REPORT PREPARED FOR:
Jacobus Jonathan Jacob Swarts

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BOSHOEK FILLING STATION

MARKET STUDY

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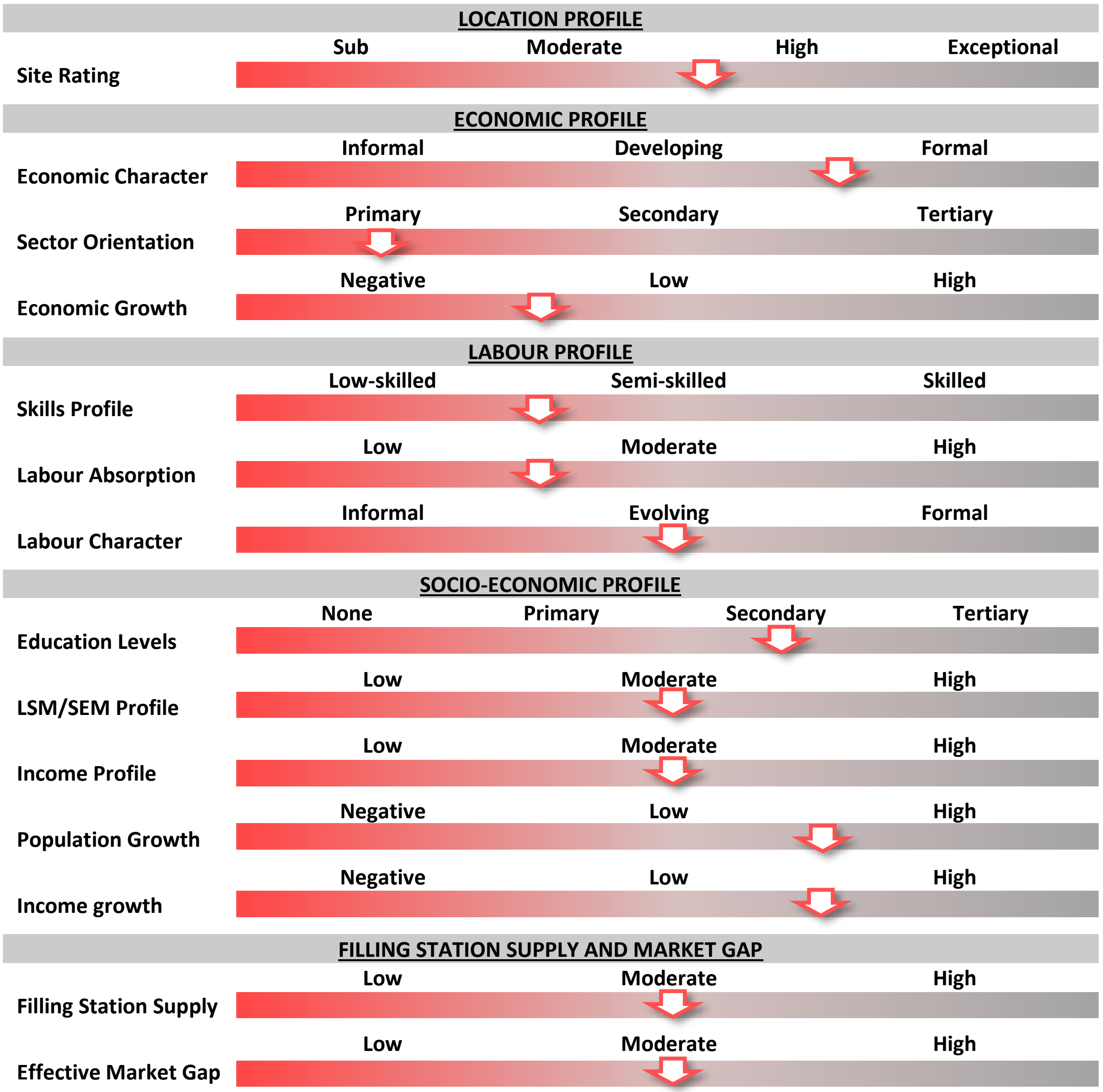
SYNOPSIS

KEY INDICATORS



DEVELOPMENT OPTION AND AREA COMPATABILITY

	Filling Station
Site rating	Moderate
Economic Base & Drivers	Moderate
Labour Profile	Moderate
Socio-Economic Profile (Demand base)	Moderate
Effective Filling Station Market Gap	Moderate
Tax Base Impact	Positive

DEVELOPMENT RECOMMENDATION

In terms of the market data contained in the analysis presented, a filling station offers a good locational fit, considering the effective market gap in the market area based on traffic volumes. The site location is favourable in terms of visibility and accessibility.

RECOMMENDED

OPTION:

FILLING STATION

Including Semi-Service Convenience Retail Offering

Offering	Monthly Sales Forecast
Filling station	403 456 litres
Convenience retail with Semi-service restaurant	R 766 566.40

TABLE OF CONTENTS

SYNOPSIS i

1 INTRODUCTION & LOCATION ORIENTATION 2

1.1 INTRODUCTION 2

1.2 PROJECT BRIEF AND APPROACH 2

1.3 LOCATION ORIENTATION 3

1.4 SPATIAL CONSIDERATIONS 5

1.5 BUILDING STATISTICS 8

1.6 LOCAL AREA GROWTH 9

1.7 PROJECT LOCATION ASSESSMENT 10

2 ECONOMIC PROFILE AND DRIVERS 12

2.1 INTRODUCTION 12

2.2 REFERENCE FRAMEWORK 12

2.3 MACRO-ECONOMIC INDICATORS 13

2.4 LOCAL ECONOMIC TRENDS AND PERFORMANCE 14

3 TRADE AREA DELINEATION AND DEMOGRAPHIC PROFILE 23

3.1 INTRODUCTION 23

3.2 MARKET AREA DELINEATION 24

3.3 DEMOGRAPHIC SIZE AND COMPOSITION 25

3.4 EMPLOYMENT PROFILE 28

3.5 HOUSEHOLD PROFILE 30

3.6 DEMOGRAPHIC PROFILE AND GENERATION CONSUMERS 34

4 FILLING STATION DEMAND ANALYSIS 36

4.1 INTRODUCTION 36

4.2 METHODOLOGY 36

4.3 FILLING STATION SUPPLY IN THE MARKET AREA 37

4.4 FUEL SALES DEMAND FORECAST 40

4.5 CONVENIENCE STORE MARKET DEMAND FORECAST 41

4.6 SYNTHESIS 42

INTRODUCTION AND BACKGROUND

1

1 INTRODUCTION & LOCATION ORIENTATION

1.1 INTRODUCTION

Chapter One of the report provides an introduction and concise roadmap of the market study for a proposed filling station development in Boshoek, North West Province. To understand the scope, objectives and outline this document, Chapter 1 provides an introduction to the project.

