

MEMORANDUM

PROPOSED TOWNSHIP ESTABLISHMENT: WOLMARANSSTAD EXTENSION 16

ON

A PORTION OF THE REMAINING EXTENT OF PORTION 2 OF THE FARM WOLMARANSSTAD TOWN AND TOWNLANDS NO. 184-HO

CHAPTER 1: INTRODUCTION

1.1 **BACKGROUND**

Maxim Planning Solutions (Pty) Ltd (2002/017393/07) was appointed by the Maquassi Hills Local Municipality to attend to the establishment of the proposed township Wolmaransstad Extension 16. The project stems from the fact that during the subdivision of the Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO to create Portions 142 and 152 of the farm Wolmaransstad Town and Townlands No. 184-HO respectively, a portion of the fore-mentioned farm portion, approximately 40m wide and extending along Kock Street, was retained as part of the greater Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO. The Maquassi Hills Local Municipality subsequently resolved to develop this portion for middle income residential purposes as it is located in an area already utilized for middle - high income residential purposes.

In preparation of the township establishment application and as integral part of the township establishment process, Maxim Planning Solutions (Pty) Ltd commissioned the following pre-planning studies:

- Contour survey of the development area;
- Phase 1 Geotechnical Investigation conducted by Geoset CC;
- Phase 1 Heritage Impact Assessment conducted by A Pelsers Archaeological Consulting; and
- Detail survey of the development area following the discovery of borehole infrastructure

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

Maxim Planning Solutions (Pty) Ltd subsequently attended to the compilation of a layout plan in respect of the concerned development area. The layout plan of the development area was presented to the Maquassi Hills Local Municipality for consideration and was subsequently approved on 06 January 2014.

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

1.2 APPLICATION

Maxim Planning Solutions (Pty) Ltd is hereby applying on behalf of the Maquassi Hills Local Municipality for the establishment of the proposed township Wolmaransstad Extension 16 on a portion of the Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO in terms of the provisions of Chapter IV 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 Wolmaransstad Extension 15 will be advertised in accordance with Section 108(1)(a) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) in the Overvaal Nuus on 16 and 23 May 2014 as well as in the North West Provincial Gazette on 13 and 20 May 2014. Objectors will be afforded a period of 28 days from 16 May 2014 to submit objections or comments in respect of the proposed township areas to the Municipal Manager of the Maquassi Hills Local Municipality.

The application will also, in accordance with the prescriptions of Section 108(1)(b) 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 Public Works, Roads and Transport
- ✘ 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

✧ Sedibeng Water

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 108 (1) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986).

1.4 STUDY AREA DELINEATION

The proposed development areas comprises a portion of the Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO as described in detail in section 2.1.

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: Conclusion

CHAPTER 2: PARTICULARS OF THE DEVELOPMENT AREAS

2.1 LOCALITY

The proposed township Wolmaransstad Extension 16 is located on the following property:

- Portion of the Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO

The proposed township area is located adjacent and to the south-west of Kock Street and is bordered to the east by Portion 74 of the farm Wolmaransstad Town and Townlands No. 184-HO and to the south-west by Portions 142 and 152 of the farm Wolmaransstad Town and Townlands No. 184-HO respectively. The proposed township area is located within the central portion of the urban area of Wolmaransstad as indicated on the following Google image depicting the urban area of Wolmaransstad.

