

MEMORANDUM

PROPOSED TOWNSHIP ESTABLISHMENT: WILKOPPIES EXTENSION 108 ON HOLDINGS 19, 20, 21, 22, 23 AND 48, WILKOPPIES AGRICULTURAL HOLDINGS IP

CHAPTER 1: INTRODUCTION

1.1 **BACKGROUND**

Maxim Planning Solutions Proprietary Limited (2002/017393/07) was appointed by West Ridge Shopping Centre Proprietary Limited (2007/008695/07) on 09 October 2013 to attend to the establishment of the proposed township area of Wilkoppies Extension 108 comprising two (2) “residential 2” erven as well as a street on Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP.

The project stems from the fact that West Ridge Shopping Centre Proprietary Limited (2007/008695/07) during 2007 acquired various holdings of the Wilkoppies Agricultural Holdings and a number of farm portions of the farm Elandsheuvel No. 402-IP between Readman-, Vlei-, Scott- and Ian Streets and Dr. Yusuf Dadoo Avenue. Some of these properties were identified for the establishment of the West Ridge Shopping Centre (comprising the proposed township area of Wilkoppies Extension 85. This application for township establishment has since been approved by the City of Matlosana and the General Plan in respect of the proposed township Wilkoppies Extension 85 is currently pending approval by the Surveyor-General. Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP did not form part of the township application in respect of the proposed township area of Wilkoppies Extension 85 and was reserved by the owner for future residential development purposes.

As integral part of the township establishment process, the following studies were commissioned by Maxim Planning Solutions (Pty) Ltd as part of the pre-planning activities:

- Contour survey of the proposed township area conducted by Kroep & Rossouw Land Surveyors ;
- Geotechnical investigation of the development area conducted by JD Geotechnical Services CC;

- Phase 1 Heritage Impact Assessment conducted by A Pelsers Archaeological Consulting;
- 1:100 year floodline determination conducted by Moedi Consulting Engineers (Pty) Ltd;
- Detail civil engineering services investigation conducted by Moedi Consulting Engineers (Pty) Ltd;
- Detail electrical services investigation conducted by GIBB (Pty) Ltd;
- Environmental Impact Assessment (restricted to a Basic Assessment) conducted by AB Enviro-Consult
- Ecological Fauna and Flora Habitat Survey conducted by Anthene Ecological CC
- Compilation of a draft Site Development Plan to determine the development potential of the subject properties compiled by BB Architecture & Interior Design

The results of the studies referred to above will be addressed in the respective sections of this Memorandum.

This chapter will provide a concise background to the project as well as a project outline.

1.2 APPLICATION

Maxim Planning Solutions Proprietary Limited (2002/017393/07) is hereby applying on behalf of West Ridge Shopping Centre Proprietary Limited (2007/008695/07) for the establishment of the proposed township Wilkoppies Extension 108 on Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP in terms of the provisions of Section 96 of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986).

1.3 PUBLIC PARTICIPATION

The application in respect of the establishment of the proposed township Wilkoppies Extension 108 will be advertised in accordance with Section 69(6)(a) read with Section 96(3) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) in the Klerksdorp Rekord on 15 and 22 November 2013 as well as in the North West Provincial Gazette on 19 and 26 November 2013. Objectors will be afforded a period of 28 days from 19 November 2013 to submit objections or comments in respect of the proposed township area to the Municipal Manager.

The application will also, in accordance with the prescriptions of Section 69(6)(b) read with Section 96(3)) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) be referred to the following external organizations / departments for comments or objections:

- ✧ Department of Transport, Roads and Community Safety

- ✧ Telkom SA Limited
- ✧ Eskom
- ✧ Dr. Kenneth Kaunda District Municipality
- ✧ Department of Minerals and Energy
- ✧ Department of Agriculture
- ✧ Department of Water Affairs and Forestry
- ✧ Department of Local Government and Traditional Affairs
- ✧ Department of Education
- ✧ Department of Health
- ✧ South African Post Office
- ✧ Spoornet
- ✧ South African Heritage Resources Agency
- ✧ South African National Roads Agency Limited
- ✧ Midvaal Water Company

The fore-mentioned organizations / departments will be afforded a period of 60 days to comment in this matter in accordance with the prescriptions of Section 69(6)(b) read with Section 96(3) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986).

1.4 STUDY AREA DELINEATION

The proposed development areas comprises Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP as described in detail in section 2.1. and reflected on the following map.

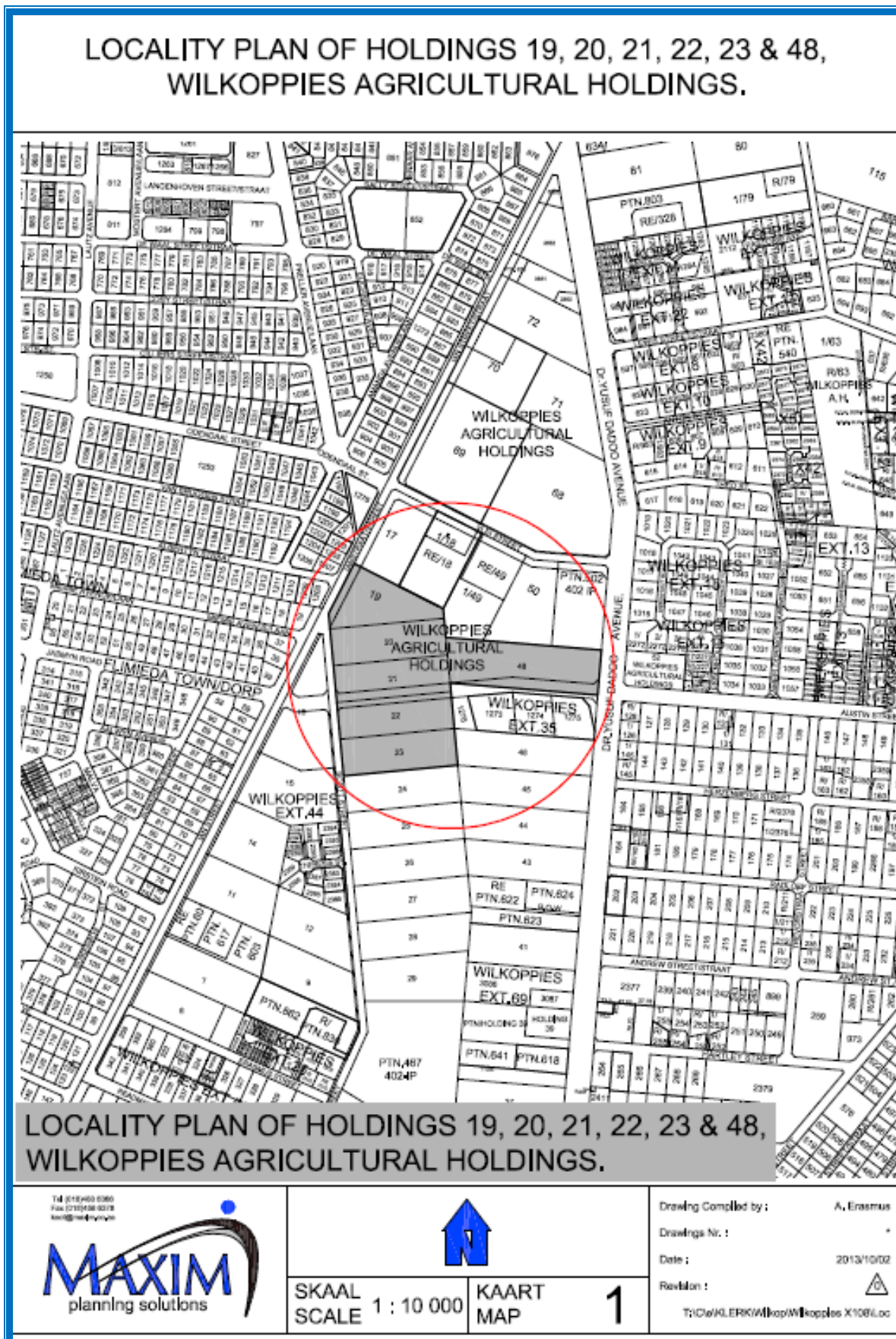


Figure1: Locality map of development area

1.5 REPORT OUTLINE

The remainder of the report is structured in terms of the following main headings:

- Chapter 2: Particulars of the development area
- Chapter 3: Physical aspects
- Chapter 4: Proposed development
- Chapter 5: Provision of Engineering Services
- Chapter 6: Motivation

CHAPTER 2: PARTICULARS OF THE DEVELOPMENT AREA

2.1 LOCALITY

The proposed township area of Wilkoppies Extension 108 will be located on Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP. The respective agricultural holdings are reflected on the following map:

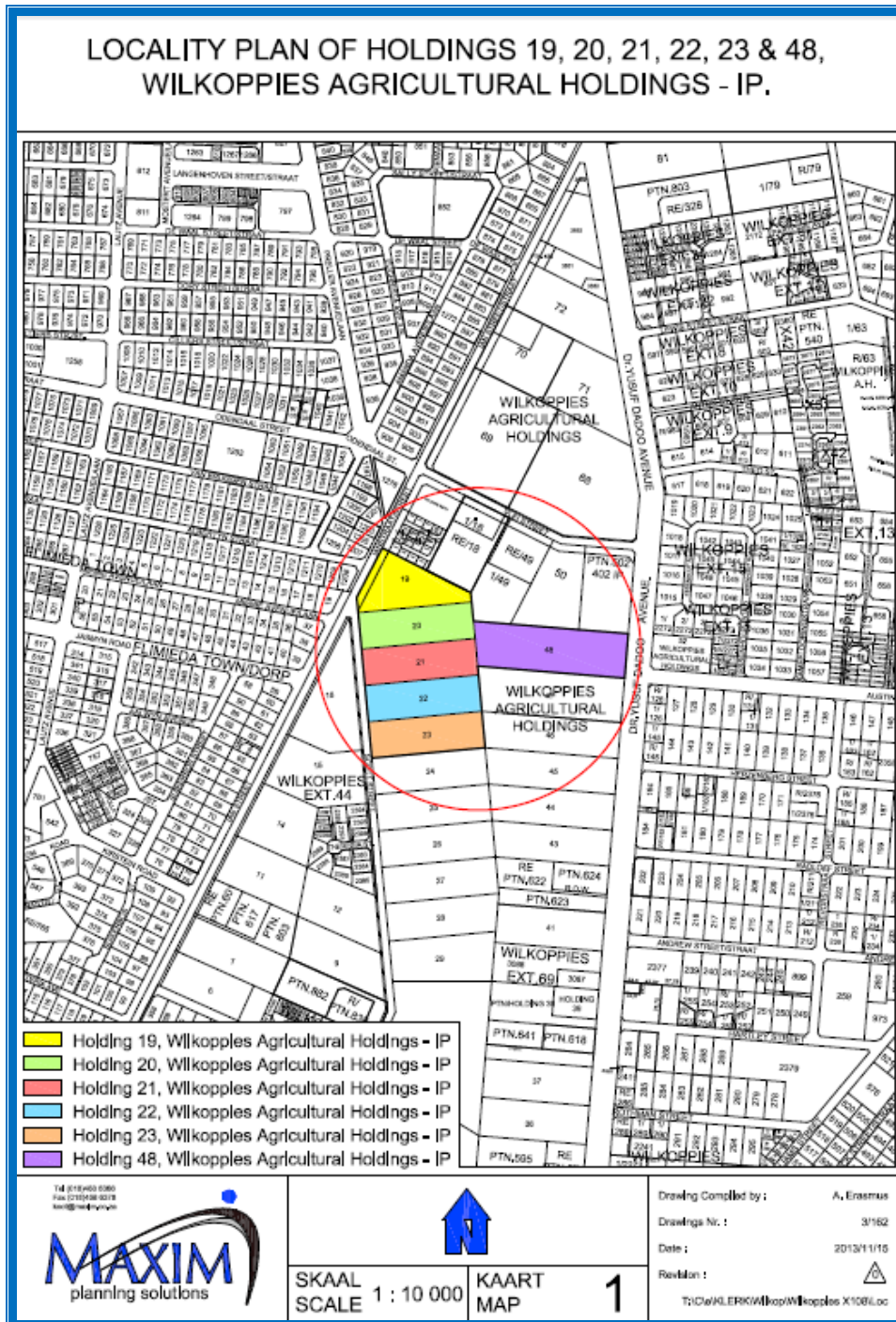


Figure 2: Locality of component agricultural holdings comprising township area

Holdings 19, 20, 21, 22, 23 and 48 all form part of the Wilkoppies Agricultural Holdings bordered to the south by Readman Street, to the west by Scott- and Ian Streets, to the north by Scott Street and to the east by Dr. Yusuf Dadoo Avenue.

The proposed township area is located east of Scott- and Ian Streets and is bordered to the east by Dr. Yusuf Dadoo Avenue. The proposed development area is located in the area south of Vlei Street.

The proposed township area is located within the northern portion of the urban area of Klerksdorp.

The proposed township area detailed above is located within the area of jurisdiction of the City of Matlosana which in turn falls within the area of jurisdiction of the Dr. Kenneth Kaunda District Municipality.

2.2 SG DIAGRAM

The initial subdivision of the Wilkoppies Agricultural Holdings IP is reflected on SG Diagram A1173/1946 (attached to the application for township establishment as **Annexure E**). Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP are reflected on the following SG diagrams:

- Holding 19, Wilkoppies Agricultural Holdings IP : SG No. A5561/1946
 - Holding 20, Wilkoppies Agricultural Holdings IP : SG No. A5562/1946
 - Holding 21, Wilkoppies Agricultural Holdings IP : SG No. A5563/1946
 - Holding 22, Wilkoppies Agricultural Holdings IP : SG No. A5564/1946
 - Holding 23, Wilkoppies Agricultural Holdings IP : SG No. A5565/1946
 - Holding 48, Wilkoppies Agricultural Holdings IP : SG No. A5590/1946
- (refer **Annexure E** to the application for township establishment for SG diagrams)

2.3 OWNER

Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP are currently registered as follows:

Property description	Details of owner	Deed of Transfer Number
Holdings 19, Wilkoppies Agricultural Holdings IP	West Ridge Shopping Centre Proprietary Limited (2007/008695/07)	T92361/2008
Holdings 20, Wilkoppies Agricultural Holdings IP	West Ridge Shopping Centre Proprietary Limited (2007/008695/07)	T98353/2007

Holdings 21, Wilkoppies Agricultural Holdings IP	West Ridge Shopping Centre Proprietary Limited (2007/008695/07)	T98354/2007
Holdings 22, Wilkoppies Agricultural Holdings IP	West Ridge Shopping Centre Proprietary Limited (2007/008695/07)	T98355/2007
Holdings 23, Wilkoppies Agricultural Holdings IP	West Ridge Shopping Centre Proprietary Limited (2007/008695/07)	T98356/2007
Holdings 48, Wilkoppies Agricultural Holdings IP	West Ridge Shopping Centre Proprietary Limited (2007/008695/07)	T171870/2007

Cognisance should be taken of the fact that the relevant Deeds of Transfer referred to above (and attached as Annexure G to the application for township establishment) reflect the name of the owner of the subject properties as Ronbel 164 (Proprietary) Limited (2007/008695/07). In this regard it should be noted that Ronbel 164 (Proprietary) Limited changed its name in terms of the provisions of the Companies Act to West Ridge Shopping Centre Proprietary Limited (2007/008695/07). This fact is supported by the Aktex Deeds Office Enquiries conducted in respect of each of the subject properties and attached as Annexure F to the application for township establishment).

