# SCOPING REPORT GAUT 002/22-23/E3321

# **TOWNSHIP ESTABLISHMENT ON**

PORTION 106,107,108 and 109 of the farm

**Elandsfontein 334 IQ** 

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# THE LOCATION OF THE ACTIVITY

Province	Gauteng	
District Municipality	Sedibeng	
Local Municipality	Midvaal Local Municipality	
Farm name and number	Portions 106,107,108 and 109 of the farm Elandsfontein 334 IQ	
Portions	5,6 and 20	
SG Codes	T0IQ0000000033400106 T0IQ0000000033400107 T0IQ0000000033400108 T0IQ0000000033400109	

See locality plan

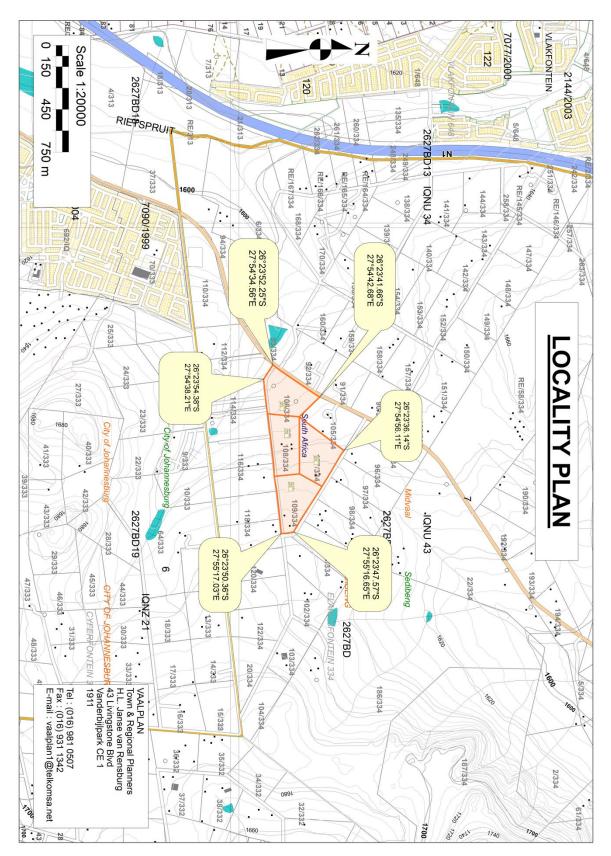
# **Description of proposed activity**

Proposed Township Establishment on Portion 106,107,108 and 109 of the farm Elandsfontein 334 IQ.

The development will consist out of the following erven:

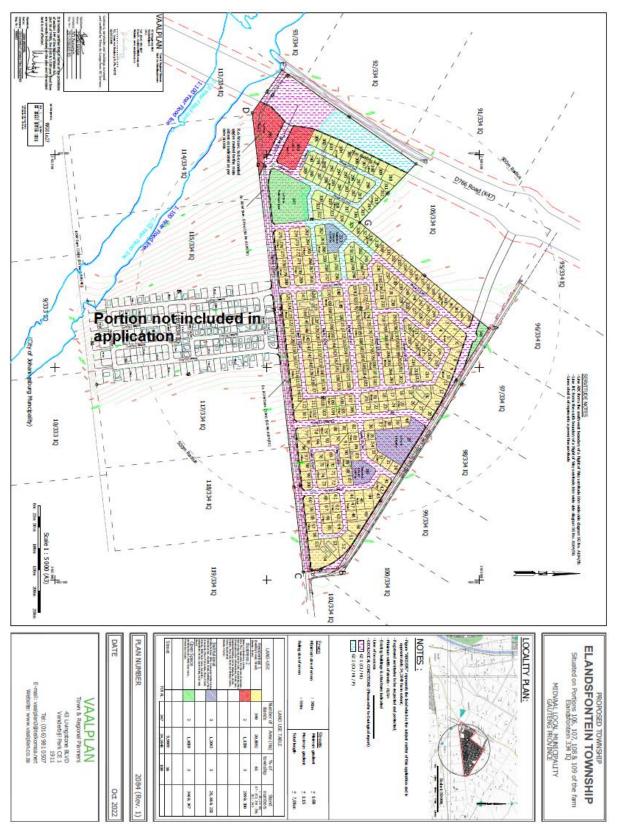
Zoning	Number of erven
Residential one	340
Business 2	2
Institutional	3
Open space	2

# **Locality Plan**



# A DESCRIPTION OF THE SCOPE OF THE PROPOSED ACTIVITY

<u>Site Plan</u>



# All listed and specified activities triggered;

Activity No(s):	Provide the relevant Basic Assessment Activity(ies) as set out in Listing Notice 1 of the EIA Regulations, 2014 as amended	Describe the portion of the proposed project to which the applicable listed activity relates.
Listing notice 2	<ul> <li>15</li> <li>The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for— <ul> <li>(i) the undertaking of a linear activity; or</li> <li>(ii) maintenance purposes undertaken in accordance with a maintenance management plan.</li> </ul> </li> </ul>	
Listing notice	<ul> <li>28</li> <li>Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:</li> <li>(i) Will occur inside an urban area, where the total land to be developed is bigger than 5 hectares</li> </ul>	A mixed development will take place and the land was zoned agricultural after 1998
Listing Notice 1	<b>9</b> The development of infrastructure exceeding 1 000 metres in length for the bulk transportation of water 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 — (a) such infrastructure is for bulk transportation of water or storm water or storm water drainage inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.	A new 250mm uPVC class 16 water pipeline will be installed
Listing Notice 1	<b>10</b> The development and related operation of infrastructure exceeding 1 000 metres in length for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes – (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 — (a) such infrastructure is for the bulk transportation of sewage, effluent, process water, waste water, return water, industrial discharge or slimes inside a road reserve or railway line reserve; or (b) where such development will occur within an urban area.	A new 200mm PVCu Class 400 outfall sewer will be installed

# <u>A description of the activities to be undertaken, including</u> associated structures and infrastructure;

The development proposed will consist of a medium density residential development with a gross average density of approximately 20 dwelling units per hectare. The developer intends to provide affordable and easy to maintain full title stands to the community

A total of 340 full title residential 1 zoned stands are proposed. Because of the number of households which the town will accommodate supporting land uses such as institutional land uses for schools, churches, clinics, social halls etc are also provided for. The intension is to have erven with multiple uses such as a crèche during the week and a church and Sunday school on Sundays for example. The optimal use of erven and infrastructure is promoted by having multiple uses for single erven.

Two business 2 zoned erven is also provided at the main entrance to the town adjacent to D766 Road, and will support the planned node structure making provision for a wider variety of land uses to choose from.

A large open space erf, to be used as a public open space, approximately 1 hectare in extent is provided near the business sites, and near the main entrance which makes accessibility of the site convenient. A second open space is proposed in the north at the first main access. The portion cannot be used for any other purpose because of its shape and size formed by the proposed roads and property boundaries.

Existing roads and servitudes were taken into consideration and incorporated into the design of the township in order to minimize change of the current movement. No direct access to the main roads connected to D766 will be accepted for the safety of the community.

The layout is planned in such a manner that short streets provide for quick and easy walkability and is interconnected to reach a destination at the shortest possible distance and time.

## **Services**

The development will be serviced as follows:

#### Water

Midvaal does not have existing water infrastructure in the vicinity of the proposed development. From the Engineering outline scheme report it is concluded that water

can be obtained via a municipal cross border arrangement with City of Johannesburg.

A copy of the report is included in the application documentation. Please refer to section 7 of the report for more detail regarding the existing bulk network, and proposed internal network.

#### Sewerage

Midvaal does not have existing sewer infrastructure in the vicinity of the proposed development. From the Engineering outline scheme report it is concluded that waste water can be handled via a municipal cross border arrangement with City of Johannesburg.

A copy of the report is included in the application documentation. Please refer to section 8 of the report for more detail regarding the existing bulk network, and proposed internal network.

#### Solid waste removal

Part of the conditions of establishment will address the removal of refuse. The township developer will arrange with council to extend its refuse removal service to include the subject township.

Refuse to be stored in enclosed bins in demarcated areas for collection from each erf within the town by the service rendered. The detail of each storage site for the separate erven and land uses will be addressed at site development plan stage and must comply with the relevant department policies.

#### **Roads and stormwater**

The proposed township is serviced by the D766 Road (K47) to the west from where public Right of Way servitudes stretch across the site on its south boundary of Portion 106, 108 & 109, and another Public Right of Way servitude to the direct North of Portion 107 & 109 connecting to the first mentioned servitude. It is proposed to align roads to these 2 accesses. Strictly no direct access other than the approved access spacing's will be allowed. No direct access from individual erven to the main access street will be allowed.

Road design and access will be designed according to the local authority and provincial department accepted standards.

A storm Water Management Plan completed by a Professional Engineer is included in the application documentation. The report indicates strategies and guidelines to manage stormwater runoff for the development as design principles. Stormwater flow towards the south west, Rietspruit stream. A copy of the report is included in the application documentation. Please refer to the report for more detail.

#### Electricity

The area can be supplied with electricity through Eskom which is the supplier in the area. It is suggested to connect to the existing network. Any upgrading of the network will be the responsibility of the developer in consultation with Eskom.

A copy of the report is included in the application documentation. Please refer to section 9 of the report for more detail regarding the existing bulk network, and proposed internal network.

#### **General maintenance**

The maintenance of all services infrastructure on the property will become the responsibility of the Home Owners Association. Finance for maintenance will be obtained from the levies payable by the owners of the properties on a monthly/yearly basis.

# (E) A DESCRIPTION OF THE POLICY AND LEGISLATIVE CONTEXT

## National Development Plan, 2030 (NDP)

A National Development plan is a long-term development plan guiding the growth and development of a country. In terms of the National Development Plan, 2030 all spatial development should conform to the following principles:

#### **Spatial justice**

The historic policy of confining particular groups to limited space, as in ghettoization and segregation, and the unfair allocation of public resources between areas, must be reversed to ensure that the needs of the poor are addressed first rather than last.

#### Spatial sustainability

Sustainable patterns of consumption and production should be supported, and ways of living promoted that do not damage the natural environment.

#### **Spatial resilience**

Vulnerability to environmental degradation, resource scarcity and climatic shocks must be reduced. Ecological systems should be protected and replenished.

#### **Spatial quality**

The aesthetic and functional features of housing and the built environment need to be improved to create liveable, vibrant and valued places that allow for access and inclusion of people with disabilities.

#### **Spatial efficiency**

Productive activity and jobs should be supported, and burdens on business minimised. Efficient commuting patterns and circulation of goods and services should be encouraged, with regulatory procedures that do not impose unnecessary costs on development.

Higher density developments in approved residential areas such as is proposed enable the cheaper provision per building unit of bulk services such as water, sewerage and electricity. It contributes to sustain patterns of consumption and production. Compaction of land uses enables inhabitants to conduct their daily activities quickly, easily and as inexpensively as possible. By infill development and creating a compact town it will be less necessary to invest in private transport which will then contribute to the use of public transport which will be more convenient and quicker.