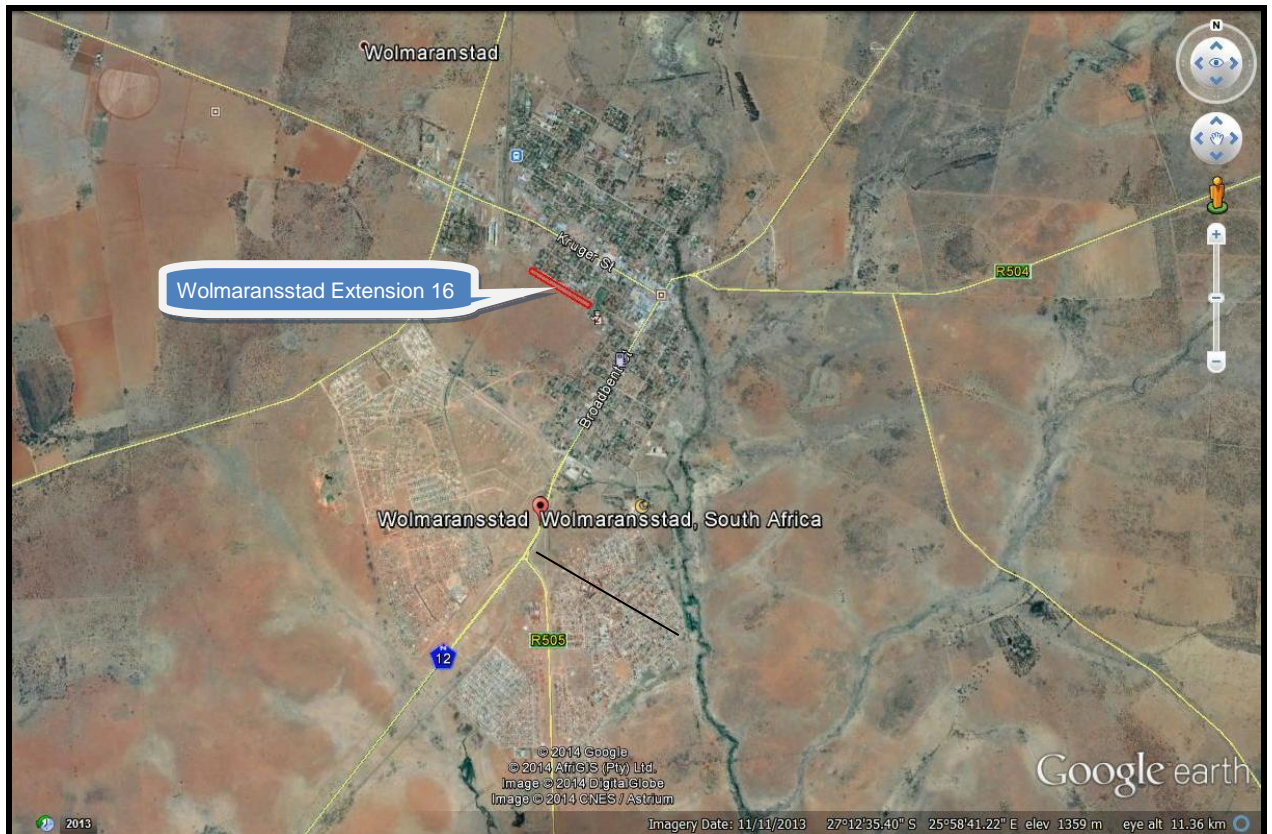


Plate 1: Google image depicting locality of proposed township area

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

2.2 SG DIAGRAMS

The Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO is reflected on SG Diagram A301/1907 (attached as **Annexure D** to the application for township establishment).

2.3 OWNER

The Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO is currently registered in the name of the Maquassi Hills Local Municipality by virtue of Crown Grant No. 46/1910 (refer **Annexure E** to the application for township establishment for Aktex Deed Office Enquiry) (Crown Grant No. 46/1910 attached as **Annexure F** to the application for township establishment).

2.4 AREA

The Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO on which the proposed township Wolmaransstad Extension 16 is to be established, comprises a total area of 2661,5249 hectares.

The proposed township will be restricted to an area of 2,4140 hectares of the fore-mentioned property.

2.5 EXISTING LAND USE AND ZONING

The proposed development area is currently vacant with the exception of some infrastructure that was recently erected to provide water to the adjacent Wolmaransstad Old Age Home.



Plate 2: View of development area from Kock Street/Van Riebeeck Street intersection – Direction west



Plate 3: View of development area from Kock Street/Van Riebeeck Street intersection – Direction east

Some informal dumping of building rubble has taken place on the development area, as is evident from Plate 3.

During the contour survey of the development area by the appointed land surveyor, borehole infrastructure was discovered on site. This infrastructure consists of two (2) boreholes of which one has been equipped with pumping equipment. These boreholes were established by the Wolmaransstad Old Age Home and provide water to this facility by means of a water pipeline extending from the borehole to the Old age Home. Negotiations have been entered into between the Maquassi Hills Local Municipality and the Wolmaransstad Old Age Home regarding the re-routing of the water pipeline as same impacts on three erven in the proposed township area. Preliminary indications are that the erf affected by the borehole and pumping infrastructure will be alienated to the Wolmaransstad Old Age Home following proclamation of the proposed township area. The locality of the two (2) boreholes as well as the pipelines extending from the borehole to the Wolmaransstad Old Age Home is reflected on the contour map of the development area as well as the layout plan of the proposed township area.



Plate 4: View of borehole equipment



Plate 5: View of water storage infrastructure erected at the Wolmaransstad Old Age Home as part of borehole infrastructure

The proposed development area is located in an area that is predominantly utilised for residential purposes with the erven located adjacent to Kock Street and directly north of the proposed township area currently being utilized for single residential purposes as well as the Wolmaransstad Old Age Home. The two (2) farm portions located directly adjacent and to the south of the development area are currently still vacant.

2.6 MINERAL RIGHTS

According to Crown Grant No. 46/1910, the rights to minerals in respect of the Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO were separated from the property rights and currently vest in the name of the Maquassi Hills Local Municipality by virtue of Certificate of Mineral Rights K3624/1997RM registered on 20 June 1997 (refer **Annexure F** to the application for township establishment).

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. 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 RESTRICTIVE TITLE CONDITIONS

According to Crown Grant No. 184-HO, the Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO is subject to the following title conditions, which will be dealt with as indicated:

- * *“THIS GRANT SHALL BE SUBJECT to all conditions and stipulations contained in the Town Lands Ordinance 1904, and in any amendment thereof and shall also be subject to all rights and servitudes which now affect or at any time hereafter may be found to affect the title to the land hereby transferred or to be binding on the Government in respect of the said Land as at the date thereof.”*

The fore-mentioned condition has lapsed through repeal by virtue of Act 36 of 1976.