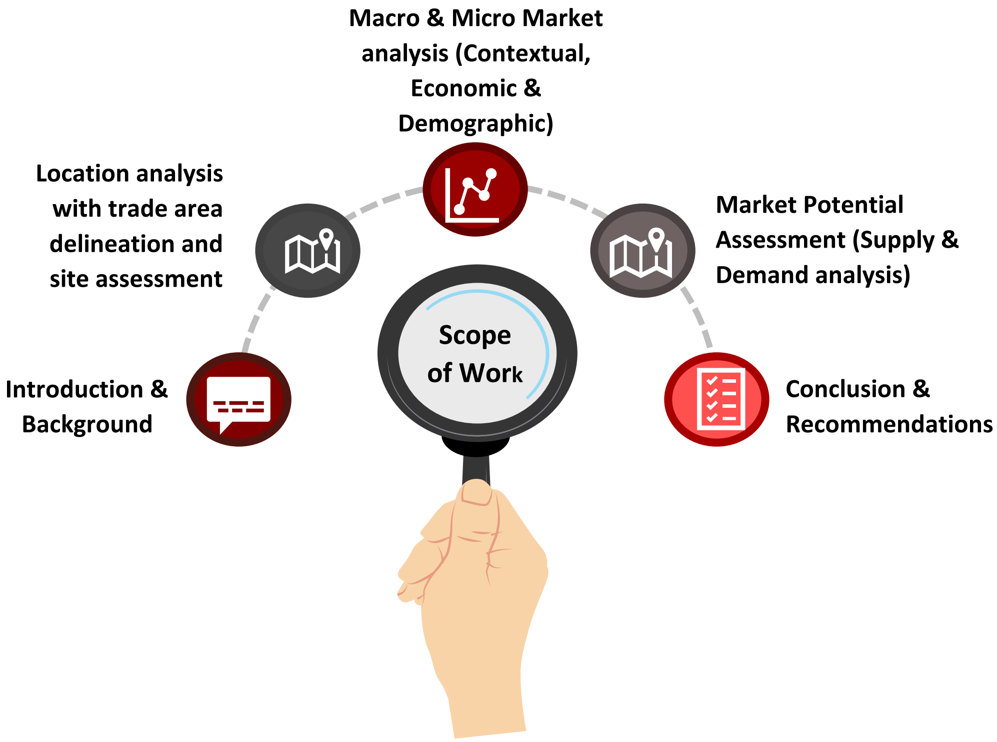
1.2 PROJECT BRIEF AND APPROACH

DEMACON Market Studies was commissioned by **Jacobus Jonathan Jacob Swarts** to conduct market research into the viability of the proposed **Boshoek Filling Station** and to provide recommendations in respect of the most appropriate convenience offering.

In the context of the brief, the research entailed the following:

- Market profiling
- Nodal growth profiling
- Base yar fuel sales calculation
- Additional fuel sales to be generated on account of new developments
- 15 years fuel sales forecast and Net Present Value (NPV) calculation
- Impact on fuel sales of competing filling stations
- Recommendations regarding the most appropriate convenience offering

The subsequent diagram reflects the scope of work covered in this investigation.



DEMACON's approach is purely market based and we apply our extensive involvement as well as recent research and market intelligence on the subject matter to complement the market study.