The proposed township will contribute to a larger choice of home and living conditions. Wealthier and poorer people can become part of the same neighbourhood where each can benefit from the resources and energies brought by others.

Densification of cities leads to more employment opportunities, vibrant markets and opportunities for small scale, self-generated economic enterprises as well as larger enterprises.

## Gauteng Spatial Development Framework, 2030 (GSDF)

The GSDF provides an overall future spatial structure for the Gauteng Province. It provides guidelines for the growth and structure for Gauteng and provides guidelines for the MSDF with location and nature of the physical development of the province.

In terms of the Gauteng Spatial Development Framework, 2030 to realise the spatial development vision, all developments in the province need to adhere to six spatial development principles namely:

- Liveability
- Concentration
- Connectivity
- Conservation
- Diversity
- Viability

A conclusion that can be made from the GSDF is that because of the comprehensive system of visible urban corridors and public transport potential within Gauteng, urban compaction should be concentrated around existing nodes and corridors.

In terms of the Elandsfontein precinct plan the subject site is situated adjacent south of a planned secondary neighbourhood node, which will be part of a light industrial/commercial and commercial/business/social node linked to the N1 National Highway, passing approximately 2km west of the site.

The site is identified for purposes of infill development near a proposed node corridor. The proposed development is in line with the GSDF principles and the promotion thereof.

# Sedibeng District Municipality Spatial Development Framework, 2030

The site is identified as a priority housing development area in terms of the Sedibeng District Municipality Spatial Development Framework, 2030 which indicates the need for housing in the area. The proposed development is in line with the SDF and will promote the provision of affordable housing opportunities.

#### Midvaal Spatial Development Framework (MSDF), 2022 - 2027

• DEVELOPMENT VISION

#### "To inclusively serve the needs of our community"

It can be concluded from the vision, that spatial development within Midvaal should focus to serve the needs of the community. This includes providing decent housing, service delivery, and economic growth to create employment.

By supporting the subject application to establish formal affordable housing opportunities for the community near planned industrial/commercial nodes where employment opportunities will be created supports the vision.

• DEVELOPMENT DRIVERS

<u>Development Driver 1</u>: Strive towards consolidated compact urban areas

"Maintain the Urban Development Boundary (UDB) and manage urban-rural crossover zones to promote compact urban development, support the integrity of rural residential areas, protect high potential agricultural land, and conserve critical biodiversity areas and valuable ecosystems."

The proposed development is situated within the urban development boundary and marked for future urban expansion.

<u>Development Driver 3</u>: Implement and manage corridor and spine development initiatives

"Plan, design, and facilitate development along the R59 Corridor, the R82 mobility spine and secondary east-west spines by means of appropriate developments and responsive township layouts in line with the spatial vision and relevant precinct plan proposals."

The proposed development is located within walking distance of the Elandsfontein node, which form part of the secondary east west industrial / commercial corridor connected to the N1 National Highway. The residential uses and nodes will be complimentary to each other.

<u>Development Driver 6</u>: Foster walkable nodes and transit-orientated development (TODs)

"Promote transit-oriented development (TODs) and the creation of compact, walkable, pedestrian-oriented, mixed-use communities centred around all public transit facilities (train stations, taxi ranks, rapid bus systems). Facilitate the development of walkable urban nodes, rather than suburban shopping centres for reduced dependence on a car for mobility and survival."

In terms of the MSDF 2022 - 2027 and figure 13 of the Elandsfontein Precinct plan, 2013 the subject site is situated approximately adjacent south of a planned secondary neighbourhood node. The node is strategically located taking into consideration future spatial development. Including the development of the subject site and surrounding land. Higher density developments around nodes promote the economic strength of the node.

<u>Development Driver 7</u>: Ensure connectivity by means of a continuous, hierarchical movement network

"Capitalise on existing regional links to promote development and utilise the internal movement network to support public transport networks and services. For enhanced continuity, prioritise strategic roads identified in the SDF and consider alignment of proposed roads carefully to prevent further fragmentation of precincts, and unnecessary sterilisation of potential land for development."

The proposed development is situated directly adjacent to the east of the D766 Road (R550), a main taxi route in terms of the MSDF. The use of public transport / taxi transport will be promoted as it is easily and convenient accessible. The R550 intersects with future road K154, promoted as a secondary east west link.

#### Development Driver 8: Support quality human settlement development

"Promote integrated human settlements through varying housing typologies, income models and densification, and prioritise the expansion of the gap market. Plan and implement for the integration of social facilities and commercial activities as integral part of any housing development."

In terms of the MSDF the site falls within the Elandsfontein Strategic Development Area, which is one of the areas identified within the municipal area where Council should promote the bulk of residential development in the short, medium, and longer term. It is pointed out that the area can potentially accommodate 16 182 units. The owner is going to provide in a need that exist for affordable accommodation near economic opportunities.

#### <u>Development Driver 9</u>: Prioritise environmental management

"Protect and manage the natural environment by administering the UDB to ensure an equilibrium between agriculture, tourism, industrial, and urbanisation activities."

The development driver is guided by the Gauteng Environmental Management Framework 2014 (GEMF) and its subsequent revisions. The GEMF is illustrated by 5 Control Zones - Zone 1: Urban Development Zone - Zone 2: High Control Zone (within the Urban Development Zone) - Zone 3: High Control Zone (outside the Urban Development Zone) - Zone 4: Normal Control Zone - Zone 5: Industrial and Large Commercial Focus Zone.

The subject property falls within zone 4. This zone is dominated by agricultural uses outside the urban development zone as defined in the Gauteng Spatial Development Framework. No listed activities may be excluded from environmental assessment requirements in this zone.

Environmental legislation is being complied with and the required processes initiated. The site is earmarked for residential densification and included within the urban development boundary of the Midvaal Municipality.

## Midvaal Density Policy, 2021

The subject site falls within the urban development boundary of the municipality. In terms of the policy a base density of 20 dwelling units per hectare is supported, with higher densities supported within and around nodes and distributor roads etc. subject to certain criteria and distances.

Large portions of the site (Portions 106 & 107) are located within 200m from the planned node and/or the K47 distributor / taxi route which in terms of this policy allows for a +5 dwelling units to be added onto the base of 20 units per hectare.

The proposed average size of erven is 500m<sup>2</sup> in extent on portions 106, 107, 108 & 109 which is 20 dwelling units per hectare, is in line with council policy. However, Portion 116 have already been developed with approximately 80 dwelling units, and erf sizes of average 300m<sup>2</sup> in extent, the minimum being not less than 200m<sup>2</sup> in extent. The developer intends to continue with the planned layout for this subject portion in order to maintain the character created, and to provide a mix of affordable housing within the town.

When calculating the gross density of the total development for the "Residential 1" zoned erven, the average density calculates to approximately 1 dwelling unit per 500m<sup>2</sup>, which is in line with council policy.

## **Elandsfontein Precinct Plan, 2013**

In terms of the subject precinct plan, and a letter dated 25 April 2022 received from Midvaal Local Municipality, a density of 20 dwelling units per hectare can be supported for the area.

# (F) NEED AND DESIRABILITY

# **NEED OF THE ACTIVITY**

The owner of the properties is an entrepreneur who develops property with purpose of creating a better opportunity in order to gain financially from it. He simultaneously provides affordable housing which there is a definite need for in the country. The owner recently bought the properties and needs to create opportunities from it to his best interest taking into consideration it must be in line with policy and also it must be attractive for potential investors.

The best option in this case is to create affordable residential stands near a planned nodes and work opportunities. The substantial need for housing in this country, the shortage of land and the high cost of providing infrastructure, emphasizes the need for residential densification. It does not seem that this demand would decrease significantly in this growing population of South Africa. The predicament South African towns and cities are now facing is that developable land is becoming scarce and high potential agricultural land needs to be protected.

In the country's favour is there also a trend towards smaller erven as people tend to spend less free time at their places of residence. The cost of maintenance of large erven, as well as the cost of securing these erven has contributed to people being willing to reside on smaller properties. Similarly, living expenses are becoming higher and people have less to spend on maintenance cost etc.

Residential densification and compaction of towns and cities is also consistent with current principles and goals for land development within urban areas in South Africa. In this case the establishment of a residential township with supporting land uses such as business erven, institutions and opens spaces, leads to the optimal use of land and infrastructure such as the road and municipal services already planned for in the area.

Optimal utilisation of properties creates benefits for the community as well in that it leads to increased income for the local authority that will be applied in the interest of the community in terms of maintenance and upgrading of municipal services.

From the surrounding developments, including portion 116 of the Farm Elandsfontein, it is clear that there is a need for serviced erven in the area because 80 dwelling houses already established on it. Although it was erected illegally, the current density of informal erven of between 200m<sup>2</sup> and an average 250m<sup>2</sup> in extent, the developer realises the need for such sized erven and wish to provide therein.

From the above it is clear that additional affordable housing developments as proposed by this application is needed to make provision for future growth.

# DESIRABILITY

## General

This country does not have an abundance of land available for residential development. Because of geological conditions, mining activity, the need to conserve agricultural land and the fact that for various reasons people cannot live too far from their work place, suitable land for residential purposes in the right locality should be utilised optimally. By supporting densification in a controlled manner, sustainable urban areas and the optimal use of land is promoted.

Densification of existing residential areas is in line with national policies. More compact developments lead to the optimum utilization of services infrastructure, land and public and social facilities. Re-zoning of land / establishment of the township extension to make provision for higher density developments also leads to an increase in the income of local authorities as the number of properties in respect of which rates and taxes are levied, increases. This income can then be applied in the interest of the whole community.

The site is located almost adjacent to a planned secondary node, industrial / commercial corridor and the D766 Road which is a main taxi route. The community of the town will have convenient access to the surrounding land uses and towns with all its different opportunities and employment.

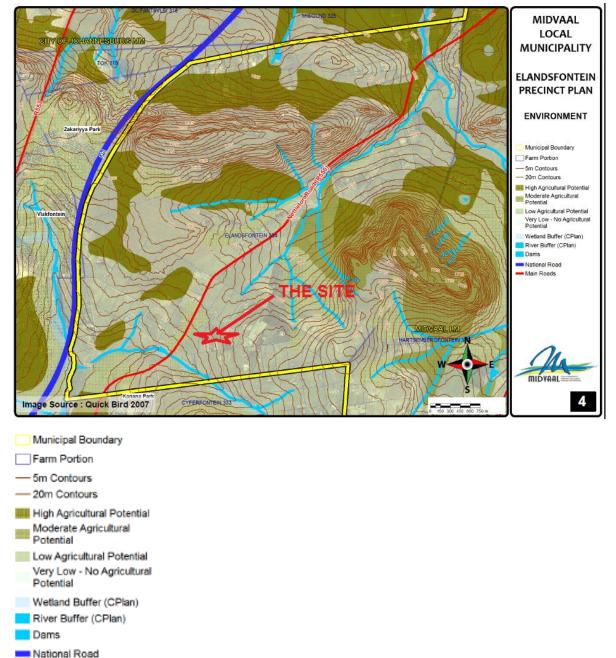
The site which is the subject matter of this application can be adequately serviced for purposes of the intended use thereof. The applicant intends to equip the property with water saving and alternative energy resource systems in order to save on water consumption and conventional generated electricity. In establishing the township on the property the owner will take environmental factors into consideration.