- * *“THE SAID COUNCIL OF THE MUNICIPALITY OF WOLMARANSSTAD as the registered owners of the within property shall have the right to make a dam and construct a water furrow to and in favour of the town of Wolmaransstad on that portion known as Port-Allen of the quitrent farm Vlakfontein No. 131 Wolmaransstad in the extent Three thousand two hundred and seventy five (3,275) morgen Three hundred and ninety-three (393) square roods, held by Johan Christian Bornman under Deed of Transfer No. 308/1882, as more fully described in Deed of Permission (Acte van Vergunning) No. 584 of 1896, dated 13th April 1895 – and registered in the Deeds Office on the 29th July 1896, Book C., Folio 1045.”*

Preliminary indications are that this right shall not be transferred to the erven in the proposed township area

- * *“THIS GRANT is made on the conditions that all roads already made over this land by lawful authority shall remain free and unobstructed, that the land shall be subject to grazing for the cattle of travellers, that the said land shall be further subject to such stipulations as have been established or may hereafter be established by the Legislature and finally that the owners shall be liable to the prompt payment of an annual tax as provided in Law No. 4 of 1899 in any amendment thereof.”*

Preliminary indications are that this condition will not be transferred to the erven in the proposed township area.

- * *“By Notarial Deed K2187/85S, the right has been granted to ESKOM to convey electricity over the property hereby conveyed together with ancillary rights, and subject to conditions, as will more fully appear on reference to said Notarial Deed and diagram, grosse whereof is hereunto annexed.”*

This servitude does not affect the proposed township area due to the location of the powerline servitude in relation to the proposed township area.

- * *“By Notarial Deed K2188/85S, the right has been granted to ESKOM to convey electricity over the property hereby conveyed together with ancillary rights, and subject to conditions, as will more fully appear on reference to said Notarial Deed and diagram, gross whereof is hereunto annexed.”*

This servitude does not affect the proposed township area due to the location of the powerline servitude in relation to the proposed township area.

- * *“By Notarial Deed K2189/85S, the right has been granted to ESKOM to convey electricity over the property hereby conveyed together with ancillary rights, and subject to conditions, as will more fully appear on reference to said Notarial Deed and diagram, grosse whereof is hereunto annexed.”*

This servitude does not affect the proposed township area due to the location of the powerline servitude in relation to the proposed township area.

- * *“Kragtens Notariële Akte No. K3917/88S gedateer 24-10-88 is die hierinvermelde eiendom onderhewig aan ‘n ewigdurende serwituut van waterleiding t.g.v. OVS-Goudvelde-Waterraad soos meer volledig sal blyk uit gemelde Notariële Akte waarvan ‘n afskrif hieraan geheg is.”*

The exact location of this servitude is known and same does not affect the proposed township area due to the location thereof.

- * *“The within mentioned servitude of a dam and waterfurrow over certain portions of the farm Vlakfontein No. 131 District Wolmaransstad has been more clearly defined by Notarial Deed No. 107/1915S – regd 4/2/1910.”*

This servitude does not affect the proposed township area due to the location thereof.

- * *“By Notarial Deed no. 335/1962S, the right has been granted to ESKOM to convey electricity over the property hereby conveyed together with ancillary rights, and subject to conditions, as will more fully appear on reference to said Notarial Deed and diagram, grosse whereof is hereunto annexed.”*

This servitude does not affect the proposed township area due to the location of the relevant powerline in relation to the proposed township area.

- * *“By Notarial Deed No. 501/1963S, the right has been granted to ESKOM to convey electricity over the property hereby conveyed together with ancillary rights, and subject to conditions, as will more fully appear on reference to said Notarial Deed and diagram, grosse whereof is hereunto annexed.”*

This servitude does not affect the proposed township area due to the location of the relevant powerline in relation to the proposed township area.

- * *“By Notarial Deed No. 118/1969S, the right has been granted to ESKOM to convey electricity over the property hereby conveyed together with ancillary rights, and subject to conditions, as will more fully appear on reference to said Notarial Deed and diagram, grosse whereof is hereunto annexed.”*

This servitude does not affect the proposed township area due to the location of the relevant powerline in relation to the proposed township area.

- * *“Kragtens Notariële Akte No. K2249/98S gedateer 24-03-98 is die hierinvermelde eiendom onderhewig aan ‘n ewigdurende serwituut oor die gebied gemerk ABCDEF soos aangedui op kaart LG No. 8147/97 ten gunste van Goudveld Water soos meer volledig sal blyk uit gemelde Notariële Akte waarvan ‘n afskrif hieraan geheg is.”*

The exact route of this servitude has been determined and same does not affect the proposed township area due to the location thereof.

- * *“BY VIRTUE OF THE UNDERMENTIONED NOTARIAL DEED THE ROUTE OF THE WITHIN-MENTIONED POWERLINE SERVITUDE HAS BEEN DETERMINED. K221/1990S.”*

This servitude comprises the route determination of Notarial Deeds of Servitude K2187/1985S and K2188/1985S and same does not affect the proposed township area due to the location thereof in relation to the proposed township area.