1.3 LOCATION ORIENTATION

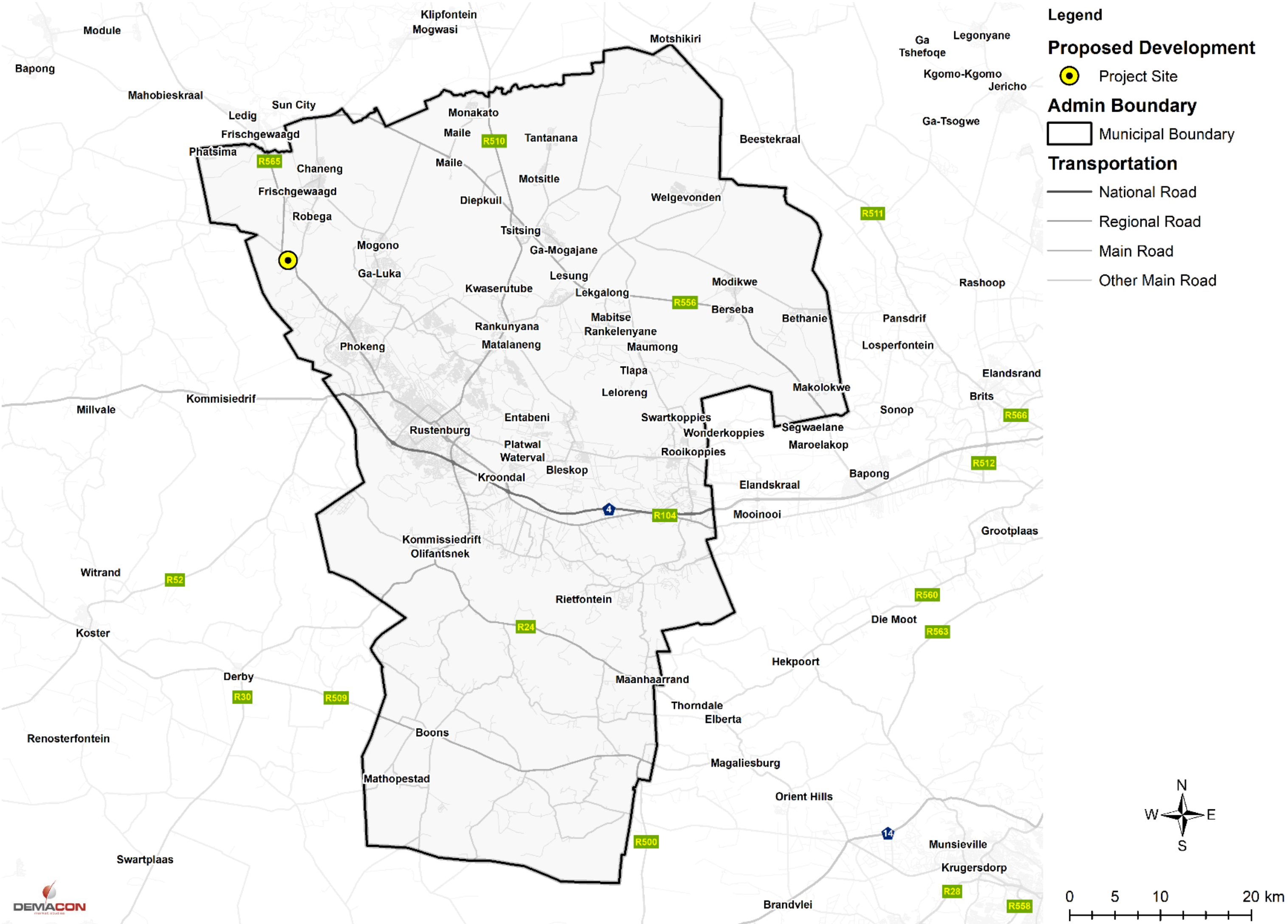
❖ Municipal Context

The study area falls within the Rustenburg Local Municipality, located in the Bojanala Platinum District within the North West Province. The Municipality is the second smallest municipality in the District covering an area of 342 300 hectares, but is the municipality with the highest population within the District.

Rustenburg Local Municipality is one of 21 local municipalities in North West Province and forms part of the Bojanala District Municipality. It represents the core part of platinum mining in South Africa, and the N4 Platinum Development Corridor runs from east to west through the municipal area.

The RLM accommodates about 16% of the provincial population, and it is estimated that it will in future experience significant population growth (up to 32.9% of the provincial population growth). At present it also represents about 18% of the provincial housing backlog (± 60 000 units).

Map 1.1: Site in local municipal context – Rustenburg Local Municipality



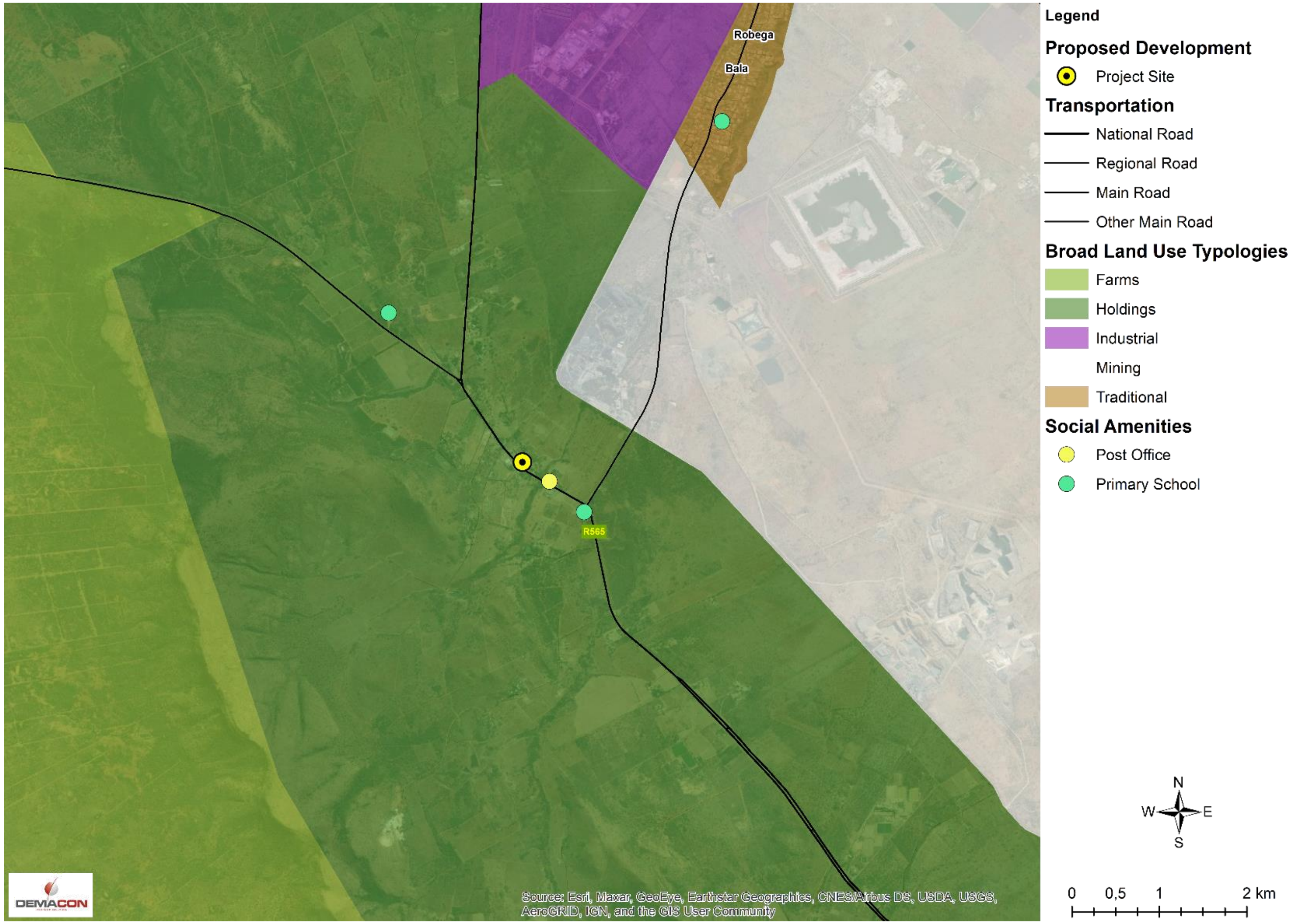
❖ Site Context

This proposed development is situated along the R R565 road approximately 10 km North of Phokeng in The Rustenburg Municipality. The location of Portion 135 of the farm Boschhoek No. 103 – JQ Development site is shown in Figure 1 below.

The area surrounding the proposed filling station is predominantly commercial with retail, personal and business services and filling stations in the immediate surrounding area.

Currently the property is zoned as "Business 1 for the purpose of shops". However, this report is in support of a rezoning application to **"Special"** – for the purpose of a filling station (and ancillary shops).