It is therefore clear that the applicant considered and addressed all implications of the proposed development comprehensively in order to ensure that this intended development will be desirable in all respects. There is no doubt that it will be an orderly development.

## **Specific**

According to the screening report the site is sensitive in regards to Agricultural potential. It also indicates a high sensitivity in terms of Palaeontology.

In the Elandsfontein precinct plan from Midvaal the potential for agriculture is however indicated as low.



Main Roads

The portions of land is however too small for sustainable agricultural farming. The land is located close to urban areas and land bordering the property to its south has already been invaded illegally. This indicates the pressure and need for housing in the area.

No cultivation takes place on any part of the development site. It is sometimes used for grazing purposes. Vegetation on the site consist of low grade grass. The properties is zoned "Rural residential" and therefore the development falls within the necessary guidelines for the properties and the area. The potential yield from the site will be so much more if developed as intended by the applicant.

# (g) THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ACTIVITY, SITE AND LOCATION OF THE DEVELOPMENT FOOTPRINT WITHIN THE SITE

#### **Location alternatives:**

- $\approx$  The land is perfectly located for the intended type of development;
- $\approx$  The owner does not own property in a "more suitable" locality;
- $\approx$  Developable land is becoming increasingly scarce;
- ≈ The site is identified for purposes of infill development near a proposed node corridor. The proposed development is in line with the GSDF principles and the promotion thereof.
- $\approx~$  It is therefore submitted that the choice of the present location is obvious and sensible.

#### Land use

- $\approx$  It has been pointed out in this report why the land should rather be used for development as proposed and not agriculture;
- $\approx~$  The site is identified for purposes of infill development near a proposed node corridor..
- $\approx~$  The proposed development is a sensible use for the land.
- ≈ New development on the subject property will strengthen confidence in the potential of the area that may have a positive economical spin-off for the surrounding area(Kanana park)

## **Agricultural Potential**

- $\approx$  The proposed development site has mainly been used for cattle grazing.
- $\approx~$  No cultivation takes part on the proposed development site.
- $\approx$  No cultivation takes place on surrounding properties as well.
- $\approx$  The site is currently zoned for "Rural residential" and not agriculture.
- ≈ The agricultural potential of the concerned site is considered to be moderate to low due to rocky/gravelish conditions.

## **The No-Development Option**

- ≈ The no-development option will inevitably lead to the abandonment of parts of the subject property
- $\approx$  The no-development option will prolong the present character, status and underutilisation of the subject property and surrounding properties
- $\approx$  Chances are good that the land will be invaded illegally as is the case on the property to the south of the property.
- ≈ The no-development option can create a precedent in the sense that other potential development on similar properties cannot take place for whatever (similar) reason which may have a negative impact on economic development in the area.

The sensibility of all possible alternatives, including the <u>no - go</u> option was considered and documented in this report. The conclusion is clearly that the proposed development is a viable and sensible option of utilising the concerned land.

The proposed development was also evaluated against the principles of the National Environmental Management Act, (NEMA, Act no. 107 of 1996), and in particular principles 4(a)(i), 4(a)(viii) and 4(r). In this regard it is clear that the proposed development:

- Will not lead to disturbance of any ecosystem or loss of biological diversity [principle 4(a)(i)];
- Will not lead to pollution or degradation of the environment [principle 4(a)ii)];
- Will ensure that waste are disposed off in a responsible manner[principle 4(a)(iv)];

The proposed development does not expose any aspect of the environment to any risk of any nature. It rather paves the way for termination of possible future malpractices that can occur.

# DETAILS OF THE PUBLIC PARTICIPATION PROCESS UNDERTAKEN

#### **Site Notices**

A site notice was placed on the border of each property.









#### **Advert in Newspaper**



Deeds at Pretona , (Deeds Office Information Section, Mezzanne Floor, c/o Boernen and Pretorius straets PRETORIA 0002), within two weeks from the date of the publication of this notice. Dated weeks from the date of the publication of this notice. Dated at MIDSTREAM on this the 2 NOVEMBER 2022 Turner Mcuid Incorporated Attomoya, a Marmolade Creacent, Midstream, Mill, Midstream, IG92 Email address: katherine@turnermould.co.za Telephone Number: (071 3600, 186). KP074338 -KP074338

186). KP074338
TSHOLA KE (T1760/2017)
LOST OR DESTROYED DEED Notice is hereby given in terms of the provisions of Regulation 68 of the Deeds Registrice Act, 1937, of the intention to apply for the lasue of a certified copy of Deed of Transfer Number T17680/2017 in favour of KEDIBONE EMMY TSHOLA. I d entity N umber 5107010318084, in respect of certain ERF 855.LUFHEREING TOWNSHIP, REGISTRATION DIVISION LO., PROVINCE OF GAUTEN, which has been lost or destroyed. All interested persons having any objections to the issue of such copy are hareby required to Lodge the same in writing with the Registrar of Deeds at JOHANNESBURG within two weeks from the date of the first publication of this notice. Dated at Kompton Park on this 04th at Kompton Park on this 04th ATTOFINEYS INC 69 VAN RIEBERCK ROAD, NIMPOD PARK, KEMPTON PARK TEL (010) 286 1011 REF. SAT0564



Fam Elandsfortein 33410 on Portion 106,107,108 and 109 N O T I C E O F ENVIRONMENTAL IMPACT ASSESSMENT APPLICATION PROCESS: SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT APPLICATION PROCESS: SCOPING AND ENVIRONMENTAL ASSESSMENT PROCESS NOTICE IS GIVEN OF AN APPLICATION FOR ENVIRONMENTAL AUTHORISATION AND THE SUBMISSION OF A SCOPING AND ENVIRONMENTAL AUTHORISATION AND THE SUBMISSION OF A SCOPING ON PORTO THE SAUTENG D E P A RT ME NT OF AGRICULTURE AND FUR GOVERNMENT NOTICE NO. 992, 933 AND 985 OF THE PROVISIONS OF GOVERNMENT NOTICE NO. 992, 933 AND 985 OF THE PROVISIONS OF BU B LI SH E D IN GOVERNMENT NOTICE NO. 9822, 933 AND 985 OF THE PROVISIONS OF BU B LI SH E D IN GOVERNMENT NOTICE NO. 9822, 103 AND 985 OF THE FROM SAND D OF D SOLOTON THE FARM D 109 OF THE FARM D 0 JE CT NAM E: ELANDSFONTEIN 334 IO PROPERTY PTY LTD LOCATION OF FROJECT PORTION 106,107,108,109 OF THE FARM ELANDSFONTEIN 334 IO (LOCATED TO THE SUBSTICE TO AND FAR AND DORDERING THE R55 ON ITS WEST PARTIES WISHING TO REGISTER AS INTER FSTED AND WISHING TO REGISTER AS WISHING TO REGISTER AS PORTION 1 OF THE FARM WATERVAL.5-IR AFFECTED PARTIES AND AFFECTED PARTIES AND RATEORUS INTERNATIONAL FORMALLY COMMENT OR RAISE OBJECTIONS OF REQUEST FURTHER No. 107 of 1998), as amended

78 AMENDMENT SCHEMES

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Monday 14 November 2022

INFORMATION ON THE PROPOSED ACTIVITY ARE REQUESTED TO FORWARD THEIR WRITTEN COMMENTS /DBJECTID TO FORWARD THEIR WRITTEN COMMENTS /DBJECTID SCHWARD /DBJECTID SCHWARD /DBJECTID SCHWARD /DBJECTID SCHWARD /DDJECTIONS (WITH REASON AND REFERENCE NUMBER, AND RECOVER ADDRESS; HL JANSE VAN RENSBURG, VAALPLAN TOWN AND REGIONAL PLAN NERS, 4 3 LIVINGSTONE BLVD, VANDERBIJLPARK (1016) 931:1342. E-MAIL: VAALPLANE&TELKOMSA.NET /LEASE PROVIDE VOUR FULL CONTACT DETAILS TO BETHER WITH YOUR NITEREST IN THE NATTER, COMMENTS AND/OR OBJECTIONS AND REQUESTS MUST REACH VAALPLANE TELKOMSA.NET OB JECTIONS AND/OR OBJECTIONS AND/OR OF THE SUSTAINABLE UTILIZATION OF THE ENVIRONMENT (SUE) BRANCH, OEPARTMENT OF AREQUESTS SHOULD BE COMENT OF THE SUSTAINABLE UTILIZATION OF THE ENVIRONMENT (SUE) BRANCH, DEPARTMENT OF AREGUESTISSENT OF AREGUESTIS and the Environmental impact Ass esament Regulations, 2014 that the applicant, Pupile Fersis line stimestiments (Py) Ltd, is applying for environmental authorized of Apriculture and flural Development (DARD), with a Basic Asseament Process for the Gevelopment of a Petrol and Diesei filling station and associated infrastructure on a port of Portion 1 of The Farm Witterval 5-IR known as Land Parcel 12, Juckker Drive, Waterval City, A tormal environmental application will be submitted to GDARD. Activity 14 of CIT. The site is located directly north of the Waterfall Islamic Institute, on the corner of Juckskel Drive and Van der Bij Avonue (K60), on what is known as Land Percel 12, Waterfall City. Access to the fuel station with associated convenience shop, quick service restaurant and a carwasit) on the property. Parties wishing to formality register their Interet in their EIA, or for more information as the ELA process continees, are requested to forward their form Sky City Mal and the K51 divides are troppered in the areas of 1 hocare or more, but less than 20 hectarses of incigenous vegetation is required for (i) the underaking of a linear activity; or (i) maintenance management pain. The National Heritage Resources Act, 1999 (Act No 25 of 1999) is appleciate and anditional activities could be indefanous vegetation is required for maintenance 500 CUBIC METRES ON ERF T14, VANDERBILLPARK NORTH-WEST 7 TOWNSHIP GAUTENG PROVINCE Project name : IDWALA REFINERY VANDERBILLPARK Project Reponentic Idwala Energy (Pty/Ltd Location of project: Eff Township, Vanderbilpark 7 Township, Vanderbilpark Partee wishing to formally comment or raise objections or register as interested and comment or raise objections or register as interested and affected parties and request further information on the proposed activity are requested to forward their written comment/objections (with reasons and reference number) and requests to the following address : H.L. Janse van Rensburg, Vaalpian Town and Regional Planners, 49 July in g ston e Bivd, Vanderbiljoark 1900. Tai: (bits) 981-0507, Fax 0662185534. E-mail: Valideonjuein 1902 (1992) 981-9807, Fax 0662185534. E-mail: vaalplan 18 telkomsa.net please provide your full contact details together with your interest in the matter. Comments and/or objections and requests must reach the placement of this notice which was on 14 Novembor 2022. Objections and/or 2029. Objections and/or 2029. Diffector. Strategic Administrative Unit of the Environment (SUE) Branch, Depatment of Agriculture and Brady 2005, not later than thirty days after the publication of this advertisement on 14 November 2022. VALPLAN TOWN & REGIONAL DEADTACE. BH013728



WESTERN REFINISHERS PTY LTD and MR MOTHLAKE CASE NO: 3979/2021 NOTICE OF SALE IN EXECUTION IN THE MAGISTRATE'S COURT FOR THE MAGISTERIAL DISTRICT

citizen.co.a

OF JOHANNESBURG V HELD AT ROODEPO CASE NO 3979/2021 CASE NO 3979/2021 in the matter beth WESTERN REFINISP PTY LTD (Registration 2011/005853/07) Exec Creditor And

Creditor And Mr. M. NOTHLAKE (ID 730324 5653 087) Exec Debtor NOTICE OF 5AL EXECUTION IN PURSUANCE OF JUDG MENT of Megistrate's Court Roddpoort given on 20 2022, a Warrant of Exac dated the 5th DAY OCTOBER 2022, the follo articles will be sold in exec OCTOBER 2022, the follow articles will be sold in exec on TUESDAY the 6TH DA DECEMBER 2022 at 10 A.m. by the SHEI JOHANNESBURG CENT at 32 MARSHALL STHI WESTGATE, JOHANNESBURG to

BH0137

Legals

Lulu van wyk 010 976 4212 lornavw@citizen.co.za

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Legals TENDERS

Cynthia Seepe 010 976 4141 cynthiam@citizen.co.za

**Monique Gafoor** 010 976 4228 moniqueg@citizen.co.za

Alexia Nel 010 976 4217 alexian@citizen.co.za

The Oitizen

## (iii) A summary of the issues raised

# **Objections received:**

#### . Dennis Ryder

#### 6 November

Good day,

I refer to the public notice announcing the proposed township establishment on Portion 106, 107, 108 and 109 of the farm Elandsfontein 334 IQ.

