

MEMORANDUM

17 November 2017

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PROPOSED TOWNSHIP:

- Blydeville Extension 4 on a portion of the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., Province North West

- Spatial Planning
- Development Management
- Economic Development
- Admin & Finance

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MEMORANDUM

PROPOSED TOWNSHIP ESTABLISHMENT: BLYDEVILLE EXTENSION 4

ON
A PORTION OF THE REMAINING EXTENT OF PORTION 1
OF THE FARM RIETDRAAI 51, REGISTRATION DIVISION
I.P., NORTH WEST PROVINCE

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

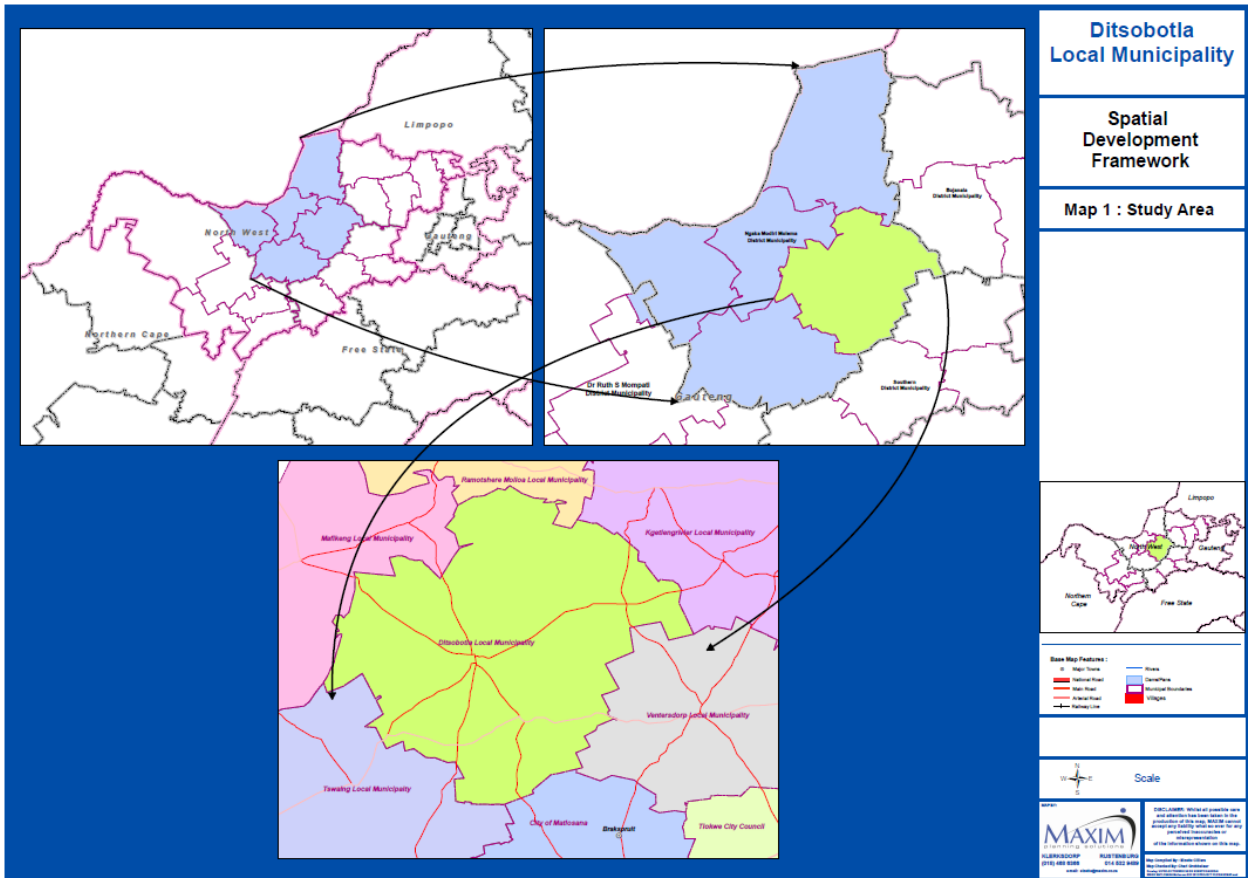
Koot Raubenheimer (ID No. 700305 5192 089) of the company Maxim Planning Solutions (Pty) Ltd (2002/017393/07) was appointed by the Ditsobotla Local Municipality on 19 October 2017 to attend to the establishment of the proposed township area of Blydeville Extension 4 comprising a total of 1469 erven to address the urgent short term need for low income residential erven experienced in the Blydeville urban complex to alleviate the plight of landless people currently residing on vacant municipal owned land. The project in respect of the establishment of the proposed township Blydeville Extension 4 will be funded by the Department of Local Government and Human Settlement.

This appointment stems from a request submitted by the Ditsobotla Local Municipality to the Department of Local Government and Human Settlement for financial assistance in respect of the establishment of the proposed township Blydeville Extension 4 for the purposes as detailed in the preceding paragraph.

1.2 BACKGROUND OF DITSOBOTLA LOCAL MUNICIPALITY

1.2.1 REGIONAL LOCALITY

Ditsobotla Local Municipality is located in the Ngaka Modiri Molema District Municipality in the North West Province and comprises a total area of approximately 6500 km². Ditsobotla Local Municipality consists of the urban areas, namely Lichtenburg town, Itsoseng Cluster, Bodibe Cluster, Coligny town and Tlhabologang Township. It is also surrounded by a vast number of rural areas as well as commercial farming areas. The Municipality is home to approximately 266 700 people (refer **Map 1** for locality plan).



Map 1: Locality of Ditsobotla Local Municipality in regional context

Ditsobotla has the status of a Local Municipality (NW384) in terms of the Municipal Demarcation Act of 1998, and is located in the Ngaka Modiri Molema District Municipality (DC38) of the North West Province.

The Municipality forms the eastern portion of the Ngaka Modiri Molema District Municipality and consists of the disestablished municipalities of Lichtenburg and Coligny.

Ditsobotla Municipal area was identified as a Priority One Investment area within the Provincial Spatial Development Framework, 2009. Lichtenburg is identified as a Priority One Investment node and Coligny is identified as Priority Three Investment node. Lichtenburg and Coligny was identified as functional urban areas and the rural villages was determined like Bakerville, Biesiesvlei, Bodibe, Calisonia, Ga-Motlatla, Ga-Ramoningwana, Grasfontein, Itekeng, Matila, Sheila, Springbokpan, Verdwaal and Welverdiend. A new development corridor was also proposed in the PSDF linking Potchefstroom – Coligny – Lichtenburg towards Mafikeng.

The main economic activity today is the production of maize (corn). Lichtenburg lies in the heart of the maize triangle, which is the main maize growing area in South Africa. Another major economic activity is the production of cement. Within a radius of 80 km of Lichtenburg there are three major cement producers. This creates an opportunity for long distance transport and related activities.

According to the North West Province Spatial Development Framework (2017), the economy of the municipality is growing at 4,4%, making it the fastest growing economy in the province. A Growth Management Strategy will ensure that infrastructure and services are maintained and upgraded to provide a positive environment for further develop on Lichtenburg will create agglomeration advantages, attracting more private sector investment and development.

1.2.2 DEMOGRAPHICS

The demographic profile illustrates the trends in population and household growth as well as average income and the level of employment on a sub-place level within the local municipal area.

1.2.2.1 Population & Household

Table 1 below depicts the population size and population growth projections within the Ditsobotla Local Municipality, as extracted from the Ditsobotla Spatial Development Framework (2013).

Table 1: Population size and forecast for Ditsobotla Local Municipality

DITSOBOTLA LOCAL MUNICIPALITY POPULATION PROJECTION PER WARD						
	2014	2015	2016	2017	2018	2019
Ward 1	6694	6781	6869	6958	7049	7141
ward 2	6025	6103	6183	6263	6344	6427
Ward 3	8140	8246	8353	8462	8572	8683
Ward 4	9390	9512	9636	9761	9888	10016
Ward 5	8393	8502	8613	8725	8838	8953
Ward 6	6010	6088	6167	6247	6329	6411
Ward 7	5002	5067	5133	5200	5267	5336
Ward 8	7124	7217	7310	7405	7502	7599
Ward 9	4765	4827	4890	4953	5018	5083
Ward 10	8999	9116	9234	9355	9476	9599
Ward 11	6433	6517	6601	6687	6774	6862
Ward 12	6140	6220	6301	6383	6466	6550
Ward 13	11532	11682	11834	11988	12143	12301
Ward 14	11651	11802	11956	12111	12269	12428
Ward 15	11255	11401	11550	11700	11852	12006
Ward 16	10973	11116	11260	11407	11555	11705
Ward 17	6879	6968	7059	7151	7244	7338
Ward 18	5527	5599	5672	5745	5820	5896
Ward 19	7336	7431	7528	7626	7725	7825
Ward 20	8914	9030	9147	9266	9387	9509
Ward 21	11719	11871	12026	12182	12340	12501

Source: StatsSA, Census 2011

Based on data contained in **Table 1** above, extracted from the Ditsobotla Local Municipality housing Sector Plan (2014), the population was estimated to increase from 168 901 in 2014 to 180 169 in 2019 entailing a population increase of 11 268 over the 5 year period .

According to the Ditsobotla Local Municipality Housing Sector Plan (2014), the number of households in the Ditsobotla area was estimated at 44 501 and projected to increase to 47 471 in 2019, as reflected in **Table 2**.

Table 2: Total household size and projection

DITSOBOTLA LOCAL MUNICIPALITY HOUSEHOLD PROJECTION PER WARD						
	2014	2015	2016	2017	2018	2019
Ward 1	1892	1917	1942	1967	1992	2018
Ward 2	1704	1726	1749	1771	1794	1818
Ward 3	2143	2171	2199	2228	2257	2286
Ward 4	2354	2385	2416	2447	2479	2511
Ward 5	2618	2652	2687	2721	2757	2793
Ward 6	1866	1890	1915	1940	1965	1990
Ward 7	1567	1587	1608	1629	1650	1672
Ward 8	2139	2167	2195	2224	2252	2282
Ward 9	1394	1412	1430	1449	1468	1487
Ward 10	2220	2249	2278	2308	2338	2368
Ward 11	1437	1456	1475	1494	1513	1533
Ward 12	1614	1635	1656	1678	1700	1722
Ward 13	3012	3051	3091	3131	3172	3213
Ward 14	3342	3385	3429	3474	3519	3565
Ward 15	2753	2789	2825	2862	2899	2937
Ward 16	2669	2704	2739	2774	2811	2847
Ward 17	1635	1656	1678	1700	1722	1744
Ward 18	1308	1325	1342	1360	1377	1395
Ward 19	1868	1892	1917	1942	1967	1993
Ward 20	2029	2055	2082	2109	2137	2164
Ward 21	2937	2975	3014	3053	3093	3133

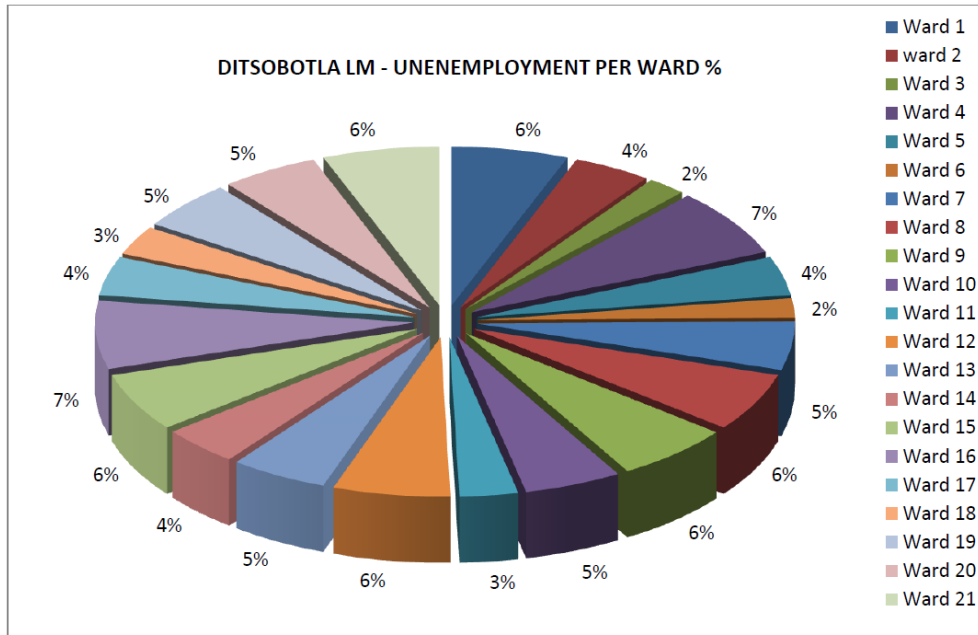
Source: StatsSA, Census 2011

From **Table 2** above it is evident that Ditsobotla Local Municipality has a steady growth with a growth rate of 1.3%.

1.2.2.2 Level of Employment

The level of employment is an indication of employment and unemployment on a sub-place level within the municipal area. The unemployment rate per Ward within the Ditsobotla Local Municipality is reflected in **Figure 1**.