2.4 AREA

The properties, on which the proposed township is to be established, comprise the following areas:

- Holding 19, Wilkoppies Agricultural Holdings IP : 1,7131 hectares
- Holding 20, Wilkoppies Agricultural Holdings IP : 1,7131 hectares
- Holding 21, Wilkoppies Agricultural Holdings IP : 1,7131 hectares
- Holding 22, Wilkoppies Agricultural Holdings IP : 1,7131 hectares
- Holding 23, Wilkoppies Agricultural Holdings IP : 1,7131 hectares
- Holding 48, Wilkoppies Agricultural Holdings IP : 2,7729 hectares

The proposed township Wilkoppies Extension 108 will comprise a total area of 11,3384 hectares.

2.5 EXISTING LAND USE AND ZONING

The properties on which the proposed township is to be established are predominantly vacant, as reflected on the following Google image, with the exception of the following properties that are utilized for the purposes as indicated:

- Holding 19, Wilkoppies Agricultural Holdings IP: Partially demolished dwelling house and outbuildings (refer **Plates 1 and 2**)

- Holding 48, Wilkoppies Agricultural Holdings IP: Place of refreshment (Grasdakkie Pub & Grill) refer **Plate 3**
Garden ornament retailer (Gon Pottie) (refer **Plate 4**)

The locality of the fore-mentioned facilities is also reflected on the following Google image.

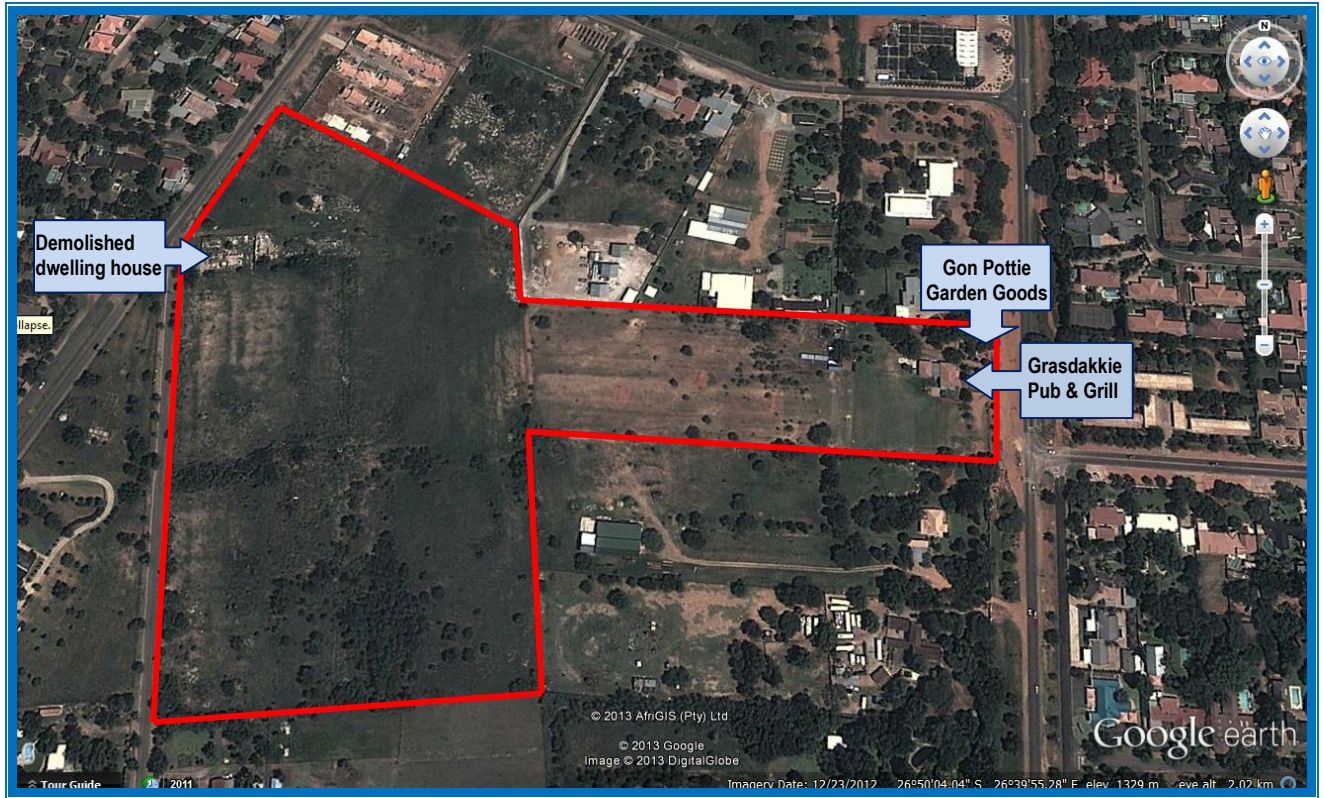


Plate 1: Demolished dwelling house (Holding 19)



Plate 2: Demolished dwelling house (Holding 19)



Plate 3: Grasdakkie Pub & Grill (Holding 48)



Plate 4: Gon Potti Garden Ornaments (Holding 48)

In assessing the land uses of the surrounding properties, the proposed township area is bordered to the north by the existing township area of Wilkoppies Extension 82 (Fourways Estates) (refer **Plate 5**). Holding 48 is bordered to the north by an existing concrete building blocks manufacturing plant (Stone Sensation)(Plate 6) as well as the existing church site of the Wilkoppies Reformed (“Hervormde”) Church. Both Holdings 48 and 23 are bordered to the south by existing dwelling houses.



Plate 5: Fourways Estate



Plate 6: Stone Sensation (Portion 1 of Holding 49)

Holding 23 is bordered to the east by an existing dwelling house.

The properties on which the proposed township is to be established are currently zoned as follows in terms of the Klerksdorp Land Use Management Scheme, 2005:

- Holding 19, Wilkoppies Agricultural Holdings IP: Partially “Agricultural”
Partially “Proposed Roads and Widenings”
- Holding 20, Wilkoppies Agricultural Holdings IP: Partially “Special” for the purposes of service enterprises, places of amusement, indoor sport and recreation centre, shops, places of refreshment and dwelling units (as set out in Annexure 182 of the Klerksdorp Land Use Management Scheme, 2005)
Partially “Proposed Roads and Widenings”
- Holding 21, Wilkoppies Agricultural Holdings IP: Partially “Special” for the purposes of service enterprises, places of amusement, indoor sport and recreation centre, shops, places of refreshment and dwelling units (as set out in Annexure 182 of the Klerksdorp Land Use Management Scheme, 2005)
Partially “Proposed Roads and Widenings”
- Holding 22, Wilkoppies Agricultural Holdings IP: Partially “Agricultural”
Partially “Proposed Roads and Widenings”
- Holding 23, Wilkoppies Agricultural Holdings IP: “Agricultural”
- Holding 48, Wilkoppies Agricultural Holdings IP: Partially “Agricultural” with the inclusion of a place of refreshment with a maximum floor area of 70m² (as set out in Annexure 274 of the Klerksdorp Land Use Management Scheme, 2005)

The zonings of the subject properties as well as that of the surrounding properties are set out in the following extract from the Klerksdorp Land Use Management Scheme, 2005.

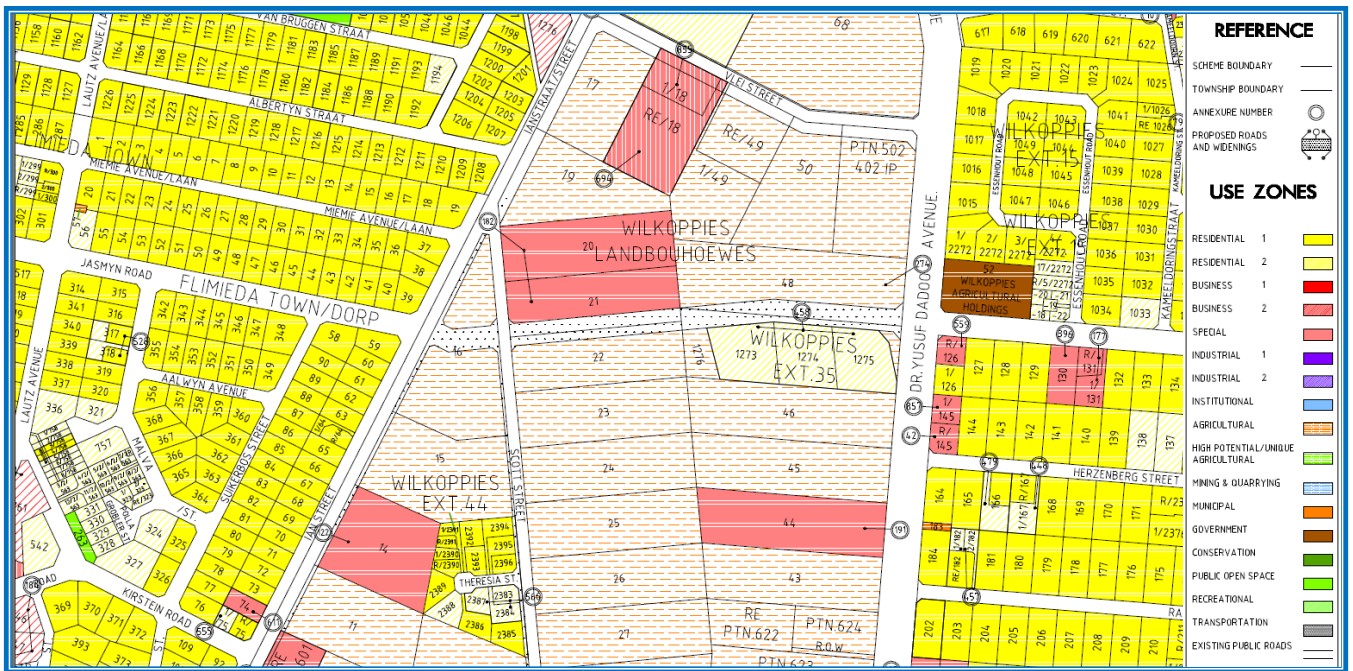


Figure 3: Extract from the Klerksdorp Land Use Management Scheme, 2005

2.6 MINERAL RIGHTS

According to Deed of Transfer T92361/2008, T98353/2007, T98354/2007, T98355/2007, T98356/2007 and T171870/2007, Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP are subject to the following old order reservation of rights to minerals:

“All rights to minerals and precious stones reserved in favour of Trevor Lloyd Williams (since deceased), Roger Vaughan Williams (born on the 10th day of December 1905 1908) and Hugh Morgan Williams (born on the 10th of September 1908) and their successors in title to such rights”. This reservation of rights to minerals is contained in Certificate of Rights to Minerals No. 122/1947Rm registered on 22 February 1947.

The above-mentioned reservation of rights to minerals is however subject to the provisions of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) that came into force on 01 May 2004. Indications are that the fore-mentioned old order rights have since lapsed and the application for township establishment will subsequently also be referred to the Department of Minerals and Energy for its consent in respect of the proposed township.

2.7 BONDHOLDER

Holdings 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings are subject to the following mortgage bonds:

Property description	Details of Bondholder	Mortgage Bond Number
Holding 20, Wilkoppies Agricultural Holding IP	Nedbank Limited	B121871/2007
Holding 21, Wilkoppies Agricultural Holding IP	Nedbank Limited	B121871/2007
Holding 22, Wilkoppies Agricultural Holding IP	Nedbank Limited	B121871/2007
Holding 23, Wilkoppies Agricultural Holding IP	Nedbank Limited	B121871/2007
Holding 48, Wilkoppies Agricultural Holding IP	Nedbank Limited	B205996/2007

The concerned Covering Mortgage Bonds are attached to the application for township establishment as **Annexure H**.

The consent of the bondholder i.e Nedbank Limited in respect of the application for township establishment on Holdings 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP has already been obtained and is attached to the application for township establishment as **Annexure I**.

Holding 19, Wilkoppies Agricultural Holdings IP is currently not subject to a bond.

2.8 **RESTRICTIVE TITLE CONDITIONS**

According to Deed of Transfer T92361/2008, Holding 19, Wilkoppies Agricultural Holdings IP is subject to the following title conditions, which will be dealt with as indicated:

- (i) “(a) *All rights to minerals and precious stones are reserved in favour of Trevor Lloyd Williams, since deceased, Roger Vaughan Williams (born on the 18th day of December 1905) and Hugh Morgan Williams (born on the 10th of September 1908) and their successors in title to such rights.*
- (b) *All rights which may be or become vested in the freehold owner to share in any proceeds which may accrue to the State from the disposal of the undermining rights of the land, and also the share of claim license moneys and any share of rental or profits which may accrue to any owner under any mining lease granted in respect of the land covered by the agricultural holdings and the like are reserved in favour of Trevor Lloyd Williams, since deceased, Roger Vaughan Williams (born on the 18th day of December 1905) and Hugh Morgan Williams (born on the 10th day of September 1908), and their successors in title to such rights.*

The rights under (a) and (b) above as will more fully appear from Certificate of Rights to Minerals No. 122/1947 R.M., registered on the 22nd day of February 1947.”

Conditions (a) and (b) relate to the reservation of rights to minerals and will be addressed as set out in section 2.6 above.

- (ii) “(c) *The Holding is held as an Agricultural Holding and it may be used only for the purpose contemplated by the definition of that term contained in the Agricultural Holdings (Transvaal) Registration Act, 1919.*

The definition reads as follows-

“Agricultural Holdings shall mean a portion of land not less than 8,565 square metres in extent, used solely or mainly for the purpose of agriculture or horticulture or for breeding or keeping domestic animals, poultry or bees.”