- * *“AND WHEREAS certain portions of the farm known as THE WOLMARANSSTAD TOWN AND TOWNLANDS, NO. 173, situate in the District of Wolmaransstad, Ward “Lower”, and shown on the diagram hereunto annexed (marked S.G. No. A301/07) framed in the Surveyor-General’s Office, Pretoria, from surveys made by Surveyor Franz. Visser in December 1905, have been reserved under Section*

three of the Town Lands Ordinance, 1904, by the Government of the Transvaal for public purposes, measuring respectively:-

- (a) *TEN (10) MORGEN.*
- (b) *FOUR (4) MORGEN.*
- (c) *SEVEN (7) MORGEN, FOUR HUNDRED AND FORTY- NINE (449) SQUARE ROODS.*
- (d) *TWO (2) MORGEN, FIVE HUNDRED AND SEVENTY-EIGHT (578) SQUARE ROODS.*
- (e) *NINETY-THREE (93) MORGEN, THREE HUNDRED AND FORTY-TWO (342) SQUARE ROODS.”*

This condition has since lapsed by virtue of repeal in terms of Act 36 of 1976.

- * *“THIS GRANT SHALL BE SUBJECT to all conditions and stipulations contained in the Town Lands Ordinance 1904, and in any amendment thereof and shall also be subject to all rights and servitudes which now affect or at any time hereafter may be found to affect the title to the land hereby transferred or to be binding on the Government in respect of the said Land as at the date thereof.”*

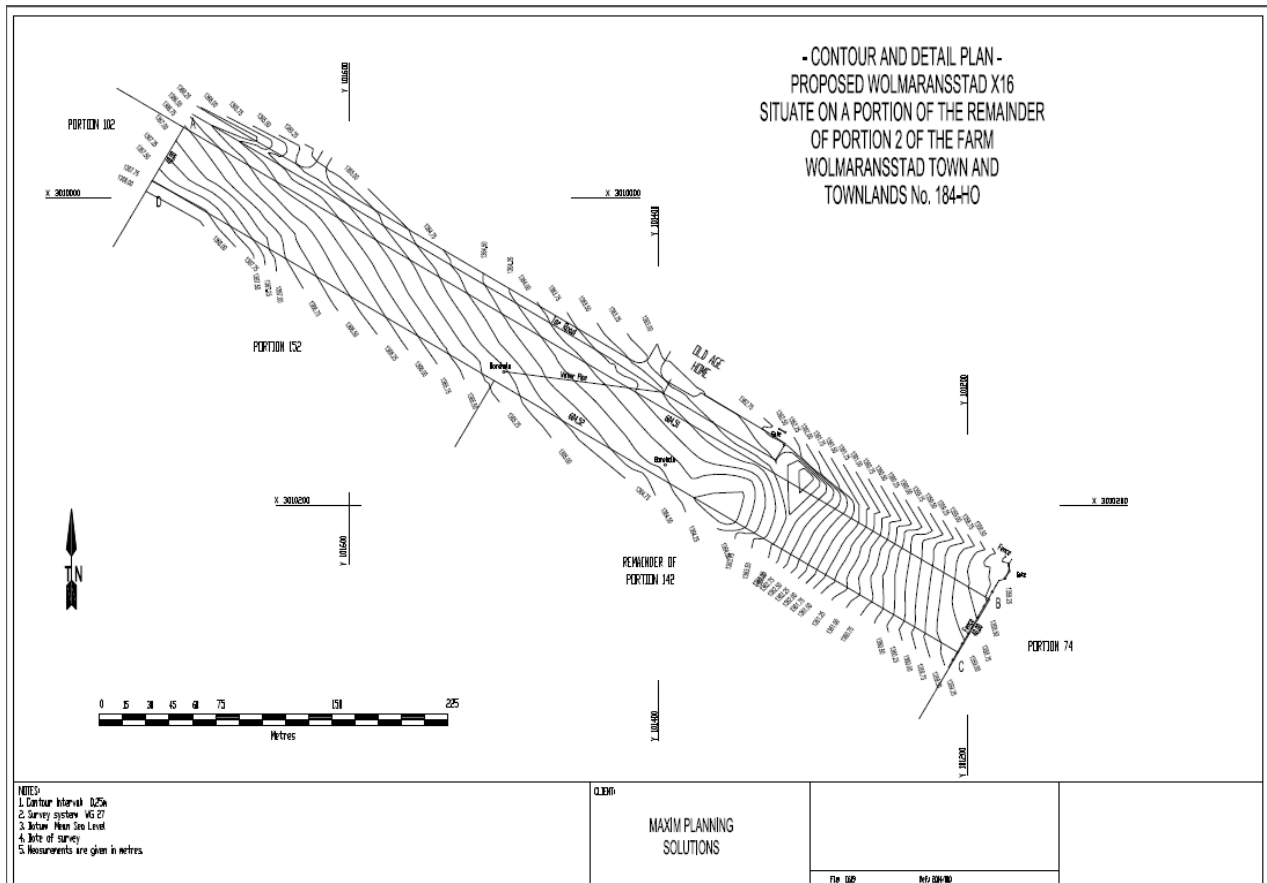
This condition has similarly since lapsed through repeal by virtue of Act 36 of 1976.