Map 1.2: Local Context of proposed filling station



1.4 SPATIAL CONSIDERATIONS

This section highlights the spatial considerations related to the site and the surrounding region, based on the Rustenburg Local Municipal Integrated Development Plan Review (2021/22). *The Municipal SDF is currently under review to align with SPLUMA principles.*

1.4.1 STRUCTURING ELEMENTS

Four elements have shaped the historical development of the settlement patterns in the Rustenburg LM area:

- **Rustenburg town** represents the centre of population concentration, employment opportunities and shopping opportunities. This attracted urban development towards the town.
- The **Magalies Mountain Range** traverses the municipal area south of Rustenburg Town and inhibited urban expansion in a south westerly direction. Hence, urban expansion was forced in a northern and north-easterly direction.
- The **Provincial Roads** that cross the Rustenburg Municipal Area have had a profound impact on the shape of urban development within the municipal area. Two provincial roads traversing the municipal area can be distinguished as having the largest impact on urban development in the region. These roads are the Rustenburg/Sun City road (R565) that links Rasimone, Luka and Phokeng to Rustenburg; and the Rustenburg/Thabazimbi road (R510) that links Tlaseng, Kanana and Boitekong to Rustenburg.
- The **Platinum Mines,** running parallel to the north of the Magaliesberg mountain range, have dramatically shaped the settlement pattern in the municipal area. On the one hand, it fragmented urban development by creating physical barriers such as transport facilities, pipelines, infrastructure and surface mining infrastructure between Rustenburg and the settlements located north of the mining belt, (e.g. Boitekong). On the other hand, it also led to the development of isolated towns such as Luka, Kanana, Thekwane and Photsaneng in close proximity to mining activities (job opportunities).

1.4.2 SETTLEMENT PATTERNS

Four broad types of settlements can be distinguished in the Rustenburg LM:

- **Formal Urban Settlements** have a formal (proclaimed) layout plan with registered erven and erf numbers; are serviced with a full range of municipal services; and the households can obtain security of tenure. These include areas such as Rustenburg, Tlhabane, Boitekong, Phatsima, Hartbeesfontein, Kroondal and Marikana.
- **Tribal Settlements** are mainly located on Bafokeng tribal land and the households living in these settlements are considered Bafokeng citizens. Although these households do not own title deeds, they have security of tenure (permission to occupy) through their association with the tribe and are characterised by varying levels of service. Settlements that fall within this category include areas such as Phokeng, Kanana, Luka, Chaneng, Tlaseng, Rankelenyane, Thekwane and Photsaneng.
- **Rural Settlements** are settlements that are similar in nature to the tribal settlements with regard to the residential densities and functions, but they are not located on Bafokeng tribal land.
- **Informal Settlements** have mainly developed along the mining belt and close to mine shafts. These include areas such as Wonderkoppies, Nkaneng, Zakhele, Popo Molefe and Freedom Park. The 24 informal settlements in the RLM area are characterised by a lack of security of tenure and a lack of basic municipal services. Collectively these areas represent at least 24 000 households. The total number of households residing in informal structures (including backyard units and informal units in traditional authority areas) in the RLM municipal area is about 68 800 units.

1.4.3 MAJOR ECONOMIC ACTIVITIES

AGRICUTLURE:

The majority of agricultural activities take the form of commercial dry-land farming which is mainly concentrated in the extreme southern parts of the municipality. There are also notable areas of commercial agriculture in the central parts immediately north and south of the N4 between Kroondal and the eastern boundary of the municipality, as well as in the north-western parts along the foothills of the Magaliesberg mountain range in the vicinity of Boschoek. Agricultural activities in the central and north eastern parts of the municipality are very limited.

The occurrence of irrigated agriculture is mainly based in the extreme south eastern parts of the municipality as well as in the areas south and south west of Kroondal. The occurrence of cultivated small holdings is extensive in the central parts of the municipality, especially around the Kroondal node.

From a climatic perspective, the municipal area is marginal for dry land cultivation with the mean annual rainfall in the central and southern parts being between 600mm and 800mm and between 400mm and 600mm in the northern parts. In addition, high evaporation rates, especially in summer, mean that any drought period in the growing season can easily lead to moisture stress for crops.

The main source of income derived from agricultural products in the Rustenburg area is from animals (46.6%), field crops (25.1%) and animal products (23.9%). The income from animal products in the Rustenburg area is the most prominent of all municipalities in North-West Province accounting for 22.2% of total income derived from this source within the province. In the case of animals, horticulture and field crops, the extent of production in the Rustenburg area represents 12.1%, 5.0%, and 4.8% of the provincial total respectively.

MINING:

The economic, social and physical characteristics of Rustenburg have been largely determined by the presence of mining activities within the Municipal Area. Mining activities are mainly concentrated along a geological belt, known as the Bushveld Complex. This part of the Bushveld Complex is one of the most heavily mineralised districts in the world and the platinum mines in this region are the largest producers of platinum in the world. The Merensky Reef and the UG2 chromite layers are renowned for their Platinum Group Metal (PGM) content and together they form the world's largest depository of PGMs.

Apart from chrome and platinum, other minerals mined in the region are tin, lead, marble, granite and slate. Underground mining predominates, although open cast mining also exists. The Platinum-Group Metals (PGM) constitute a family of six chemically similar elements. Their excellent catalytic qualities, resistance to corrosion, chemical inertness and high melting points render them most suitable for a number of specialist applications.

Rustenburg Platinum Mines (RPM), which belongs to the Anglo-American Platinum Corporation Limited (Anglo Platinum), is the largest single producer, and operates three geographically separate sections: Rustenburg, Union and Amandelbult Sections, all on the western limb. The other mines on the western limb are Impala Platinum Holdings Limited's Impala Platinum and Crocodile River (through Barplats Investments Limited) mines; Lonmin Platinum's Eastern Platinum, Western Platinum and Karee mines; Northam Platinum Limited's Northam Mine, and Aquarius Platinum's Kroondal and Marikana mines.

TOURISM

The main local tourism attractions the region has to offer, are closely linked to the comparative advantages the area has to offer with regard to its natural assets, the occurrence of many heritage sites relating to iron/stone age, Anglo-boer history and indigenous tribes such as the Tswana and Ndebele, and the variety of minerals and mining activities found in the area.

Most of the tourism and accommodation establishments are located in the immediate Rustenburg area (71%) with the remainder being in the Buffelspoort/ Mooinooi/ Maanhaarand area (16%), at Vaalkop dam (5%), at Boshoek (4%) or near Magaliesburg (4%). 21

Tourism plays an increasingly important role within the Rustenburg Municipal Area. The typical Bushveld climate and vegetation of the Municipal Area, as well as the unique topography of the Magaliesberg, offer several opportunities for tourism. .

These include opportunities for eco-tourism, as well as tourism associated with the variety of historical and cultural interests found within the municipal area.