Figure 1: Unemployment per Ward in Ditsobotla Local Municipality

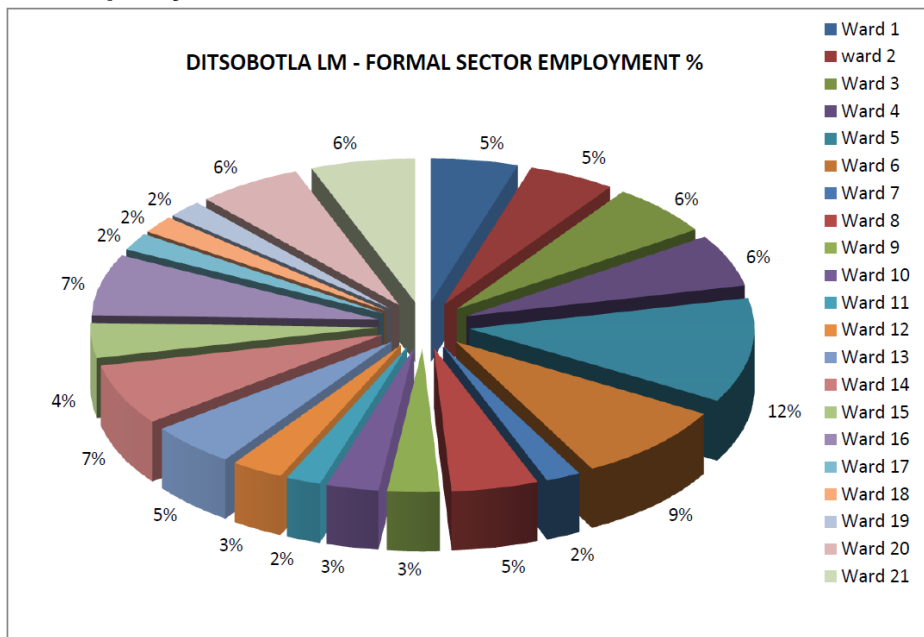


Source: StatsSA, Census 2011

The majority of the market population 87.18% is economically active while only 12.82% are unemployed. The number of people not economically active increases the dependency ratios on those that so work and receive an income. This puts more pressure on breadwinners to support those who earn no income. The study area has a high level of unemployment (national average is 25.2%).

The formal sector employment per Ward is reflected in **Figure 2** below:

Figure 2: Formal employment per Ward in the Ditsobotla Local Municipality



Source: StatsSA, Census 2011

From Figure 2 it was determined that the majority of the market population 54.05% is economically active in the formal sector.

1.2.2.3 Household Income

Table 3 below reflects that the vast majority of the population of Ditsobotla falls within the lowest monthly income category and may qualify for subsidized housing. Average household income is a direct indicator of consumer demand for a broad spectrum of economic goods and services – such as housing and the quantity of additional floor space that could be sustained by a given consumer market. Average household income, to an extent, also reflects the living standard of a household, and influences aspects such as asset ownership.

Table 3: Income categories per ward in Ditsobotla Local Municipality

DITSOBOTLA LOCAL MUNICIPALITY INCOME PER WARD			
	R 0- R 3500	R 3500 - R 7500	R 7500+
Ward 1	88	6	6
Ward 2	82	7	11
Ward 3	87	5	8
Ward 4	90	5	5
Ward 5	59	6	35
Ward 6	52	8	40
Ward 7	89	3	8
Ward 8	80	4	16
Ward 9	84	3	13
Ward 10	93	2	5
Ward 11	93	3	4
Ward 12	87	5	8
Ward 13	89	5	6
Ward 14	87	5	8
Ward 15	95	2	3
Ward 16	81	4	15
Ward 17	93	3	4
Ward 18	90	4	6
Ward 19	93	2	5
Ward 20	87	6	7
Ward 21	91	3	6

Source: StatsSA, Census 2011

The household income for the Ditsobotla Local Municipality indicates the following:

- 85.2% of households in the market area earn annual incomes below R42 000 (less than R3 500 per month) – of which 38% of households earn no income at all
- 4.3% of households earn annual incomes between R39 562 and R90 000 (between
- R3 500 and R7500 per month)
- 10.4% of households earn annual incomes above R 90 000 (R 7500 per month)

1.3 INTEGRATED HUMAN SETTLEMENT PLANNING

As integral part of the township establishment process, the following studies were conducted as part of the pre-planning activities:

- Contour survey;
- Engineering Geological investigation of the development area conducted by C.H. Badenhorst;
- Ecological Report compiled by Eco Assessment Ecological & Environmental Consultants;
- Archaeological Impact Assessment compiled by Vhufa Hashu Heritage Consultants;
- Palaeontological Impact Assessment: Desktop Study compiled by Dr. H. Fourie;
- Traffic Impact Assessment compiled by GMH/Tswelelo Consulting Engineers;
- Detail civil and electrical engineering services investigation conducted by King & Associates Engineering and Project Managers; and
- Environmental Impact Assessment.

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

In terms of the Spatial Development Framework, the main development strategy for residential development should be based on the objectives of the Breaking New Ground Principles (BNG) for sustainable human settlements which can be summarised as follows:

- To ensure that sustainable housing development takes place.
- To integrate housing with other municipal services in order to establish sustainable human settlements, in support of spatial restructuring.
- To coordinate municipal departments in order to work together in planning and implementing.
- To promote middle and high income housing which will in turn generate resources to improve low income areas.
- To promote environmental and energy efficient housing.

1.4 APPLICATION

Koot Raubenheimer (Id No. 700305 5192 089) of the company Maxim Planning Solutions (Pty) Ltd (2002/017393/07) is hereby applying on behalf of the Ditsobotla Local Municipality for the establishment of the proposed township Blydeville Extension 4 on a portion of the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province in terms of the provisions of Section 59(1) of the Ditsobotla By-Law on Spatial Planning and Land Use Management and Section 107(1) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) read together with Sections 41(1) and 42(1)(a) and paragraph (g) of Schedule 1 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013).

1.5 PUBLIC PARTICIPATION

The application in respect of the establishment of the proposed township Blydeville Extension 4 will be advertised in accordance with Section 98(1)(a) of the Ditsobotla By-Law on Spatial Planning and Land Use Management and Section 108(1)(a), Regulation 26(1) and Annexure 16 of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) in the Noordwester on 17 and 25 November 2017 as well as in the North West Provincial Gazette on 14 and 21 November 2017. Objectors will be afforded a period of 30 days from 17 November 2017 to submit objections or comments in respect of the proposed township area to the Municipal Manager and the authorised agent.

The application will also, in accordance with the prescriptions of Section 97(3)(b) of the Ditsobotla By-Law on Spatial Planning and Land Use Management read with Section 108(1)(b) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) be referred to the following external organizations / departments for comments or objections:

- ✘ Department of Public Works and Roads
- ✘ Openserve (Telkom SA Limited)
- ✘ Eskom
- ✘ Ngaka Modiri Molema District Municipality
- ✘ Department of Minerals Resources (DMR)
- ✘ Department of Agriculture, Forestry & Fisheries (DAFF)
- ✘ Department of Water and Sanitation
- ✘ Department of Local Government and Human Settlements
- ✘ Department of Education
- ✘ Department of Health
- ✘ South African Post Office
- ✘ Transnet Freight Rail
- ✘ South African Heritage Resources Agency (SAHRA)
- ✘ South African National Roads Agency Limited (SANRAL)
- ✘ Department Rural, Environment and Agricultural Development (READ)

The fore-mentioned organizations / departments will be afforded a period of 60 days to comment in this matter in accordance with the prescriptions of Section 108 (1) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) read with paragraph (l) of Schedule 1 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013).

In addition to the fore-mentioned notices, notices will also be served on all adjacent property owners in accordance with the prescriptions of Section 99(1)(c) of the Ditsobotla By-law on Spatial Planning and Land Use Management.

To ensure the greatest extent of public participation, notices will also be posted on the subject property in accordance with the prescriptions of Section 101(1)(a) of the Ditsobotla By-law on Spatial Planning and Land Use Management read with Regulation 17 of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986).

1.6 STUDY AREA DELINEATION

The proposed development area comprises a portion of the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province as described in detail in section 2.1.

1.7 REPORT OUTLINE

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

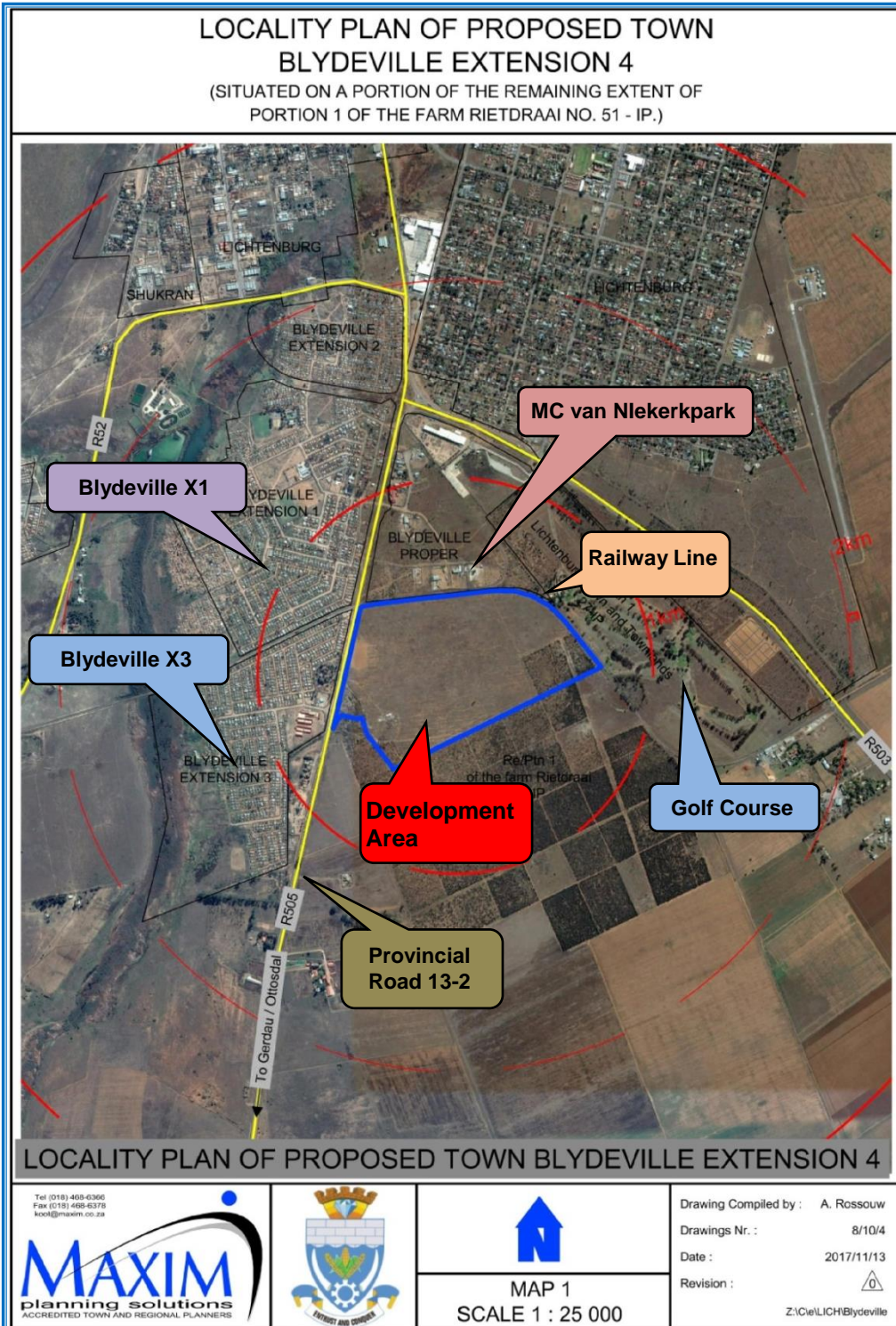
- Chapter 2: Particulars of the development area
- Chapter 3: Physical aspects
- Chapter 4: Proposed development
- Chapter 5: Provision of Engineering Services
- Chapter 6: Motivation

CHAPTER 2: PARTICULARS OF THE DEVELOPMENT AREAS

2.1 LOCALITY

The proposed township is located to the south of the existing industrial area MC van Niekerkpark and east of the existing township Blydeville Extension 3 and is bordered to the west by Provincial Road P13-2 (R505) (Lichtenburg – Gerdau/Ottosdal road).

Map 2: Locality of proposed development area



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MAP 1
SCALE 1 : 25 000

Drawing Compiled by : A. Rossouw
Drawings Nr. : 8/10/4
Date : 2017/11/13
Revision :

Z:\Ciel\LICHBlydeville

The northern boundary of the proposed township area was aligned with the southern and south-western boundary of a servitude of right of way reflected on Servitude Diagram SG No. A3440/1950 and registered by virtue of Notarial Deed K130/1953S and amended by Notarial Agreement K2606/1976S. This servitude of right of way was registered to accommodate the railway line between the Afrisam Cement Dudfield Factory and the Anglo Alpha / Lottie railway siding (refer **Plates 1 and 2**).



Plate 1: View of railway line (direction east)



Plate 2: View of railway line (direction west)

The proposed township Blydeville Extension 4 is located on a portion of the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province.

The proposed township area detailed above is located within the area of jurisdiction of the Ditsobotla Local Municipality which in turn falls within the area of jurisdiction of the Ngaka Modiri Molema District Municipality.

A locality plan of the proposed township area is attached to the application for township establishment as **Annexure E**.

2.2 SG DIAGRAM

The Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province is reflected on SG Diagram No. A1642/1921 (attached as **Annexure F** to the application for township establishment).

2.3 OWNER

The Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province is currently registered in the name of the Ditsobotla Local Municipality by virtue of Grant No. 357/1966 (refer **Annexure G** to the application for township establishment).

2.4 AREA

The Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province comprises a total area of 636,0435 hectares. The proposed township area of Blydeville Extension 4 will comprise a total area of $\pm 75,3177$ hectares.

2.5 EXISTING LAND USE AND ZONING

The proposed development area is currently still vacant with the exception of some informal dumping that occurred along the western boundary of the development area (refer **Plates 3 and 4**).



Plate 3: View of Development area



Plate 4: View of informal dumping

The surrounding area is predominantly utilized for the following purposes:

The area directly north of the of the proposed township area comprises the township area of MC van Niekerkpark with a limited number of erven utilized for industrial purposes. The area to the east of the development area is currently utilized for recreational purposes comprising the Lichtenburg Golf Course. The proposed development area is bordered to the west by the existing residential area of Blydeville Extension 3 comprising predominantly of dwelling units.

In terms of the Ditsobotla Town Planning Scheme, 2007 the subject property is currently zoned as follows:

- Portion of the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., Province North West: "Agricultural"

(as depicted on the following zoning map extracted from the Ditsobotla Town Planning Scheme, 2007).