- 1. Kindly provide further details on the proposed development which detail should include, but not be limited to:
  - a. Map of the area with the proposed township indicated
  - b. Township layout,
  - c. Expected number of dwelling units
  - d. Source of water
  - e. Sewer management plan
  - f. Access from provincial road
  - g. Motivation for the subdivision of agricultural land.
- 2. In the interim I wish to raise my objections on the basis of:
  - a. Desirability of Subdivision of agricultural land
  - b. Unavailability of engineering services including water, sewer and electricity.
  - c. Development outside of the Spatial development framework
  - d. Development outside of the urban edge
  - e. Access concerns from Provincial road and traffic concerns
  - f. The topography of Elandsfontein is also complex and ridges need to be preserved. The layout needs to accommodate this.

The above requests and objections are made in my capacity as a resident of the greater area, as well as an elected community representative.

# Dennis Ryder (CEBP SA)

Member of Parliament - National Council of Provinces

- Select Committee on Finance
- Select Committee on Appropriations
- Joint Standing Committee on Defence

Democratic Alliance - Vaal Regional Chairman

#### Lesley Visser

From: Lesley Visser <midvaalward7@gmail.com> Date: Mon, Dec 12, 2022 at 9:14 PM Subject: 106,107,108 and 109 Elandsfontein 334IQ To: <<u>vaalplan2@telkom.net</u>> Attention: HL Janse van Rensburg

#### Re: Proposed establishment of a township on 106,107,108 and 109 Elandsfontein 334IQ

I would hereby like to object to the above-mentioned establishment, my objections are as follows.

• The lack of infrastructure to accommodate the development, this includes but is not limited to

 $\circ~$  Roads – except for the R550 – there are no tar roads in the area and the sand roads need constant maintenance.

 $\circ$  R550/Nettleton Road – this road is our highest accident road in ward 7 with fatalities almost weekly – it is a busy road, and a development of this magnitude will overburden an already hectic road.

 $\circ~$  Sewer – there is not sewer connection in the area.

 Water – Elandsfontein have no piped water and rely on boreholes. Our underground water would not be able to handle boreholes for a township development.

 $\,\circ\,$  Schools – there are no ECD facilities in that vicinity and nursery schools will have to be built.

 Primary schools – there is only one Primary school in the area that is already at full capacity and will not be able to accommodate children from this development

High schools – THERE ARE NO HIGH SCHOOLS IN WARD 7

 $\,\circ\,\,$  Transport – there is no scholar transport in the area, there is also no bus system in the area.

I have a few more objections but they are more personal. I have a problem trusting Ntha Property Dev due to the total lack of respect that the developer has shown the Midvaal local municipality as well as their dealings with the unfortunate people that bought into the Ntha's development at 116 Elandsfontein.

Thanking you

**Councillor Lesley Visser** 

083 469 7838

#### **Concerned Citizens**

ENVIRONMENTAL IMPACT ASSESSMENT NOTICE / RESPONSE

7 December 2022

THE ECONCERNED CITIZENS OF ELANDSFONTEIN – OPPOSITION TO PROPOSED TOWNSHIP DEVELOPMENT.

REFERENCE: TOWNSHIP DEVELOPMENT ON PLOT 106; PLOT 107; PLOT 108 AND PLOT 109 ELANDSFONTEIN 334 IQ.

LET IT BE KNOWN:

- 1. WE, THE RESIDENTS OF ELANDSFONTEIN AND SURROUNDS (AS SIGNED/PARTITIONED), STRONGLY OPPOSE THE PROPOSED TOWNSHIP DEVELOPMENT OF THE PLOTS 116 (ALREADY), PLOT 106, PLOT 107, PLOT 108 AND PLOT 109 ELANDSFONTEIN.
- 2. THE REASONS AND LOGIC DICTATING OUR THINKING ARE LISTED, HOWEVER ARE BY NO MEANS COMPLETEY EXHAUSTED OR COMPLETE IN THIS COMMUNICATION.
- 3. BELOW, THE MAIN REASONS FOR OUR OPPOSITION TO THIS TOWNSHIP DEVELOPMENT IN ELANDSFONTEIN, AN AGRICULTURALY ZONED FARMING COMMUNITY, IS THE LACK OF BASIC BULK INFRASTRUCTURE:
- A. NO WATER RETICULATION
- B. NO ADEQUATE ELECTRICAL INFRASTRUCTURE
- C. NO SEWERAGE INFRASTRUCTURE
- D. INADEQUATE ROAD INFRASTRUCTURE
- E. NO ENVIRONMENTAL MANAGEMENT PLAN

FURTHER, LET IT BE KNOWN:

- 1. THE FOLLOWING RESIDENTS OF ELANDSFONTEIN STRONGLY OPPOSE ANY FURTHER, OR NEW TOWNSHIP DEVELOPMENT ON PLOTS: 116, 106, 107, 108 AND 109 ELANDSFONTEIN, BASED ON PAST AND EXISTING EXPERIENCE WITH THE APPLICANT / OWNER OF NTHA PROJECTS.
- 2. TO SET THE ORDER OF THINGS STRAIGHT AN ORDER OF THE COURT EXISTS FOR THE ILLEGAL DEVELOPMENT THAT TOOK PLACE AT PLOT 116 ELANDSFONTEIN, THE DEVELOPER BEING NTHA PROJECTS. RESIDENTS WILL NOT SUPPORT THE SAME DEVELOPER WHO HAS SCANT REGARD FOR THEIR WELL BEING AND LESS FOR THEIR PROPERTY VALUES.
- 3. THE PROJECT APPLICANT, HAS IN THE PAST AS AT PRESENT BOUGHT ZERO TO NO VALUE, TO THE AREA OTHER THAN FOR HIS PERSONAL GAIN. HE DOES NOT EVEN LIVE IN OUR VALLEY.
- 4. THE APPLICANT FOR THIS ILLEGAL PROJECT HAS MANIPULATED AND DEFRAUDED MANY PEOPLE, BASED ON THE FACT THAT HE IS UNABLE TO SUPPLY PROPERTY PURCHASES WITH INDEPENDENT TITLE DEEDS – THUS PROVING THEIR OWNERSHIP OF THE LAND FOR WHICH THEY PAID/ OR ARE PAYING. THIS IS CONTRARY TO SOCIAL STABILITY AND COMMON SENSE – SUPPORTED BY LAW.

5. THE APPLICANT FOR THIS ILLEGAL TOWNSHIP DEVELOPMENT, HAS AND IS, CAUSING RESIDENTS DIRECT UNTOLD HARM AND HURT, BY HIS LAWLESS, PAST AND PRESENT ACTIONS, BY:

A. DESTROYING OUR ROAD INFRASTRUCTURE - MAKING ROADS NEAR IMPASSABLE WITH LITTLE TO NO REGARD FOR RESIDENTS, DURING HIS DEVELOPMENT OF PLOT 116 AND HIS TAKE OVER OF PLOT 108 – TWO PROPERTIES DEVIDED BY THE ROAD.

B. CREATING AN HAVEN FOR CRIME IN THE AREA - ABANDONED HOUSES ON PLOT 116 ARE NOW BEING USED BY CRIMINALS TO ATTACK RESIDENTS AND HIDE WHEN PERSUED.

C. PLOT 108 HAS BEEN STRIPPED – THIS BEING EASILY SEEN FROM THE MAIN ROAD ON WHICH IT BORDERS AND IS AN EYE SORE AND A DIRECT RESULT OF LOCAL PROPERTTY VALUES DROPPING AS PER LOCAL ESTATE AGENTS. IT TOO IS USED BY CRIMINALS.

D. ILLEGALLY TRENCHED AND INSTALLED ELECTRICAL CABLE – OVER 400 METERS - FOR ILLEGAL TAPPING OF ESKOM POWER, CAUSING UNTOLD STRESS AND DESTRUCTION OF EXISTING FARMING BUSINESSES IN THE AREA.

E. HAS AND IS DESTROYING THE LOCAL ENVIRONMENT BY NOT HAVING COMPLETED AN EIA AND NOT HAVING PUT APPLICATION, NOR RECEIVED PERMISSION FROM COUNCIL TO GO AHEAD WITH THE DEVELOPMENT ON PLOT 116 ELANDSFONTEIN – YET, IS NOW INTENT ON FURTHER DEGRADING AND DESTROYING BOTH THE WATER TABLE (OUR ONLY WATER SOURCE) – AND THE LOCAL HABITAT, BY LITTERING, MAKING FIRES TO BURN WASTE, BURYING WASTE RUBBISH AND CONTAMINATING LOCAL DAMS WITH SEWERAGE OVER FLOW - (AS THERE IS NO SEWARAGE MANAGEMENT SYSTEM.

F. HAS DEVELOPED A HOUSE ON PLOT 109 ILLEGALLY (CONTRARY TO THE TITLE DEED) WITH "OWNERS" AGAIN UNABLE TO RECOVER THEIR INVESTMENT – YET ANOTHER ACT OF LAWLESSNESS.

G. BEYOND THIS, THE COUNCELOR FOR WARD 7 MIDVAAL COUNCIL, HAS MADE IT ABUNDANTLY CLEAR THAT THEY, MIDVAAL COUNCIL, AS ARE THE RESIDENTS, TOTALLY OPPOSED TO THIS TOWNSHIP DEVELOPMENT DUE TO THE FACT THAT NO BULK INFRASTRUCTURE EXISTS.

FOR AND ON BEHALF OF THE ECONCERNED CITIZENS OF ELANDSFONTEIN - 334 IQ.