- (d)(i) *The holding may not be subdivided nor may any portion of it be sold, leased or disposed of in any way without the written approval of the Board first had and obtained.*
- (ii) *The holdings shall not be sold to or held jointly by two or more persons.*
- (e)(i) *Not more than one dwelling house together with such outbuildings as are ordinarily required to be used in connection with a holding may be erected on the holding except in special circumstances and then only with the consent, in writing, of the Board which may prescribe such further conditions as it may deem necessary.*
- (ii) *The dwelling house exclusive of the outbuildings to be erected on the holding shall be of the value of not less than R1700,00.*

NOTE: *The provisions of this sub-clause shall not apply to the existing dwelling houses on Holdings Nos. 65, 68 and 102.*

- (iii) *Outbuildings shall be erected simultaneously with the dwelling house which latter shall be a completed house and not one partly erected and intended for completion at a later date.*
- (iv) *No building erected on the holding shall be located within a distance of 18,29 metres from the boundary of that holding abutting on a road.*

NOTE: *The provisions of this sub-clause shall not apply to any building(s) which may be erected on the transformer sites on Holdings No. 75 and 106, which shall have a building line of 6,10 metres.*

- (v) *No wood and / or iron buildings shall be erected on the holding.*

- (vi) *Plans and specifications of all buildings or additions or alternations thereto shall be submitted to the local authority for approval before the commencement of building operations.*
- (f) *No store or place of business whatsoever may be opened or conducted on a holding except with the written approval of the Board and such approval shall be given in respect of two holdings only, provided that the nature of any business which may be so authorised shall also be subject to the written approval of the Board and such business shall not be an Eating house of any description.*
- (g) *The owner shall fence the holding and maintain such fence in good order and repair.*
- (h) *The pit system of sanitation shall not be permitted but the owner of a holding may install and use a chemical or other system of sanitation approved by the local authority, provided that the effluent from the said system so used, shall not be deposited within a distance of 15,74 metres from any borehole or well on or outside the holding.*
- (i) *The holding shall be subject to a servitude for drainage and other municipal purposes, 1,89 metres in width in favour of the local authority.*
- (j) *The local authority shall be entitled to deposit temporarily on the land adjoining the drainage servitudes such materials as may be excavated by it during the course of the construction, maintenance, and removal of such drains and other works as it in its discretion may deem necessary and shall further be entitled to reasonable access to the said for the aforementioned purpose, subject to any damage done during the process of construction, maintaining and removing such drains and other works being made good by the local authority.”*

Following approval of the application for township establishment, an application will be submitted to the Department of Local Government and Traditional Affairs for consent in respect of the excision of the concerned agricultural holdings from the provisions of the Agricultural Holdings (Transvaal) Registration Act, 1919. This consent will be required prior to the approval of the required General Plan in respect of the proposed township area by the Surveyor-General as the conditions contained in the Agricultural Holdings (Transvaal) Registration Act, 1919 prohibits the use of a holding for the purposes of a township area. Following the excision of the relevant agricultural holdings, the subject properties will revert back to the initial farm portions and will form part of the farm Elandsheugel No. 402-IP.

According to Deeds of Transfer T98353/2007, T98354/2007, T98355/2007 and T98356/2007 and T171871/2007, Holdings 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP are subject to similar conditions as contained in the Deed of Transfer in respect of Holding 19, Wilkoppies Agricultural Holdings IP and set out in Deed of Transfer T93261/2008. These conditions will be addressed in the same manner as those described above and will not be repeated for the sake of condensing this memorandum.

CHAPTER 3: PHYSICAL ASPECTS

3.1 TOPOGRAPHY

As part of the pre-planning studies that were conducted in respect of the development area, a topographical survey of Holdings 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP was conducted by Kroep & Rossouw Land Surveyors. The results of the topographical survey are reflected on the following map:



Figure 4: Results of the topographical survey of the development area

The contours of Holding 19, Wilkoppies Agricultural Holdings IP were generated during the aerial survey commissioned by the City of Matlosana and conducted by Fotogramensura.

As is evident from the contour survey above, Holdings 19, 20, 21, 22 and 23 drain towards the central portion of the subject holdings towards an existing stormwater box culvert that traverses the subject properties from the north to the south and also reflected on the contour map. Drainage takes place in a southerly direction towards the Schoonspruit. Holding 48 drains predominantly in a south-westernly direction towards the stormwater box culvert afore-mentioned (refer blue lines reflecting outer limits of stormwater box culvert reflected on contour plan).

3.2 CLIMATE

Klerksdorp lies in the Dry Highveld Grassland climatic region, the climate being described as warm temperate with summer rainfall. The hottest month is January and the coldest

month is July with an average daily maximum temperature of 29°C and 19°C respectively. The rainy season is from October to March, with a maximum rainfall of about 110 mm in January.

The above climatic conditions result in a Weinert N-value of about 4,3 which indicates that chiefly chemical weathering of the underlying rocks has taken place. It can therefore be expected that the weathering products of the rocks would have produced clayey materials with possible heaving characteristics.

3.3 FRESHWATER SYSTEM

- ❖ The proposed development areas are located within the Vaal River System Drainage Basin.
- ❖ The proposed township area of Wilkoppies Extension 108 drains in a southerly direction towards the Schoonspruit, which joins the Vaal River downstream of Orkney.

3.4 WETLANDS AND PANS

Moedi Consulting Engineers (Pty) Ltd was commissioned for the 1:100 year floodline determination of the drainage feature traversing the central portions of Holdings 19, 20, 21, 22 and 23, Wilkoppies Agricultural Holdings IP.

The development is situated within a storm water catchment area 2.979km² in size. Storm water generated in parts of Flimieda, Wilkoppies and La Hoff flows under gravity conditions in the underground storm water network to connect to the large underground storm water culvert traversing the development. In addition, storm water inlets connecting to the culvert ensures drainage of surface water generated on the proposed development area.

The storm water culvert has more than sufficient capacity to handle the expected storm water flows generated by a 1 in 100 year flood peak. In the detailed design of the internal roads and related storm water system, adequate provision will be made for storm water inlets connecting to the culvert.



Plate 7: View of existing stormwater inlets



Plate 8: View of existing stormwater inlets

To allow for the passage of stormwater across the development area and specifically within the existing stormwater box culvert, the layout plan of the proposed township area incorporates a 16 meter servitude (8 meter from the centreline) to protect the stormwater box culvert.

3.5 **VEGETATION** (Extract from Ecological Fauna And Flora Habitat Survey compiled by Anthene Ecological CC) attached as Annexure M to the application for township establishment)

According to a Ecological Fauna & Flora habitat Survey that was conducted by Anthene Ecological CC, the site is characterised by *Acacia karroo* (sweet thorn) patches (often shrub-height) and open disturbed grassland including some areas where karoo elements are present such as the dwarf shrub *Pentzia globosa*. Other indigenous tree species include *Ziziphus mucronata* (buffalo-thorn) and *Searsia lancea* (karee) while few *Acacia erioloba* individuals are restricted to an open area west of Dr Yusuf Dadoo Ave. Remaining grassland patches are open and disturbed. Lower ecological status grasses such as *Eragrostis curvula*, *Aristida canescens*, *Aristida congesta* and *Cynodon dactylon* are conspicuous. Owing to some gathering of soil moisture and apparent high clay content at the remaining traces of a riparian zone grass species such as *Panicum coloratum* is found and in the shade of some *Acacia karroo* trees also *Panicum maximum*.

Vegetation at the site is in disturbed condition and edge effects from the surrounding urban areas such as establishment of exotic weeds and informal dumping of rubble are conspicuous. There also appears to be an underground stormwater system which works well, but likely contributes to vegetation of drier moisture regime than few decades back.



Plate 9: View of northern parts of the site with informal dumping of rubble visible



Plate 10: Bush encroachment by Acacia karroo at an area that shows traces of a riparian zone at the site



Plate 11: *Acacia erioloba* (camel thorn tree) occurs at an open area west of Dr Yusuf Dadoo Ave – the light-greyish green tree in the centre of the picture along the fence is a camel thorn tree

None of the threatened and near-threatened plant species are likely to occur on the site. None of the declining, data deficient other plant species of particular conservation priority occur on the site proposed for development, apart some *Acacia erioloba* trees. Though not threatened, *Acacia erioloba* is a protected tree species. Protected tree species under the National Forests Act No. 84 of 1998 are listed in Table 4.9. In terms of a part of section 51(1) of Act No. 84 of 1998, no person may cut, disturb, damage or destroy any protected tree or possess, collect, remove, transport, export, purchase, sell, donate or in any other manner acquire or dispose of any protected tree, except under a license granted by the Minister.

3.6 FAUNA (Extract from Ecological Fauna And Flora Habitat Survey compiled by Anthene Ecological CC) attached as Annexure M to the application for township establishment)

3.6.1 MAMMALS

Since the site falls outside reserves, threatened species such as the black rhinoceros (*Diceros bicornis*) and the African wild dog (*Lycaon pictus*) are obviously not present. No smaller mammals of particular high conservation significance are likely to be found on the site as well.

3.6.2 BIRDS

No threat to any threatened bird species or any bird species of particular conservation importance are foreseen.

3.6.3 REPTILES

There appears to be no threat to any reptile species of particular high conservation importance if the site is developed.

3.6.4 AMPHIBIANS

No frog species that occur in the North West are threatened as threatened species (vulnerable, endangered or critically endangered) according to Minter, Burger, Harrison, Braack, Bishop and Kloepfer (2004) as well as Du Preez & Carruthers (2009). *Pyxicephalus adspersus* (Giant Bullfrog) is listed as near threatened (Minter *et al.*, 2004; Du Preez & Carruthers, 2009). There is no suitable habitat for *Pyxicephalus adspersus* (Giant Bullfrog) at the site. There appears to be no threat to any amphibian species of particular high conservation importance if the site is developed.

3.6.5 BUTTERFLIES

Studies about the vegetation and habitat of threatened butterfly species in South Africa showed that ecosystems with a unique combination of features are selected by these often localised threatened butterfly species (Deutschländer and Bredenkamp 1999; Edge 2002, 2005; Terblanche, Morgenthal & Cilliers 2003; Lubke, Hoare, Victor & Ketelaar 2003; Edge, Cilliers & Terblanche, 2008). Threatened butterfly species in South Africa can then be regarded as bio-indicators of rare ecosystems.

Four species of butterfly in Gauteng Province and North West Province combined are listed as threatened in the recent butterfly conservation assessment of South Africa (Mecenero *et al.*, 2013). The expected presence or not of these threatened butterfly species as well as species of high conservation priority that are not threatened, at the site follows.

3.6.5.1 ASSESSMENT OF THREATENED BUTTERFLY SPECIES

***Aloeides dentatis dentatis* (Roodepoort Copper)**

The proposed global red list status for *Aloeides dentatis dentatis* according to the most recent IUCN criteria and categories is Endangered (Mecenero *et al.*, 2013). *Aloeides dentatis dentatis* colonies are found where one of its host plants *Hermannia depressa* or *Lotononis eriantha* is present. Larval ant association is with *Lepisiota capensis* (S.F. Henning 1983; S.F. Henning & G.A. Henning 1989). The habitat requirements of *Aloeides dentatis dentatis* are complex and not fully understood yet. See Deutschländer and Bredenkamp (1999) for the description of the vegetation and habitat characteristics of one locality of *Aloeides dentatis* subsp. *dentatis* at Ruimsig, Roodepoort, Gauteng Province. There is not an ideal habitat of *Aloeides dentatis* subsp. *dentatis* on the site and it is unlikely that the butterfly is present at the site.

***Chryсоритis aureus* (Golden Opal/ Heidelberg Copper)**

The proposed global red list status for *Chryсоритis aureus* according to the most recent IUCN criteria and categories is Endangered (Mecenero *et al.*, 2013) *Chryсоритis aureus* (Golden Opal/ Heidelberg Copper) is a resident where the larval host plant, *Clusia pulchella* is present. However, the distribution of the butterfly is much more restricted than that of the larval host plant (S.F. Henning 1983; Terblanche, Morgenthal & Cilliers 2003). One of the reasons for the localised distribution of *Chryсоритis aureus* is that a specific host ant *Crematogaster liengmei* must also be present at the habitat. Fire appears to be an essential factor for the maintenance of suitable habitat (Terblanche, Morgenthal & Cilliers 2003). Research revealed that *Chryсоритis aureus* (Golden Opal/ Heidelberg Copper) has very specific habitat requirements, which include rocky ridges with a steep slope and a southern aspect (Terblanche, Morgenthal & Cilliers 2003). Owing to a lack of habitat requirements and ideal habitat the presence of the taxon is highly unlikely.

***Lepidochrysops praeterita* (Highveld Blue)**

The proposed global red list status for *Lepidochrysops praeterita* according to the most recent IUCN criteria and categories is Endangered (G.A. Henning, Terblanche & Ball, 2009; Mecenero *et al.*, 2013).

Lepidochrysops praeterita is a butterfly that occurs where the larval host plant *Ocimum obovatum* (= *Becium obovatum*) is present (Pringle, G.A. Henning & Ball, 1994), but the distribution of the butterfly is much more restricted than the distribution of the host plant. *Lepidochrysops praeterita* is found on selected rocky ridges and rocky hillsides in parts of Gauteng, the extreme northern Free State and the south-eastern Gauteng Province. No ideal habitat appears to be present for the butterfly on the site. It is unlikely that *Lepidochrysops praeterita* would be present on the site and at the footprint proposed for the development.

***Orachrysops mijburghi* (Mijburgh's Blue)**

The proposed global red status for *Orachrysops mijburghi* according to the most recent IUCN criteria and categories is Endangered (Mecenero *et al.*, 2013). *Orachrysops mijburghi* favours grassland depressions where specific *Indigofera* plant species occur (Terblanche & Edge 2007). The Heilbron population of *Orachrysops mijburghi* in the Free State uses *Indigofera evansiana* as a larval host plant (Edge, 2005) while the Suikerbosrand population in Gauteng uses *Indigofera dimidiata* as a larval host plant (Terblanche & Edge 2007). There is no suitable habitat for *Orachrysops mijburghi* on the site and it is unlikely that *Orachrysops mijburghi* would be present on the site.

Conclusion on threatened butterfly species

There appears to be no threat to any threatened butterfly species if the site is developed.

3.6.5.2 ASSESSMENT OF BUTTERFLY SPECIES

***Colotis celimene amina* (Lilac tip)**

Colotis celimene amina is listed as Rare (Low density) by Mecenero *et al.* (2013). In South Africa *Colotis celimene amina* is present from Pietermaritzburg in the south and northwards into parts of Kwa-Zulu Natal, Gauteng, Limpopo, Mpumalanga and the North West Provinces (Mecenero *et al.* In press.). Reasons for its rarity are poorly understood. It is highly unlikely that *Colotis celimene amina* would be present at the site.

***Lepidochrysops procera* (Savanna Blue)**

Lepidochrysops procera is listed as Rare (Habitat specialist) by Mecenero *et al.* (2013). *Lepidochrysops procera* is endemic to South Africa and found in Gauteng, KwaZulu-Natal, Mpumalanga and North West (Mecenero *et al.*, 2013). Owing to a lack of habitat requirements and ideal habitat the presence of the taxon at the site is highly unlikely.