The relevant Scheme Map of the Ditsobotla Town Planning Scheme, 2007 is also attached to the application for township establishment as **Annexure I**.

2.6 MINERAL RIGHTS

According to Grant No. 357/1966, the rights to minerals in respect of the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province have not been separated from the property rights (refer **Annexure G** to the application for township establishment).

The reservation of rights to minerals is however subject to the provisions of the Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002) that came into force on 01 May 2004. The application for township establishment will subsequently also be referred to the Department of Mineral Resources for its consent in respect of the proposed township.

2.7 RESTRICTIVE TITLE CONDITIONS

According to Grant No. 357/1966, the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province is subject to the following title conditions, which will be dealt with as indicated:

“n Serwituut ten gunste van die Elektrisiteitskommissie om elektrisiteit oor die hiermee toegekende eiendom te gelei tesame met bykomende regte en ondehewig aan die voorwaardes soos uiteengesit in Akte van Serwituut No. 234/1964S.”

This condition does not affect the proposed township area due to the location thereof in relation to the proposed township area.

“n Serwituut van reg van weg, groot 3,9056 morg oor die hiermee toegekende eiendom tesame met bykomende regte, ten gunste van Anglo-Alpha Cement Limited soos volledig uiteengesit in Notariële Akte No. 130/1953S.”

This servitude of right of way is reflected on Servitude Diagram SG No. A3440/1950 and is located adjacent to the northern boundary of the proposed township area and does not affect the proposed township area due to the location thereof. This servitude comprises a railway line from the Afrisam Cement Dudfield Factory to the Anglo Alpha / Lottie railway siding. The northern boundary of the proposed township area was aligned with the southern and south-western boundary of this servitude.

“By virtue of Notarial Agreement dated 23/2/76 and registered this day under K2606/76S, the conditions of Notarial Deed No. K130/53S have been amended from the first mentioned Notarial Deed”.

This notarial agreement amended Notarial Deed K130/1953S and granted the servitude holder the right to also utilize the servitude of right of way for the purpose of the transport of goods by means of a railway line. As Notarial Deed of Servitude K130/1953S does not affect the proposed township area as the servitude is located adjacent to the northern and north-eastern boundary of the proposed township area and the agreement entered into in respect of the amendment of this servitude similarly does not affect the proposed township area due to the location thereof.

2.8 SERVITUDES

As alluded to in Section 2.7 supra, the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province is subject to a servitude in favour of Eskom as well as a servitude of right of way in favour of Holcim South Africa (Pty) Ltd (the successor in title of Anglo-Alpha Cement Limited). None of the servitudes affects the proposed township area due to the location thereof in relation to the proposed township area

With regard to the servitude in favour of Eskom where ancillary rights apply, the consent of Eskom will be obtained in respect of the transfer of the erven in the proposed township area free from these servitudes.

2.9 LAND CLAIMS

In order to ascertain whether a land claim has been registered in respect of the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., North West Province, a request was submitted to the Commission on Restitution of Land Rights on 04 October 2017. In a response received from the Office of the Regional Land Claims Commissioner: North West dated 30 October 2017 (refer **Annexure H**), it was indicated as follows in respect of the Remaining Extent of Portion 1 of the farm Rietdraai 51, Registration Division I.P., Province North West:

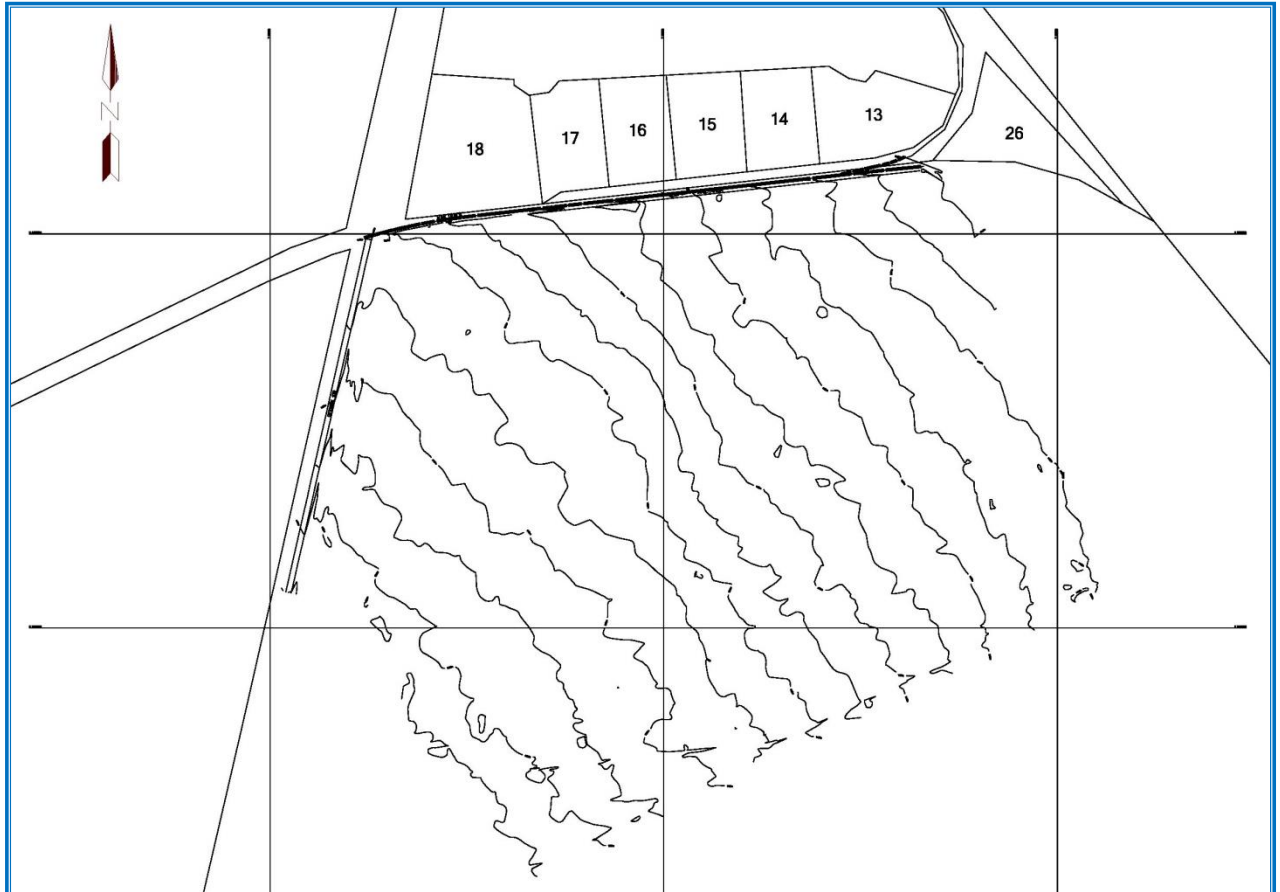
“We confirm that as at the date of this letter no land claim appears on our database in respect of the property. This includes the database of claims lodged by 31 December 1998; and those lodged between 1 July 2014 and 27 July 2016 in terms of the Restitution of Land Rights Amendment Act, 2014”.

CHAPTER 3: PHYSICAL ASPECTS

3.1 TOPOGRAPHY

As part of the pre-planning studies that were conducted in respect of the development area, a contour survey of the study area was conducted (refer **Map 4**).

Map 4: Results of contour survey of development area



The proposed development area is located on a shallow slope towards the south-west.

3.2 CLIMATE

Ditsobotla Local Municipality's temperatures varies between minimums of $\pm 7,8^{\circ}\text{C}$ in the winter and maximums of $\pm 40,6^{\circ}\text{C}$ over December/January months. Ditsobotla receives mostly its rain in January month, and has an average monthly rainfall of approximately 118mm. As in most North West municipal areas, the winter months are the driest periods with less than 5 mm per month on average (Source: Central District SDF, 2005).

North West has an N-value of greater than 5 and is considered a dry area.

3.3 FRESHWATER SYSTEM / DRAINAGE

The proposed development area is located within the drainage area of the Hartsvier and Groot Hartsvier draining in a south westerly direction. This river has its origin in the areas east and south of Lichtenburg.

Plate flow is the dominant drainage pattern on site and no drainage channel intersects the site. Drainage occurs in a south-westerly direction.

The proposed township area is not subject to the 1:100 year floodline of any river or stream.

3.4 WETLANDS AND PANS

As detailed in section 3.3 supra, the development area is not affected by the 1:100 year floodline of any river or stream and no wetlands or pans are present on site.

3.5 VEGETATION

Eco Assessments Ecological & Environmental Consultants was commissioned to assess the ecological impact of the proposed development on the ecological habitats present.

The vegetation units identified on the development area include the following:

- **Altered grassland**
This vegetation covers the largest portion of the sparsely vegetated veld. Historical records since 2003 (Google Earth) indicate that the site has been cultivated over a lengthy period of time. This has changed the soil structure and subsequently the species composition. It has affected the species richness of the site extensively and negatively. Adding the effect of the recent years of drought, the site was found to support a low species richness. The conservation status of this grassland is considered to be Low.
- **Disturbed area and Exotic woodland.**
A couple of areas have been used for rubble dumping and one area has been cleared for a soccer field. On the edge of the site, a Eucalyptus forest is growing. Some of these tree groves have encroached on the site. The vegetation of these areas has limited species richness and was not identifiable at the time of the assessment. The vegetation is considered to have a Low conservation value.

The vegetation on the proposed site has significantly been disturbed and altered over an extended period of time. It is unlikely that any sensitive flora species will occur on the site.

The Ecological Report concluded as follows:

- The proposed township is located on land that consists of altered grassland. The alteration of the vegetation has negatively affected the floral and faunal populations of the site. A low species richness of fauna and flora was subsequently present on site.
- The impacts on habitat connectivity will be low, as the urban settlements occur in close proximity to the site and have already, historically affected connectivity in the area.
- Based on the ecological assessment of the site, there are no ecological constraints that would give rise to significant impact on the natural environment should the mitigation measures and recommendations provided in the report be implemented.

(Refer **Annexure M** for comprehensive Ecological Report)

3.6 GROUNDWATER

No groundwater occurred in any of the test pits. This may be due to the extreme dry conditions that occurred during the geotechnical investigation.

3.7 GEOLOGY (Extract from Geotechnical Report compiled by C.H. Badenhorst attached as **Annexure L** to the application for township establishment)

The geological map from the Council for Geosciences indicates that the site is underlain by diamictite with varved shale, mudstone with dropstones and fluvio-glacial gravel common in the north as part of the DWYKA Group with Calcrete to the east of this site. The soil horizons consisted of silty, sandy and gravelly materials.

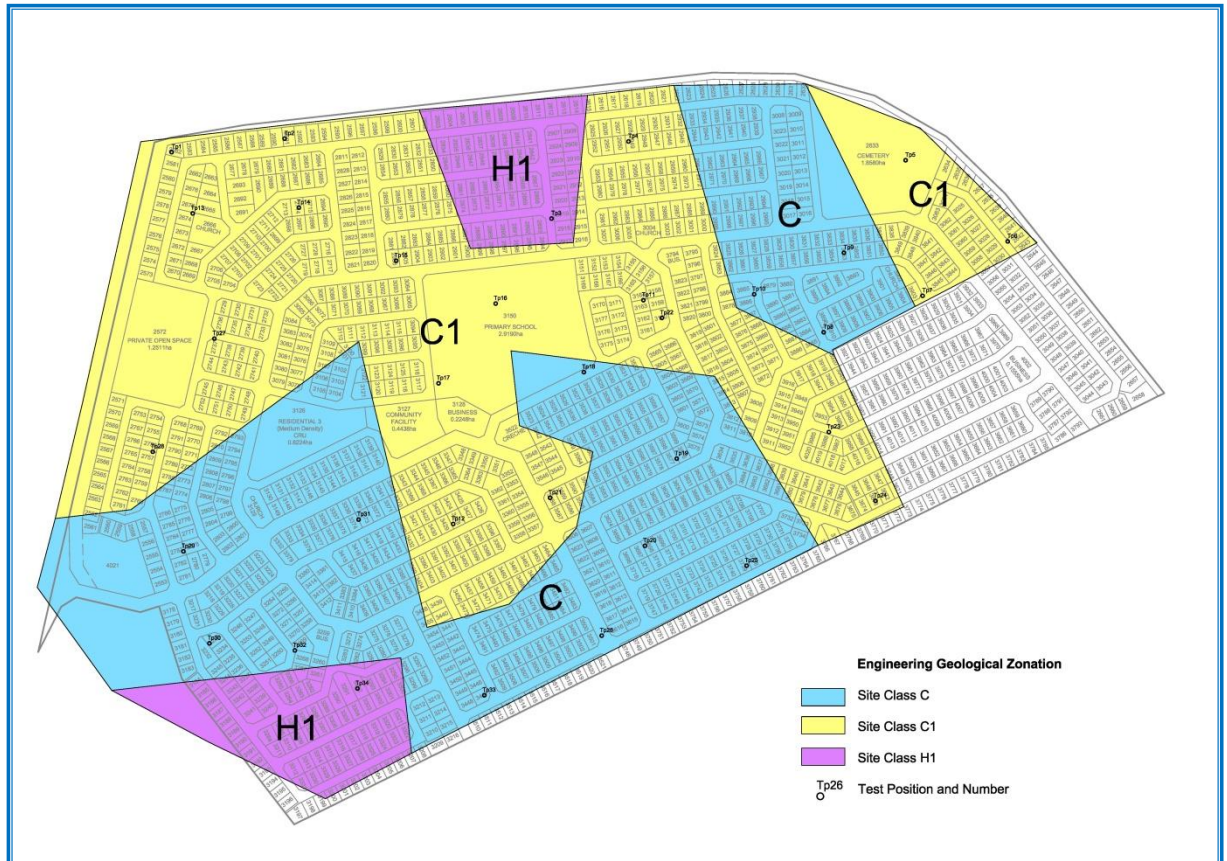
No dolomite occurs in the area and no stability investigation is required.