Signature:

Witness two:

# **Response to objections by Dennis Ryder**

The following response was send to Mr Ryder

Good day Mr Ryder,

Thank you for your email.

The requested documents has been attached and your concern is addressed in the following documents

- a. Map of the area with the proposed township indicated- Locality plan is attached
- b. Township layout Layout Model attached
- c. Expected number of dwelling units- Indicated on Layout map
- d. Source of water See services report
- e. Sewer management plan- See services report
- f. Access from provincial road- See TIA report
- g. Motivation for the subdivision of agricultural land. The land is earmarked for future development in terms of the latest SDF and local precinct plans. As such it is clear that the local authority wishes to use the land for residential development and other uses.

objections on the basis of:

- a. Desirability of Subdivision of agricultural land The land is in the urban edge which is earmarked for development by the local authority
- b. Unavailability of engineering services including water, sewer and electricity. -addressed in services reports
- c. Development outside of the Spatial development framework. The land is included in the SDF.
- d. Development outside of the urban edge Land is included within urban edge
- e. Access concerns from Provincial road and traffic concerns- See TIA attached- safe access can be provided according to provincial road standards.
- f. The topography of Elandsfontein is also complex and ridges need to be preserved. The layout needs to accommodate this. This has been taken into consideration.

We do take note of your concerns but do not regard them as an objection as these concerns are things that should be addressed according to the legal process that must be followed for township establishment. The township will not be approved if we do not address these points. This is basically the reason why a formal application is submitted to the relevant authorities.

# **Response to objections by Lesley Visser**

• The lack of infrastructure to accommodate the development, this includes but is not limited to

• Roads – except for the R550 – there are no tar roads in the area and the sand roads need constant maintenance.

Upgrades corresponding to access intersection R550/Primary Development Access Road/Private Access Road will also be for the account of the Developer. Proposed upgrades are shown in **Drawing RUD001** and **Drawing RUD002 in the TIA**.

- R550/Nettleton Road this road is our highest accident road in ward 7 with fatalities almost weekly – it is a busy road, and a development of this magnitude will overburden an already hectic road.
   A TIA has been compiled. Access etc. will be planned and design by Professionals and must be approved by relevant departments
- Sewer there is not sewer connection in the area. The services report addresses this issue
   From the Engineering outline scheme report it is concluded that waste water can be handled via a municipal cross border arrangement with City of Johannesburg.
- Water Elandsfontein have no piped water and rely on boreholes. Our underground water would not be able to handle boreholes for a township development.

From the Engineering outline scheme report it is concluded that water can be obtained via a municipal cross border arrangement with City of Johannesburg.

 $\circ~$  Schools – there are no ECD facilities in that vicinity and nursery schools will have to be built.

- Primary schools there is only one Primary school in the area that is already at full capacity and will not be able to accommodate children from this development
- High schools THERE ARE NO HIGH SCHOOLS IN WARD 7
   Provision for Institutional zoned erven has been made on the layout. The department of education will comments on the layout and will ensure that the required number of educational facilities is provided.
- Transport there is no scholar transport in the area, there is also no bus system in the area.

A public transportation assessment was carried out as part of this study. Minibus taxis were observed to operate along the road R550. It is unclear of these services

have been formalised. However, such minibus taxi services are expected to serve public transport users of the township development via proposed public transport stops at the intersection R550/Primary Development Access Road/Private Access Road (see **Drawing RUD001**);

# **Response to objection by concerned citizens**

- 1. As stated the main reason for the objection is the lack of basic infrastructure
  - This is addressed thoroughly in the outline scheme report as well as the traffic impact assessment
  - The township will not be approved unless the local authority is convinced that all stands is serviced properly
- 2. Holding 116 is not part of this application. The clieny tis on the process of buying this land and will then submit an application for rectification of the illegal activity.

- 3. The developer is in the process of ensuring proper services will be installed in the area. He cannot proceed with development before environmental and town planning approval s are in place.
- 4. The township development for which this application is submitted has not commenced and no illegal activities have taken place. Holding 116 does not belong to the developer at this stage. He is in the process of buying holding 116.
- 5. This application is for township establishment on portions 106,107,108 and 109 of the farm Elandsfontein 334 IQ. No development has taken place. Specialist studies has been done, the client is currently in the process of obtaining environmental authorisation and will thereafter submit an application for township establishment to the local authority. It is clear that the legal process is being followed by the developer.

The developer is unable to rectify the situation on holding 116 before the property has been registered on his name. When this happens an application for rectification of the illegal activities will be submitted.

# THE ENVIRONMENTAL ATTRIBUTES

#### BRIEF DESCRIPTION OF HOW THE ENVIRONMENT MAY BE AFFECTED

The present character of the micro environment where it is intended to establish the units is that of a rural environment. This micro environment will not undergo significant change if the project materialises and the existing environment will not be adversely affected.

## PHYSICAL ENVIRONMENT

According to the City of Johannesburg GIS website, the eastern portion of the site is located at 1656 meters above mean sea level (mamsl), whereas the western portion is located at around 1620 mamsl, the stand slopes towards the Rietspruit River along the west, south-west. Drainage on the site is currently in the form of sheet flow towards the west, south-west.

The climate is warm and temperate in Ennerdale. In winter, there is much less rainfall in Ennerdale than in summer. This location is classified as Cwb by Köppen and Geiger. The average annual temperature is 16.3 °C | 61.3 °F in Ennerdale. The annual rainfall is 787 mm | 31.0 inch.

The driest month is July, with 3 mm | 0.1 inch of rainfall. With an average of 145 mm | 5.7 inch, the most precipitation falls in December. The warmest month of the year is January, with an average temperature of 20.1 °C | 68.2 °F. July has the lowest average temperature of the year. It is 9.7 °C | 49.5 °F. The difference in precipitation between the driest month and the wettest month is 142 mmn| 6 inch. During the year, the average temperatures vary by 10.4 °C | 18.8 °F.

Impacts associated with climatic and atmospheric conditions within the proposed study area are considered to be of negligible to low.

Soil conditions where it is intended to erect building structures are suitable for the proposed kind of development. Existing farm buildings in the area has been there for 10 - 50 years. The conditions of these structures are excellent proof that the soil conditions are good for erecting buildings thereon.

According to the Elandsfontein Precinct plan there is a low agricultural potential for the site.

The areas on proposed development are not cultivated. No adverse conditions to the extent of totally prohibiting the construction of structures occur on the site.

No impact with regard to the topography and geology in respect of the site concerned is expected.

#### **BIOLOGICAL ENVIRONMENT**

No cultivation takes part on the proposed development site. Vegetation on the site consists of mainly of low grade grass, shrubs and trees. No indigenous and protected species are present.

The grass on the rest of the site concerned is a low value type of grass with no significant agricultural value.

On the site concerned no potential endangered animal habitats occur. No endangered animal species or other animal species is threatened by the intended development.

It is a fact that in cases where such areas have been developed, indigenous vegetation and animal life often get restored due to conservation awareness among those acquired properties of this nature.

The potential impact of the intended development on fauna and flora in the area is regarded as insignificant.

#### SOCIAL ENVIRONMENT

The public interest is that which generates optimum benefit for the majority of the communities, without inflicting undue harm on any minority.

In the present instance, the majority of the community will clearly benefit, directly through employment possibilities, financial improvement, and spending power which will enter the region from outside, and indirectly, through the financial benefit accruing to the Local authority from assessment rates, etc, and tourism. Local property owners are likely to experience appreciating property values, rather than the reverse, as the area becomes sought after. This has been noted in consequence of developments elsewhere.

The intended development will have a positive affect on socio economic aspects in the area.

It is, in fact, difficult to see what harm or loss could be sustained by any minority.

The development is therefore very much in the public interest and all interested and affected parties will be consulted during the process.

#### **ECONOMIC ENVIRONMENT**

"The 2007 ANC Conference in Polokwane said:

Our most effective weapon in the campaign against poverty is the creation of decent work. Moreover, the challenges of poverty and inequality requires that accelerated growth takes place..."

This development will create that type of growth through employment opportunities in an area where employment opportunities are diminishing and are for the most part non-existent. Not only will this development create temporary employment opportunities through construction but it will also create permanent employment opportunities such as work for domestic workers, caretakers, nannies, landscape workers, security, etc.

To ensure that the positive economic impacts are maximised and prolonged the following measures should be considered, wherever possible:

- Ensure increased economic development through local procurement wherever possible;
- ii) Employ local labourers and contractors wherever possible.

In the present instance, the majority of the community will clearly benefit, directly through employment possibilities, financial improvement, and spending power which will enter the region from outside, and indirectly, through the financial benefit accruing to the Local authority from assessment rates, etc, and tourism.

As stated above local property owners are likely to experience appreciating property values, rather than the reverse, as the area becomes sought after. This has been noted in consequence of developments elsewhere.

It is furthermore important to realise that the concerned land is located near existing urnab a areas with their comprehensive urban infrastructure, which includes health facilities, education facilities, retail-, social- and cultural facilities, etcetera, that creates the potential, the capacity and the need for developments of a great scale and variety. Developments of this kind contribute strongly to the improvement the well being and the appeal of our towns.

#### **CULTURAL ENVIRONMENT**

The occurrence of archaeological sites in the area is unknown. An Archaeological Impact

A Heritage study will be done and the findings will be mentione in the EIA report.

# (V) THE IMPACTS AND RISKS

This section provides the generic scope for assessing the significance of impacts related to the key issues raised in the Scoping process. The criterion for determining impact significance has been defined in accordance to the criteria drawn from Appendix 3 of the Environmental Impact Assessment Regulations, 2014. The levels of details described in the EIA regulations were fine-tuned by assigning specific values to each impact.

In order to establish a coherent framework within which all impacts could be objectively assessed, it is necessary to establish a rating system, to be applied consistently to all the criteria. For such purposes each aspect is to be assigned a value ranging from one (1) to four (4) depending on its definition. The tables below provide a summary of the criteria and the rating scales, which will be used in the assessment of potential impacts.

#### Description of nature and scale of impacts

The table below provides a brief description of the terms used to assess the impact of the proposed activity on the environment.

Nature: classification of whether the impact is positive or negative, direct or

	direct.
Exte	nt: spatial scale of impact and classified as:
٠	Site: the impacted area is the whole or significant portion of the site (1).
•	Local: Within a radius of 2 km of the construction site (2).
٠	Regional: the impacted area extends to the immediate, surrounding and
	neighboring properties.
•	National: the impact can be considered to be of national significance.
Dura	tion: Indicates what the lifetime of the impact will be and is classified as:
٠	Short term: The impact will either disappear with mitigation or will be mitigated
	through natural process in a span shorter than the construction phase.
٠	Medium term: The impact will last for the period of the construction phase,
	where after it will be entirely negated.
٠	Long term: The impact will continue or last for the entire operational life of the
	development, but will be mitigated by direct human action or by natural
	processes thereafter. The only class of impact which will be non-transitory.
٠	Permanent: Mitigation either by man or natural process will not occur in such
	a way or in such a time span that the impact can be considered transient.
Inten	sity: Describes whether an impact is destructive or benign;
•	Low: Impact affects the environment in such a way that natural, cultural and
	social functions and processes are not affected.
•	Moderate: Affected environment is altered, but natural, cultural and social
	functions and processes continue albeit in a modified way.
•	High: Natural, cultural and social functions and processes are altered to
	extent that they temporarily cease.
•	Very High: Natural, cultural and social functions and processes are altered to
	extent that they permanently cease.
Droh	ability: Describes the likelihood of an impact actually occurring:
	Improbable: Likelihood of the impact materializing is very low
•	
•	Possible: The impact may occur
•	Highly Probable: Most likely that the impact will occur
٠	Definite: Impact will certainly occur.