Metisella meninx (Marsh Sylph)

Henning and Henning (1989) in the first South African Red Data Book of Butterflies, listed *Metisella meninx* as threatened under the former IUCN category Indeterminate. Even earlier in the 20th century Swanepoel (1953) raised concern about vanishing wetlands leading to habitat loss and loss of populations of *Metisella meninx*. According to the second South African Red Data Book of butterflies (Henning, Terblanche & Ball, 2009) the proposed global red list status of *Metisella meninx* has been Vulnerable. During a recent large scale atlasing project the *Conservation Assessment of Butterflies of South Africa, Lesotho and Swaziland: Red List and Atlas* (Mecenero *et al.*, 2013) it was found that more *Metisella meninx* populations are present than thought before. Based on this valid new information, the conservation status of *Metisella meninx* is now regarded as Rare (Habitat specialist) (Mecenero *et al.*, 2013). Though *Metisella meninx* is more widespread and less threatened than perceived before, it should be regarded as a localised rare habitat specialist of conservation priority, which is dependent on wetlands with suitable patches of grass at wetlands (Terblanche In prep.). Another important factor to keep in mind for the conservation of *Metisella meninx* is that based on very recent discoveries of new taxa in the group the present *Metisella meninx* is species complex consisting of at least three taxa (Terblanche In prep., Terblanche & Henning In prep.). The ideal habitat of *Metisella meninx* is treeless marshy areas where *Leersia hexandra* (rice grass) is abundant (Terblanche In prep.). The larval host plant of *Metisella meninx* is wild rice grass, *Leersia hexandra* (G.A. Henning & Roos, 2001). Owing to a lack of habitat requirements and ideal habitat the presence of the taxon at the site is highly unlikely.

Platylesches dolomitica (Hilltop Hopper)

Platylesches dolomitica is listed as Rare (Low density) by Mecenero *et al.* (2013). Historically the conservation status of *Platylesches dolomitica* was proposed to be Vulnerable (Henning, Terblanche & Ball 2009). However this butterfly which is easily overlooked and has a wider distribution than perceived before. *Platylesches dolomitica* has a patchy distribution and is found on rocky ledges where *Parinari capensis* occurs, between 1300 m and 1800m (Mecenero *et al.* 2013, Dobson Pers comm.). Owing to a lack of habitat requirements and ideal habitat the presence of the taxon at the site is highly unlikely.

3.6.6 FRUIT CHAFER BEETLES

The fruit chafer beetle species (Coleoptera: Scarabaeidae: Cetoninae) are of known high conservation priority in the North West Province. No *Ichnestoma stobbiai* or *Trichocephala brincki* were found during the surveys. There appears to be no suitable habitat for *Ichnestoma stobbiai* or *Trichocephala brincki* at the site. There appears to be no threat to any of the fruit chafer beetles of particular high conservation priority if the site were developed.

3.6.7 SCORPIONS

The rock scorpion species (Scorpiones: Ischnuridae) are of known high conservation priority in the North West Province. None of these rock scorpions have been found at the site and the habitat does not appear to be optimal.

3.7 CONCLUSION OF THE VEGETATION AND VERTEBRATES STUDY

The Ecological and Fauna and Flora Habitat Survey that was conducted by Anthene Ecological CC concluded as follows:

- The site is impacted and degraded but contains some remaining indigenous grassland vegetation.
- Establishment of exotic weeds should be monitored, during construction, if the development is approved, and exotic weeds at the site should be eradicated. By no means should exotic declared invaders such as the syringa tree (*Melia azedarach*), be planted or allowed to establish.
- A moderate to low diversity of indigenous plant species and animal species appears to be present at the site proposed for development.
- No loss of particularly sensitive habitat of particular conservation importance is anticipated if the site is developed.
- No loss of corridors or connectivity of ecosystems is anticipated if the sites are developed though the key if the development is approved would be to conserve an area associated with traces of a riparian zone that could play an important role in urban nature conservation. Conserving indigenous vegetation along such a corridor would be essential.
- There appears to be no threat to any protected tree species at the site (National Forests Act No. 84 of 1998) apart from *Acacia erioloba* trees which are present near the fence at an open area west of Dr Yusuf Dadoo Ave. A permit should be requested in order to get permission to remove these trees. Note that though *Acacia erioloba* is a protected species, it is not a threatened species. Few *Acacia erioloba* trees are present at the site of which most of the larger individuals are close to a present fence. In this report, if the development is approved, a balance between removing camel thorns that are impractical to conserve and the

conservation of a number of individuals that are more practical in the planning scheme is recommended. None of the camel thorn trees at the site is very large.

- It is recommended that conservation and cultivation of camel thorn trees in the slightly higher lying areas with more sandy soil (more red-brown soils) of the site receives priority.
- It is highly unlikely that there would be a threat to any threatened animal or plant species or any other animal or plant species of particular conservation concern if the development is approved.

3.8 GROUNDWATER

Groundwater seepage did not occur in any of the test pits that were dug on the site, although it should be borne in mind that the investigations took place either during the dry season (July 2007) or at the beginning of the rainy season (early October 2013)

3.9 GEOLOGY (Extract from Geotechnical Report compiled by JG Geotechnical Services attached as **Annexure J** to the application for township establishment)

According to the 1:250 000 scale West Rand, geological map, the majority of the site is underlain by andesitic lava of the Rietgat Formation, Platberg Group, Ventersdorp Supergroup with possibly quartzite or sedimentary rocks of the Government Subgroup West Rand Group, Witwatersrand Supergroup in the extreme east of the site. The findings of the investigation were that the great majority of the site is underlain by andesitic lava, with possibly quartzite in the extreme eastern part of the site. The site is **not** underlain by dolomite.

3.9.1 **SITE ZONATION**

As regards founding conditions, the site is suitable for development as a township, providing the recommendations given in the report are followed. According to the classification of the NHBRC, the majority of the site (referred to as **Area A**) can be classified as **Site Class H3/C**, and the eastern part of the site, (referred to as **Area B**), can be classified as **Site Class H1/C2**. It should be noted that the scope of work for this investigation includes the classification of the site for purposes of township establishment; according to the Guidelines for Urban Engineering Geological Investigations this investigation is classified as an Urban Development investigation. It does **not** include the NHBRC requirement for classification or certification of **individual stands**.

The site has been subdivided in two areas on the basis of the different founding conditions that occur in these areas. The areas will be considered in turn and are reflected on the following map:

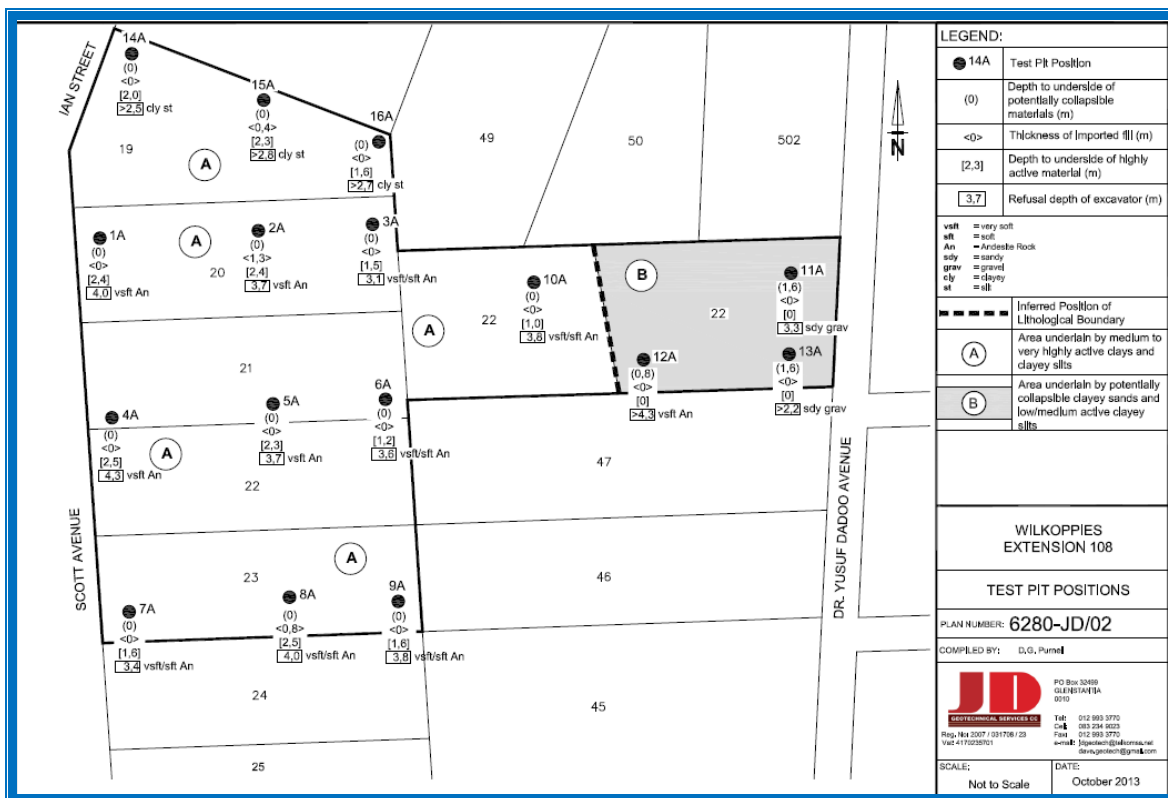


Figure 5: Site zonation and positions of test pits

3.9.1.1 AREA A

The majority of the site (approximately 85 per cent) is referred to as **Area A**. The generalised soil profile encountered in **Area A** can be summarised as follows:

Soil type	Depth (m)	Estimated bearing capacity (kPa)	Heave classification
Very stiff, sandy clay.	0,0 – 0,9	50	Medium
Very stiff, sandy clay.	0,9 – 2,0	70	High/Very high
Very stiff, clayey silt.	2,0 – 2,7	300	Medium
Very dense, clayey silt.	2,7 – 3,4	400	Low or medium
Very soft rock	3,4 – 3,7	500	Low or Medium

Potentially collapsible materials were not encountered in Area A, and therefore problems due to collapse settlement under load are not anticipated in **Area A**.

The soil profile contains active materials of varying classifications, ranging from medium to high/ very high. The underside of the high/ very highly active layer reaches depths up to 2,5 m beneath the present ground surface.

The maximum possible heave at the present ground surface, as determined using the van der Merwe method on laboratory test results on representative soil samples, is in the order of 60 mm. However, it must be borne in mind that the magnitude of heave could vary locally, and it would therefore be advisable to make allowance for a heave of up to approximately 100 mm.

It has been concluded that, for **dwelling houses**, the **reinforced concrete raft** method should be the most viable founding method.

It must be noted that the materials occurring at depths greater than 2,5m sometimes have a medium heave classification. The maximum probable heave that could be exerted at the ground surface due to the wetting-up of these underlying materials could be in the order of 6mm. Such a heave does not generally warrant expensive precautionary measures in the design and construction of conventional non-sensitive structures, such as dwelling houses, but should nevertheless be borne in mind in the design.

3.9.1.2 AREA B

The eastern part of the site (approximately 15 per cent) is referred to as **Area B**. The generalised soil profile encountered in **Area B** is summarised as follows:

Soil type	Depth (m)	Estimated bearing capacity (kPa)	Heave classification
Potentially collapsible, clayey sand.	0,0 – 1,3	30	Low
Very dense, partly cemented sandy gravel.	1,3 – 2,2	450	Low
Very stiff, clayey silt	2,2 – 2,7	200	Low/Medium
Very dense, clayey silt	2,7 – 4,0	350	Medium
Very soft andesite rock	4,0 – 4,3	500	Medium

The upper layer of the soil profile comprises potentially collapsible clayey sand, and the underlying layers are generally medium active. Therefore problems due to both collapse settlement and slight heaving of the soil profile may be anticipated for any structure founded upon these materials, unless suitable precautionary measures are taken to minimise settlement or heave of the structures.

In brief, these precautionary methods include compacting the floors of the foundation excavations, and employing additional precautionary measures to minimise the possibility of moisture variations in the soil profile and to minimise the possibility of settlement of potentially collapsible materials. Such measures comprise:

- A concrete walkway 1,0 m in width around the perimeter of non-sensitive structures;
- A concrete walkway 2,0 m in width around the perimeter of sensitive structures;
- Shaping the walkway and the ground surface in the vicinity of the structures so that no ponding of surface water can take place in the vicinity of the structures.

It should be noted that the depth of the underside of the potentially collapsible material probably does not exceed 0,8m in the western part of **Area B**, but increases to approximately 1,6m in the east. Therefore it is recommended that proposed dwelling houses in **Area B** should be founded upon the very dense material which underlies the potentially collapsible layer, with a maximum allowable bearing pressure of 250 kPa. If the proposed structures are founded using this method, problems due to settlement of the foundations due to collapse settlement of the potentially collapsible materials are not anticipated. However, it is recommended that the proposed site of each structure should be compacted prior to the digging of foundations excavations, in order to minimise the possibility of settlement of the ground floors in relation to the walls of the structure.

To attempt to accommodate any minor ground movements that could still take place, expansion joints could be provided in the walls of the structures. Also, as a minimum requirement, it is recommended that lightly reinforced strip footings should be used for the proposed structures.

3.9.2 GENERAL

- ❖ Problems due to seepage of groundwater into excavations on site are generally not anticipated to at least 3,0 m depth. It should be noted that, during periods of heavy rain, seepage of groundwater could take place at shallower depths and therefore provision should be made for the removal of groundwater from excavations.
- ❖ Problems due to excavability of the materials in **Area A** are generally not anticipated to a depth of at least 3,0 m, provided a machine equivalent to a tracked Bell HD1430 BMH excavator is used. In **Area B** refusal could occur on the very dense, partly cemented sandy gravel layer that occurs between approximately 1,3m and 2,2m depth. Therefore provision should be made for the possible use of power tools or explosives in excavations in **Area B**.
- ❖ The sides of excavations may tend to be unstable, and should either be shored or else battered back.
- ❖ pH and conductivity tests carried out on representative samples of materials underlying this site indicate that they are alkaline and that they are corrosive. Therefore underground services should be treated so as not to be prone to alkaline or corrosive attack.
- ❖ As regards the suitability of the materials on site for founding conditions for roads on the site, reference should be made to the laboratory test results. These results indicate that the subgrade conditions for roads in **Area A** are poor, with the area being underlain from the ground surface to a depth in order of 2,0m by sandy clays which have PIs generally between 17 and 38, GMs between 0,5 and 0,8 and a CBR less than 0,1 at 90 per cent Mod AASHTO density. In **Area B** the subgrade conditions are fair, with the majority of the area being underlain from the ground surface to a depth in the order of 1,6m by clayey sands which have a PI in the order of 8, a GM in the order of 0,9 and a CBR of 10 at 90 per cent Mod AASHTO density. It must also be noted that, in **Area B**, the layers are generally potentially collapsible to a depth in the order of 1,3m, which will require in situ compaction prior to the placing of road pavement layers. These factors must be borne in mind when designing roads for township development for the site.