3.7.1 SITE ZONATION AND FOUNDING RECOMMENDATIONS

According to the geotechnical report the site can be classified in the following site classes:

- **Site Class C**
Strip foot foundations are recommended with rebar as prescribed by the Structural Engineer
- **Site Class C1**
Strip foot foundations are recommended with rebar as prescribed by the Structural Engineer
- **Site Class H1**
Soil raft or raft foundations are recommended due to the expansive clayey materials that are present in the area of test pits 3, 34 and wherever clayey materials are encountered on site. The designs will be decided upon by the appointed Structural Engineer.

The geotechnical soil zones are reflected on **Map 5**.



Map 5: Geotechnical Site Zonation

It should be noted that the south-eastern corner of the development area was not classified in terms of the soil zonation thereof. This matter will be addressed during the township establishment process to extend the classification and same will be a requirement taken up in the Conditions of Establishment.

3.7.2 EXCAVATION CLASSIFICATION

According to the test pits that were excavated during the geotechnical investigation, no excavatability constraints are expected up to a depth of 1,5metres, with no refusal shallower than 1,5 metres recorded. 30 test pits refused between 1,5 and 2,5 metres.

In terms of the SABS 1200 the excavations can be classified as soft to intermediate to depth of 1,5 metres

3.7.3 CONCLUSION

- **Founding of Structures**
 - Site Classes C and C1: Strip foot foundations are recommended with rebar as prescribed by a Structural Engineer

- Site Class H1: Soil raft or raft foundations are recommended due to the expansive clayey materials that are present in the area of test pits 3, 34 and wherever clayey materials are encountered on site. The designs will be decided upon by the appointed Structural Engineer.
- **Excavability**
No constraints are expected although refusals were encountered in some test pits
- **Soil Classification**
The materials are predominantly silty, sandy and gravelly materials with some pockets of clayey materials
- **Groundwater**
No groundwater was encountered in any of the test pits.
- **Stability of slopes and excavations**
All side walls were stable

3.8 ENVIRONMENTAL IMPACT ASSESSMENT

Tholoana Sustainable Development and Environmental Consultants was appointed to conduct an Environmental Impact Assessment in terms of sections 24 and 24(D) of the National Environmental Management Act, 1998 (Act 107 of 1998). The activity is listed in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014.

The activity that forms the subject of this application is listed in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014. The proposed development triggers the following regulations:

Table 4: Listing details in terms of the National Environmental Management Act, 1998

Indicate the number and date of the relevant notice:	Activity No (s) (in terms of the relevant notice) :	Describe each listed activity as per project description ¹ :
GN.R.983, 04 December 2014	9(i)	The development of infrastructure exceeding 1000 metres in length for the bulk transportation of water or storm water with an internal diameter of 0,36 metres or more
	23	The development of cemeteries of 2500 square metres or more in size

	28(ii)	Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture or afforestation on or after 01 April 1998 and where such development will occur outside an urban area, where the total land to be developed is bigger than 1 hectare
GN.R. 984, 04 December 2014	15	The clearance of an area of 20 hectares or more of indigenous vegetation
GN.R. 985, 04 December 2014	2(e)(ii)(dd)	The development of reservoirs for bulk water supply with a capacity of more than 250 cubic metres outside urban areas in critical biodiversity areas (Type 1 and 2) as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans
	4(e)(i)(ee)	The development of a road wider than 4 metres with a reserve less than 13,5 metres outside urban areas in critical biodiversity areas (Type 1 and 2) as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans
	12(a)(i)(ii)	The clearance of an area of 300 square metres or more of indigenous vegetation within a critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; within critical biodiversity areas identified in bioregional plans

The Department Rural, Environment and Agricultural Development (READ) issued an Environmental Authorisation in respect of the proposed township on 16 October 2017 by virtue of NWP/EIA/11/2016 (refer **Annexure N**).

3.9 CULTURAL HERITAGE AREAS

Vhufa Hashu Heritage Consultancy was appointed by the Department of Local Government and Human Settlement to conduct an Archaeological Impact Assessment in respect of the proposed development area. The Archaeological Impact Assessment concluded as follows:

- There are no primary or secondary effects at all that are important to scientist or the general public that will be impacted by the proposed development activities.
- The phase 1 Archaeological Impact Assessment for the proposed Blydeville mixed development site revealed non heritage resources within the proposed development foot print.
- No further studies / Mitigations are recommended given the fact that within the proposed study area and its surrounding there is no archaeological or place of historical significance that will be impacted by the proposed development process. However, should any chance archaeological or any other physical cultural resources be discovered subsurface, heritage authorities should be informed. From

an archaeological and cultural heritage resources perspective, there are no objections to the proposed Blydeville mixed development and its associated infrastructure and it was recommended to the Provincial Heritage Resource Agency, South African Heritage Resource Agency to approved the project as planned.

(Refer **Annexure O** for comprehensive Archaeological Impact Assessment)

In addition to the Archaeological Impact Assessment that was conducted, the Department of Local Government and Human Settlement also commissioned a Palaeontological Impact Assessment: Desktop Study in respect of the proposed township area. This study was conducted by Dr. H. Fourie and the following recommendations were contained in the report:

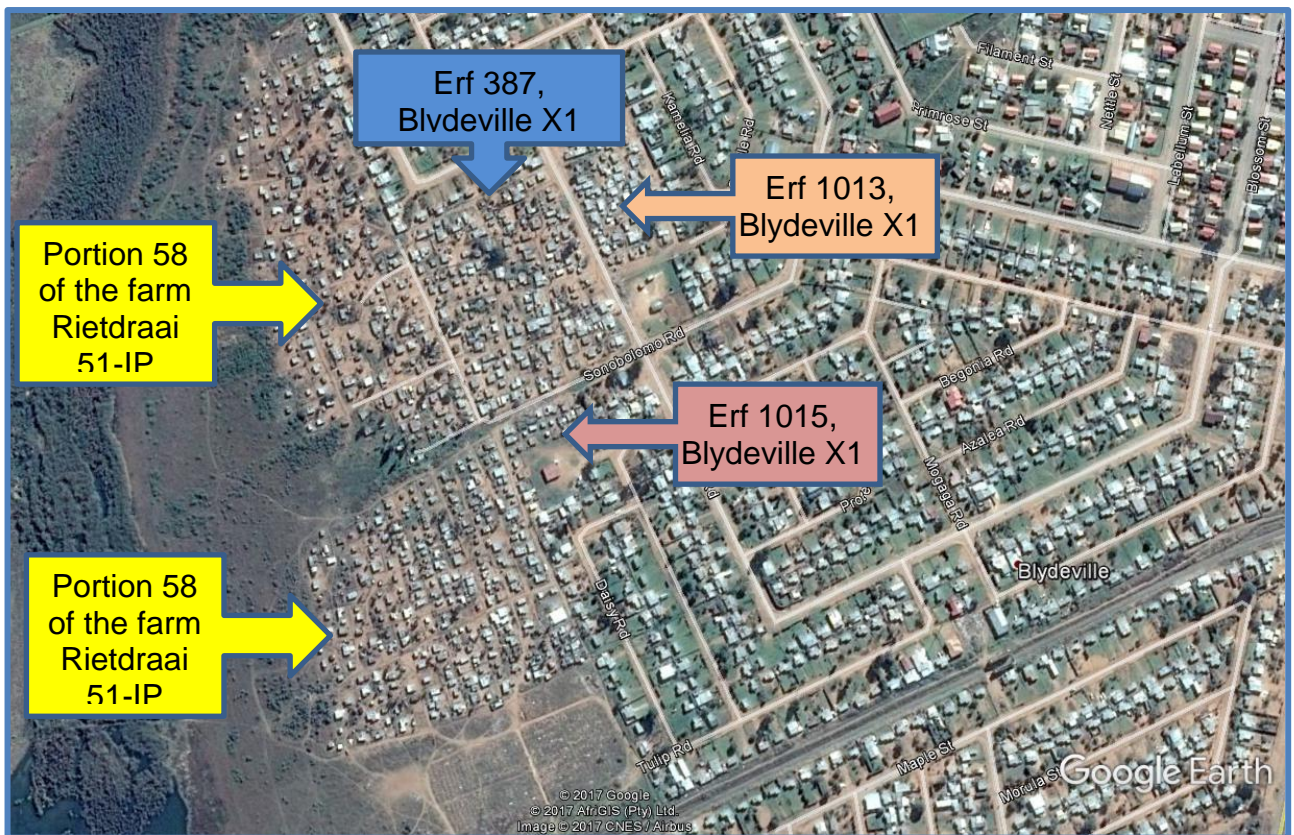
- There is no objection to the development, it may not be necessary to request a Phase 1 Palaeontological Impact Assessment: Field study to determine whether the development will affect fossiliferous outcrops as the palaeontological sensitivity is MODERATE A Phase 2 Palaeontological Mitigation may be required if the Phase 1 Palaeontological Assessment identifies a fossiliferous formation (for example breccia).
- This project may benefit the economy, the growth of the community and social development in general.
- Preferred choice: The impact on the palaeontological heritage is MODERATE. Care must be taken during the grading of roads, digging of foundations and removing topsoil, subsoil and overburden or blasting of bedrock.
- The following should be conserved: if any palaeontological material is exposed during digging, excavating, drilling or blasting SAHRA must be notified. All construction activities must be stopped and a palaeontologist should be called in to determine proper mitigation measures.

(Refer **Annexure P** for comprehensive Archaeological Impact Assessment)

CHAPTER 4: PROPOSED DEVELOPMENT

4.1 LAND USES

The intention of the township applicant i.e. the Ditsobotla Local Municipality is to utilize the concerned property for the establishment of the proposed township area of Blydeville Extension 4. The primary aim of the township area is to address the urgent need experience by the Ditsobotla Local Municipality in the Blydeville urban complex for vacant residential erven that can be utilized for low income / subsidized housing. Due to the non-availability of erven for residential settlement purposes, informal occupation of vacant municipal land has taken place. The areas where informal occupation has taken place are reflected on Map 6 below.



Map 6: View of informal occupation of Erven 387, 1013 and 1015 Blydeville X1 and Portion 58 of the farm Rietdraai No. 51-IP

In accordance with the policy guidelines contained in the Breaking New Ground (BNG) Principles it is indicated that new residential township areas should focus on the establishment of integrated human settlements focussing on the provision of erven not only for subsidized/low income households but also addressing the need for other housing typologies such as rental housing, social housing, bonded housing and FLISP projects. During the compilation of the layout plan in respect of the development area, provision was also made for a site that can be utilized for rental / social housing purposes.

The layout plan of the proposed township Blydeville Extension 4 makes provision for the following land uses:

Table 5: Blydeville Extension 4 proposed land uses

Use Zone	Proposed Land Use	Number of erven	Area in hectares	% of area
Residential 4	Dwelling house (average stand size 321,9m ²)	1454	45,7248	61,68%
Residential 3	Rental / Social Housing	1	0,8224	1,11%
Business 1	Shops	4	0,5569	0,75%
Institutional	Church	4	0,4233	0,57%
Municipal	Community Facility	1	0,4438	0,60%
Educational	Crèche	1	0,1433	0,19%
	Primary School	1	2,9190	3,94%
Cemetery	Cemetery	1	1,8170	2,45%
Private Open Space	Sports Ground	1	1,2575	1,70%
Public Open Space	Parks	1	2,4693	3,33%
Existing public roads	Streets		17,5522	23,68%
Total		1469	74,1295	100%

The following should be noted in respect of the land uses mentioned above:

- **Residential 4**

The layout plan makes provision for 1454 residential erven with an average stand size of 321,9m². In accordance with the prescriptions of the Ditsobotla Town Planning Scheme, 2007, no "Residential 4" erf will be less than 300m². These erven will be alienated on a full title basis.

The proposed "Residential 4" erven will be subject to the following development restrictions as imposed in terms of the Ditsobotla Town Planning Scheme, 2007:

- Maximum Height: 2 storeys
- Coverage: 60%
- FAR: 1,2
- Building line: Street boundary – 1m
Rear boundary – 2m
Side boundary – 1m

- **Residential 3**

The layout plan also incorporates an erf that can be utilized for rental / social housing purposes. This site was positioned centrally within the development area in close proximity to commercial, educational and social facilities.

The proposed “Residential 3” erf will be subject to the following development restrictions as imposed in terms of the Ditsobotla Town Planning Scheme, 2007:

- Maximum Height: 5 storeys
- Coverage: 60%
- FAR: 0,6
- Building line: Street boundary – 8m
Rear boundary – 2m
Side boundary – 3m

- **Business 1**

The layout plan incorporates five (4) erven that can be utilized for business purposes and same were positioned centrally within the development area and adjacent to the main collector roads to limit walking distances whilst also ensuring easy accessibility to these facilities for all residents of the proposed township area.

The proposed “Business 1” erven will be subject to the following development restrictions as imposed in terms of the Ditsobotla Town Planning Scheme, 2007:

- Maximum Height: 6 storeys
- Coverage: 80%
- FAR: 3,0
- Building line: Street boundary – 5m
Rear boundary – 0m
Side boundary – 0m

- **Institutional**

The erven provided for the purpose of churches were also positioned in such a manner to limit walking distance to these facilities.

The proposed “Institutional” erven will be subject to the following development restrictions as imposed in terms of the Ditsobotla Town Planning Scheme, 2007:

- Maximum Height: 3 storeys
- Coverage: 50%
- FAR: 1,4
- Building line: Street boundary – 5m
Rear boundary – 2m
Side boundary – 2m

- **Educational**

The layout plan incorporates 4 erven that can be utilized for the purpose of crèches whereas one erf was provided for the purposes of a primary school. The fore-mentioned erf was positioned centrally within the proposed township area to ensure easy accessibility to this facility from all areas of the township area. The erf provided for the purpose of a crèche was also positioned centrally within the

proposed township area to ensure easy accessibility to this facility and to limit walking distance to these facilities.