## Criteria for rating of impacts

Criteria	Description			
Extend	National	Regional	Local	Site
Duration	Permanent	Long-term	Medium-term	Short-term
Intensity	Very high	High	Moderate	Low
Probability	Definite	Highly probable	Possible	Improbable
Points allocated	4	3	2	1

#### Significance Rating of classified impacts

Impact	Points	Description
Low	4-6	A low impact has no permanent impact of significance. Mitigation measures are feasible and are readily instituted as
		Miligation measures are reasible and are readily instituted as

		part of a standing design, construction or operating procedure							
Medium	7-9	Mitigation is possible with additional design and construction							
		inputs.							
High	10-12	The design of the site may be affected. Mitigation and							
Ŭ		possible remediation are needed during the construction							
		and/or operational phases. The effects of the impact may							
		affect the broader environment.							
Very High	13-16	The design of the site may be affected. Mitigation and							
		possible remediation are needed during the construction							
		and/or operational phases. The effects of the impact may							
		affect the broader environment.							
Status	Perceived effect of	of the impact							
Positive	Beneficial impact								
(+)									
Negative(-)	Adverse impact								
Negative im	pacts are shown wit	h a (-) while positive ones are indicated as (+)							

# **Positive and negative impacts**

## **Construction Phase**

Environmental	Potential Impact			nvirc gnifi		ntal e Scoi	re	Mitigation
Component		Extend	Duration	Intensity	Probability	Total	Rating	
Physical Imp Geology and soils	<ul> <li>Destabilisation of surface geology as a result of excavations</li> <li>Potential erosion, degradation and loss of topsoil due to construction activities as well as stormwater runoff</li> </ul>	1	1	3	4	9		<ul> <li>All site disturbances must be limited to the areas where structures will be constructed. Cleared areas are effectively stabilised to prevent and control erosion. Excess rocks and boulders that are excavated from the site can be used for erosion protection work on site.</li> <li>Suitable excavated material is to be stockpiled next to excavations for use as backfill. Excess material as a result of excavation and construction rubble must be removed, and appropriately disposed of.</li> <li>Areas susceptible to erosion must be protected by installing the necessary temporary and/or permanent protective materials.</li> </ul>

Ground and surface water pollution	<ul> <li>Contamination of surface and groundwater due to spillages, leakage, incorrect storage and handling of chemicals, oils, lubricants, cement, fuels and other hazardous material.</li> <li>Deposition of contaminated water into the watercourse, Erosion of the banks and siltation.</li> </ul>	3	3	3	4	13	<ul> <li>Any tunnels or erosion channels developing during the construction period shall be backfilled and compacted, and affected areas restored to proper conditions.</li> <li>Soil stockpiling areas must be sufficiently situated away from the drainage areas.</li> <li>Increased run-off during construction should be managed using berms, temporary cut-off drains, attenuation ponds or other suitable structures, in consultation with the ECO and resident Engineer</li> <li>Stormwater management system is to be installed as soon as possible following site establishment, to attenuate stormwater during the construction phase, as well as during the operational phase.</li> <li>Surface-water run-off and stormwater must be directed away from trenches and areas of excavation</li> </ul>
Air quality	<ul> <li>Dust pollution affecting adjacent developments as a result of construction activities and vehicles on site.</li> </ul>	2	1	2	4	9	<ul> <li>Enforcement and adherence to speed limits on onsite roads to prevent the liberation of dust.</li> <li>Dust suppression measures including regular application of water must be implemented. Water used for this purpose must be used in quantities that will not result in the generation of run-off. All site workers to wear PPE to avoid any exposure to contaminated dust particles</li> </ul>
Topography	Alteration of topography due to removal of trees, excavations stockpiling of soil, building material, debris and waste material on site.	1	1	1	2	5	<ul> <li>Limit excavations to areas required for construction purposes.</li> <li>Avoid placing of stockpiles and other services on areas likely to pose obtrusive visual impact</li> <li>Precautionary measures and design from the engineer must be implemented.</li> <li>Re-vegetation of re-</li> </ul>

Socio Econo	omic Impacts						<ul> <li>profiled slopes;</li> <li>Temporary stabilisation of slopes using geotextiles; and Installation of gabions and reno mattresses.</li> </ul>
Noise pollution	<ul> <li>Increase in noise pollution due to, excavations, site clearing, construction vehicles and personnel, operation of cement mixer machine, blasting and or drilling</li> </ul>	1	1	2	3	7	<ul> <li>SANS 10103 and the National Noise Control Regulations should be used as the main guidelines for addressing the potential noise .</li> <li>Activities will be limited to the hours between 07H00- 17H00.</li> <li>Heavy machines will only operate from Mondays to Fridays and no work will be undertaken over public holidays and over weekends.</li> <li>Adherence to Occupational Health and Safety Act</li> <li>Ear protection devices to be used for workers that may be affected by noise</li> </ul>
Visual integrity	Visibility of dust, waste pollution and construction activities from surrounding roads and properties	2	2	3	3	10	<ul> <li>Apply dust control measures diligently, especially on provincial roads</li> <li>Apply recommendations of specialist regarding colour and construction of site structures during the Construction Phase</li> <li>Indigenous plants or trees must be retained where appropriate to provide screens to make the construction site less visually intrusive</li> <li>Lighting on site is to be sufficient for safety and security purposes, but shall not be intrusive to neighboring residents or disturb wildlife</li> </ul>
Heritage	Destruction of areas or features of cultural significance	1	4	2	1	8	<ul> <li>Should any culturally significant artefacts or graves, etc. be found during construction activities all activities should be stopped until an assessment by a Cultural Heritage practitioner has been completed</li> </ul>
Safety and security	<ul> <li>Increase in crime in the area and</li> </ul>	1	2	1	2	6	Ensure that site access is controlled on a permanent

	increase in squatters on vacant land • Migration of job seekers into the area in search of employment						<ul> <li>basis. No members of the general public should have site access without prior authorization</li> <li>All staff will carry identification, access control will be enforced and the site will be swept and a search will be done each night</li> <li>The development will have 24-hour access control and security.</li> <li>If necessary a Community Liaison Officer can be appointed. The CLO (Community Liaison Officer) to be consulted regarding employment of members of the surrounding communities</li> </ul>
Traffic	<ul> <li>Increase in traffic flow into the area.</li> <li>Impact on the health and safety of employees, surrounding communities, industries and other I&amp;AP"s.</li> </ul>	2	2	2	3	9	<ul> <li>Geometric design of access points and parking layout to be in accordance with the designs of the traffic engineer</li> <li>Signage must be placed at the construction site to caution motorists and pedestrians of the activities and the movement of construction vehicles.</li> </ul>
Fire	<ul> <li>Uncontrolled fires from cooking and Veld fires</li> </ul>	1	1	1	2	5	<ul> <li>A designated area shall be assigned for fire making for the construction workers to prevent run-away veld fires do not occur</li> </ul>
Local services	<ul> <li>Construction activities that utilise local services</li> <li>Inadequate service provision to adjacent properties and malfunctioning of services</li> </ul>	2	2	1	2	7	<ul> <li>The service systems are to be designed according to the minimum requirements of, and submitted to the Local authority for approval.</li> <li>No construction activities must commence on site prior to obtaining the necessary approval</li> </ul>
Employment and improved tax base for municipality	<ul> <li>Employment of construction workers</li> <li>Decrease in unemployment and crimes related to unemployment</li> <li>BEE development</li> </ul>	2	2	3	3	10	<ul> <li>Provide the local community an opportunity to tender for the construction phase of the project.</li> <li>As a prerequisite, the contractor to be appointment must give</li> </ul>

•	opportunities Local demand for goods and services Decrease in Unemployment and empowerment of local trade and industry						local community members priority and preference in employment opportunities during the construction phase of the project
<b>Biophysical im</b>							
Fauna	Site clearing for construction activities leading to loss of species diversity and habitat characteristics	2	3	2	3	10	<ul> <li>Appoint an Environmental Control Officer (ECO) prior to commencement of construction phase to ensure adherence to EMP guidelines, guidance of activities, planning, reporting to authorities, etc;</li> <li>Limit site clearing to those areas required for construction at a time</li> </ul>
Flora	Site clearing for construction activities leading to loss of species diversity and habitat characteristics	1	4	1	2	8	<ul> <li>All impacted areas during construction must be rehabilitated with locally indigenous plants.</li> <li>Design of the landscaped areas shall consider aspects such as habitat provision for a range of bird species, amphibians, reptiles and small mammals, as well as the (long term) restoration of trees that were removed in the construction of the proposed buildings and associated infrastructure.</li> </ul>

# **Operational Phase**

Air quality	<ul> <li>Emissions from vehicles and operations affecting ambient air quality</li> <li>Impact of the Waste Water Treatment Works</li> </ul>						<ul> <li>Trucks and vehicles to be properly maintained;</li> <li>Operations to meet air quality standards</li> <li>Roads will be paved and thus eliminate dust</li> <li>Locate structures outside of the odor buffer zone</li> </ul>
Geology and soils	<ul> <li>Possible soil erosion of the stormwater discharge points.</li> </ul>	1	1	1	2	5	<ul> <li>Proper design and construction of the stormwater discharge points.</li> <li>All surfaces susceptible to erosion shall be covered with a suitable vegetative cover</li> </ul>

							as soon as construction is
							completed.
Ground and Surface water	<ul> <li>General usage of water(household, industries business, etc).</li> <li>Water pollution.</li> <li>No operational activities should impact on the quantity of groundwater available to surrounding borehole users.</li> </ul>						<ul> <li>Waste water to be recycled and re-used as far as possible</li> <li>Good monitoring and management measurements to be set in place by facilities managers</li> <li>Adequate measures to be put in place to prevent surface and groundwater contamination of any kind – responsibility of civil engineers.</li> <li>All sewage infrastructure is to be maintained and checked at yearly intervals.</li> </ul>
Water supply -install new pipeline	<ul> <li>Pollution and environmental damage caused by the improper construction of sewerage and water pipelines in drainage lines.</li> </ul>	3	3	3	4	13	<ul> <li>Comply with regulations from local authority</li> <li>A complete fresh water and sewer reticulation for all areas needs to be done and should comply with this Townships EMP</li> </ul>
Sewerage -install new pipeline	<ul> <li>Pollution and environmental damage caused by the improper construction of sewerage and water pipelines in drainage lines.</li> </ul>	3	3	3	4	13	<ul> <li>Comply with regulations from local authority</li> <li>Sewer pipes should avoid crossing any river/basins or major drainage lines. Where this is not possible the design should comply with the International Standards prescribed</li> <li>Regular monitoring and maintenance of the sewer network should be in place.</li> </ul>
Fauna/ Flora	Human interference that leads to loss of species diversity and habitat characteristics	1	1	1	1	4	<ul> <li>All impacted areas during construction must be rehabilitated with locally indigenous plants.</li> <li>Design of the landscaped areas shall consider aspects such as habitat provision for a range of bird species, amphibians, reptiles and small mammals, as well as the (long term) restoration of trees that were removed in the construction of the proposed building and associated infrastructure.</li> </ul>
Socio-economic	•						
Demand for goods and services	<ul> <li>Increase in demand for local goods and services</li> <li>Decrease in</li> </ul>	2	2	2	3	9	<ul> <li>Increase in local population and therefore demand for local products, goods and services</li> </ul>