Primary tourism areas and facilities located within the municipal area are as follows:

- Rustenburg Town;
- Kgaswane Game Reserve;
- Vaalkop Dam Nabture Reserve;
- Kroondal;
- Bafokeng Sport Palace; and
- Buffelspoort Dam.

Despite the above mentioned tourist attractions, the most prominent regional tourist destination are not located within the RLM area itself, but on its borders. The broader region has some of the finest game parks, cultural and archaeological sites and entertainment resorts in South Africa, including:

- Pilanesberg National Park;
- Madikwe Game Reserve;
- Sun City and Lost City Resort; and
- Cradle of Humankind.

1.4.4 KEY MUNICIPAL ISSUES AND SWOT ANALYSIS

In order to determine the key issues and development opportunities for the area, a S.W.O.T. analysis for the local municipality was done (refer to Diagram 1.1), as per the Rustenburg LM IDP.

S — STRENGTHS

- Credible IDP
- Council approved and adopted Sector Plan
- By-laws and Policies in place
- All strategic positions are filled
- The municipality is functioning as both a Water Services Authority and Water Services Provider
- The municipality is rich in gold and platinum, which provides opportunities for job creation
- There are some policies and procedures in place
- There is still basic service delivery which can be built on
- The municipality has structure with clear roles and responsibilities

W — WEAKNESSES

- Limited access to strategically located land
- Uncontrolled land invasion and Informal Settlement developments
- Contravention of Land Use Management Scheme
- Poor maintenance and management of open spaces and heritage sites
- Poor maintenance of municipal assets
- High distribution losses in water and electricity
- Negative audit opinion
- Lack of cash reserves
- Low revenue collection rate
- Fraud and corruption
- Policy and procedure not being followed (i.e. recruitment policy, SCM policy)
- Service delivery not adequate
- Cash flow challenges
- Low revenue collection
- Low staff moral
- Lawlessness
- Poor planning

O — OPPORTUNITIES

- Municipality strategically located along the N4 corridor
- Potential for agriculture, tourism and mining related sectors
- Potential to increase revenue base
- Private Public Partnerships, Mining industries to be engaged to assist in capital funding
- The municipality is classified as the Economic Hub of the Province
- Development of the Integrated Public Transport network to enhance urban sustainability
- Explore green energy/alternative sources of energy
- Establishment of small industries that can be supported by mines
- Possible partnership with mines and other businesses (PPP)
- Job creation at exiting mines
- Operation and maintenance of capital projects
- Job creation through EPWP and CWP programmes
- Job creation through formation of cooperatives
- Development and revenue diversification
- Tourism
- Small industries

T — THREATS

- Declining mining economy
- Service delivery protests
- Insufficient budget for infrastructure development and maintenance
- Ageing and failing infrastructure
- Low levels of skills and education
- High dependency rate (growing indigent register)
- Negative perception about municipality by the community
- Illegal connection of services (unauthorized usage of municipal services)
- Undiversified economy
- High unemployment rate
- Low levels of household income
- Influx of migrant workers
- Vandalism and theft of infrastructure network
- Community protests
- Unemployment increasing
- Increase in crime
- Decrease in revenue collection due to unemployment
- Increase in number of disciplinary hearings
- Increase in informal settlement formation
- Challenges to service informal settlements
- Negative audit report
- None adherence to policies

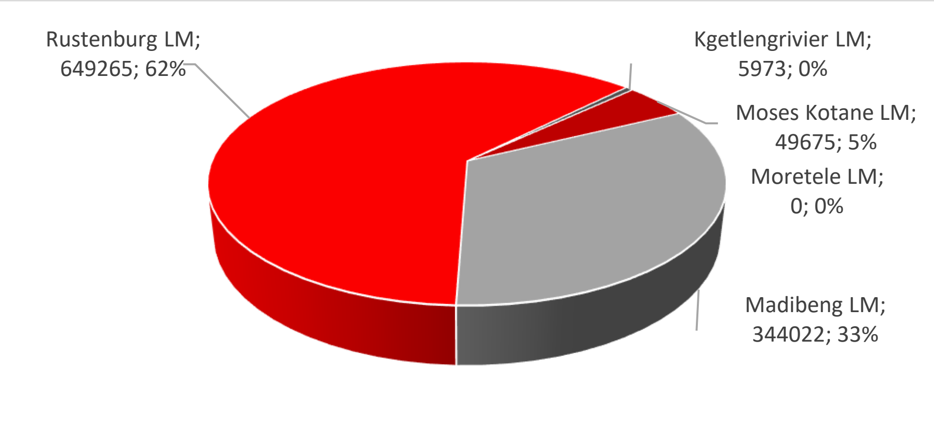
1.5 BUILDING STATISTICS

RUSTENBURG LOCAL MUNICIPALITY: TOTAL BUILDINGS COMPLETED BETWEEN 2010 AND 2019

The historical trends of the Rustenburg Local Municipality show that the following has been completed between 2010 and 2019.

Residential Buildings	Dwelling-Houses	5 357 units
	Flats & Townhouses	1 862 units
	Other Residential (incl. Tourism Accommodation)	3 unit
	AVERAGE residential units/annum	**722 units**
Non-Residential Buildings	Shopping Space	97 069 m²
	Office and Banking Space	28 109 m²
	Industrial and Warehouse Space	92 175 m²

Figure 1.1: Value of Buildings Completed for Local Municipalities in the Bojanala Platinum District, 2018



Source: Demacon ex StatsSA, 2021
***Building statistics on District level for 2019 not available*

Figure 1.2: Rustenburg LM– Residential Buildings Completed (2010-2019)