CHAPTER 3: PHYSICAL ASPECTS

3.1 TOPOGRAPHY AND DRAINAGE

The proposed township area of Wolmaransstad Extension 16 is located at between 1358.5 and 1367.75 metres above mean sea level. The proposed development area generally drains in an easterly to south-easterly direction as indicated on the following map depicting the results of the contour survey of the development area.

There are currently no topographical features of note to be observed in respect of the proposed development area and said area is not affected by any river or stream and subsequently not subject to the 1:100 year floodline of any river or stream.



Map 1: Results of contour survey

Plate flow is the dominant drainage pattern on site and no drainage channel intersects the site. Drainage mainly occurs in a south-easterly direction towards the Makwassie Spruit, a tributary of the Vaal River.

3.2 CLIMATE

The region is characterized by summer rainfall with thunderstorms, with annual low rainfall figures of 446 mm for Wolmaransstad, recorded at the closest weather station to the site. Winters are dry with frost common. The warmest months are normally December and January and the coldest months are June and July.

An analysis of the data confirms a Weinert’s N-Value in the order of 6.0 for Wolmaransstad. The mechanical disintegration of rocks will therefore be dominant over chemical decomposition, and shallow soil horizons will be expected in areas of poor drainage, underlain by igneous rocks.

Storm water drainage and road pavement design must incorporate the climatic extremes above.

3.3 FRESHWATER SYSTEM

- ❖ The proposed development area is located within the Middle Vaal Water Management Area.
- ❖ Plate flow is the dominant drainage pattern on site, and no drainage channel intersects the site. Drainage occurs in a south-easterly direction towards the Makwassie Spruit.

3.4 WETLANDS AND PANS

The township area of Wolmaransstad Extension 16 is not affected by any river or stream and is subsequently not affected by the 1:100 year floodline of any river or stream. The proposed development area is subsequently not affected by any wetland or pan.

3.5 VEGETATION

The area is typically characterized by Dry Cymbopogon Themeda *veld type* of the Pure Grassveld Type (Acocks, 1988).

The site itself is covered by sparse grasslands of which some was used as agriculture land, and only a few indigenous thorn trees are present on site.

3.6 GROUNDWATER

The permanent or perched water table on site is expected deeper than 1,5m below ground surface, but may be perched and temporarily found on the solid lava bedrock.

Ground water in the form of seepage was not intersected in any test pit during the investigation, but normal water tightening techniques such as damp course on foundation levels are required.

The expected high permeability of the silty sand may lead to leachate from sanitation systems to reach the ground water, and a closed water borne sewage system is recommended.

Special care must be taken to ensure adequate surface drainage to prevent the accumulation of water next to structures.

Storm water diversion measures such as ponding pools are recommended to control peak flows during thunderstorms.

All embankments must be adequately compacted and planted with grass to stop any

excessive erosion and scouring of the landscape.

3.7 GEOLOGY (Extract from Geotechnical Report compiled by Geoset CC attached as **Annexure H** to the application for township establishment)

The area is underlain by light green tholeiitic and calc-alkaline basalt and andesite of the Rietgat Formation, Platberg Group, Ventersdorp Supergroup. Surficial deposits on site include colluvium, covering some of the lithology.

No dolomite occurs in the area and no stability investigation is required.

3.7.1 SITE EVALUATION

- The presence of ferricrete indicates that perennial fluctuations of ground water will be encountered on site, proving that a seasonal perched water table may exist.
- Special care must be taken to ensure adequate surface drainage to prevent the accumulation of water next to structures.
- The site contains marginally low to medium compressible or collapsible soil, with low to marginally medium expansive soil, and foundations may need special treatment to withstand movement associated with the variable moisture content of the soil if loose patches in relation to large core stones or boulders are encountered, as it may result in differential settlement of structures.
- Some problems regarding excavatability can be expected across the site reflected in the PR classification on the site due to the presence of shallow rock and some core stones and boulders of lava.
- Retaining walls as well as slope stabilization measures are recommended on all constructed embankments exceeding 1,5m.
- No mining activities on site or history of mining or contaminated land in the area were found. The site is located a distance from any active mining operations and in an inactive area regarding seismic activity.
- Storm water diversion measures such as ponding pools are recommended to control peak flows during thunderstorms. Drainage provision into and along the already provided culverts from the existing roads of the town should be used.

- All embankments must be adequately compacted and planted with grass to stop any excessive erosion and scouring of the landscape.

3.7.2 **SITE ZONATION**

In terms of the results of the geotechnical investigation, the development area was divided into the following geotechnical zones:

- **Normal Development with Risk:**

Site Class CHR:

Low to moderately compressible soils with a thickness of less than 750mm, with slightly expansive properties, with an expected range of less than 5mm of total soil movement measured at surface as consolidation or heave, with possible differential settlement. There is a risk that core stones, boulders or shallow rock require the use of a competent TLB or excavator, pneumatic tools and even blasting and this may increase development cost. Foundation excavations should be inspected and loose material well compacted. If loose patches are present around core stones, in situ material below foundations should be removed to a depth and width of 1,5 times the foundation width or to a competent horizon and replaced with material compacted to 93% MOD AASHTO density at -1% to +2% of optimum moisture content. Foundations will require normal foundation construction and standard compaction techniques, and it is classified as CHR according to the classification in terms of the SAIEG & NHBRC guidelines (1995) or the SAICE Code of practice (1995).