The proposed “Educational” erven will be subject to the following development restrictions as imposed in terms of the Ditsobotla Town Planning Scheme, 2007:

- Maximum Height: 3 storeys
- Coverage: 50%
- FAR: 1,4
- Building line: Street boundary – 5m
Rear boundary – 2m
Side boundary – 2m

- **Municipal**

On erf was provided for the purpose of a community facility. It is anticipated that this erf will be utilized for a community hall, municipal paypoint, SASSA paypoint or clinic facility.

- **Cemetery**

The layout plan incorporates an erf comprising a total area of 1,8170 hectares that will be utilized for the purposes of a cemetery.

- **Private Open Space**

To accommodate the recreational needs of the community, the layout plan also makes provision for one (1) erf that can be utilized for the purposes of a sports ground. This erf was positioned where an existing informal soccer field is found on the proposed development area.

- **Public Open Space**

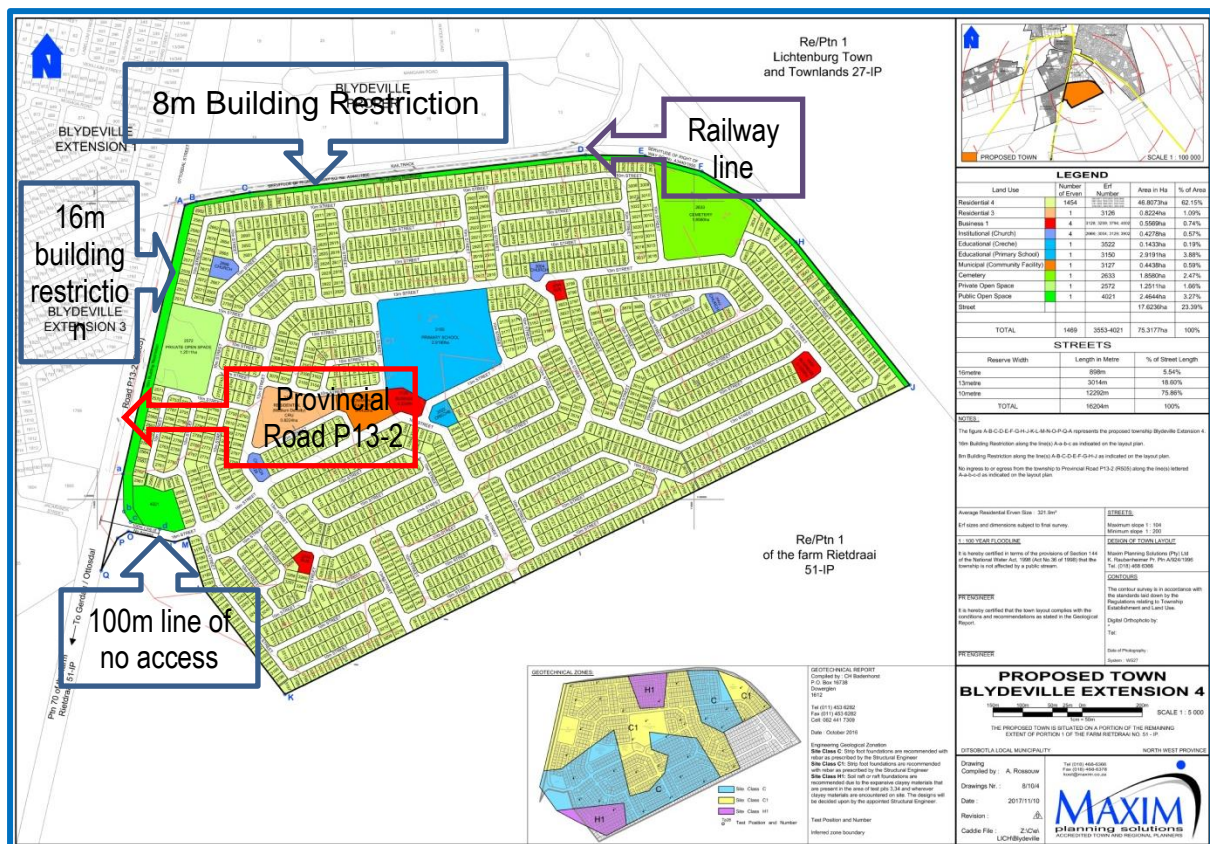
The one (1) public open space erf provided as part of this development will primarily accommodate the 16m building restriction applicable along the western boundary of the proposed township area adjacent to Provincial Road P13-2 as well as the 8m building restriction area provided along the northern and north-eastern boundaries of the township area adjacent to the railway line.

Annexure Z to the application for township establishment contains a list of the erven in the proposed township area and the areas of each erf as contemplated in terms of paragraph 3(i) of Schedule 6 of the Ditsobotla By-Law on Spatial Planning and Land Use Management.

4.2 FACTORS INFLUENCING THE LAYOUT PLAN

The layout plan of the proposed township area of Blydeville Extension 4 was influenced by the following factors:

- ✦ Aligning the western boundary of the proposed township area with the surveyed boundary of the road reserve of Provincial Road P13-2 (R505) (Lichtenburg – Gerdau/Ottosdal road);
- ✦ Providing access to the township area from Provincial Road P13-2 directly opposite the existing access to Blydeville Extension 3;
- ✦ Providing a 100 metre line-of-no-access at the main access to the township area measured from the centre of Provincial Road P13-2;
- ✦ Providing a 16m building line as well as a line-of-no-access along the western boundary of the proposed township area adjacent to Provincial Road P13-2;
- ✦ Accommodating an existing informal soccer field located adjacent to Provincial Road P13-2 on an erf in the proposed township area;
- ✦ Providing an 8m building restriction area along the northern and north-eastern boundary of the township area adjacent to the railway line. Even though this is not a railway line under the control of Transnet, the 8m building restriction usually imposed by Transnet in respect of developments bordering onto their railway lines was imposed to safeguard the inhabitants of the township area;
- ✦ Aligning the northern and north-eastern boundary of the proposed township area with the southern and south-western boundary of the servitude of right of way that was registered by virtue of Notarial Deed 130/1953S and amended by Notarial Agreement K2606/1976S;
- ✦ The street network of the township was designed in such a manner to enhance stormwater drainage on this flat development area;



Map 7: Locality of physical features that affected the layout plan

4.3 ACCESS

Access to the proposed township area of Blydeville Extension 4 will be provided from a single access point off Provincial Road P13-2 (R505) (Lichtenburg – Gerdau/Ottosdal road) directly opposite the existing intersection of Jacaranda Street in the adjacent township area of Blydeville Extension 3.

Cognisance should be taken of the fact that MIB Infrastructure Development commissioned a Traffic Impact Study during the preparation of a Feasibility Study in respect of the proposed township area. Following appointment as Town Planning Consultant on this project, Maxim Planning Solutions (Pty) Ltd had to effect certain amendments to the initial draft layout plan compiled by MIB Infrastructure Development in accordance with good planning principles. During the preparation of the amended layout plan, it was deemed more appropriate to align the access to the township area from Provincial Road P13-2 directly opposite the existing access to Blydeville Extension 3 than to provide a staggered T-junction access to the township area between the railway line level crossing and the access to Blydeville Extension 3.

As the nature of the development has remained largely unchanged, we will highlight the findings and recommendation contained in the Traffic Impact Study (refer **Annexure R**):

- **Proposed Improvements**

No upgrades are proposed for the intersections adjacent to the development's access. The construction of the proposed accesses should form part of the proposed development and should be in accordance with the proposed access in this document. Additional turning lanes should be provided at the access.

Non further improvements to the current external road infrastructure are deemed necessary.

- **Conclusion and Recommendations**

The development has little to no impact on the surrounding network. The expected worst case scenario's LOS for all the intersections are considered as acceptable.

It is recommended that pedestrian walkways be provided on the property boundary where applicable.

In light of this report, it is recommended that from a traffic point of view the proposed development should be approved.

The street network adopted for the proposed township area comprises a network of 16m, 13m and 10m streets and were designed to ensure proper surface stormwater drainage.

CHAPTER 5: PROVISION OF ENGINEERING SERVICES

5.1 INTRODUCTION

King and Associates Engineering & Project Managers investigated and reported on the provision of civil and electrical engineering services to the proposed township area.

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

- Section 5.2: Potable Water Infrastructure
- Section 5.3: Sanitation Infrastructure
- Section 5.4: Electricity Infrastructure
- Section 5.5: Roads Infrastructure
- Section 5.6: Storm Water Infrastructure

5.2 POTABLE WATER SUPPLY

Since there are no services and bulk infrastructure to meet the development water demand, new infrastructure has to be provided.

5.2.1 BULK WATER INFRASTRUCTURE

Water Demand Calculations

Design Assumptions:

- 60 l/capita/day for residential erven;
- 20 l/capita/day for schools;
- 2 000 l/day for churches;
- 500 l/day for clinics
- 400 l/day for shops

Table 6: Water Demand Calculations

Description	No of units (No)	No of people per unit (No)	Total Number (No)	No of people per unit (No)	Demand (l/c/d)	Water Demand (l/d)
Residential	1 515	4	6 060		60	363 600
Creche	3		200		20	12 000
Primary School	1		800		20	16 000
Secondary School	1		534		20	10 680
Churches (ha)	4				2 000	8 000
Clinic/ Municipal	1			5 per 100sqm	500	2 500
Community Hall	1			500 seater	65	32 500
Shops	4			0.5 per 100sqm	400	800
Local Shopping Centre	1			2.5 per 100sqm	400	1 000
Parks	4			1 per ha	400	1 600
Total						448.7 kl/d
Peak Factor of 4						1 795kl/d
Fire Demand (900l/m x 2hrs)						108kl/d
Total						1 903kl/d
Storage Capacity (48 hours)						3 805kl/d
Total Basic Water Demand						4 MI/d
Allow for Future Development (add 20% of Total Basic Demand)						5 MI/d

5.2.2 MATERIALS

- Pipe diameters of size up to 63mm to be polyethylene pipes, black HDPE pipes complying with SABS ISO 4427, manufactures from PE80 or PE100 materials with a nominal pressure rating (PN) of 12.5 bar. Compression fittings to be used with HDPE pipes and shall be "Plasson", "Alprene" or approved equivalent with a nominal pressure rating of 16 bar.
- Pipe diameters from 75mm to 400mm to be uPVC of various classes of SABS 966-1. uPVC pipes and fittings shall be provided with spigot and socket rubber ring joints and shall comply with SABS 966-1.
- All PVC fittings - uPVC Class 16 to SABS 966.
- Cast Iron gate valves with anti-clockwise closing, complying with SABS 664.
- 20mm water meters with brass stopcocks both sides of the meter.
- Water meters to comply to SABS 1529-1.
- Fire hydrants to have London round thread outlet with rising spindle, clockwise closing and a maximum overall height of 320mm.
- All flanges shall be drilled to SABS 1123/1600/3 and all bolts, nuts and washers shall be stainless steel grade 316 and shall comply with EN ISO 3506-A4.
- All cast iron fittings to be Rilsan or FBE coated.

- All steel pipes and fittings - SABS 719 Mild steel with heavy duty galvanizing and protective coatings, and shall have a minimum wall thickness of 4.5mm and shall be flanged.
- Valve and hydrant boxes to be blue Thermo Plastic with concrete markers.

5.3 **SANITATION INFRASTRUCTURE**

Since there is no reticulation for the proposed settlement, a Full Level of Service has to be implemented for the reticulation with the bulk connecting to the existing WWTW works. There will also be a need for the upgrade of the existing WWTW to cater for the additional flow from the proposed development.

5.3.1 **BULK SEWER INFRASTRUCTURE**

Flow Design Criteria:

- Sewer flow at 80% of water demand;
- Peak Factor of 2.5;
- Allowance of 15% for Storm Water infiltration;

Pipe Design Parameters:

- Minimum reticulation pipe size is 160mm;
- Minimum erf connection pipe size is 110mm;
- Minimum gradient for main sewer at start of sewer line is 1 in 100;
- Minimum gradient for main sewers is 1 in 200;
- Minimum gradient for erf connections is 1 in 60 unless specified otherwise;
- Design invert levels of sewer to allow for 90% of erf areas to be drained, unless otherwise specified where minimum ground levels are positioned to accommodate erf connections;
- Pipe bedding should consist of a cradle of 100mm and a blanket of 150mm;
- Minimum cover of 600 should be provided for pipe on pipeline servitude;
- Minimum cover should be provided for pipe on a road reserve;
- Minimum flow velocity of 0.75m/s

Pump Design Parameters:

- Pumps to be designed for the PWWF;
- Minimum velocity of 0.75m/s;
- Maximum flow velocity of 2.75m/s;
- Minimum intake size is 75mm;
- Number of starts per hour is 15;
- Configuration must include 1 duty and 1 standby pumps.

Table 7: Sewer Flow Calculations

Description	Sewer Flow
Water Demand	448.7kl/d
ADWF at 80% of water demand	359kl/d
Peak Factor of 2.5	897kl/d
Add 15% Storm water infiltration	1 032kl/d
PWWF	1 032kl/d

5.3.2 INTERNAL SEWER RETICULATION INFRASTRUCTURE

Materials:

- Main Pipes: uPVC structured wall complying with SABS 1601 type 1 (Main core - Heavy duty 400kPa or approved equivalent) with smooth inner and outer walls, complete with integral sockets, joints and rubber seal rings.
- Erf connection Pipes: uPVC structured wall complying with SABS 1601type1 (Main core - Heavy duty 400kPa or approved equivalent) with smooth inner and outer walls, complete with integral sockets, joints and rubber seal rings.
- Fittings for structures wall pipes to comply with SABS 791.
- Manholes: In verges and on erven - Precast concrete section, roof slabs and covers, all comply with SABS 1294 complete bases.
- Manholes: In verges subject to traffic - Precast concrete sections to comply with SABS 1294 with SABS Type 2A Cast iron cover and frame, complete with concrete bases.

5.4 ELECTRICITY INFRASTRUCTURE

The reticulation and bulk design criteria is done in line with the specifications of Ditsobotla Local Municipality Electrical Department.