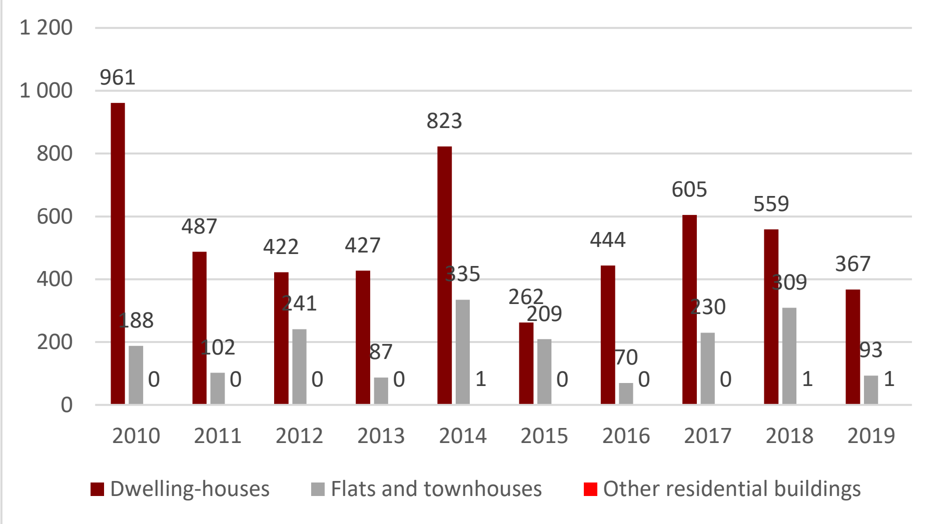
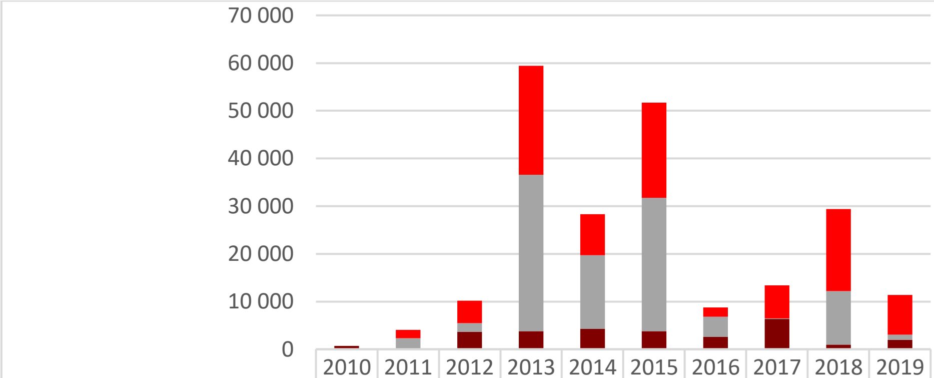


Figure 1.3: Rustenburg LM– Non-residential floor area completed (2010-2019)

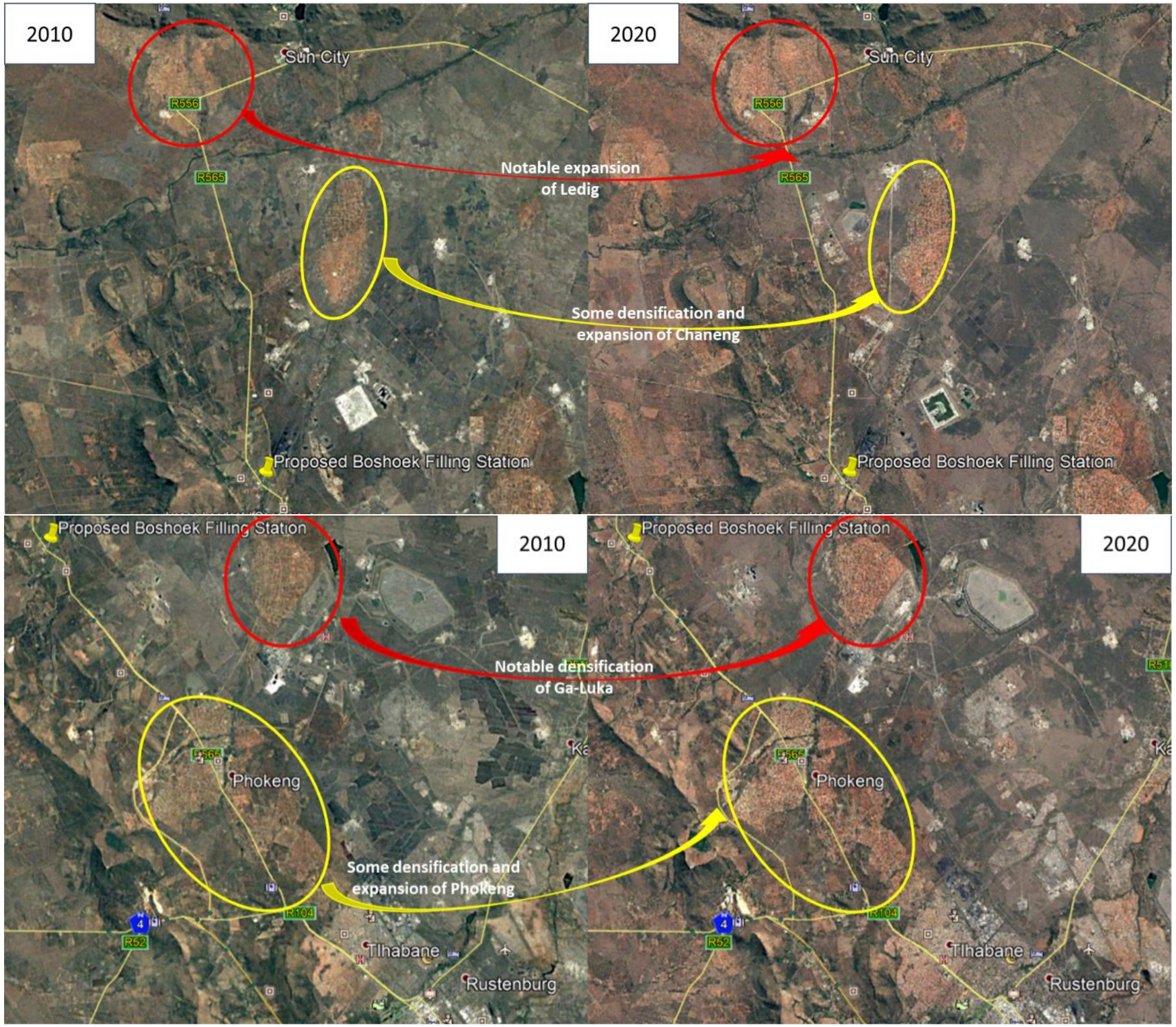


	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Industrial and warehouse space	0	1 772	4 679	22 877	8 581	19 911	1 972	6 882	17 206	8 295
Shopping space	0	2 318	1 867	32 796	15 444	27 972	4 191	200	11 200	1 081
Office and banking space	723	0	3 626	3 789	4 284	3 794	2 616	6 314	963	2 000

Source: Demacon ex StatsSA, 2021

1.6 LOCAL AREA GROWTH

Image 1.1: Local Area Growth (North and South of the proposed filling station)



Source: DEMACON ex Google Earth Imagery, 2021

From Image 1.1 it is evident that there has been some notable densification and expansion along the R565, especially in Ledig and Ga-Luka, but also in Chaneng and Phokeng.