- **Special Development:**

Site Class PR:

Core stones, boulders, shallow rock and lava rock outcrop and sub outcrop are present and development cost such as the installation of services will rise dramatically.

The comprehensive Geotechnical Report is attached as **Annexure H** to the application for township establishment and the geotechnical zones are reflected on the following diagram as it applies to the proposed township area:

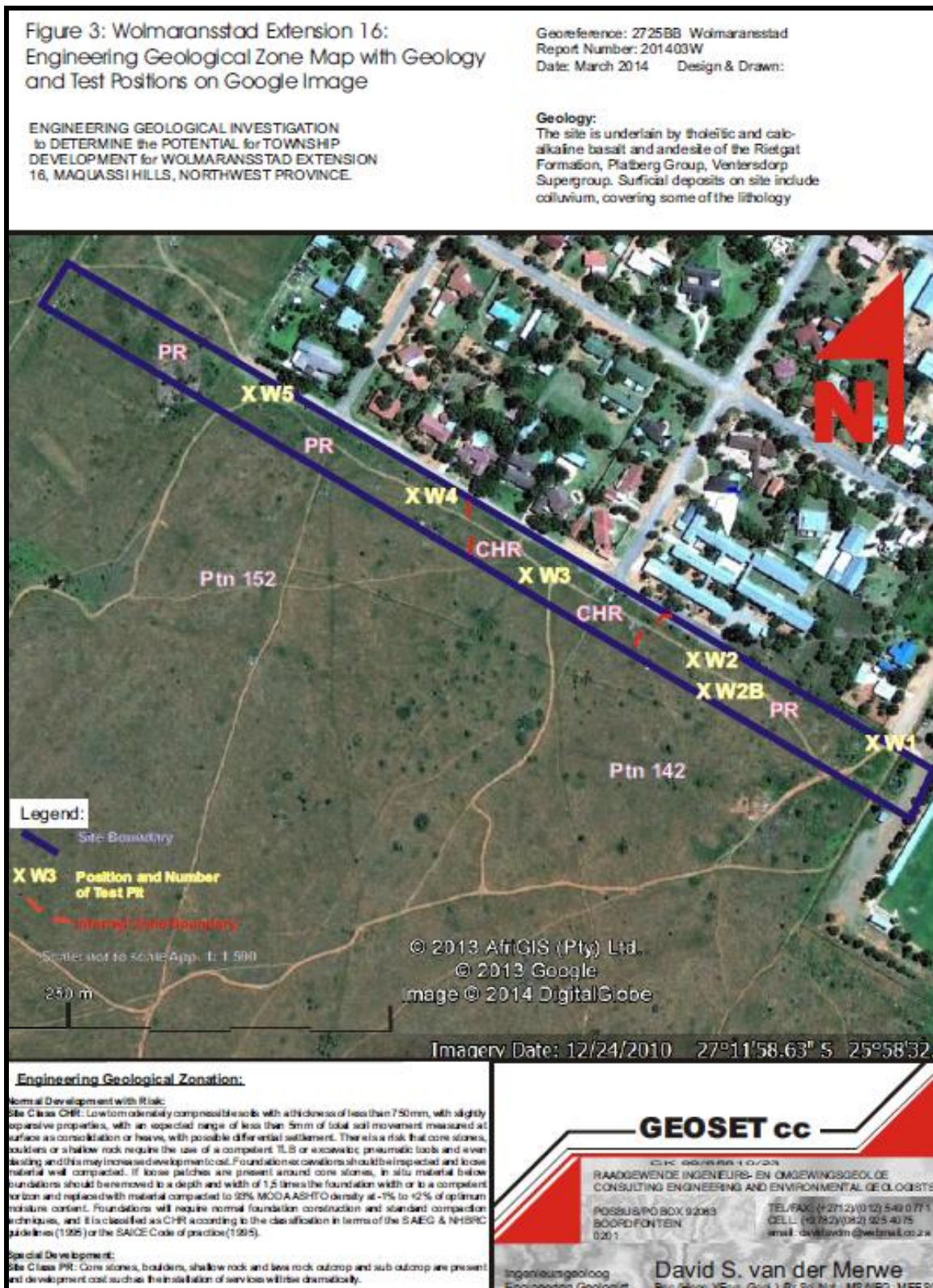


Figure 1: Geotechnical site zonation as compiled by Geoset CC

3.7.3 FOUNDATION SOLUTIONS

- Consolidation or collapse settlement

Site Class C (Estimated total Settlement of less than 5mm):**Normal Construction:**

Minor collapse settlement requires normal construction (strip footing and slab on the ground) with compaction in foundation trenches and good site drainage.

Site Class C1 (Estimated total Settlement of between 5 and 10mm):**Modified normal construction:**

Reinforced strip footing and slab on the ground.

Articulation joints at some internal and all external doors and openings.

Light reinforcement in masonry.

Site drainage and service/plumbing precautions recommended.

Foundation pressure not to exceed 50 kPa (single storey buildings).