	unemployment and empowerment of local trade and industry						
Employment and improved tax base for municipality	<ul> <li>Employment of local workers.</li> <li>Decrease in unemployment and crimes</li> <li>Employment and opportunities for BEE and local companies</li> </ul>	2	3	2	3	10	<ul> <li>Provide the community an opportunity to apply for employment for the operational phase of the project.</li> <li>BEE companies to be trained and involved in during the operational phase of the development – e.g. Management of retail facilities, maintenance, landscaping, etc.</li> </ul>
Social infrastructure and Local services	<ul> <li>Availability of services in the area</li> <li>Availability and accessible school for pupils</li> </ul>	1	2	3	3	9	<ul> <li>The engineers to ensure that adequate measures are in place for adequate service delivery that does not impact negatively on surrounding areas</li> <li>All requirements of the municipality to be adhered to regarding service reticulation and delivery</li> <li>Provision of a school within easy access with no need to cross busy road</li> </ul>
Traffic increase	<ul> <li>Increase of residents and users of the area</li> <li>Additional vehicles on road servicing industrial and commercial uses</li> </ul>	2	2	2	2	8	<ul> <li>All requirements of the municipality to be adhered to</li> <li>All improvements to road infrastructure as recommended by traffic engineer to be adhered to</li> </ul>
Safety and security	Increase in traffic flow into the area. Impact on the health and safety of surrounding communities and industries	1	2	1	1	5	<ul> <li>Appropriate environmental design to address safety and security issues</li> <li>Good accessibility for emergency and police services</li> </ul>
Noise pollution	Noise from industrial development and road infrastructure on proposed and existing residential areas	1	2	1	2	6	<ul> <li>Noise Prevention / Minimisation</li> <li>SANS 10103 and the National Noise Control Regulations should be used as the main guidelines for addressing the potential noise</li> <li>Investigate all instances of excessive noise and assess possibilities for mitigation.</li> </ul>
Sites of cultural significance	Destruction of areas of cultural/historic significance	1	1	1	1	4	<ul> <li>Should any potentially culturally significant artefacts or graves, etc be found during the operational phase, the development</li> </ul>

management is to be informed and a Cultural Heritage practitioner is to be contacted to decide on a way forward.

### A concluding statement indicating the preferred alternatives

The sensibility of all possible alternatives, including the <u>no - go</u> option was considered and documented in this report. The conclusion is clearly that the proposed development is a viable and sensible option of utilising the concerned land.

The proposed development was also evaluated against the principles of the National Environmental Management Act, (NEMA, Act no. 107 of 1996), and in particular principles 4(a)(i), 4(a)(viii) and 4(r). In this regard it is clear that the proposed development:

- Will not lead to disturbance of any ecosystem or loss of biological diversity [principle 4(a)(i)];
- > Will not lead to pollution or degradation of the environment [principle 4(a)ii)];
- > Will ensure that waste are disposed off in a responsible manner[principle 4(a)(iv)];

The proposed development does not expose any aspect of the environment to any risk of any nature. It rather paves the way for termination of possible future malpractices that can occur.

## **Plan of Study for Environmental Impact Assessment**

Potential environmental impacts associated with the proposed development have been identified in the Environmental Scoping Study. All potential impacts will be further investigated and assessed within the Environmental Impact Assessment (EIA) phase of the project.

The EIA phase will aim to adequately investigate and address all potentially significant environmental issues in order to provide the Department with sufficient information to make an informed decision regarding the proposed project.

## Approach to undertaking the Environmental Impact Assessment Phase of the Project

#### **Public Participation**

Public Participation in terms of section 29(1)(i)(iv).

#### Authority consultation

• Pre-application Consultation

Ongoing consultation with all relevant authorities identified and to be identified during the Environmental phase of the project will continue throughout the duration of the project. Authority consultation is therefore seen as a *continuous* process that takes place through the duration of the environmental investigations.

#### Subsequent meetings with Authorities

Authority meetings will be held during the EIA phase of the project, if necessary so as to ensure the Authorities' continued understanding of the proposed project and to ensure that all requirements of the Authorities are met by the environmental team.

#### **Detail of the EAP**

This Report was compiled by H. L. J. van Rensburg of Vaalplan Town & Regional Planners. Leon van Rensburg is a Town and Regional planner with a Masters Degree in Town and Regional Planning. Vaalplan Town and Regional planners have more than twenty years of relevant experience and more specifically more than 10 years of experience in the carrying out of Scoping procedures. Please feel free to contact Vaalplan Town and Regional planners should you have any further queries.

## **Environmental Impact Assessment**

#### **Proposed activity**

Proposed Township Establishment on Portion 106,107,108 and 109 of the farm Elandsfontein 334 IQ.

The development will consist out of the following erven:

Zoning	Number of erven
Residential one	340
Business 2	2
Institutional	3
Open space	2

#### Aims of the Environmental Impact Assessment

The EIA will aim to achieve the following:

- to provide a detailed assessment of the social and biophysical environments that can affected by the proposed project;
- to provide details of the public participation process undertaken;
- to assess impacts on the study area in terms of environmental criteria;
- to identify and recommend appropriate mitigation measures for potentially significant environmental impacts; and
- to describe the need and desirability of the proposed activity and identified potential alternatives as well as their respective advantages and disadvantages.

#### Issues to be addressed in the Environmental Impact Assessment

These issues were identified during the Scoping process and will be discussed in the EIA report. Mitigation measures will also be discussed in the EIA report.

Surface water-, soil- and groundwater contamination

Air pollution Noise disturbance Disturbance of neighbouring community and residents Solid waste Surface water and Ground water Handling of Sewage Topography and Geology Fauna and Flora Access Road Socio-Economic Impact

## **Compilation Of The Environmental Impact Assessment Report**

The EIA report will be compiled to address the following:

- a detailed description of the proposed project and recommended development site;
- detailed assessment of impacts identified which are determined to be potentially significant; and
- recommendations regarding the mitigation of significant impacts; and
- to meet the requirement and to comply with the necessary legislation and Acts

The suitability and feasibility of all proposed mitigation measures will be included in the assessment of significant impacts. This will be achieved through the comparison of the significance of the impact before and after the proposed mitigation measure is implemented.

## A Description of All Alternatives Identified

The sensibility of all possible alternatives, including the <u>no - go</u> option will be considered and documented. The following will be discussed:

- Location alternatives
- Land use alternatives
- No- Development option

## **IMPACT ASSESSMENT**

#### Methodology

To ensure uniformity, the assessment of impact is addressed in a standard manner so that impacts can be compared with each other. For this reason a clearly defined significance rating scale was used to access the significance of the associated impacts. As with all studies it is not possible to be 100% certain of all facts, and for this reason a "standard degree of certainty" scale is used. A timescale **(Duration)** is included over which impact would operate: short term (0 - 2 years), medium term (2 - 5 years) and long term beyond 5 years.

The degree of certainty of the assessment will be judged on the following criteria:

- Definite: More than 90% sure of a particular fact
- Probable: Between 70 and 90% sure of a particular fact or of the likelihood of that impact occurring.
- Possible: Between 40 and 70% sure of a particular fact or of the likelihood of that impact occurring.

Unsure: Less than 40% sure of a particular fact or of the likelihood of that impact occurring.

# Assessments will be done and each impact will be identified for potentially significant impacts under the following headings:

- Cumulative impacts;
- Nature of the impact;
- Extent and duration of the impact;
- Probability of the impact occurring;
- $\circ$  Degree to which the impact can be reversed;
- The degree to which the impact may cause irreplaceable loss of resources;
- The degree to which the impact can be mitigated.

## <u>Summary of All Findings and Recommendations of Any</u> <u>Specialist Report</u>

## **Geological report**

#### **General recommendations**

It should be borne in mind that the classification, discussion and recommendations of the material usage are conservatively based on the laboratory testing for the disturbed samples taken from excavated test pits and in-situ field observations, and may vary under actual field conditions.

#### Foundation Design:

Foundation design, maintenance and distances of trees to foundations/services as outlined in SANS

10400 Part H (2012) should be adhered to.

The site has been divided into two (2) main geotechnical zones based on the results of the investigation. The geotechnical zonation map is attached as Figure 4. The main geotechnical zones are:

#### Zone 1 (GZ1):

Zone GZ1 represent the majority of the site, and includes all portions expect the north-western portion of the site. This zone includes the test pits except TP1-2 and TP5-6.

#### Zone 2 (GZ2)

Zone GZ2 represent the north-western portion of the site. This zone includes the test pits TP1-2 and TP5-6.

The variation between the Geotechnical Zones is only due to shallow seepage (<1.2m) encountered in a small portion of the north-western portion of the main development.

#### Foundation Recommendations for Zone 1 (GZ1):

It's recommended that no foundations be placed on the transported hillwash and underlying pebblemarker which was encountered up to 0.8m in this zone depending on site elevation, this may result in differential, vertical movement in structures, with resultant cracking.

The transported hillwash sampled generally classify as a G8 according to the COLTO specifications.

The general qualities can be further improved with modification of the soil. The shale residuum to soft rock shale sampled classify as a G9 according to the COLTO specifications. This is mainly due to poor compaction rates, clay content, grading and PI values. The general qualities can be further improved with modification of the soil.

Based on the excavation depths achieved, soft to intermediate excavation can be expected for GZ1 to foundation level or deeper foundations as well as for service excavations. TLB or Excavator.

Excavation operations will be adequate.

DCP testing of the "upper" shale residuum in TP15 and TP24 as encountered in GZ1 indicated an estimated bearing capacity averaging at 116kPa, with the minimum and maximum estimated bearing capacity at 59kPa and 256kPa respectively. Variations are mainly due to the minor amounts of gravels within the residuum. DCP testing of the "lower" shale residuum to very soft rock shale in TP8 and TP8 as encountered in GZ1 indicated an estimated bearing capacity generally above >250kPa. This is mainly due to the shale residuum slowly transitioning to very soft rock shale with depth, with dense and increasing consistencies.

#### Founding horizon:

Where possible, it's recommended that all foundations are placed on the lower competent shale residuum, which is slowly transitioning to very soft rock with depth. This horizon was encountered around 1.6-1.7m, with the deepest at 2.0m below surface as encountered in TP20. However this may be uneconomical due to the depth of the competent horizon paired with the housing type.