1.7 PROJECT LOCATION ASSESSMENT

Market potential is influenced not only by consumer income and expenditure, but in particular also by the characteristics of the site/location where future development activities are to take place. To this effect, DEMACON Site Evaluation Models © are utilised. These DEMACON models are pragmatic and are based on the assignment of values to various location factors. Firstly, the site is evaluated on a ten-point scale, with ten being the highest. Secondly, weights are attached to these factors, in order of importance (1 to 5, with 5 being the most important).

Table 1.1: Residential Location Assessment

Locational Factors	Grade 1-10		Score
Strategic location – on main route	8	»»	40
Accessibility	9	»»	45
Visibility	9	»»	45
Income level	7	»»	28
Captive Market (Transient trade/Households)	8	»»	32
Future expansion potential	7	»»	21
Consumer mobility	7	»»	21
Filling station supply in the area/Competition (effective supply)	7	»»	28
Appeal of the area	7	»»	21
Directional growth of the area	7	»»	28
Area improving or deteriorating	7	»»	21
Effective market gap on route	7	»»	28
		Total Score	**358**
		Score Rating	**76.2%**

Source: Demacon, 2021

* Note: 80%+ indicates an exceptional site rating; a site rating of 70 – 80% is high and indicates that most important fundamentals for a successful residential development is in place; a rating of 60 – 70% indicates some critical factors may be lacking but could possibly be addressed; projects with a sub 60% rating are not recommended for consideration.

The site scored a high residential **site rating of 76.2**% indicating that the **most important fundamentals for a successful residential development is in place**.

ECONOMIC PROFILE AND DRIVERS

2

2 ECONOMIC PROFILE AND DRIVERS

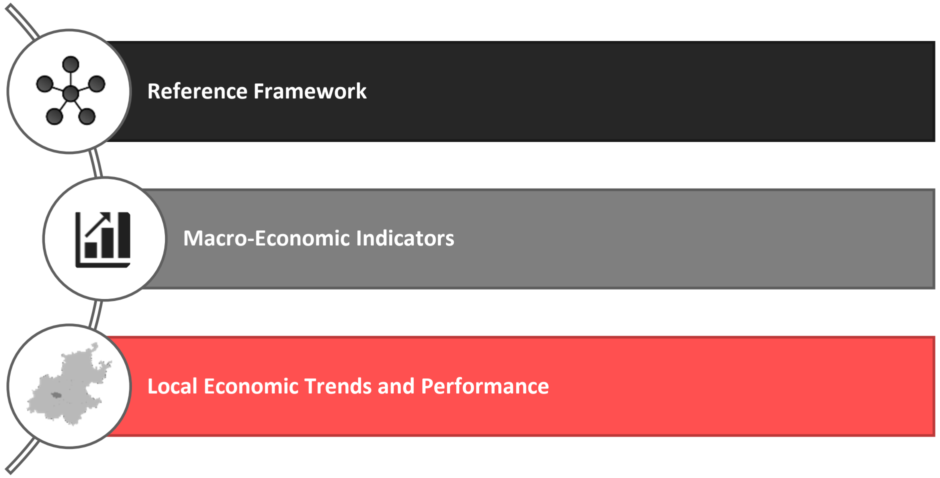
2.1 INTRODUCTION

An intricate, though well-defined relationship exists between the economy and urban real estate markets. The performance of specific economic sectors serves as proxy for the performance of these real estate markets.

The purpose of this section is to outline the salient features of the study area economy (reference is made to the Rustenburg local economy) in terms of selected time series economic indicators; most notably the economic profile and growth trends within the local economy.

As such, this section provides insight into the composition and stability of the local economy and hence, provides a more comprehensive assessment of medium- to long-term investment prospects than the conventional demographic analysis.

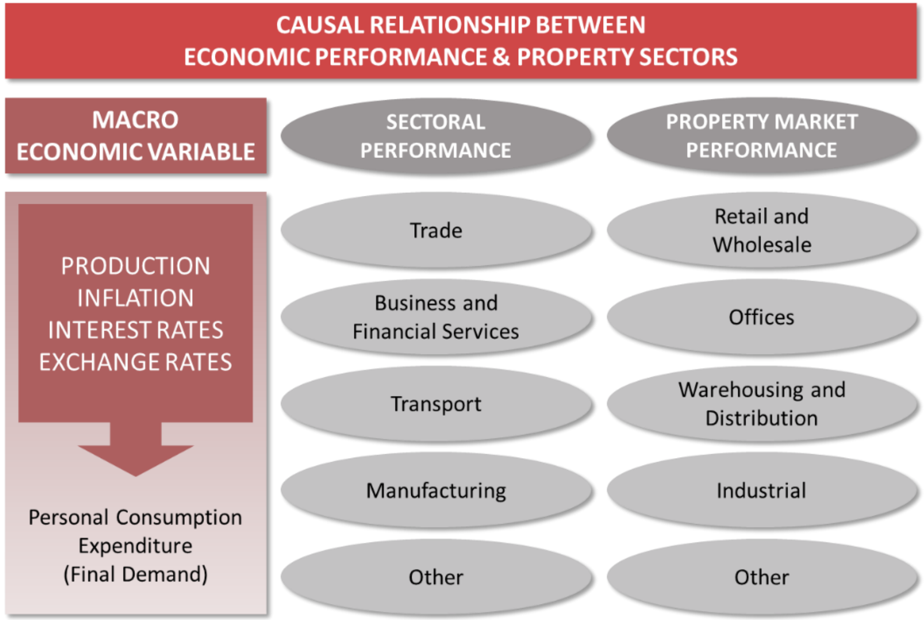
Subsequent paragraphs highlight the following main headings in order to understand the economic profile and drivers:



2.2 REFERENCE FRAMEWORK

The causal relationship between economic sector performance and property market performance is illustrated in Diagram 2.1.

Diagram 2.1: Causal Relationship between Economic Performance and Property Sectors



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The economic indicators of an area form the basis for current demand for commercial product offering and serve as drivers for future growth in demand. Subsequent paragraphs highlight the main indicators for the market area under investigation.