Compaction of in situ soils below individual footings:

Remove in situ material below foundations to a depth and width of 1,5 times the foundation width or to a competent horizon and replace with material compacted to 93% MOD AASHTO density at -1% to +2% of optimum moisture content.

Normal construction with light reinforcement in strip foundation and masonry.

Deep strip foundations

Normal construction with drainage precaution.

Founding on a competent horizon below problem horizon.

Soil Raft

Remove in situ material to 1,0m beyond perimeter of building to a depth and width of 1,5 times the widest foundation or to a competent horizon and replace with material compacted to 93% MOD AASHTO density at -1% to +2% of optimum moisture content.

Normal construction with lightly reinforced strip footings and masonry.

○ ***Expansive soil***

Site Class H (Estimated total heave of less than 7.5mm):

Soil tested as medium expansive with a clay layer thickness of up to 0,3m from surface

Normal construction:

Minor heave requires normal construction (strip footing and slab on the ground) with site drainage and service/plumbing precautions recommended.

Site Class H1 (Estimated total heave of between 7.5 and 15mm):

Tested as **medium** expansive with a clay layer thickness of between 0,45 to 0,85m from surface,
or a **highly** expansive clay layer of between 0,3 and 0,4m in thickness from surface
or a clay layer with a **very high** expansive potential of up to 0.3m.

Modified normal:

Lightly reinforced strip footings.
Articulation joints at all internal/external doors and openings
Light reinforcement in masonry.
Site drainage and plumbing/service precautions.

Or soil raft:

Remove all or part of expansive horizon to 1,0m beyond the perimeter of the construction and replace with inert backfill compacted to 93% MOD AASHTO density at -1% to 2% of optimum moisture content.
Normal construction with lightly reinforced strip footings and masonry.
Site drainage and plumbing/service precautions.

3.7.4 CONCLUSION

- The area is underlain tholeiitic and calc-alkaline basalt and andesite of the Rietgat Formation, Platberg Group, Ventersdorp Supergroup. Surficial deposits on site include colluvium, covering some of the lithology
- Some problems are foreseen regarding the excavatability to 1,5m depth on site, and a competent TLB or excavator, pneumatic tools and even blasting may be required for the installation of services.
- Zoning of the site revealed zones with constraints regarding the **compressibility and collapse potential, as well as the expansive properties** of the soil, and **shallow rock and core stones** may hamper the placement of services.
- **This investigation was done to reveal the geotechnical properties on site with the techniques as described. Although every possible factor during the investigation was dealt with, it is possible to encounter variable local conditions. This will require the inspection of foundations by a competent person to verify expected problems.**

3.8 ENVIRONMENTAL IMPACT ASSESSMENT

In terms of the listed activities identified in the Listing Notices promulgated in terms of the National Environmental Management Act, 1998 (Act 107 of 1998), the proposed township area is not a listed activity and no environmental authorisation is required in respect of the proposed township area.

3.9 CULTURAL HERITAGE AREAS

A Pelsers Archaeological Consulting was commissioned by Maxim Planning Solutions (Pty) Ltd to conduct a Heritage Impact Assessment in respect of the proposed township area. The fore-mentioned assessment contained the following results:

- No sites, features or objects of cultural heritage (archaeological or historical) origin or significance were identified during the assessment of the area. Dense grass cover made visibility difficult. If any did exist here in the past however it would more than likely have been disturbed or destroyed by recent past activities (ploughing) and others.
- From a Heritage point of view the development should therefore be allowed to continue.
- **The subterranean presence of archaeological or historical sites, features or objects is always a possibility. This could include unknown and unmarked burial pits. Should any be uncovered during the development process a heritage specialist should be called in to investigate and recommend on the best way forward.**

The comprehensive Heritage Impact Assessment conducted by A Pelsers Archaeological Consulting is attached as **Annexure J** to the application for township establishment.

CHAPTER 4: PROPOSED DEVELOPMENT

4.1 LAND USES

The intention of the applicant i.e the Maquassi Hills Local Municipality is to utilize the concerned portion of the Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 1840-HO for the establishment of the proposed township area of Wolmaransstad Extension 16. This portion of land comprises an elongated form bordering onto Kock Street and will be utilised for the creation of 20 “Residential 1” erven

with an average stand size of 1 206m². The proposed erven will be made available for middle-high income residential purposes.

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

Use Zone	Proposed Land Use	No. of erven	Area in hectares	% of area
Residential	Dwelling houses in accordance with the Maquassi Hills Land Use Management Scheme, 2007	20	2,4140	100%
Total		20	2,4140	100%

4.2 FACTORS INFLUENCING THE LAYOUT PLANS

The layout plan of the proposed township area of Wolmaransstad Extension 16 was influenced by the following factors:

- The proposed township area is located on a portion of the Remaining Extent of Portion 2 of the farm Wolmaransstad Town and Townlands No. 184-HO and the extent of the township area is limited by the site being bordered on three sides by privately owned portions of the farm Wolmaransstad Town and Townlands No. 184-HO.
- The layout plan was predominantly influenced by the specific income category that is to be accommodated in the proposed township area as well as the limited size thereof.
- During conducting of the pre-planning studies, two (2) boreholes were discovered on the development area that were informally established by the Wolmaransstad Old Age Home. One of the boreholes is currently equipped with pumping infrastructure and a pipeline conveying water from the borehole to the Wolmaransstad Old Age Home. As the equipped borehole and the water pipeline affect three erven in the proposed township area, negotiations were entered into between the Maquassi Hills Local Municipality and the Wolmaransstad Old Age Home regarding the acquisition of the erf in the proposed township area affected by the equipped borehole as well as the relocation of the pipeline to a new position where it will only affect the single erf that will be transferred to them.