3.10 ENVIRONMENTAL IMPACT ASSESSMENT

AB Enviro-Consult was appointed to conduct an Environmental Impact Assessment in terms of the provisions of the National Environmental Management Act, 1998 (Act 107 of 1998). The activities involved in respect of the establishment of this township area are listed as Listing Notice 1, Activities number 23, 9, 11 and 18 (Government Notice No. R544) and came into effect on 18 June 2010. The fore-mentioned activities are described as follows:

Number and date of the relevant notice:	Activity No (s) (in terms of the relevant notice) :	Description of each listed activity as per project description:
544, 18 June 2010	23	The transformation of undeveloped and vacant land to establish a township, at Wilkoppies, Klerksdorp which exceeds 5 hectares but is less than 20 hectares, inside the urban area of Klerksdorp.
	9	The construction of a pipeline exceeding 1000 metres in length for the bulk transportation of water, sewage or storm water - (i) with an internal diameter of 0,36 metres or more; or (ii) with a peak throughput of 120 litres per second or more, excluding where: such construction will occur within urban areas but further than 32 metres from a watercourse, measured from the edge of the watercourse.
	11	The construction of buildings exceeding 50 square metres in size where such construction occurs within a watercourse or within 32 metres of a watercourse, measured from the edge of a watercourse, excluding where such construction will occur behind the development setback line.
	18	The infilling or depositing of any material of more than 5 cubic metres into, or the dredging, excavation, removal or moving of soil, sand. or rock from a watercourse

The project was registered with the Department of Economic Development, Environment, Conservation and Tourism on 04 November 2013 by virtue of NWP/EIA/63/2013 (refer **Annexure L** to the application for township establishment) and the Basic Assessment Report is currently in process of finalisation following the finalisation of the public participation process and the Basic Assessment Report will in due course be submitted to the Department of Economic Development, Environment, Conservation and Tourism for consideration.

3.11 CULTURAL HERITAGE AREAS

A Pelsers Archaeological Consulting was commissioned to conduct a Cultural Heritage Resources Impact Assessment in respect of the proposed development area. The fore-mentioned assessment contained the following results:

As part of the assessment of the area a desktop study was undertaken to put the farm and the general geographical area in a historical and archaeological context.

The Stone Age is the period in human history when lithic (stone) material was mainly used to produce tools. In South Africa the Stone Age can be divided in basically into three periods.

A basic sequence for the South African Stone Age (Lombard et.al 2012) is as follows:

- ❖ Earlier Stone Age (ESA) up to 2 million – more than 200 000 years ago
- ❖ Middle Stone Age (MSA) less than 300 000 – 20 000 years ago
- ❖ Later Stone Age (LSA) 40 000 years ago – 2000 years ago

It should also be noted that these dates are not a neat fit because of variability and overlapping ages between sites (Lombard et.al 2012: 125).

According to Bergh there are no known Stone Age sites close to Klerksdorp, although a number of rock engraving sites are known to occur in the larger geographical area (Bergh 1999: 4-5).

During the assessment a small number of scattered MSA/LSA stone tools were found in one area. The scatter was not very dense, but it is possible that more could be present as individual tools in the larger area.

The Iron Age is the name given to the period of human history when metal was mainly used to produce artifacts. In South Africa it can be divided in two separate phases (Bergh 1999: 96-98), namely:

- ❖ Early Iron Age (EIA) 200 – 1000 A.D.
- ❖ Late Iron Age (LIA) 1000 – 1850 A.D.

Huffman (2007: xiii) however indicates that a Middle Iron Age should be included. His dates, which now seem to be widely accepted in archaeological circles, are:

- ❖ Early Iron Age (EIA) 250 – 900 A.D.
- ❖ Middle Iron Age (MIA) 900 – 1300 A.D.
- ❖ Late Iron Age (LIA) 1300 – 1840 A.D.

There are no known EIA/MIA sites in the area, although there are some Late Iron Age sites in the larger geographical area north and west of the town (Bergh 1999: 6-7). One such site is Palmietfontein (around 30km north of the town), excavated in 1975 by D.A.White. In an article on this work it is also indicated that the area north of Klerksdorp is relatively rich in terms of Late Iron Age sites, and that the Rolong capital of Thabeng lies within this area (White 1977: 89).

Based on the research by Huffman it is possible that sites related to the so-called Olifantspoort facies of the Urewe Tradition, dating to around AD1500-1700, and the Thabeng facies of the same tradition (AD1700-1840) could possibly be found in the area (Huffman 2007: 207). No Iron Age sites, features or cultural material was found during the assessment of the area.

The historical age generally starts with the first recorded oral histories in an area. It includes the moving into the area of people that were able to read and write. The earliest traveller through this area was Cornwallis Harris in 1836, followed by missionaries and the Voortrekkers (Bergh 1999: 13-14).

According to Wikipedia the town was founded in 1837 when the Voortrekkers settled on the banks of the Schoonspruit which flows through the town. The most prominent of the first settlers was C.M. du Plooy who claimed a large farm called Elandsheuwel. He gave plots of land and communal grazing rights on this farm to other Voortrekkers in return for their labour in building a dam and an irrigation canal. This collection of smallholdings was later given the name of Klerksdorp in honour of the first landdrost (magistrate) of the area, Jacob de Clerq.

In August 1886 gold was discovered in the Klerksdorp district by M.G. Jansen van Vuuren as well as on the Witwatersrand, which lies about 160 km to the east. As a consequence, thousands of fortune-seekers descended on the small village, turning it into a town with 70 taverns and even a stock exchange of its own. However, the nature of the gold reef demanded expensive and sophisticated equipment to mine and extract the gold, causing the majority of diggers to move away in the late 1890s and leading to a decline in the gold mining industry.

During the Second Boer War (1899-1902), heavy fighting occurred in the area, which also housed a large concentration camp. The most famous of the battles around Klerksdorp, is that of the Battle of Ysterspruit during which the Boers under General Koos de la Rey achieved a great victory. On April 11, 1902, the Battle of Rooiwal, the last major engagement of the war, was fought near Klerksdorp during which a Boer charge was beaten off by entrenched British troops. The graves of the victims of the British Concentration Camps near Klerksdorp are located in the old cemetery just outside of town.

Klerksdorp was connected by rail to Krugersdorp on 3 August 1897 and to Kimberley in 1906. The gold mining industry was revived by large mining companies in 1932, causing the town to undergo an economic revival, which accelerated after World War II.

The above information was obtained from www.wikipedia.org.

An 1890 map of the farm Elandsheuvel (then numbered 376) indicates that the farm was then located in the district of Potchefstroom and the Schoonspruit ward. The whole of the original farm was first granted to one J.N. Grobler on the 9th of May 1857 (www.csg.dla.gov.za – Document 10KGUA01).

According to Bergh the farmer settlement along the Schoonspruit started to be called a town around 1855, although its status was only formally acknowledged on the 12th of September 1888 (Bergh 1999: 130; 146). This source also indicates the two Anglo-Boer War battles mentioned in wikipedia, but includes the Battle of Hartebeestfontein (18th February 1901) close to Klerksdorp (p. 54). Besides the Boer women en children Concentration Camp in Klerksdorp there was also one for Black people (Bergh 1999: 54).

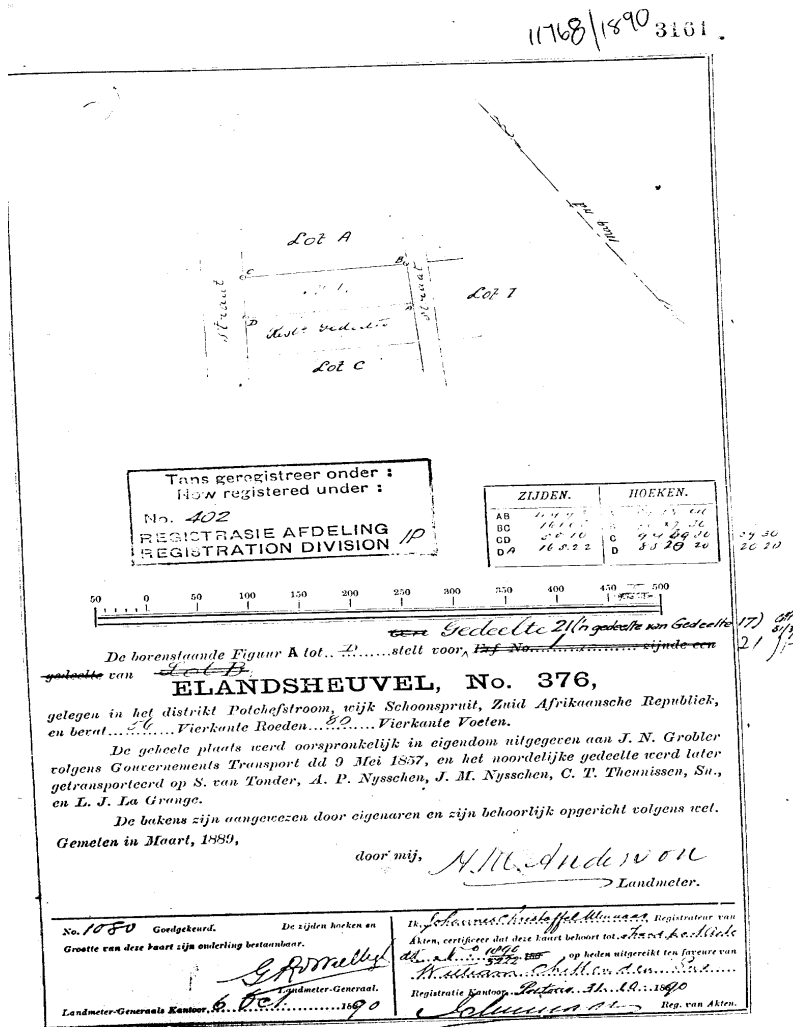


Figure 6: 1890 map of Elandsheuvel (CSG Document 10KGUA01).

3.11.1 RESULTS OF THE FIELDWORK

Five (5) sites were identified in the area during the survey. These include a scatter of Stone Age tools and 4 recent historically related sites.

❖ **Site 1 – Stone Age scatter**

This site contains a small number of MSA/LSA flakes and tools, scattered individually in a section of the study area. The tools are very worn (water rolled?) and manufactured on felsite and quartzite. It is possible that more tools could be located in the larger area, but these would also be individually scattered and in low densities.

GPS Location: S26 50.061 E26 39.863

Cultural Significance: Low

Heritage Significance: None

Field Ratings: General protection C (IV C): Phase 1 is seen as sufficient recording.

Mitigation: None required. Should any cultural material or deposit be exposed during any development action then an expert should be called in to investigate

❖ **Site 2 – Recent structures**

This site consists of the remains and foundations of recent structures that are less than 60 years of age. These structures were constructed mainly of bricks and have been vandalised and demolished to a large degree already.

GPS Location: S26 49.999 E26 39.779

Cultural Significance: Low

Heritage Significance: None

Field Ratings: Not applicable. Phase 1 is seen as sufficient recording.

Mitigation: None required.

❖ **Sites 3-5: Historical remains and refuse midden**

These three sites are located in close proximity to each other and are probably part of the same old farming related settlement (possibly farm labourer) dating to the recent historical period (between the late 19th and mid20th century possibly).

The first site (Site 3) is a fairly large refuse midden containing glass, porcelain, metal objects and other material possibly dating to between the late 19th and mid20th centuries. The origin and history of the midden could not be traced, but it is believed that it is possibly related to earlier farming (and more likely farm labourer) activities in the area. The deposit on the site is fairly extensive and it is recommended that the site be mitigated prior to development commencing. This would include superficial excavations and the sampling of material from the site.

GPS Location: S26 50.081 E26 39.926

Cultural Significance: Medium to High

Heritage Significance: Grade III - Other heritage resources of local importance and therefore worthy of conservation

Field Ratings: General protection B (IV B) - Site should be recorded before destruction (medium significance)

Mitigation: Limited excavations and sampling of material.

Site 4 & 5 is represented by the remains (foundations) of structures that could be associated with Site 3 (the refuse midden). Both these structures seem to have been built with bricks and stones. The age of these are not known, but is probably also between the late 19th and mid20th century. With so little of these structures remaining they are not significant and can be demolished. It is recommended that they be recorded (mapped) however as part of the investigation on the refuse midden (Site 3).

GPS Locations: S26 50.082 E26 39.938 (4) & S26 50.079 E26 39.989 (5)

Cultural Significance: Low

Heritage Significance: None

Field Ratings: General protection C (IV C): Phase 1 is seen as sufficient recording. **Mitigation:** Mapping during excavation of refuse midden.



Plate 13: Site 2 recent ruins.



Plate 14: Stone tools found at Site 1.



Plate 15: Refuse midden Site 3.



Plate 16: Some of the cultural material from the site. Included here is a pocket knife and a bottle stopper typical of the late 19th/mid 20th century.



Plate 17: Foundations of structure on Site 4.



Plate 18: Foundations of another structure on Site 5.

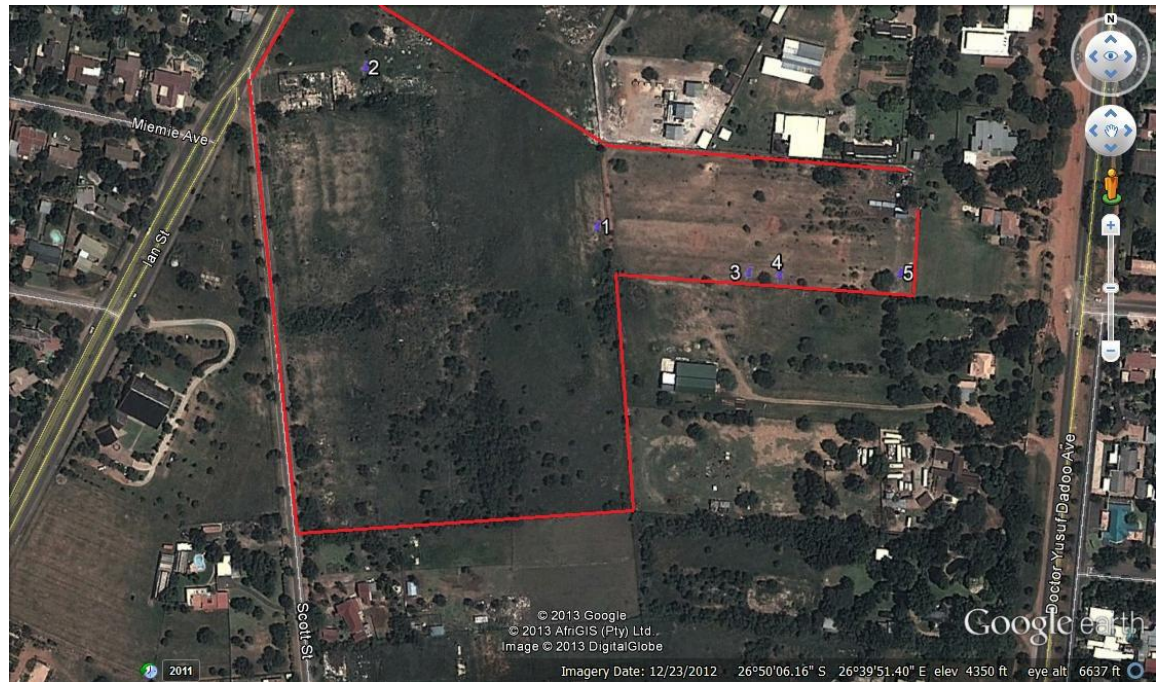


Figure 7: Site distribution (Google Earth 2013 – Image date 2012/23/12).