5.4.1 ELECTRICITY DEMAND

Table 8: Electricity Demand Calculations

Type of unit	Number of Units	Load	Total Required
Residential	1515	1,6 kVA	2,424 MVA

5.5 ROAD INFRASTRUCTURE

The design criteria and parameters chosen were based on Guideline to Human Settlement Planning and Development and TRH 17.

5.5.1 STREET PROFILING ASSESSMENT

After the site assessment and data collection, the following conclusions were drawn:

- Roads under review are primarily for access to residential erven and they will thus carry few heavy vehicles. As such, the primary structural design objectives will relate more to minimising damage from erosion than to supporting the traffic
- The route is not regarded as an important link in the transportation system.
- The traffic is expected to be between 75 and 220 vehicles per day with very little heavy traffic (< 5%).
- Because of the absence of economic activity the growth rate will be very low (<2%).
- Pedestrian traffic will be accommodated on the roadway.

5.5.2 STRUCTURAL DESIGN PERIOD

A fixed structural design period of 20 years was chosen for category UC streets (residential streets).

5.5.3 STRUCTURAL DESIGN AND PAVEMENT TYPE SELECTION

The paving block structure with a granular base and subbase has been considered including the sand bedding layer as follows:

Table 9: Anticipated Pavement Structure

Item	Material	Description	Compaction
1	Paving Block	60mm (30MPa)	
2	Base Material	150mm	98% mod AASHTO
3	Subbase	150mm	98% mod AASHTO
4	In situ material	150mm	98% mod AASHTO

5.5.4 GEOMETRIC DESIGN

The design criteria and parameters chosen were based on Guideline to Human Settlement Planning and Development and TRH 17.

5.6 STORM WATER INFRASTRUCTURE

5.6.1 HYDRAULIC DESIGN OF STORM WATER CHANNEL

Roads will be designed to accommodate the flow of storm water across the site. Only where necessary will channels be provided. As such, storm water channels in the development will predominantly consist of concrete lined V-drains constructed on the lower side of the road. The storm water system is sized accordingly to accommodate a runoff equivalent to a 1 in 5 year flood.

Design of storm water systems will be in accordance with the Guidelines for Human Settlement Planning and Design Standards as well as the SANRAL Drainage manual.

Design Parameters:

- Minimum grade on V-drains next to road is 1:200;
- Minimum velocity of runoff is 0.7m/s;
- Maximum velocity of runoff is 3m/s;
- Natural watercourse and low points will be assumed as natural escape routes for runoff and floods larger than 1:50 year storm event;
- No allowance is made for storm water attenuation and it has been assumed that the existing storm water infrastructure would be able to receive runoffs from the developments

5.6.2 QUANTITY OF RUN OFF

The catchment area of hectares was estimated therefore the Rational Formula for calculating run off is recommended. The rational method is expressed as follows:

$$Q = \frac{A \times C \times I}{360}$$

Where:

Q = Run-off

A = Catchment Area

C = Run-off Factor

I = Intensity of Rainfall

A run-off factor of 0.80 and a recurrence storm interval of 5 years are adopted for the high density development.

CHAPTER 6: MOTIVATION

6.1 INTRODUCTION

This need and desirability in respect of the application for township establishment will be motivated based on the following criteria:

- National Development Plan: Vision for 2030
- Constitution of the Republic of South Africa (Act 108 of 1996)
- National Housing Code, 2006
- A Comprehensive Plan for the Development of Sustainable Human Settlement (BNG)
- Urban (UDF) and Rural Development (RDF) Frameworks, 1997
- White Paper on Local Government, 1998
- Municipal Demarcation Act, 1998 (Act 27 of 1998)
- Municipal Systems Act, 2000 (Act 32 of 2000)
- National Housing Act, 1997 (Act 107 of 1997)
- Rental Housing Act, 1999
- White Paper on Wise Land Use, 2001
- Millennium Development Goals (MDG)
- National Spatial Development Perspective, 2006
- North West Provincial Spatial Development Framework, 2017
- Ditsobotla Spatial Development Framework, 2013
- Ditsobotla Housing Sector Plan, 2014
- Spatial Planning and Land Use Management Act Development Principles
- General

In terms of section 9(1) of the National Housing Act (107 of 1997), every municipality must, as part of the municipality's process of integrated development planning (IDP) take all reasonable and necessary steps to ensure that the inhabitants within its area of jurisdiction have access to adequate housing on a progressive basis by setting housing delivery goals, identifying suitable land for housing development and planning, facilitating, initiating and co-coordinating housing development in its area of jurisdiction.

Housing comprises a series of complex interrelationships between people, their needs and values and resources within a political and legal environment. This complexity requires a focused approach to efforts aimed at providing housing. National Government has started to respond by putting the necessary policy and legislative environment in place.

This framework outlines the roles and responsibilities of different spheres of government in relation to housing, as well as dealing with aspects relating to the design and content of housing policy and legislation. In the context of this framework the Ditsobotla Local

Municipality is required to take all reasonable steps to ensure the provision of adequate housing to its residents.

The core legislation and policies guiding housing planning and development are set out in Sections 6.2 to 6.17 below.

6.2 NATIONAL DEVELOPMENT PLAN: VISION 2030

The National Planning Commission (NPC) (2011) published the NDP: Vision for 2030. Its contents will impact directly and indirectly on the provision of housing within the national spatial system.

Its core focuses include:

- The active efforts and participation of all South Africans in their own development
- Redressing the injustices of the past effectively
- Faster economic growth and higher investment and employment
- Rising standards of education, a healthy population and effective social protection
- Strengthening the links between economic and social strategies
- An effective and capable government
- Collaboration between the private and public sectors
- Leadership from all sectors in society.

6.3 CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA (ACT 108 OF 1996)

The Constitution of the Republic of South Africa (Act 108 of 1996) is the supreme law of the country. The sections/schedules of the Constitution that are relevant with respect of the delivery of housing are the following:

- Sections 26, 27 and 29 of Chapter 2 – Bill of Rights states that everyone has the right to access to adequate housing, health care services, social security and education.
- Schedules 4 and 5, states that the Province has legislative competence in regard to (inter alia): Environment; Urban and Rural Development; Welfare; Housing; Health Services; Regional planning and development; (concurrent competence with national) and Provincial Planning and Provincial Roads and Traffic (exclusive competence)

In terms of the provisions (Schedule 4) of the Constitution, housing is a functional area of concurrent national and provincial competence. This provision of legislative and administrative powers necessitates alignment between all spheres of government in terms of the IDP process and especially the preparation of the SDF and thus the Housing Chapter.

6.4 **NATIONAL HOUSING CODE (2006)**

The National Housing Code (2006) identified the primary role of the municipality as taking all reasonable and necessary steps, within the framework of national and provincial legislation and policy, to ensure that the inhabitants within its area of jurisdiction have access to adequate housing. This entails the following:

- Initiating, planning, facilitating and coordinating appropriate housing development.
- Promoting private sector development and playing the role of developer.
- Preparing a housing delivery strategy and setting up housing development goals.
- Setting aside, planning and managing land for housing.
- Creating a financially and socially viable environment for housing delivery.
- Facilitating the resolution of conflicts arising from housing delivery initiatives.
- Facilitating the provision of bulk services.
- Administrating national programmes.
- Exploring land for housing development.

6.5 **A COMPREHESIVE PLAN FOR THE DEVELOPMENT OF SUSTAINABLE HUMAN SETTLEMENT (BNG STRATEGY)**

The new "Human Settlements Plan" promotes the achievement of a non-racial, integrated society through the development of sustainable human settlements and quality housing. Housing is to be utilized for the development of sustainable human settlements in support of spatial restructuring.

The aim is to move beyond the provision of basic shelter towards achieving the broader vision of sustainable human settlements and more efficient towns, cities and regions. The following factors will be taken into consideration in order to achieve this vision:

- **Progressive Informal Settlement Eradication:** These settlements must be integrated into the broader urban setup so as to overcome spatial, social and economic exclusion. The plan encourages the eradication of informal settlements through in-situ upgrading in desired locations coupled with the relocation of households where development is not possible or desirable.
- **Promoting Densification and Integration:** The aim is to integrate previously excluded groups into the city so as to enable them to enjoy the benefits it offers and to create more integrated, functional and environmentally sustainable human settlements, towns and cities.
- **Enhancing Spatial Planning:** Greater co-ordination and alignment of various planning instruments and economic policies lies at the heart of sustainable human settlements.

This requires more than mere co-ordination between departments but there needs to be a single overarching planning authority and/or instrument to provide macro-level guidance to support the development of sustainable human settlements.

- Enhancing the location of New Housing Projects: The location of past housing projects was said to reinforce apartheid spatial settlement patterns. Spatial restructuring aims to achieve a more decisive Intervention In land markets. The following interventions are envisaged viz. accessing well located state-owned and parastatal land: acquisition of well-located private land for housing development, funding for land acquisition and fiscal incentives.
- Supporting Urban Renewal and Inner City Regeneration: Urban renewal and inner city regeneration often result in the current inhabitants being excluded as a result of the construction of dwelling units they cannot afford. Some municipalities are trying to avoid this by promoting affordable inner city housing. The "Human Settlements Plan" will support this by encouraging social housing.
- Developing Social and Economic Infrastructure: The need to move away from a housing-only approach towards a more holistic development of human settlements which includes the provision of social and economic infrastructure is emphasized.
- Enhancing the Housing Product: The aim is to develop more appropriate settlement layouts and housing products and to ensure appropriate housing quality.

6.6 URBAN (UDF) AND RURAL DEVELOPMENT (RDF) FRAMEWORKS (1997)

The UDF aims to promote a consistent urban development policy approach for effective urban reconstruction and development, to guide development policies, strategies and actions of all stakeholders in the urban development process and to steer them towards the achievement of a common vision. The UDF is engaged in four key programmes, namely integrating the city, improving housing and infrastructure, building habitable and safe communities and promoting urban economic development.

The RDF co-ordinates integration of government programmes in rural areas and is aimed at: poverty alleviation through institutional development; investment in basic infrastructure and social service; improving income and employment opportunities; restoration of basic economic rights to marginalized rural areas; and finally justice, equity and security.

6.7 WHITE PAPER ON LOCAL GOVERNMENT (1998)

The White Paper on Local Government adopts development policy guidelines and principles and advocates the developmental role of local government.

The guidelines and principles can be summarized as follows:

- Orientation towards people's needs;
- Poverty alleviation with special consideration of marginalized and disadvantaged groups and gender equity;
- Environmentally sustainable development and a safe and healthy environment;

- Economic growth with creation of income and employment opportunities;
- Involvement of residents, communities and stakeholders;
- Sustainability of services, municipalities and settlements.

6.8 MUNICIPAL DEMARCATION ACT, 1998 (ACT 27 OF 1998)

Demarcation objectives: The Demarcation Board determines a Municipal boundary with the objective that it must be able to enable the municipality for that area to fulfil its constitutional obligations in line with the provision of a democratic and accountable government for communities within a specific geographic area inclusive of:

- The provision of services to the communities in an equitable and sustainable manner.
- The promotion of social and economic development.
- The promotion of a safe and healthy environment.
- Enable effective local governance.
- Enable integrated development.
- Have a tax base as inclusive as possible for the user of municipal services in the municipality.

6.9 MUNICIPAL SYSTEMS ACT, 2000 (ACT 32 OF 2000)

A municipality must undertake developmentally-orientated planning so as to ensure that it:

- Strives to achieve the objectives of local government set out in Section 152 of the Constitution;
- Gives effect to its development duties as required by section 153 of the Constitution; and
- Together with other organs of state contribute to the progressive realisation of the fundamental rights In respect of, among others, housing.

In the spirit of our democratic dispensation no development can take place without the effective participation of the communities it affects. Section 29(1) (b) of the local Government: Municipal Systems Act 32 of 2000 requires municipalities to follow certain procedures to consult with communities and procure their participation in the planning process. As these structures have to be in place, they will be available and should be used to involve the relevant communities in the process of upgrading of informal settlements.

6.10 NATIONAL HOUSING ACT, 1997 (ACT 107 OF 1997)

The National Housing Act (NHA) sets out three general principles, namely: giving priority to the needs of the poor in respect of housing development; consultation with individuals

and communities affected by housing development; and ensuring that housing development is economically, fiscally, socially and financially affordable and sustainable.

The NHA lays down general principles applicable to housing development in all spheres of government, defines the functions of national, provincial and local governments in respect of housing development, and promotes the role of the state as a facilitator of housing development.

National government must establish and facilitate a sustainable national housing development process, provincial government must do everything in its power to promote and facilitate the provision of adequate housing in its province within the framework of national housing policy, while municipalities must take reasonable and necessary steps within the framework of national and provincial housing legislation and policy to ensure that the right of access to adequate housing is realised on a progressive basis.

6.11 RENTAL HOUSING ACT, 1999

The stated purpose of the RHA reveals that government regards rental housing as an available alternative to homeownership, especially for poor people and historically disadvantaged people.

6.12 WHITE PAPER ON WISE LAND USE (2001)

This White Paper intends to show practical ways in which South Africa may move to this approach. The system should satisfy the following specific needs:

- The development of policies which will result in the best use and sustainable management of land.
- Improvement and strengthening planning, management, monitoring and evaluation.
- Strengthening institutions and coordinating mechanisms.
- Creation of mechanisms to facilitate satisfaction of the needs and objectives of communities and people at local level

Integrated planning for sustainable management of land resources should thus ensure:

- That development and developmental programmes are holistic and comprehensive so that all factors in relation to land resources and environmental conservation are addressed and included.
- In considering competing needs for land, and in selecting the "best" use for a given area of land, all possible land-use options must be considered.
- That all activities and inputs are integrated and coordinated with each other, combining the inputs of all disciplines and groups.

- That all actions are based on a clear understanding of the natural and legitimate objectives and needs of individual land users to obtain maximum consensus.
- That institutional structures are put in place to develop, debate and carry out proposals.

Of core importance in the planning and development of housing is the normative planning principles identified in the White Paper:

Principles. The basis of the system will be principles and norms aimed at achieving sustainability, equality, efficiency, fairness and good governance in spatial planning and land use management. The decisions of planning authorities, whether related to the formulation of plans such as IDPs or the consideration of land development applications such as rezoning, must all be consistent with these principles and norms. A failure by an authority to affect this enables the Minister to intervene in the decision, either to require that it is reconsidered or in extreme cases to take the decision him or herself.