4.3 ACCESS

The proposed development area is located directly adjacent and to the south of Kock Street and access to the erven in the proposed township area will be provided directly from Kock Street. Kock Street comprises of a tarred road surface with a total reserve width of 25,19m. The eastern portion of Kock Street has not been constructed to date

and will have to be constructed to allow for Erven 5177 to 5182 in the proposed township area to be accessed from Kock Street.



Plate 6: View of Kock Street - Direction west



Plate 7: View of Kock Street - Direction east

Access to Kock Street can be obtained from three streets linking onto Kruger Street i.e Van Wyk Street, Van Riebeeck Street and Smit Street.

As all the erven in the proposed township area will be accessed off Kock Street, no additional streets are provided in the proposed township area.

CHAPTER 5: PROVISION OF ENGINEERING SERVICES

5.1 WATER

The proposed township area is located directly adjacent to an already built-up portion of the urban area of Wolmaransstad where potable water is provided to each erf from the bulk water network of Wolmaransstad. Individual erf water connections will be established for each proposed erf. Due to the limited extent of the number of erven included in this township area, it is not anticipated that the addition of the proposed 20 residential erven will influence the existing water network negatively. Water for the urban areas of Maquassi Hills is provided by Sedibeng Water from its Balkfontein Plant.

5.2 SEWER

The proposed township area will be provided with a water-borne sewer system that will be linked to the existing sewer network in the concerned area. The effluent from the additional 20 residential erven is regarded as minimal in terms of the total effluent generated in the greater urban area.

5.3 ELECTRICITY

Each erf in the proposed township area will be provided with a metered or pre-paid electricity connection that will be supplied from the existing electricity network in the concerned area.

5.4 SOLID WASTE

Household refuse removal services in this portion of the urban area are conducted by the Maquassi Hills Local Municipality and are collected from each erf on a weekly basis and disposed of at the official solid waste dumping site of the Maquassi Hills Local Municipality. The amount of refuse to be generated by the proposed twenty (20) residential erven in relation to the total refuse generated within the total urban area is regarded as omissible and will not impact negatively on the existing facilities.

CHAPTER 6: CONCLUSION

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

- The proposed development area is located in an area earmarked for future residential development in terms of the Spatial Development Framework of the Maquassi Hills Local Municipality.
- The purpose of the application for township establishment is to provide sufficient erven within the Wolmaransstad urban complex to address the short term need for middle-high income residential erven as previous township establishment projects undertaken by the Maquassi Hills Local Municipality predominantly focussed on low income residential township areas.
- The proposed development area is located directly adjacent to an existing township area and constitute the logic extension of the existing built-up urban area of Wolmaransstad. In this regard the proposed development constitutes infill development.
- The location of the proposed development area in relation to the existing township area of Wolmaransstad further allows for easy connection to existing services networks in order to service the erven within the proposed township area.
- The proposed development area is further easily accessible due to its location adjacent to Kock Street which links onto Kruger Street via Van Wyk-, Van Riebeeck- and Smit Streets.
- In addition to the proposed township area complying with the recommendations as encompassed in the Spatial Development Framework of the Maquassi Hills Local Municipality, the proposed development also complies with the General Principles as set out in the Development Facilitation Act, namely:
 - Policy, administrative practice and laws should provide for urban and rural development and should facilitate the development of formal and informal, existing and new settlements (Principle 3(1)(a));
 - Discouraging the illegal occupation of land (Principle 3(1)(b));
 - Promoting efficient and integrated land development in rural and urban areas in support of each other (Principle 3(1)(c));
 - Promoting the availability of residential and employment opportunities in close proximity to or integrated with each other. This is specifically attained through the process of infilling whilst similarly curbing urban sprawl (Principle 3(1)(c))
 - Discouraging the phenomenon of urban sprawl (Principle 3(1)(c))

- Contributing 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 (Principle 3(1)(c);
- Affording members of communities affected by land development to actively participate in the process. The township establishment process provides this opportunity (Principle 3(1)(d);
- Principle 3(1)(h) calls for policy, administrative practice and laws to promote sustainable land development at the required scale in that they promote land development which is within the fiscal, institutional and administrative means of the Republic, promote the establishment of viable communities, promote sustainable protection of the environment, meeting the basic needs of all citizens in an affordable way and ensuring the safe utilisation of land by taking into consideration factors such as geological formations and hazardous undermined areas.
- This process of township establishment also aims at promoting the speedy development of land (Principle 3(1)(i); and
- The application for township establishment similarly aims at ensuring security of tenure specifically for inhabitants of the urban area in need of appropriate stands for middle-high income residential development purposes (Principle 3(1)(k).

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

K. RAUBENHEIMER
Pr. PIn A/924/1996