Conservatively, to accommodate expected soil movements one of the following foundation options

may be adopted depending on the construction method, any other foundation design, designed by a competent engineer may also be considered:

#### Compaction of in situ soil below footings.

Remove slight to moderately collapsible, compressible and -active material below foundations to a depth and width 1.5 times the foundation width, or to a competent horizon (encountered around 1.6-1.7m below surface). The material in the bottom of the excavations should be ripped, wetted and re-compacted prior to backfilling at 93% Mod AASTHO density and -1% to +2% of optimum moisture content. Suitable materials as per engineering specifications are to be compacted thereafter in 150mm layers at 95% Mod AASTHO density at -1% to +2% of the optimum moisture content. Structures can be founded on a reinforced strip footings on the compacted backfill and should be provided with vertical movement joints, lightly reinforcement in the masonry and fabric Reinforcement should be provided within floor slabs. Site drainage and plumbing/ service precautions to be taken.

#### **Deep strip foundations**

This option may be considered, however thought uneconomical due to the depth of the competent horizon paired with the housing type. Modified normal construction with drainage precautions and with mesh reinforced floor slabs, founding on the lower competent shale residuum, which is slowly transitioning to very soft rock with depth. This horizon was encountered around 1.6-1.7m.

#### Soil Raft

Remove low to moderately collapsible, compressible and -active material to 1.0m beyond perimeter of building to a depth of 1.5 times the widest foundation or to a competent horizon (encountered around 1.6-1.7m below surface). Suitable imported materials are to be compaction in 150mm layers compacted to 95% Mod AASTHO density at -1% to +2% of optimum moisture content. The material in the bottom of the excavations should be wetted and compacted prior to backfilling. Structures can be founded on a lightly reinforce strip footing on the backfill and should be provided with vertical movement joints and light reinforcement in the masonry. Site drainage and plumbing/ service precautions to be taken.

#### Foundation Recommendations for Zone 2 (GZ2):

It's recommended that no foundations be placed on the transported hillwash or underlying pebblemarker without a rationally designed foundation and improvement of the foundation base (sub-soil), this may result in differential, vertical movement in structures, with resultant cracking.

These horizons were encountered up to 1.6m in this zone depending on site elevation.

Based on the excavation depths achieved, soft to intermediate excavation can be expected for GZ2 to foundation level or deeper foundations as well as for service excavations. TLB or Excavator.

Excavation operations will be adequate.

DCP testing of the loose transported horizon in TP2 and TP6 as encountered in GZ2 indicated a poor estimated bearing capacity averaging at 37kPa, with the minimum and maximum estimated bearing capacity at 16kPa and 80kPa respectively.

Conservatively, to accommodate expected soil movements one of the following foundation options may be adopted depending on the construction method, any other foundation design, designed by a competent engineer may also be considered:

#### Soil Raft

Remove moderately collapsible, -compressible and low to medium active material to 1.0m beyond perimeter of building to a depth of 1.5 times the widest foundation or to a competent horizon (encountered around 1.6-1.7m). Suitable imported materials are to be compaction in 150mm layers compacted to 95% Mod AASTHO density at -1% to +2% of optimum moisture content. The material in the bottom of the excavations should be wetted and compacted prior to backfilling. Structures can be founded on a reinforced strip footing on the backfill and should be provided with vertical movement joints and light reinforcement in the masonry.

Site drainage and plumbing/ service precautions to be taken.

#### Compaction of in situ soil below footings.

Remove moderately collapsible, compressible and low to medium active material below foundations to a depth and width 1.5 times the foundation width, or to a competent horizon (encountered around 1.6-1.7m below surface). The material in the bottom of the excavations should be ripped, wetted and re-compacted prior to backfilling at 93% Mod AASTHO density and -1% to +2% of optimum moisture content. Suitable materials as per engineering specifications are to be compacted thereafter in 150mm layers at 95% Mod AASTHO density at -1% to +2% of the optimum moisture content.

Structures can be founded on an overdesigned (over-excavated) reinforced strip footing to decrease the bearing capacity on the underlaying soils or reinforced stiffened or cellular raft on the compacted backfill and should be provided with vertical movement joints, solid lightly reinforcement in the masonry and fabric reinforcement should be provided within floor slabs. Site drainage and plumbing/ service precautions to be taken.

#### Stiffened or cellular raft

Structures can be founded on a stiffened or cellular raft on the compacted backfill and should be provided with vertical movement joints, solid lightly reinforcement in the masonry and fabric reinforcement should be provided within floor slabs. Site drainage and plumbing/ service precautions to be taken.

Additionally, to the above; it's recommended that rationally designed surface and sub-surface drainage solutions should be considered below the foundations during construction and post construction of this zone. If required, a hydraulic engineer should inspect the completed foundation excavation to confirm that adequate drainage has been allowed for.

Refer to Appendix D – SAICE Guidelines.

#### Important Notes:

- The design of the proposed structures should take cognisance of the low to moderately collapsible, compressible and -active soils.
- The upper <1.7m in-situ soils encountered are considered unsuitable in its natural state to act as a founding medium. Founding unadopted structures partly on a compacted horizon and partly on a non-compacted or soft/loose horizon may result in differential, vertical movement in structures, with resultant cracking.
- It's recommended that trees be planted at least 1.5 times their expected fullgrown length away from the structure. This is to prevent root upliftment and/or some form of settlement of the soil surrounding the roots.
- The design and construction of the foundations should be done in accordance and under supervision of a registered civil or structural engineer.
- The Engineered fill must be controlled with suitable field tests to ensure that the required densities are achieved during compaction, and that the quality of the fill material is within specification.

- It is recommended that the Structural Engineer verifies the Serviceability Limit State of the development according to the structural and geo-mechanical parameters and permissible/allowable settlements.
- All wet services should be flexible in design and should specifically be designed to accommodate movement where entering or leaving structures.

#### **Precautionary Measures:**

The test pits were backfilled without proper compaction. Should the foundations of the structures be positioned on or over these excavations, the backfilled material must be properly compacted to prevent differential settlement.

Site drainage precautions such as stormwater should be effectively captured and led well away from all structures. No ponding of surface water should be able to occur adjacent to foundations both during and after construction this is to prevent wet and drying cycles of the active clays causing shrinkage and swelling.

The ferricrete noted within the profiles confirm the presence of a possible seasonally perched water table. A rebound of the water table during the rainy season may create problems during the earthworks/construction period, causing uplift pressures on the foundation bases. Solutions such as surface and sub-surface drains below the foundations with damp proofing may be considered during construction and post construction. Flexible jointing in sub-surface pipes and drains to prevent leakages should be considered and that all drainage should have adequate capacity to deal with the expected rainfall.

An experienced professional should inspect all foundation excavations at the time of construction to ensure that the materials are adequate for the proposed structures and that they are in accordance with.

It should be noted that this investigation did not include the assessment of any potential environmental hazards, or groundwater impacts that may be present, or ensue from the construction of the proposed structures.

## **Traffic Statement**

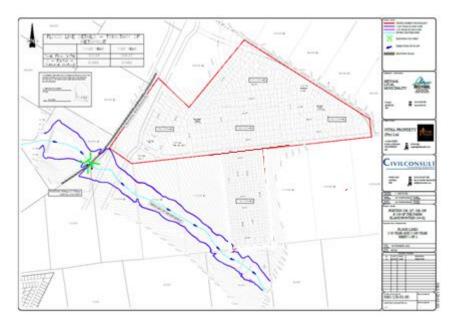
#### **Conclusions and recommendations**

From the traffic analysis it is concluded:

 The township establishment application for a proposed new mixed-use development on Portions 106-109 of the Farm Elandsfontein 334-IQ, Midvaal Local Municipality, Gauteng Province is supported from a traffic engineering perspective provided that the recommendations contained within this report are implemented.

## **Flood line report**

The position of the flood line is indicated as on the below map. It does affect the concerned properties.



## Heritage Report

A heritage study is being conducted and will be submitted with the EIA.

## A DESCRIPTION OF ANY ASSUMPTIONS, UNCERTAINTIES AND GAPS IN KNOWLEDGE

There are no assumptions, uncertainties and gaps in knowledge as far as the Consultant is aware of.

## CONCLUSION: SHOULD OR SHOULD THE ACTIVITY NOT BE AUTHORISED

A complete conclusion will be discussed in the EIA.

## ENVIRONMENTAL IMPACT STATEMENT

The environmental impact statement will be included in the EIA and it will contain a summary of key findings of the EIA, a comparative assessment of the positive and negative implications of the proposed activity and identified alternatives.

## **ENVIRONMENTAL MANAGEMENT PLAN**

A Environmental Management Plan (EMP) will be compiled for this project and submitted along with the draft EIA Report to the relevant authorities.

The EMP will be finalised upon receipt of authorization, so as to ensure that any specific conditions of approval are addressed in the EMP.

## **KEY MILESTONES OF THE PROGRAMME FOR THE EIA PHASE OF THE PROJECT**

KEY MILESTONES FOR THE ACTIVITY			
Finalisation of Environmental Scoping Report			
Acceptance of the Environmental Scoping Report and Plan of Study to undertake			
the Environmental Impact Assessment			
Undertake detailed specialist studies			
Compile draft EIA Report and draft EMP			
Submit final EIA Report and EMP to authorities			
Authority review period			
Issuing of Authorisation (positive or negative)			
Notify I&AP of authorization			

## **OTHER INFORMATION**

- Will be included in EIA

# **Specialist Reports**

The following reports have been uploaded: Traffic Impact Assessment Geotechnical report Outline Scheme report Flood line report Heritage Impact Assessment Palaeontological Impact Assessment

## An Undertaking Under Oath Or Affirmation By The Eap

ADDENDUM 3

9. DECLARATION OF THE EAP 1 Handurk deen Jamse y Kenslewy, declare that -

Establishment on · I act as the independent environmental practitioner in this application for ; Township 336 JQ · I will perform the work relating to the application in an objective manner, even if this results in views and findings that are not favourable to the applicant

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

· I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;

· I will comply with the Act, Regulations and all other applicable legislation, policies and guidelines;

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

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

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

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

· all the particulars furnished by me in this form are true and correct;

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

(P) renstrung	
Signature of the Environmental Assessment Practitioner:	
Japphan CC	
Marne of company:	
A 18-20 18 -1	10-2022
Date:	
Alone	
Signature of the Commissioner of Oaths:	
	-2022
Date:	
	GEORGE ALFRED ROPER Kommissaris van Ede/Commissioner of Oaths
Designation:	Praktiserende/Practising Attorney
Designation.	RSA
	129 Beethoven Street Vanderbijtpark, SW5 1911
Commissioner of Oaths Official stamp (below)	DE KLERK VERMAAK & VENNOTE

In the event where the EAP or specialist is not independent (Regulation 13(2) and (3) of the EIA Regulations, 2014), the proponent or applicant must, prior to conducting public participation, appoint another EAP or specialist which meets all the general requirements including being independent, to externally review all work undertaken by the EAP or specialist, at the applicant's cost appointed to manage the application.

## <u>Comments from municipalities in regards to cross border</u> <u>agreement</u>

See uploaded document