6.13 MILLENNIUM DEVELOPMENT GOALS (MDG)

The MDG include the following: The eradication of informal settlements by 2014 as one of the policy imperatives of government (Goal 7, Target 11) implies that government and the private sector would have to implement the Social Contract (Social Contract for Rapid Housing Delivery, 2005) commitments to aid the removal of slums in South Africa.

The targets included in the Social Contract consist of:

- The removal or improvement of all slums in South Africa as rapidly as possible, but not later than 2014.
- The fast tracking of the provision of formal housing within human settlements for the poorest of the poor and those who are able to afford rent and/or mortgages.
- The creation of rental stock for a rapidly growing, mobile (migrant) and urban population within inner city and other locations close to employment opportunities.
- To remove administrative blockages that prevent speedy developments and to strive to reduce the time to grant various permissions relating to the built environment to 50% of the current time;
- To ensure consumer education and understanding in all housing development projects.

6.14 NATIONAL SPATIAL DEVELOPMENT PERSPECTIVE (2006)

The NSDP consists of a set of five normative principles for development:

- Principle 1: Rapid economic growth that is sustained and inclusive is a pre-requisite for the achievement of other policy objectives, among which poverty alleviation is key.
- Principle 2: Government has a constitutional obligation to provide basic services to all citizens wherever they reside.

- **Principle 3:** Government spending on fixed investment should be focused on localities of economic growth and/or economic activities and to create long-term employment opportunities.
- **Principle 4:** Efforts to address past and current social inequalities should focus on people, not places. In localities where there are both high levels of poverty and demonstrated economic potential, this could include fixed capital investment beyond basic services to exploit the potential of those localities. In localities with low demonstrated economic potential, government should beyond the provision of basic services, concentrate primarily on human development.
- **Principle 5:** In order to overcome the spatial distortions of apartheid, future settlement and economic development opportunities should be channelled into activity corridors and nodes that are adjacent to or that link the main growth centres. Infrastructure investment should primarily support localities that will become major growth nodes in South Africa and the SADC region to create regional gateways to the global economy.

6.15 NORTH WEST PROVINCIAL SPATIAL DEVELOPMENT FRAMEWORK, 2017

In terms of the development guidelines set forth in the North West Provincial Spatial Development Framework, 2017 in respect of the Ditsobotla urban area, it was stated that investment should be focussed on Lichtenburg to strengthen the economic core of the municipality. It also states that affordable housing opportunities should be provided for the expanding urban population. Another development guideline is the upgrading of informal settlements.

In terms of development guidelines it was stated that the focus should be on the backlog eradication and providing access to basic services whilst also formalizing housing and ensuring land tenure security.

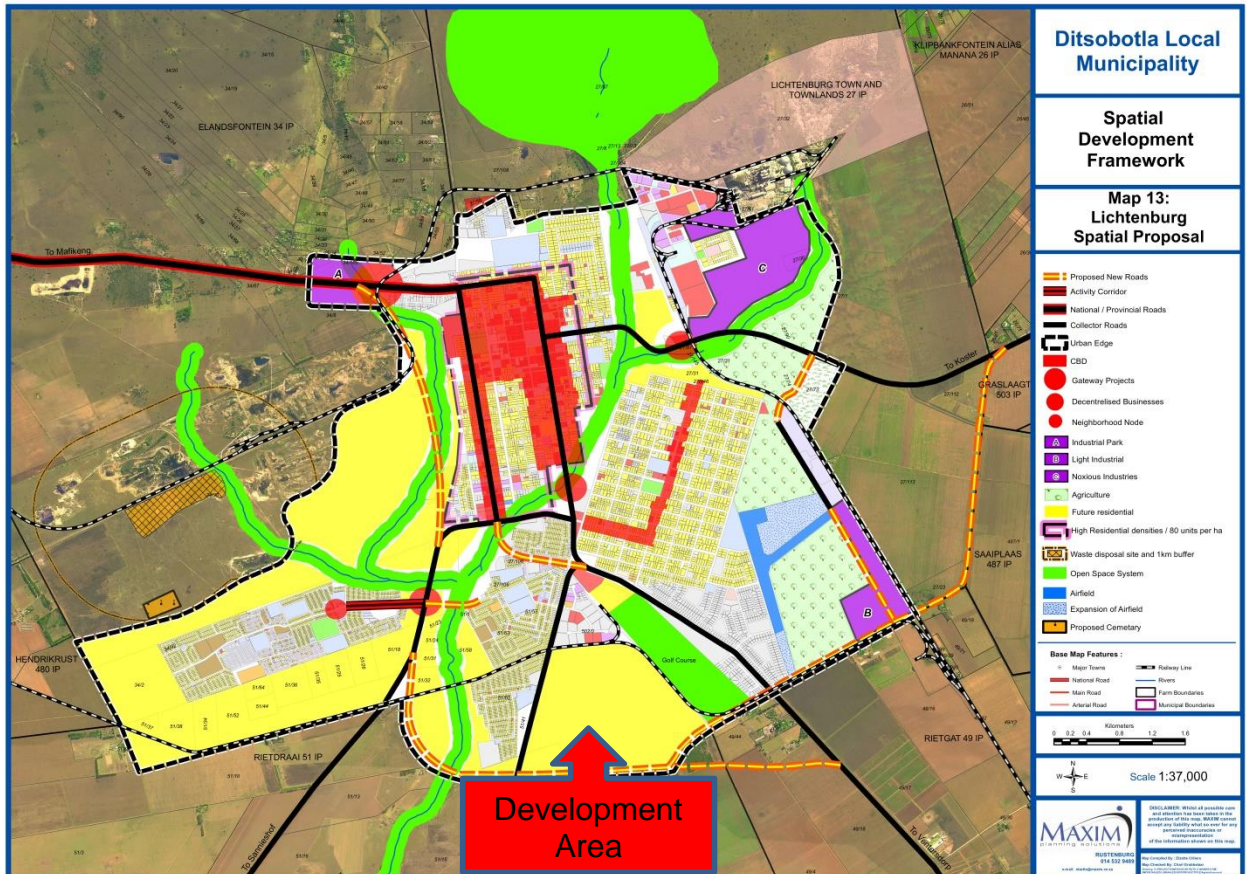
6.16 DITSBOTLA LOCAL MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK, 2013

According to the Ditsobotla Local Municipality Spatial Development Framework, 2013, the 2012 land use survey indicated an immediate backlog of 2224 informal structures (570 in Blydeville and 1654 in Boikhutso). Using the long term growth rate forecast for the municipality, another 2016 units will be needed up to 2015. This implies that provision should be made for a total of 4240 units up to 2015. The spatial needs amount to 212ha over the next 3 years (at a density of 20 units/ha).

Urban infilling should be promoted in order to create more compact urban areas. A number of smaller portions of vacant land fall in this category within the existing built-up area. Three of the main areas which represent urban infilling are:

- The newly identified area south of the existing MC van Niekerk industrial area (and west of the golf course);
- The area located northwest of the entrance to the golf course;
- An area just north of Burgershoop. Careful planning is needed as the natural open space system runs through this area.

The areas earmarked for future residential development purposes are indicated in yellow on the Lichtenburg Spatial Proposals map as contained in the Ditsobotla Local Municipality Spatial Development Framework, 2013 (refer **Map 8**).



Map 8: Lichtenburg Spatial Proposals

6.17 NORTH WEST MULTI YEAR HOUSING DEVELOPMENT PLAN, 2014

In terms of the North West Multi Year Housing Development Plan, 2014, the housing demand in the Ditsobotla Local Municipality is estimated at 24651 units comprising a 5 year housing programme (for subsidized housing) of 12551 units and a backlog of 12100 units. It is specifically due to this large demand and the non-availability of vacant erven for settlement purposes that illegal occupation of vacant municipal land has occurred where people live in squalid conditions without basic services

6.18 DITSOBOTLA HOUSING SECTOR PLAN, 2014

In terms of the Housing Sector Plan of the Ditsobotla Local Municipality it was indicated that during 2008, there were 5 informal settlements in Ditsobotla Local Municipality covering an approximate area 60.24 hectares. Informal dwelling units and population during 2008 were 2307 and 9228 respectively.

The Ditsobotla Spatial Development Framework report contains a detailed land use table that was obtained by means of a physical land use survey that was completed in May 2012. This is the most updated information that could be sourced. The housing profile of the Ditsobotla Local Municipality is indicated in **Table 10**.

Table 10: Status Quo of Housing in Ditsobotla

Wards Ditsobotla	Towns/ Villages	Formal brick house on stand	Backyard shack on stand	Informal on stand	Informal not on stand	Low cost housing under construction	Medium density units	Mud houses
WARD 4	Lichtenburg	5204	99	104	367	0	0	0
WARD 1, 2 & 20	Boikhutso	2249	41	655	958	352	0	0

It is against the background of the fore-mentioned goals and objectives that the Ditsobotla Local Municipality intends establishing a new sustainable human settlement within the Integrated Residential Development Programme (IRDP) and Upgrading of Informal Settlements (UIS) Programme. In order to ensure a proper integrated human settlement, it is imperative to also address the need for a wide variety of housing typologies together with the necessary social and economic facilities within the new settlement area. For this purpose, consideration should also be given to the Provision of Social and Economic Facilities (PSEF) Programme. These housing programmes entail the following:

Table 11: Housing Programmes

UPGRADING OF INFORMAL SETTLEMENTS (UIS)	<p>Informal Settlements are common to most developing countries which undergo a process of rapid urbanization and have limited resources to address the housing needs of all its citizens and in particular the poor, who flock to cities in search of a better life and future for their families.</p> <p>Hence the Informal Settlement Upgrading Programme is one of the most important programmes of government which seeks to upgrade the living conditions of millions of poor people by providing secure tenure and access to basic services and housing.</p> <p>Experience has shown that housing access to basic services, secure tenure and a house provides a springboard to households to improve their social and economic circumstances.</p> <p>To ensure that fragile community survival networks are not compromised and to empower communities to take charge of their own settlements, one of the basic tenets of the programme is that beneficiary communities must be involved throughout the project cycle. All members of the community, also those who do not qualify for subsidies, are included.</p> <p>The Programme therefore aims to bring about social cohesion, stability and security in integrated developments and to create jobs and economic well being for communities which did not previously have access to land and business services, formal housing and social and economic amenities.</p>
PROVISION OF SOCIAL AND ECONOMIC FACILITIES (PSEF)	<p>Owing to backlogs in existing settlements and the need to prioritize those, authorities responsible for the provision of social and economic facilities, such as schools, clinics, community halls, recreational facilities and trading facilities, have not been able to provide facilities in most new housing projects.</p> <p>In line with the policy to establish quality, sustainable human settlements, a programme has been introduced to fund primary social and economic amenities, where funding is not available from other Data Sources.</p>

The development of the proposed new integrated human settlement of Blydeville Extension 4 will take place against the background of Outcome 8. Outcome 8 determines that human settlements in future in South Africa must at least consist of:

- The development of suitable located and affordable housing (shelter) and decent human settlements;
- An understanding that human settlements are no longer about building houses;
- Transforming our cities and towns (moving towards efficiency, inclusion and sustainability); and
- Building cohesive, sustainable and caring communities with improved access to work and social amenities, including sports and recreation facilities.

In terms of Outcome 8, sustainable human settlements and improved quality of household life are defined by:

- Access to adequate accommodation that is suitable, relevant, appropriately located, affordable and fiscally sustainable;
- Access to basic services (water, sanitation, refuse removal and electricity);
- Security of tenure irrespective of ownership or rental, formal or informal structures; and
- Access to social services and economic opportunity within reasonable distance.

This outcome is of critical importance as it is a requirement of the Constitution and Bill of Rights. It is secondly core to human dignity and social stability and is a key enabler of health, education and social cohesion outcomes. With good planning it can also serve as a catalyst for economic development and job creation.

6.19 SPATIAL PLANNING AND LAND USE MANAGEMENT ACT, 2013 (SPLUMA) DEVELOPMENT PRINCIPLES

The act applies to spatial planning, land development and land use management. The following five (5) primary development principles referred to in SPLUMA and explained in SPLUMA: A Practical Guide compiled by Nic Laubscher, Lizette Hoffman, Ernst Drewes and Jan Nysschen, 2016, need to be taken into consideration:

- “7. (a) the principle of spatial justice, whereby-**
- (i) past spatial and other development imbalances must be redressed through improved access to and use of land;**

The focus of the principle would be on integration or development of rural and/or traditional settlements and urban integration strategies. This development specifically aims at redressing past spatial imbalances in combatting the past planning principles of providing low income residential areas on the periphery of urban areas. This development specifically entails the integration of the urban areas of Blydeville and Lichtenburg and

addressing past spatial imbalances. As mentioned in the preceding sections, cognisance should be taken of the fact that various areas in the Blydeville urban complex have already been occupied by informal structures clearly highlighting the need for residential erven for the housing of the landless community of Blydeville. This township establishment will afford the landless community of Blydeville the opportunity to access land for formalized housing provision.

- (ii) spatial development frameworks and policies at all spheres of government must address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterised by widespread poverty and deprivation;**

In terms of the Ditsobotla Local Municipality Spatial Development Framework, 2013, the area to which this application applies was already earmarked for residential development purposes. This was specifically done to limit further urban sprawl and to enhance integration. This development will also have at its core the establishment of an integrated human settlement providing for a variety of housing typologies.

- (iii) spatial planning mechanisms, including land use scheme, must incorporate provisions that enable redress in access to land by disadvantage communities and persons;**

The local municipality identified portions of land within the local municipal area, through the Spatial Development Framework, that will redress access to land by previously disadvantaged people. The proposed development of Blydeville Extension 4 will provide for subsidized housing as well as opportunities for social and rental housing.