3.11.2 CONCLUSION AND RECOMMENDATIONS

In conclusion it is possible to say that the Phase 1 Heritage Impact Assessment for the proposed township development on Holdings 19-23 & 48 in Wilkoppies Agricultural Holdings (Elandsheuvel 402IP), and known as Wilkoppies Ext.108, has been conducted successfully. The area has been extensively disturbed in the past through agricultural activities and other developments and if any sites of cultural (archaeological & historical) origin and significance did exist here in the past it would have been disturbed or destroyed to a large degree. However some sites were recorded during the survey, and included a Stone Age tool scatter of low density and significance, recent structural remains (less than 60 years of age) and three sites probably dating to between the late 19th and mid20th centuries. Last three sites include a refuse midden and the foundations of two structures. It is recommended that limited excavation at the midden be undertaken prior to development commencing. Once this has been completed the site can be destructed.

From a Cultural Heritage point of view the development should be allowed to continue, taking the above mentioned into consideration. **Furthermore, the subterranean presence of archaeological and/or historical sites, features or artifacts are always a distinct possibility, and this aspect needs to be kept in mind at all times. Care should therefore be taken during any development activities that if any of these are accidentally**

discovered, a qualified archaeologist be called in to investigate. This would include the discovery of previously unknown graves.

The comprehensive Cultural Heritage Resources Impact Assessment conducted by A Pelser Archaeological Consulting is attached as **Annexure K** to the application for township establishment.

CHAPTER 4: PROPOSED DEVELOPMENT

4.1 LAND USES

The intention of the applicant i.e West Ridge Shopping Centre Proprietary Limited (2007/008695/07) is to utilize the concerned properties for the establishment of the proposed township area of Wilkoppies Extension 108. The township area will comprise two (2) “residential 2” erven as well as a street comprising the widening of the existing road reserve of Ian Street.

The purpose of the township area will be to establish a retirement village to be known as “d’ Laning” comprising the following facilities:

- ❖ One (1) bedroom retirement units : 211 dwelling units
- ❖ Two (2) bedroom retirement units : 74 dwelling units
- ❖ Two (2) / Three (3) bedroom retirement houses : 62 dwelling units
- ❖ Three (3) bedroom retirement houses : 19 dwelling units
- ❖ Frail care comprising eight (8) retirement suites and two (2) frail care rooms
- ❖ Clubhouse
- ❖ Chapel

(refer also to **Annexure O** of the application for township establishment for draft building plans of dwelling units / frail care / club house)

All the dwelling units afore-mentioned (excluding those contained in the frail care facility) will be alienated on a sectional title basis.

The layout plan of the proposed township area makes provision for the following land uses:

Use Zone	Proposed Land Use	Number of erven	Area in hectares	% of area
Residential 2	Dwelling units (Density: 376 dwelling units)(Including a chapel, clubhouse, frail care and facilities appurtenant thereto)	2	11,1506	98,34%
Existing public roads	Streets (widening of Ian Street)		0,1878	1,66%
Total		2	11,3384	100%

In terms of the draft Site Development Plan, the proposed development will comprise grouped dwelling units contained in single structures with ramps leading to second storey units as well as a number of freestanding retirement houses located predominantly in the

western portion of the township area as reflected on the following draft Site Development Plan. As is evident on the fore-mentioned plan, extensive open space areas are provided throughout the proposed development for passive recreational purposes.



Figure 8: Draft Site Development Plan

4.2 FACTORS INFLUENCING THE LAYOUT PLANS

The layout plan of the proposed township area of Wilkoppies Extension 108 was influenced by the following factors:

- Providing for the township to comprise of two (2) “residential 2” erven to comply with current legislative requirement for a township area;
- The second “Residential 2” erf will coincide with the access and access control facility of the proposed township area;
- The access to the township area was provided directly opposite the intersection of Austin Street and Dr. Yusuf Dadoo Avenue to allow for this intersection to function as a four way intersection in future;

- Accommodating an existing outfall sewer line traversing the development area along the western boundary of Holding 48, Wilkoppies Agricultural Holdings IP in a proposed 3m municipal servitude;
- Accommodating an existing stormwater box culvert traversing the central portion of Holdings 19, 20, 21, 22 and 23, Wilkoppies Agricultural Holdings IP from north to south.
- Accommodating an existing outfall sewer line traversing the central portion of Holdings 19, 20, 21, 22 and 23, Wilkoppies Agricultural Holdings IP from north to south and located directly adjacent to the stormwater box culvert afore-mentioned;
- The existing stormwater box culvert and outfall sewer line will be protected through a proposed 16m municipal servitude.
- In terms of the Klerksdorp Land Use Management Scheme, 2005, provision was made for a “Proposed Road and Widening” along the north western boundary of the development area and affecting Holding 19. This road widening of 15m was intended to allow for the extension of the current double carriageway of Ian Street in a northerly direction. This road widening was also taken into consideration during the establishment of the adjacent township area of Wilkoppies Extension 82. Following discussions with the township applicant, it was indicated that the township applicant is willing to accommodate this proposed road widening to allow for the future upgrading of Ian Street.

4.3 ACCESS

Access to the proposed township area of Wilkoppies Extension 108 will be provided from a proposed access and access control facility located directly opposite the intersection of Austin Street and Dr. Yusuf Dadoo Avenue as reflected on the draft Site Development Plan (refer **Figure 8** above).



Plate 19: View of Dr. Yusuf Dadoo Avenue (direction south)



Plate 20: View of Dr. Yusuf Dadoo Avenue (direction north)



Plate 21: View of Austin Street & Dr. Yusuf Dadoo Avenue intersection

In addition to this access, the draft Site Development Plan also makes provision for an unmanned service entrance from Scott Street.



Plate 22: View of Scott Street (direction north)



Plate 23: View of Scott Street (direction south)

All dwelling units within the township area will be accessed off internal streets that will be maintained by the relevant Home Owners Association.

Cognisance should be taken of the fact that the Klerksdorp Land Use Management Scheme, 2005 makes provision for a “Proposed Road and Widening” comprising the extension of Austin Street in a westerly direction and linking onto Jasmyn Road in the township area of Flimieda. This “proposed road and widening” has been reserved since 1980 and was reflected in the Klerksdorp Town Planning Scheme, 1980. In this regard it

is pertinent to take note of the provisions of Sections 24(1)(a)-(c) and 24(2) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) which stipulate as follows:

“Prohibition of works on and use of certain land.

24.(1) Where a local authority intends to acquire land it may prohibit-

- (a) the proposed erection or alteration of or addition of any building on the land;
- (b) any other proposed work on the land;
- (c) any particular use of the land.

(2) Where a local authority fails within a period of 6 months from the date of a prohibition imposed in terms of subsection (1) to take possession of the land concerned, the prohibition shall lapse and in such case no further prohibition shall be so imposed in respect of that land.”

From the fore-mentioned it is evident that the prohibition in respect of the development of Holdings 21, 22 and 48 to allow for the establishment of a proposed road comprising the extension of Austin Street actually lapsed 6 months after promulgation of the Klerksdorp Town Planning Scheme, 1980 as the City of Matlosana omitted to do the necessary steps to acquire said portions of land to allow for such purposes as initially proposed.

Notwithstanding the fact that the township applicant is in no way obliged to make provision for any of the “proposed roads and widening” reflected on the Klerksdorp Land Use Management Scheme, 2005 the township applicant agreed to accommodate the widening of Ian Street (15m) on the layout plan of the township area as Holding 19 is the only remaining property that is required to allow for the widening of the section of Ian Street to a double carriageway road up to the intersection of Vlei Street and Ian Street.



Plate 24: View of the section of Ian Street proposed for widening

CHAPTER 5: PROVISION OF ENGINEERING SERVICES

5.1 INTRODUCTION

Moedi Consulting Engineers (Pty) Ltd and GIBB (Pty) Ltd were appointed to investigate and report on the provision of civil and electrical services to the proposed township area.

The provision of services to the proposed development areas will be addressed as follows:

- Section 5.2: Bulk Services (Civil Engineering Services)
- Section 5.3: Internal Services (Civil Engineering Services)
- Section 5.4: Electrical services

5.2 BULK SERVICES (CIVIL ENGINEERING SERVICES)

5.2.1 WATER

Bulk water is supplied by the Midvaal Water Company from their plant at Vaal Reefs from where water is distributed to the Greater Matlosana area through the existing reservoir supply systems.

Water for the development is obtained from the existing 225 mm diameter main water line on the eastern border of the development in Yusuf Dadoo Avenue.

5.2.2 SEWER

The Klerksdorp Sewage Treatment facility has ample capacity to accommodate the sewer effluent from this new development.

A sewer connection will be made to the existing 160 mm diameter municipal sewer line traversing the development from north to south installed next to the existing storm water culvert.

5.2.3 SOLID WASTE

The Municipality renders a refuse service in the area. All refuse is dumped and managed at the formal dumping site of the Matlosana City Council. Considering the current volume of refuse generated in the Klerksdorp area, the additional contribution of refuse from this development is minor.

5.3 INTERNAL SERVICES (CIVIL ENGINEERING SERVICES)

5.3.1 WATER

Each dwelling unit within the proposed development will be supplied with potable water by means of an internal network of uPVC water mains connected to the existing municipal water line in Yusuf Dadoo Avenue.

The internal network will be designed to ensure ample capacity to comply with the fire flow demands for the new development by ensuring that main water lines are at least 75mm diameter or larger in size. The system will be constructed with fire hydrants and strategically positioned isolating valves for maintenance purposes to comply with the requirements of the local authority.

5.3.2 SEWER

Due to the natural topography of the stand, all sewage will gravitate towards the bulk sewer line traversing the stand from north to south. An internal network of uPVC sewer lines will be installed with 110mm PVC y-junction connections to each unit. The system will comply with the minimum specifications stipulated in the SABS 0400/89 Building Regulations. Manholes and rodding eyes will be constructed at necessary positions to allow for effective maintenance..

5.3.3 ROADS & STORM WATER

An access road linking Yusuf Dadoo and Scott streets as well as internal roads will be constructed to provide access to each dwelling unit. These roads will be constructed with a suitable sub-structure and surfacing.

Storm-water will generally be handled as surface flow and will follow the natural runoff patterns. The internal roads will be designed to collect storm water runoff and act as storm water carriers. Storm water will flow towards the storm water culvert traversing the development. Where necessary, the layout of the development will be adjusted to make provision for storm water courses.

5.3.4 REFUSE REMOVAL

Refuse removal is conducted by the Local Authority and their services will be extended to the proposed development.

5.3.5 SERVICES SERVITUDES

A 16 meter wide servitude in favour of the municipality will be registered along the existing box culvert and main outfall sewer traversing the site (north – south direction) to allow

access to maintenance personnel. The internal layout design will make provision for a mayor internal arterial road along the servitude route for collection of storm water generated in the development to be dispersed into the box culvert and related underground system.

In addition to the fore-mentioned servitude, the layout plan will also accommodate a 3m municipal servitude to accommodate an existing outfall sewer line traversing the western boundary of Holding 48, Wilkoppies Agricultural Holdings IP.

5.4 ELECTRICAL SERVICES

5.4.1 ELECTRICITY SUPPLY AUTHORITY

The area of the proposed development falls within City of Matlosana's Municipal area of supply.

The City of Matlosana supplies the surrounding customers and it is therefore logical, technically feasible and economically advantageous for City of Matlosana to be the Supply Authority.

5.4.2 ELECTRICAL INFRASTRUCTURE DESIGN PARAMETERS

The electrical infrastructure will be designed to comply with the standards and requirements of the Supply Authority, City of Matlosana, and, where appropriate, generally in accordance with NRS034-1:1999 Electricity Distribution – Guidelines for the provision of electrical distribution networks in residential areas.

The electricity distribution system will be designed for the anticipated maximum load to avoid the need for future upgrading of the electricity distribution system.

5.4.3 SUPPLY CAPACITY

The capacity required for the development is estimated at an ADMD figure of 4 kVA per unit for the 378 free standing units based on the existing architectural plans for the various houses. The clubhouse and frail care supplies will be limited to 50kVA and 70kVA respectively. This adds up to a total demand of 1600kVA for the development.

The required electrical supply to the future commercial development adjacent to the proposed residential development is estimated at 2400kVA. This adds up to a total demand of 4000kVA to be supplied.

An additional 20MVA Eskom transformer will be installed at the Doringkruijn substation mid 2014. This will ensure that enough capacity will be available to accommodate the proposed development.

The proposed development will be supplied from the Doringkruijn substation on Buffelsdoorn Road. A primary 11kV ring supply will be created from Doringkruijn substation to supply the development. The 120mm² Cu 11 kV feeder has a thermal capacity of 250A Amp (4700kVA) and is therefore sufficient to supply the estimated load of 4000 kVA required for the two developments

An application for supply out of the Doringkruijn substation will be submitted to City of Matlosana Municipality and the developer will be liable for connection fees.

5.4.4 MEDIUM VOLTAGE INFRASTRUCTURE

The MV cable shall be 120mm² Copper, three core, 11/11kV Paper Insulated Lead Covered cable to Table 18 of SANS 97 : 2012 (Edition 7.1) complying to City of Matlosana Municipality specifications.

The 11 kV ring feed will originate from new Circuit breakers installed at the Doringkruijn substation. The feeder will be routed along Buffelsdoorn Road and Austin Street to the entrance of the development in Dr. Yusuf Dadoo Avenue. From the development entrance the 11kV feeder will be routed back to Doringkruijn substation to close the ring.

A Safering type CCF SF6 or similar RMU adhering to City of Matlosana Municipality specifications will be installed at the entrance to the development from where a fused secondary 11kV ring will supply electricity to the development. An 11kV Bulk metering point of supply will be established at the RMU for municipal metering.

On completion of the installation the primary 11kV ring, electrical services shall be handed over to the City of Matlosana Municipality for operation and maintenance.

The developer will be responsible for the supply and installation of the secondary 11kV ring internal to the development. The internal 11kV ring will comprise of three minisubs that will be strategically positioned throughout the development to supply the required 1600kVA.

The proposed 11kV supply route to and from the development RMU is indicated on the following diagram.



Figure 9: Proposed 11kV supply route

5.4.5 LOW VOLTAGE ELECTRICAL SERVICES

The low voltage (LV) distribution system will be nominal three phase 400 Volt phase to phase / 230 Volt phase to neutral with the neutral bonded to earth.

Underground cables will generally be laid alongside roads. Cable routes will be selected to:

- Avoid the destruction of heritage resources
- Avoid habitats of conservation value and destruction of bio diversity
- Take cognisance of environmental constraints

The houses will be supplied from the proposed new miniature substations via an underground low voltage network comprising of Aluminium feeder cables, Polyethylene distribution kiosks and Airdac cable service connections.

