOINTMENT AS INDEPENDENT CONTRACTOR RELATING TO the construction and demolition of Harrison, Queen and Biccard street bridges for (OJM CONSULTING ENGINEERS) (PROJECT NUMBER OJM-JOH-20-07-03,OJM-JOH-07-06, OJM-JOH-20-07-07).

I, the undersigned, S.M.Miller hereby confirm the following:

1. I am free to enter into this Agreement and do so voluntarily;
2. I undertake to adhere to all provisions set out in the Letter of Appointment and all supporting documents;
3. I undertake to fulfill my contractual responsibilities to the best of my abilities;
4. I undertake to inform Shangoni immediately, in writing, should I be unable to fulfill my contractual responsibilities in respect of delivery of the Services.

SIGNED AT Tshwane on this 1st day of August 2020



The Contractor

no	Aspects affected	Activity, listed or not	Potential Impact		Phase in which impact is anticipated	Size and scale of disturbance	Significance not mitigated			Mitigation type	Mitigation measures	Significance if mitigated			Standard to be achieved	Compliance with standards	Time period for mitigation	
			Impact description	Reversible			Irreplaceable loss	Probability	Magnitude			Significance	Probability	Magnitude				Significance
1a	Heritage resource	To manage cemetery	There are about 40 for which a management plan must be mitigated as the development has progressed far without cognizance of the cemetery.	Y	N	Construction Commission Operational of new Suburb	Graveyard. Estimated impact 1000 sq meters in extent.	5	3	H	Devising a management plan	Do a phase two HIA. Determine extent of graveyard. Either retain as a heritage feature or relocate graves	3	1	L	Either avoid impact by relocation or accept maintenance of a Heritage Feature	Management of heritage estate by compliance with Act 25 of 1999	Before during and after the development of Lethabong Suburb
1b	Heritage resource	To manage one possible grave.	The Landscape Architect documented a "possible grave" in the position indicated in the report. A management plan must be mitigated as the development has progressed far without cognizance of the grave.	Y	N	Construction Commission Operational of new Suburb	One grave. Estimated as 10 sq meters in extent.	5	3	M	Devising a management plan	Do a phase two HIA. Determine extent of grave. Relocate graves	3	1	L	Avoid impact by relocation	Management of heritage estate by compliance with Act 25 of 1999	Before during and after the development of Lethabong Suburb
2	Heritage resource	To manage 1920's house	The original 1920'S farmhouse has survived. It is located on a site demarcated as a school in the new development. A management plan must be mitigated as the development has progressed far without cognizance of the house.	Y	N	Construction Commission Operational of new Suburb	One Farmyard. Estimated as 1000sq meters in extent.	5	3	M	Devising management plan	Do a phase two HIA. Determine viability to retain as a heritage feature or apply for a demolition permit and deconstruct	3	1	L	Accept maintenance of a Heritage Feature or demolish	Management of heritage estate by compliance with Act 25 of 1999	Before during and after the development of Lethabong Suburb