- (iv) land use management systems must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas;**

Land uses within the Ditsobotla Local Municipality municipal area are governed by a wall-to-wall land use management system. The proposed land uses in the township area of Blydeville Extension 4 will be regulated by the Ditsobotla Town Planning Scheme, 2007. The opinion is held that the provisions of this scheme that will relate to this development will be totally appropriate for the management of the land uses to be provided within this development.

- (v) land development procedures must include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas; and**

According to the Ditsobotla Housing Sector Plan the need for housing was estimated to total 2224 housing units in 2012. The township establishment process has at its core the intent to create additional residential erven that can, after proclamation of the township area, be alienated to the beneficiaries thereof. This new township development will afford the community of Blydeville the opportunity to access land and secure tenure thereof.

- (vi) **A Municipal Planning Tribunal considering an application before it, may not be impeded or restricted in the exercise of its discretion solely on ground that the value of land or property is affected by the outcome of the application;**

This project entails the development of land that has been vacant for a number of years with no economic or social advantage for the community.

7. (b) the principle of spatial sustainability, whereby spatial planning and land use management systems must –

The principle of spatial sustainability should allow for flexibility in dealing with applications and proposals, which may not have been anticipated.

- (i) **promote land development that is within the fiscal, institutional and administrative means of the Republic;**

In terms of the sub-principle, the opinion is held that the Ditsobotla Local Municipality has sufficient fiscal, institutional and administrative capacity and resources to administer the development. The Ditsobotla Local Municipality will ensure that the development complies with the requirements contained in the Ditsobotla Town Planning Scheme, 2007 and the Ditsobotla Local Municipality Spatial Development Framework, 2013. In this regard it is pertinent to also note that the fiscal capacity of the Ditsobotla Local Municipality is also enhanced through the assistance of the Department of Local Government and Human Settlement who is currently funding this project

- (ii) **ensure that special consideration is given to the protection of prime and unique agricultural land;**

The area where the concerned property is situated is not regarded as prime or unique agricultural land in terms of the Ditsobotla Local Municipality Spatial Development Framework, 2013. The agricultural value of the concerned portion is negligible specifically due to its size and location within an already existing urban area.

- (iii) **uphold consistency of land use measures in accordance with environmental management instruments;**

Environmental sustainability refers to the relationship between the settlement and the natural landscape.

The development is planned with a full level of infrastructure elements including sewer, water, electricity, access and refuse removal services, thereby reducing the effect that the development will have on the natural surrounding area. For an area to be environmentally sustainable, it should protect the unique amenity and character of the surrounding environment and also prevent degradation. The development will not be situated in an ecological sensitive area or in places of hazard or high risk, such as within the flood plain. The proposed development further excludes noxious activities.

In considering the environmental management instruments applicable to the proposed development, it is pertinent to note that the activity does indeed constitute a listed activity in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended and the Environmental Impact Assessment Regulations, 2014.

The township applicant appointed a qualified independent Environmental Practitioner to conduct the necessary Environmental Impact Assessment and public participation process as prescribed in terms of the fore-mentioned Act and Regulations.

The development of this township area as well as the activities conducted from the erven in the township area during the operational phase will be subject to the conditions imposed by the Department and set out in the relevant Environmental Authorisation.

(iv) promote and stimulate the effective and equitable functioning of land markets;

The local municipality is in favour of on-going dialogue with private investors and relevant government departments, to promote integrated economic growth.

Principle 7 (b)(iv) recognizes the need for land development to be based on competition and the principle of a competitive economy. The development will contribute to the economic growth of the municipal area. The development represents a public sector initiative, planned and applied for in the context of open market competition. This development will further not be in competition with any other private sector development within the concerned area.

(v) consider all current and future costs to all parties for the provision of infrastructure and social services in land developments;

The local municipality needs to comply with the guidelines for the provision of emergency-, social-, education- and engineering services, in terms of the provision of infrastructure and social services.

The development will contribute to a more efficient usage of the concerned property and will also ensure the effective usage of the existing infrastructure network available in the direct vicinity of the concerned property. The provision of services to the proposed development has been addressed in detail in Section 5 supra and it was indicated that the development can be provided with the necessary services. The infrastructure details set out in Section 5 also prove that the Ditsobotla Local Municipality has sufficient capacity and resources to accommodate the development (subject to certain upgrading requirements).

(vi) promote land development in locations that are sustainable and limit urban sprawl; and

The area between Provincial Road P13-2 and south of MC van Niekerkpark and bordered to the east by the golf course was specifically earmarked for future residential development purposes in terms of the Ditsobotla Local Municipality Spatial Development Framework, 2013 to limit further urban sprawl of the built up urban area of Blydeville and due to the fact that this area can function in a sustainable manner due to the availability of services to this area.

This development intends to promote a more compact city and to prevent the expansive provision of social and engineering services. The Spatial Development Framework addresses the scale or urban growth through planned extensions, infill and redevelopment strategies. In this regard it should be noted that the proposed township area of Blydeville Extension 4 is located within the demarcated urban edge as set out in the Ditsobotla Local Municipality Spatial Development Framework, 2013. This township further entails the development of land between the urban areas of Blydeville and Lichtenburg that has always been unutilized and serves no purpose for the local community. The local municipality is aware of the need to integrate urban settlements, with a view to reduce travel distances to the areas of employment opportunities.

The planning practices of the past have resulted in sprawling urban areas that are un-economical. Today, planning policies transformed to mainly focus on infill development on vacant land within an urban environment, in order to combat urban sprawl. The principle also calls for a balance in land development processes. The development is in line with the sub-principle and will combat urban sprawl. The development will also ensure maximum utilization of the concerned property.

(vii) result in communities that are viable;

For any development to be sustainable and viable to the community, land development and planning should ensure that communities are located close to job opportunities, social facilities and basic services. This

development aims specifically at providing residential development opportunities that are closer to the economic activities of Lichtenburg.

(c) the principle of efficiency, whereby -

(i) land development optimizes the use of existing resources and infrastructure;

The granting of development permissions should be coupled with the provision of adequate infrastructure. The efficient usage of existing resources can promote high density growth, alleviate urban sprawl and optimise the use of land.

The development will ensure the optimum utilization of one of the most valuable resources being land, if used to its full potential, and it was indicated in Section 5 that the development can be supplied with the full spectrum of infrastructure elements such as water, sewer, refuse removal, and access roads; thus reducing the effect of the development on the natural surrounding area.

(ii) decision-making procedures are designed to minimize negative financial, social, economic or environmental impacts; and

The opinion is held that the development will not have a negative financial, social, economic or environmental impact on the surrounding properties, as this development will be of a formal and non-noxious nature fitting in with the land uses surrounding the proposed development area.

(iii) development application procedures are efficient and streamlined and timeframes are adhered to by all parties;”

This township establishment application will be processed in accordance with both the prescriptions of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) and the Ditsobotla By-law on Spatial Planning and Land Use Management which prescribes in detail the township establishment application and approval processes. The processes prescribed in terms of this legislation make provision for the necessary community involvement through a public participation process.

(d) the principle of spatial resilience, whereby flexibility in spatial plans, policies and land use management systems are accommodated to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks; and -

Standards for the protection of natural resources, agricultural land, open spaces and ecosystems have been compiled on a national and regional level. The local municipality compiled a Spatial Development Framework to increase resilience for human settlements, focusing on vulnerable and informal areas. The Spatial Development Framework needs to be flexible to adapt to social, economic and technological trends. This development is specifically aimed at

providing opportunities for people that are currently devoid of land for proper housing purposes. In this regard it should be noted that the township area of Blydeville Extension 4 also makes provision for housing opportunities for rental / social housing purposes. The provision of proper housing for the landless community of Blydeville will alleviate the plight of a community who is most vulnerable to suffer the impacts of environmental and economic shock.

(e) principle of good administration, whereby-

(i) all spheres of government ensure an integrated approach to land use and land development that is guided by the spatial planning and land use management systems as embodied in this Act;

The Ditsobotla Local Municipality has both a land use management scheme and a Spatial Development Framework as part of their land use management system. In terms of the Spatial Development Framework the area to which this development applies was specifically earmarked for residential development which renders this proposed development in line with the Spatial Development Framework. The development will also be incorporated into the Ditsobotla Town Planning Scheme, 2007 in terms of applicable legislation following the opening of the required township register. This land use management scheme will effectively regulate the land uses to be established within this township area as well as the extent of development.

(ii) all government departments must provide their sector inputs and comply with any other prescribed requirements during the preparation or amendment of spatial development frameworks;

Integration between the different levels of government assists to create complimentary and mutually reinforcing policies, while integration between the different sectors will result in positive benefits. Government departments have been consulted during the compilation of the Spatial Development Framework of the local municipality. In addition to the fore-mentioned consultation, it should be noted that this application for township establishment was also referred to the following government and non-government departments as integral part of the public participation process:

- ✧ Department of Public Works and Roads
- ✧ Openserve (former Telkom SA Limited)
- ✧ Eskom
- ✧ Ngaka Modiri Molema District Municipality
- ✧ Department of Minerals Resources
- ✧ Department of Agriculture, Forestry & Fisheries (DAFF)
- ✧ Department of Water and Sanitation
- ✧ Department of Local Government and Human Settlements
- ✧ Department of Education

- ✧ Department of Health
- ✧ South African Post Office
- ✧ Transnet Freight Rail
- ✧ South African Heritage Resources Agency (SAHRA)
- ✧ South African National Roads Agency Limited (SANRAL)
- ✧ Department Rural, Environment and Agricultural Development (READ)

(iii) the requirements of any law relating to land development and land use are met timeously;

The Minister of Rural Development and Land Reform has prescribed timeframes to which land development applicants and decision makers must adhere to. Following approval of the application for township establishment, the further processes in finalizing the township establishment process will be government by the timeframes set out in the Town Planning and Townships Ordinance, 1986 as well as the Ditsobotla By-Law on Spatial Planning and Land Use Management.

(iv) the preparation and amendment of spatial plans, policies, land use schemes as well as procedures for development applications, include transparent processes of public participation that afford all parties the opportunity to provide inputs on matters affecting them; and;

Effective procedures for public participation are in place, to afford the residents and other parties the opportunity to provide inputs on development applications and other matters affecting them.

The public participation process undertaken as part of this township establishment application includes the following:

- The application in respect of the establishment of the proposed township Blydeville Extension 4 will be advertised in accordance with Section 98(1)(a) of the Ditsobotla By-Law on Spatial Planning and Land Use Management and Section 108(1)(a), Regulation 26(1) and Annexure 16 of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) in the Noordwester Newspaper on 17 and 24 November 2017 as well as in the North West Provincial Gazette on 14 and 21 November 2017. Objectors will be afforded a period of 30 days from 17 November 2017 to submit objections or comments in respect of the proposed township area to the Municipal Manager and the authorised agent.
- The application will also, in accordance with the prescriptions of Section 99(1)(c) of the Ditsobotla By-Law on Spatial Planning and

Land Use Management read with Section 108(1)(b) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) be referred to the following external organizations / departments for comments or objections:

- ✘ Department of Public Works and Roads
- ✘ Openserve (Telkom SA Limited)
- ✘ Eskom
- ✘ Ngaka Modiri Molema District Municipality
- ✘ Department of Minerals Resources (DMR)
- ✘ Department of Agriculture, Forestry & Fisheries (DAFF)
- ✘ Department of Water and Sanitation
- ✘ Department of Local Government and Human Settlements
- ✘ Department of Education
- ✘ Department of Health
- ✘ South African Post Office
- ✘ Transnet Freight Rail
- ✘ South African Heritage Resources Agency (SAHRA)
- ✘ South African National Roads Agency Limited (SANRAL)
- ✘ Department Rural, Environment and Agricultural Development (READ)

The fore-mentioned organizations / departments will be afforded a period of 60 days to comment in this matter in accordance with the prescriptions of Section 108 (1) of the Town Planning and Townships Ordinance, 1986 (Ordinance 15 of 1986) read with paragraph (l) of Schedule 1 of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013).

- In addition to the fore-mentioned notices, notices will also be served on all adjacent property owners in accordance with the prescriptions of Section 99(1)(c) of the Ditsobotla By-law on Spatial Planning and Land Use Management.
- To ensure the greatest extent of public participation, notices will also be posted on the subject properties in accordance with the prescriptions of Section 101(1)(a) of the Ditsobotla By-law on Spatial Planning and Land Use Management.

(v) policies, legislation and procedures must be clearly set in order to inform and empower members of the public;

The procedures prescribed in terms of the Town Planning and Townships Ordinance, 1986 and the Ditsobotla By-Law on Spatial Planning and Land Use Management clearly sets out the process to be followed during the establishment of a township area and said procedures afford members of

the public the opportunity to not only participate in this process but also to scrutinize the documentation relating to the application. Members of the public will be afforded a period of 30 days to comment or object against this development.

6.20 GENERAL

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

- The purpose of the application for township establishment is to provide sufficient erven within the Blydeville urban complex to address the urgent short term need for residential erven that can be utilized for low income / subsidized housing purposes.
- The proposed development area is located directly adjacent to existing township areas and constitutes the logic extension of the existing built-up urban area of Blydeville and constitutes infill development.
- The proposed township area is easily accessible through its location directly adjacent to Provincial Road P13-2 (R505) (Lichtenburg – Gerdau/Ottosdal road) that links the Blydeville urban area with the remainder of Lichtenburg as well as the CBD of Lichtenburg.
- The proposed township area of Blydeville Extension 4 will also be linked to the economic activities offered within the Lichtenburg urban area through the existing road network of Lichtenburg which links with the proposed road network of the proposed township area.
- The layout plan that was compiled in respect of the township area comprehensively addresses the issues identified during the pre-planning studies relating inter alia to the following:
 - Incorporating the road network with that of the adjacent township areas;
 - Incorporating the building restriction areas;
 - Incorporating all existing servitudes within the layout plan of the township area;
 - Incorporating the results of the geotechnical investigation which indicated that the development area is suitable for township establishment purposes;
 - Engineering services can be provided to the proposed township area.
 - Traffic generated by the development can be accommodated within the existing road network.

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

K. RAUBENHEIMER (Pr. PIn A/924/1996)