5.4.6 STREET AND AREA LIGHTING

Street and area lighting of private roads, private open spaces and parking bays and the lighting of features, walls, entrances, water features etc will be provided to the Architect's requirements.

Private lighting will be metered separately and the Home Owners Associate will be responsible for the municipal account. The operation and maintenance of all private lighting will also be the responsibility of the Home Owners Association.

Energy efficient lighting technology will be used as far as possible to reduce the energy requirements of the development.

CHAPTER 6: MOTIVATION

The need and desirability of the proposed development on Holdings 19, 20, 21, 22, 23 and 48, Wilkoppies Agricultural Holdings IP will be addressed in terms of the following:

- * North West Spatial Development Framework and Zoning Plan, 2004
- * North West Provincial Spatial Development Framework, 2008
- * Southern District Growth and Development Strategy, 2005
- * Southern District Growth and Development Strategy, 2007
- * Municipal Spatial Development Framework, 2004
- * Matlosana Spatial Development Framework, 2008
- * General Principles of the Development Facilitation Act, 1995 (Act 67 of 1995)
- * Economic Viability
- * Planning Principles

6.1 NORTH WEST SPATIAL DEVELOPMENT FRAMEWORK AND ZONING PLAN, 2004

- * In terms of the hierarchy of settlement as determined for the North West Settlement Strategy in 1991, the Klerksdorp / Orkney / Stilfontein centre was classified as a primary regional centre with an indicative future function as a primary regional (axis) centre.
- * Madibeng constituted the municipality with the largest population in 2001 estimated in excess of 600 000 inhabitants, followed by Moretele with 394 000, Klerksdorp with 357 000 and Rustenburg with 320 000. Klerksdorp had the fifth largest population density with 89 people per square kilometre.
- * In terms of municipal contributions to the North West GVA, Rustenburg, Madibeng, Moretele and Klerksdorp were classified in economic terms as the four largest economies in the province contribution 70% of the North West GVA.
- * The spatial structure of the North West economy shows some signs of diversification and the five largest cities all exhibit distinct structures namely:
 - Mafikeng, the provincial capital, situated in the central region, is dominated by the civil service and agriculture (maize and sunflower farming and poultry).
 - Platinum mining, trade, tourism and financial services dominate Rustenburg, situated in the eastern region.

- Potchefstroom, situated in the southern region, is dominated by community services, including national government department, provincial government departments as well as financial and other business services.
 - Klerksdorp, situated in the southern region, is dominated by gold mining and manufacturing (metal fabrication related).
 - Manufacturing, dimension stone mining and business services dominate Brits area, encompassing Madibeng Local Municipality and Moretele Municipality, situated in the eastern region.
- * The National Departments of Transport and Trade and Industry coined the term Spatial Development Initiative, or SDI, in 1996. The SDI programme is intended to create an environment for investors, thereby stimulating domestic and international development. It aims to unlock the inherent and under-utilised economic development potential of certain specific spatial locations in South Africa.

The Platinum SDI (N4) was the first to be identified in the North West (1997 – 1998). In 2001 / 2002 two further SDI's were identified and scoped namely the Western Frontier SDI (N18) and Treasure Route (N12). The Treasure Route Corridor extends from Gauteng Province to the Northern Cape and encompasses the major gold mining regions along the southern border of the province. The major centres of economic activity in the corridor are in the Klerksdorp and Potchefstroom area where over half of the GGP of the Treasure Corridor is generated. Other major towns include Lekwa Teemane (Bloemhof), Maquassi Hills (Wolmaransstad) and Merafong City (Fochville). As with the Platinum SDI, the Treasure Route GGP is dominated by mining production, in this case gold. Mining accounts for over 40% of GGP in the corridor with trade a distant second at 12,5%.

In terms of the PSDF, provincial corridor development influences the KOSH area in the following manner:

- Firstly, the N12 forms an inter-city development corridor deemed important for the concentration of relevant development initiatives between Johannesburg and Klerksdorp. Priority should be given to the improvement of the communication and transport networks that link Klerksdorp with the economic core of South Africa. Here the importance of the construction of a dual carriageway (between Potchefstroom and Johannesburg) could not be stressed enough.

- Secondly, the strengthening of centres such as Potchefstroom and Klerksdorp to develop as counter magnets or “equilibrium cores” as part of the development axis concept, is essential.
- In terms of the anchor projects in the North West SDI’s the medical ordinate clusters in Klerksdorp were identified as one of the anchor projects. In this regard it is pertinent to note that the proposed development area is located less than 2km from one of the key components within the medical ordinate clusters in Klerksdorp i.e Wilmed park private hospital.

6.2 NORTH WEST SPATIAL DEVELOPMENT FRAMEWORK, 2008

- * In terms of the approved North West Provincial Spatial Development Framework, 2008 Klerksdorp was again classified as a primary node and was also indicated as a Priority 1 investment area where social and economic returns on investment will be highest.
- * In terms of corridors and transport infrastructure, the treasure corridor is strengthening development from Johannesburg to Tlokwe, Klerksdorp and further south along the N12 national road.
- * Core economic areas which indicate high levels of economic potential, high concentration of people, formal and informal economic activity, formal levels of infrastructure and a wide range of socio economic infrastructure are Rustenburg area, Mafikeng-Lichtenburg areas and Potchefstroom-Klerksdorp / Merafong areas.

6.3 SOUTHERN DISTRICT GROWTH AND DEVELOPMENT STRATEGY, 2005

- * In terms of the Southern District Growth and Development Strategy, 2005 the N12 SDI development approach and concept was informed by the vision for the Treasure Corridor i.e.:

“Transformation of the treasure highway into a activity and mobility corridor with a multi-dimensional character that unlocks opportunities and generate synergy between spatial efficiency, economies and scale, private sector investment in high priority areas and overall employment creation that will benefit the local, provincial and national community.”
- * The Treasure Corridor forms an integrated part of the Growth and Development Strategy (GDS) for the Southern District Council (now Dr. Kenneth Kaunda District

Municipal) focusing specifically on the physical dimensions of concentrated development efforts within the region.

- * A corridor emanates because of the movement of people, traffic, goods etc. along communication lines linking core areas. To enhance corridor development emphasis should fall on strengthening of the existing core areas on the developing corridor and improvement of communication and transport networks linking the core areas with each other.
- * The Treasure Corridor has a dualistic character consisting of:
 - A development axis in formation which exists between Johannesburg and the Klerksdorp area.
 - A communication axis which exists between Klerksdorp and Wolmaransstad along the N12.
- * One key principle for the development of the N12 SDI is that centres on the corridor and within the intermediate region are in direct competition with the Gauteng area in order to attract investment. Therefore a key principle for development on the corridor will have to be to provide attractive social as well as economic infrastructure at competitive cost for new developers. These include the availability of well located land for business, commercial, offices, industrial development and the enhancement of the absorptive capacity with regard to housing.

6.4 SOUTHERN DISTRICT GROWTH AND DEVELOPMENT STRATEGY, 2007

- * In terms of the Southern District Growth and Development Strategy, 2007, the dominant trading areas of the former Southern District Municipality are Matlosana (61%) and Potchefstroom (29%). The trade sector showed a constant growth between 1995 and 2004.
- * Most people are employed in the mining, agricultural, trade and service sectors with trade constituting 19% of the employment per sector in the Southern District and 21% per sector in the City of Matlosana.
- * The objectives of the Growth and Development Strategy are to ensure that:
 - Increased economic growth rates to 6% per annum by 2014
 - Grow fixed capital formation by 10% per annum

- That both domestic and foreign investment is attracted into the district to provide the resources to unlock the opportunities
 - That infrastructure, information and the institutional framework are efficient, effective and supportive for the attraction of investments
 - That the competitiveness of the Southern District as a business environment is high, improving and sufficient.
- * The Southern District Growth and Development Strategy, 2007 similarly reiterated the fact that development should be focused at strengthening of existing core areas on development corridors and focused specifically on strengthening the Treasure Corridor.
- * The Southern District Growth and Development Strategy proposed the following in respect of residential development within urban areas:
- Increase residential development (densification)
- * In terms of residential development it was proposed that new residential areas should complement the urban structure through adequate provision of social and economic land uses, concentrated at nodes along movement networks. New residential and housing projects should enhance the principle of integration of urban areas.

6.5 MUNICIPAL SPATIAL DEVELOPMENT FRAMEWORK, 2004

- * In terms of the Spatial Development Framework of the City of Matlosana (2004) the total population for the KOSH (Klerksdorp / Orkney / Stilfontein / Hartbeesfontein) was calculated at 517 781 of which 95% is spatially concentrated in urban areas.

Despite a general decrease in the overall in-migration of the North West Province, with bulk (23%) of the inter-provincial migrants in 1996 who settled in Klerksdorp, this particular magisterial district proves to be the most popular attraction for both local and international migrants.

Based on an annual growth rate of 1,3% for the urban population and a 0.95% for the rural areas the population of the KOSH area is estimated at 541 199 people of which 516 757 reside within urban settlements.

- * In terms of the Spatial Development Framework the composition of the Southern District economy is, in compliance with the rest of the North West Province, dominated by the mining industry. While the rest of the South African economy is

increasingly less dependant on the primary sector, this district is to a large extent still dependant on this sector, characterised by low-skilled, resource intensive production. The primary sector (mining and agriculture) comprises a total of 34% of the economic composition, the secondary sector 11% and the tertiary sector 55%. In summary this district could be more volatile to the risk of an external shock in the economy than the rest of the province. It is therefore pertinent that a policy of diversification be followed. According to the Tress Index, the Klerksdorp area succeeded to become more diversified as signified by the almost 10% increase that is experienced since 1996. Despite the positive trend, diversification still remains low due to the relatively unequal distribution of activities where the primary sector (mining and agriculture) still dominates.

- * In terms of the Spatial Development Framework the land development needs in respect of residential development over a period of 5 years (ending 2009) within the Klerksdorp area alone, was estimates at 5883 stands.
- * In terms of the Klerksdorp Spatial Development Framework a mere 951 proclaimed stands were available for development during 2004.
- * In terms of the Spatial Development Strategy as contained within the Klerksdorp Spatial Development Framework:
 - Klerksdorp is categorised as one of the **main provincial centres** in the North West Province. According to its provincial status, it is ranked as a 'primary regional centre' within the 'transitional zone' from the metropolitan region, and it has a high level of facilitating economic growth based on its existing development potential and socio-economic needs-status. The four main nodes (Klerksdorp/ Orkney/ Stilfontein/ Hartbeesfontein) within the Municipality are recognised as potentially one large conurbation.
 - As such, it forms the main focus for development within the Municipality and high-order development must be located within this **conurbation**. This refers to new developments pertaining to industrial, retail, wholesale, and large-scale housing developments (it doesn't exclude the other settlements from these type of developments, but based on national policy in this regard, physical development must be focused on areas with development potential).
 - According to an **investment** matrix compiled for the Province, social and economic returns on investment will be highest in a limited number of municipalities, including Klerksdorp. In these areas, given the combination of high needs and high economic potential, any investment is likely to result in the greatest return – both social and economic returns.

- The study area has strong physical and socio-economic linkages with Gauteng, as well as other main towns like Potchefstroom, Rustenburg, and Welkom. These physical linkages (mainly roads) must be utilised as **development corridors** and strengthened through supporting land use developments at both ends of the corridors. On a lower level of interaction, Klerksdorp also has strong economic interactions with Ventersdorp, Wolmaransstad and Ottosdal.
 - In addition to the above, Klerksdorp is located in the **N12 Treasure Corridor** (± 160 km west of Johannesburg). Hence, it forms one of the main provincial priorities for purposeful development in concentrated zones along the three corridors in the province. However, existing 'bottlenecks' in the N12 – relative to Klerksdorp Municipality - include the section linking Potchefstroom to Gauteng. This situation must be remedied on a higher level of policy implementation (District SDF and Treasure SDI).
 - As part of the integrated development planning process, new migrants must be accommodated in an orderly manner through the timely identifying and purchasing of **land**; site and service programmes and the provision of housing.
- * In terms of the Urban Spatial Development Framework as contained within the Spatial Development Framework of the City Council of Klerksdorp, the subject properties were earmarked for future residential purposes as the properties are also located inside the urban fringe as defined in terms of the fore-mentioned Spatial Development Framework.

6.6 MATLOSANA SPATIAL DEVELOPMENT FRAMEWORK, 2008

- * In terms of the Spatial Proposals (Map 8(c)) as contained within the Matlosana Spatial Development Framework, 2008 the proposed development area is located within an area identified for 'residential development as the properties are located within the urban edge.
- * As far as future residential development is concerned, a more compact city structure integrating the different urban areas within the urban edge is proposed. In this regard it is pertinent to note that that the proposed development area is located within the demarcated urban edge as defined in terms of the City of Matlosana Spatial Development Framework. This township area will specifically address the requirement to establish more compact cities as it constitutes infill development.

6.7 **GENERAL PRINCIPLES OF THE DEVELOPMENT FACILITATION ACT, 1995 (ACT 67 OF 1995)**

In this section, each of the General Principles will be listed and compliance with those principles will be discussed in detail. It is apparent from all documentation on the Development Facilitation Act, General Principles that not all principles will apply in all cases and that motivation in terms of the General Principles requires a holistic view. Otherwise, it may seem that some of the principles could conflict with one another. Secondly, the resource documentation of the Development and Planning Commission (February 1999) clearly states that the General Principles of the Development Facilitation Act cannot be considered mechanically and are not considered a fixed set of rules, norms and standards.

- **Principle 3(1)(a): “Policy, administrative practice and laws should provide for urban and rural land development and should facilitate the development of formal and informal, existing and new settlements.”**

The first general principle of the Development Facilitation Act calls for greater balance in land development processes in respect of urban and rural development. From the outset, it is hereby acknowledge that the proposed development represents a new development, which is formal in nature in an urban environment. The locality of the property and the legal process that is followed to establish the development determines its context as formal development within an urban setting.

- **Principle 3(1)(b): “Policy, administrative practice and laws should discourage the illegal occupation of land, with due recognition of informal land development processes.”**

Since the proposed development is a proposed formal land development based on the establishment of land use rights in terms of existing policies and administrative practices, this principle does not apply directly to the proposed development except for the fact that this development will discourage potential informal, illegal occupation of the land by bringing about a formal township area.

- **Principle 3(1)(c) “Policy, administrative practice and laws should promote efficient and integrated land development in that they:”**

- **“Promote the integration of the social, economic, institutional and physical aspects of land development.”**

These principles call for well-managed entities where economic growth and social development are in balance with the carrying capacity of the natural systems on which they depend for their existence and result in sustainable development, wealth creation, poverty alleviation and equity. The statutory

process of township establishment similarly involves and addresses the social, economic, institutional and physical aspects of the proposed development.

- ***“Promote the integration land development in rural and urban areas in support of each other.”***

The proposed development is aimed at establishing a well balanced community with the necessary social and recreational facilities integrated within the development concept.
- ***“Promote the availability of residential and employment opportunities in close proximity to or integrated with each other.”***

This principle encompasses the establishment of mixed land use developments. Even though this development will be of a primary residential nature, the location thereof in close proximity to existing business facilities within the various commercial nodes in the Wilkoppies area satisfies this principle.
- ***“Optimise the use of existing resources including such resources relating to agricultural land, minerals, bulk infrastructure, roads, transportation and social facilities.”***

This principle calls for the optimisation of investments already made in terms of existing development of services infrastructure. The proposed development is located in close proximity to bulk water, sewer and electrical infrastructure as well as existing road infrastructure. The availability of services to the proposed development area is set out in detail in section 4 above.
- ***“Promote a diverse combination of land uses, also at the level of individual erven of subdivision of land.”***

Due to the small nature of this development as well as the development intentions in establishing residential development aimed primarily at the aged, opportunities for a diverse combination of land uses are limited. The proposed development however aims at addressing the fore-mentioned principle through the introduction of a frail care facility, club house and chapel that will all be aimed at servicing the inhabitants of the concerned development. It is further pertinent to note that the proposed development area is located in an established urban area already encompassing a diverse combination of land uses offering an array of opportunities for employment, social interaction, medical support and recreation.
- ***“Discourage the phenomenon of ‘urban sprawl’ in urban areas and contribute to the development of more compact towns and cities”;***

and

“Contribute to the correction of historically distorted spatial patterns of settlement in the Republic and to the optimum use of existing infrastructure in excess of current demands.”

The proposed development of the township area of Wilkoppies Extension 108 will take place inside the urban edge as defined in terms of the approved Matlosana Spatial Development Framework and does not entail urban sprawl outside the area envisaged by the City of Matlosana for urbanization purposes.

As set out in section 4, the entire spectrum of engineering services are available to the township area and it was also proven that the existing bulk services networks (as well as the planned upgrading thereof) of the City of Matlosana have sufficient capacity to accommodate this development.

- **“Encourage environmentally sustainable land development practices and processes.”**

This sub-principle relates to the establishment and sustaining of a good relationship between development areas and the natural environment surrounding it. The proposed development is planned with levels of infrastructure which ensures that the effect that the development will have on the natural surroundings is minimal. The development has also been designed to integrate the natural and built environment in a sustainable manner. As is evident from the draft Site Development Plan, ample provision has been made for integrated urban spaces between the residential units to allow for passive recreational purposes whilst similarly providing for small mammals, reptiles, etc.

It should further be noted that the planning of the development is done in close co-operation with the Department of Agriculture, Conservation, Environment and Rural Development who is tasked with the environmental authorisation of this development prior to the implementation thereof.

- **Principle 3(1)(d): “Members of communities affected by land development should actively participate in the process of land development.”**

This principle of the Development Facilitation Act stresses the importance of public participation. The statutory process of township establishment allows for members of the public to be informed of the proposed development and to actively participate in decisions taken in respect of such developments. This is achieved through the publication of notices in the local newspapers as well as in the North West Provincial Gazette (as prescribed). Ample opportunity exists to allow for participation by possible affected and interested parties. The Environmental

Impact Assessment process currently being conducted by AB Enviro-Consult also includes an extensive public participation process.

- **Principle 3(1)(e) “The skills and capacities of disadvantaged people involved in land development should be developed.”**
Local residents will be employed during the construction phase of the project (services and housing structures). This will allow for the transfer of skills. Preliminary indications are that 500 direct and indirect employment opportunities will be created during the construction phase of the project.
- **Principle 3(1)(f) “Policy, administrative practice and laws should encourage and optimise the contribution of all sectors of the economy (government and non-government) to land development so as to maximise the Republic’s capacity to undertake land development and to this end, and without derogating from the generality of this principle.”**
The statutory process of township establishment includes an extensive consultation process with various governmental departments and non-governmental organizations. The fore-mentioned departments and organizations will be requested to comment on the development application.
- **Principle 3(1)(g) “Laws, procedure and administrative practice relating to land development should-**
 - (i) **Be clear and generally available to those likely to be affected thereby;**
 - (ii) **In addition to serving as regulatory measures, also provide guidance and information to those affected thereby;**
 - (iii) **Be calculated to promote trust and acceptance on the part of those likely to be affected thereby; and**
 - (iv) **Give further content to the fundamental rights set out in the Constitution.”**

Through the application of this principle, a move towards more user-friendly, democratic and facilitative land development is proposed. By following an affected party consultation-based town planning process, the applicant commits itself to transparency, by providing as much information as possible to affected residents and land owners and to protect the fundamental rights of all involved. Furthermore, this memorandum will be available for scrutiny at the offices of the City of Matlosana for public scrutiny for a specified time, as stipulated in the public notices. The public notices will provide clear guidance and information to those affected.

- **Principle 3(1)(h): “Policy, administrative practice and laws should promote sustainable land development at the required scale in that they should:**

- (i) ***Promote land development, which is within the fiscal, institutional and administrative means of the Republic;***
- (ii) ***Promote the establishment of viable communities***
- (iii) ***Promote sustainable protection of the environment;***
- (iv) ***Meet the basic needs of all citizens in an affordable way; and***
- (v) ***Ensure the safe utilization of land taking into consideration factors such as geological formation and hazardous undermined areas.”***

The development is clearly an economic development by the private sector, which will generate substantial opportunities for the Council to generate revenue, for residents to have access to a wide range of amenities and for jobs to be created both in the construction and operational phases.

In terms of the first sub-principle it is the view of the applicant that the concerned public authorities have sufficient capacity and resources to accommodate this development. Sustainability is also achieved through the establishment of viable communities. To achieve this, land development and planning must ensure that communities are located close to work opportunities, social facilities and basic services.

The third sub-principle is aimed at promoting the sustained protection of the environment. Based on the results of the Ecological Fauna and Flora Study conducted by Anthene Ecological CC, it is evident that the development will not endanger any protected or endangered wildlife or plant species and that this development can be implemented sustainably subject to the implementation of the mitigatory measures.

The fourth sub-principle is aimed at affordability of the development and appropriate standards of services for different development types. The proposed development allows for residential types to suit the needs of potential purchasers. The full spectrum of engineering services will be provided to each stand in the proposed development. The provision of the full spectrum of engineering services will therefore be appropriate in order to maximise on the economic opportunities that such a private sector development initiative can offer.

The last sub-principle of General Principle 3(1)(h) stresses the need to support sustainable land development through intensive investigation of physical conditions. In this regard it should be noted that prior to any planning activities being undertaken and in preparation of this application, experts were appointed to investigate all physical aspects relating to the site and its surrounds. The layout plan compiled in respect of the proposed development subsequently incorporated the results of the fore-mentioned investigations in order to ensure that the physical environment is protected where needed.

- **Principle 3(1)(h): “Policy, administrative practice and laws should promote speedy land development.”**
The law-makers clearly recognised the importance of time influencing the cost of land development.
- **Principle 3(1)(j): “Each proposed land development area should be judged on its own merits and no particular use of land such as residential, commercial, conservational, industrial, community facility, mining, agricultural or public use, should in advance or in general be regarded as being less important or desirable than any other use of land:”**
The principle that no single land use is more important than any other is acknowledged by the applicant in its pursuit to establish the proposed development. In this regard cognisance should be taken of the fact that the proposed development will be in accordance with the envisaged development planned for this area by the City of Matlosana in terms of its approved Spatial Development Framework. In compliance with the principle, the proposed development should receive the favourable consideration of the City of Matlosana.
- **Principle 3(1)(k): “Land development should result in security of tenure, provide for the widest possible range of tenure alternatives, including individual and communal tenure, and if beneficial occupiers of homes of land or, where it is necessary for land or homes occupied by them to be utilised for other purposes, their interests in such land or homes should be reasonably accommodated in some other manner.”**
Being of private sector-driven and commercial nature, the development of Wilkoppies Extension 108 required security of tenure. Without such security, it would be virtually impossible to interest potential investors and residents and attached development funding of this land. Sectional title ownership will be provided in the proposed land development area.
- **Principle 3(1)(l): “A competent authority at national, provincial and local government level should co-ordinate the interests of the various sectors involved in or affected by land development so as to minimise conflicting demands on scarce resources.**
The township establishment procedure serves as the instrument to co-ordinate the interests of various involved sectors. The layout plan itself serves as the result of such co-ordination process whereby the demands of scarce resources are accommodated.
- **Principle 3(1)(m): “Policy, administrative practice and laws relating to land development should stimulate the effective functioning of a land**

development market based on open competition between supplier of good and services”:

Principle 2(1)(m) recognises the need for land development to be based on open competition and the principle of a competitive economy. Clearly, the proposed development will contribute to economic growth in the municipal area. However, the proposed development will also be in competition with other developments in the region in terms of all land use classifications applied for, the proposed development represents a private sector initiative planned and applied for in the context of such open market competition.

6.8 ECONOMIC VIABILITY

- * In terms of a research project conducted by Pam P Kerr and Salome Schulze of Unisa and published in Health SA (Volume 9 No. 4 – 2004), most participant to the study accepted the fact that one’s place of residence may change after retirement and stressed the importance of selecting a retirement-friendly and safe environment. The benefits of retirement villages or homes included being member of a community and freedom from concerns about a garden or pool. Such plans should be made timeously.
- * In terms of a report compiled by Statistics South Africa on the Social Profile of Older Persons 2002-2009 (Report 03-19-00 (2002-2009)), older persons are a primary target group for service delivery. This group has, perhaps more than any other generation, borne the brunt of a system in which the majority of people were deprived of adequate education, employment and socio-economic opportunities which conspired to relegate them to chronic structural poverty.

Women were additionally burdened by being relegated to lowly positions in their rural and cultural settings (Makiwane and Kwizera, 2006). Without the means to break free of the bondage of poverty the majority of older people were unable to provide for old age, either through secure retirement benefits (Wachipa, 2006) or indeed by ensuring that their children would flourish. As a result of a lifetime of being disadvantaged, the society has no other option but to assist older persons.

Recognising the many challenges and past discrimination faced by older people, the **White Paper on Social Welfare** (1997) addresses the constitutional mandate to protect the human rights of older people by removing all forms of racial discrimination and by addressing inequality in government funded services. Ageing is recognized as an inevitable life stage which bring with it special needs. The developmental paradigm aims to enable older persons to live active, healthy and independent lives for as long as possible.

- * According to Property 24 (22 June 2009), the percentage of older people among the population is increasing because South Africans are healthier and living longer.

The country's shortage of retirement accommodation came into the spotlight after the Retirement Communities World Conference held in Johannesburg in 2007. In a Financial Mail article published on 28 September 2007, Ian Raubenheimer, the CEO of property loan stock company Atlas, was reported to have said that the over-50 group, which then made up less than one third of South Africa's population, would grow to 40% by 2021.

Already many popular retirement complexes in South Africa have long waiting lists – those for the more sought-after developments often extend to 15 to 20 years – and informed people are beginning to realise that they need to take action at an earlier age to secure the retirement accommodation and lifestyle that they desire, rather than wait until the need is urgent.

Rauch says although many of those aged 55 to 60 feel they are not yet ready to join a retirement community, an emerging trend that may further impact on the demand is that South Africans are starting to move into retirement communities at a younger age while enjoying an active lifestyle.

Reporting on a similar trend in the US, an article on the Smart Senior Website state: "Today's retirees are completely different from the 'older folks' of a generation ago. The age of people living in adult retirement communities is coming down. The younger residents often stay in the workforce as consultants or are using retirement as an opportunity to jump into a new career."

- * According to Adrian Goslett, CEO of Remax South Africa, more and more South Africans are investing in retirement developments and there is a strong demand in South Africa for secure lifestyle retirement developments (Property 24 dated 24 June 2010). He says it is understandable why: "Many people recognise the long-term value of these kinds of developments, investing long before retirement age and renting them out until the time comes for them to move in. This gives these investors the opportunity to plan for their old age and invest in these developments at today's prices, ensuring that their capital investments holds its value, and often, even increases in value. In this way, they can rent out or sell their family homes for income during their golden years, and enjoy being part of a retiring community when it is most needed."

Being in South Africa, as with all residential developments, security is a major concern, says Goslett: "Retirement developments are most often fully gated communities, with state-of-the-art security measures in place, including manned

24-hour security guards patrolling the perimeter and the entrance, CCTV surveillance, intercom systems, personal emergency alarm systems and panic buttons fitted in each unit.”

As their name implies, retirement developments are purpose-built communities for the elderly. The developments usually include a selection of various sized apartments, townhouses and villas. “A wide selection of residences caters for the varying ages and consequent needs of retired individuals,” says Goslett.

Many retirees prefer to buy a home where they can still do a bit of gardening and enjoy their independence, and later on, when assisted health care is required, they can move into a smaller apartment where care is provided or into a frail care within the same development.

- * In terms of an analysis of the township applicant, the proposed development will have the following financial and employment contribution:
 - Expected capital value to be contributed to the North West Province Gross Domestic Product: R100 000 000-00
 - New employment opportunities in the development phase: 500 direct and indirect
 - Permanent employment opportunities during the operational phase: 200

6.9 PLANNING PRINCIPLES

From a land use and town planning point of view the proposed development area is ideally suited for residential development purposes, and specifically for the purposes of a retirement village, due to the following factors:

- * The proposed development is located in an area earmarked for future residential development purposes in terms of the approved Spatial Development Framework of the City of Matlosana and is located in close proximity to existing or future residential development projects (refer Wilkoppies Extension 82 and 90).
- * The proposed township area enjoys excellent accessibility due to its location adjacent to Dr. Yusuf Dadoo Avenue that was identified as an “activity road” in terms of the Matlosana Spatial Development Framework. The proposed development area is further ideally located in respect of accessibility thereto from the majority of existing urban areas surrounding Klerksdorp due to the presence of the N12 Treasure Corridor that links these urban centres not only to Klerksdorp but also the to the metropolitan area of Gauteng.

- * The use of the subject properties for the purposes of a retirement village is also supported by the fact that the proposed development area is located in close proximity to various commercial facilities (MCC centre, Macrovest Centre and the Pick 'n Pay centre) affording inhabitants the opportunity to conduct all their monthly shopping activities in close proximity to their place of residence. In addition to the commercial facilities, inhabitants of the development will also have the added benefit of being located in close proximity to the medical facilities offered by the Wilmedpark Private Hospital and Life Anncron Clinic being within 2km from the proposed township area.
- * The proposed development of the subject properties further constitute infill development and will combat urban sprawl as it constitutes the development of land that has been vacant for a number of decades. The development of the subject properties will not only contribute towards the economy of the North West Province and the creation of additional employment opportunities, but will also extend the income base of the City of Matlosana.
- * In studying the results of the various pre-planning studies, all the studies concluded that there are no objections or restrictions that will disqualify the subject properties from being developed as proposed in terms of this application. In order to avoid repetition we will not repeat the results of the various pre-planning studies again.

In view of the fore-mentioned we trust that this application will be considered favourably.

K. RAUBENHEIMER
Pr. PIn A/924/1996