2.3 MACRO-ECONOMIC INDICATORS

IMPROVED ECONOMIC OUTLOOK FOR SOUTH AFRICA (2021:Q1)

Source: SAPOA, SACSC, MSCI, ABSA, FNB, Lightstone

GDP FORECAST

GDP forecast raised from 3,1% to 3,8% for 2021

- Medium-term GDP forecast at ±2% (2022+)
- Agriculture & Mining sectors recovered
- Service sectors impacted – low level of tourism, transport & trade
- Manufacturing & Construction remain subdued – low demand, destocking & persistent bottlenecks to rpdouction

FIXED INVESTMENT

Fixed investment is likely to improve

- Fast roll out of vaccination could assist somewhat in improving confidence

COVID & LOADSHEDDING

Continuous impact on economic growth

- Persistent shortages of electricity production, continuous load shedding and impact of Covid-19 to impact economic growth

INFLATION

Consistent inflation rates

- A few inflation cost-push dirvers could increase headline CPI over the short-
- Inflation for remainder of 2021 likely to remain in the bottom half of the target

CURRENT ACCOUNT

Current account suplus forecasted for 2021

- Supported by export volume growth and terms of trade

EXCHANGE RATE

Stronger exchange rate forecasted for the remainder of 2021

- Rand expected to recover to: R14,25/USD mid-2021; R15,25/USD end of 2021

COMMERCIAL PROPERTY OUTLOOK (2021:Q1)

MARKET ACTIVITY LEVELS

- Strengthening in **Industrial** and **Retail** markets
- Decline in Office Market activity levels

VACANCY LEVELS

- Decline in vacancy rates thus far only observed in the **industrial** market

RETAIL MARKET EXPECTATIONS

- Super regional & regional destination centres most negatively impacted (returns of -5,0%)
- Shopper preference evident towards open-air type community, neighbourhood and convenience centres (positive return of 0,8%)
- Retail warehouses and Big Box retail had a positive return of 6,0%
- Retail total returns highest in rural, peri-urban and inner-city areas where thenant mix are biased towards essential goods and services
- Retail activity has shown some improvement in 2021 on 2020 levels
- Vacancy rates are improving
- Landlords experience positive development trends in terms of small business interest in space and new business start-ups
- Rental rate adjustments remain the norm to retain and attract tenants
- The state of the economy and consumers remain significant concerns for the sector.

2.4 LOCAL ECONOMIC TRENDS AND PERFORMANCE

This section is focused on the salient features that define and characterise the local and district economies. The section seeks to geographically define local and district economies, analyse the size and composition of the local economy compared to district economy, outline growth trends and changes, the size and participation of the labour force, and the composition of the labour force as an indicator to current and future skills demand.

2.4.1 GEOGRAPHICALLY DEFINING THE LOCAL AND REGIONAL ECONOMY

The geographic context of a local or district economy is an important characteristic that should be defined. The importance of defining the geographic extent of local or district economies relate to:

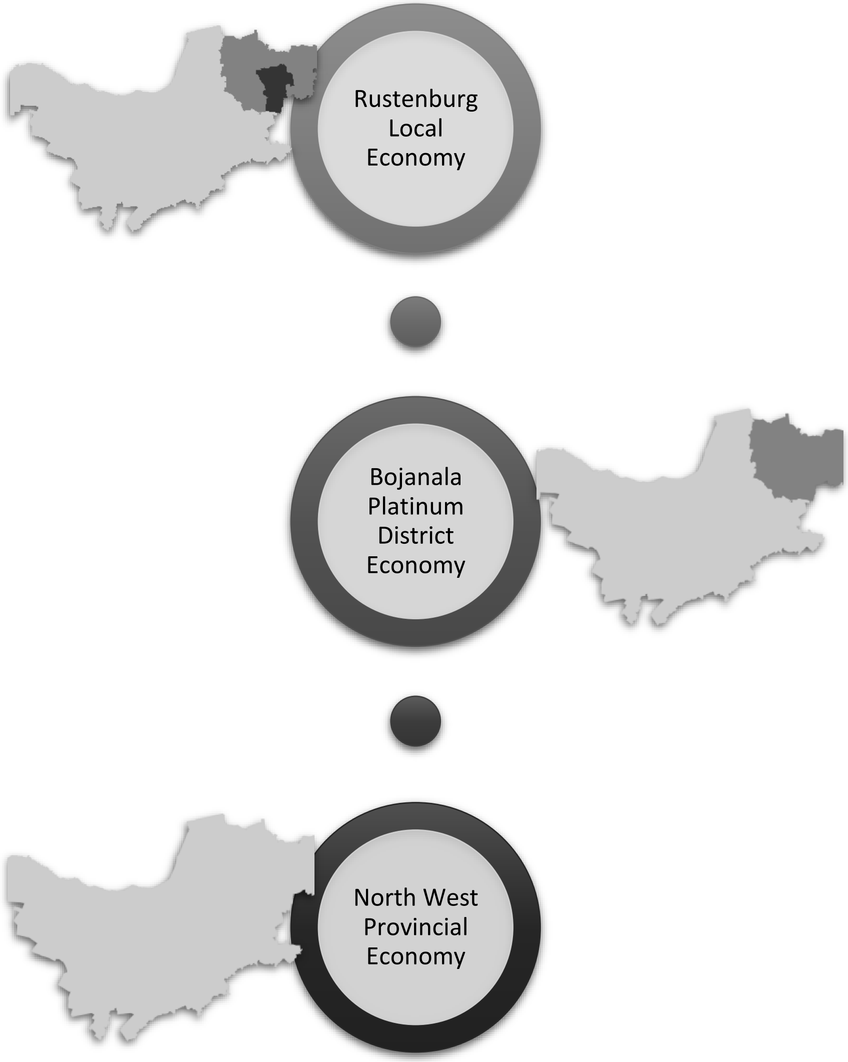
- Clearly defining the geographic area which is incorporated as part of a local/district economy
- Understanding the extent of economic functions that contribute to a local/district economy's and
- Clearly understanding the spatial context and inter-relations between a local/district economy and its surrounding areas and

Defining the geographic context of a local or district economy thus enables targeted analysis and a clear understanding of how a local or district economy could impact/influence the proposed development.

The following diagram provides a basic illustration of the geographic positioning of the proposed development in relation to local and district economies.

The proposed development falls within the Rustenburg Local Economy – one of five local economies within the Bojanala Platinum District economy. The Rustenburg Local Economy includes inter alia Hartbeesfontein-A, Marikana, Phatsima, Rustenburg and Tlhabane.

Diagram 2.2: Local and Regional Economic Context



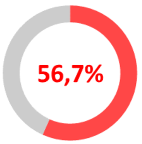
2.4.2 ECONOMY SIZE AND STRUCTURE

ECONOMY SIZE

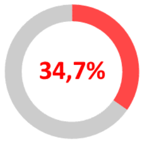
Rustenburg
Local Economy

R208.1 billion

ECONOMY CONTRIBUTION

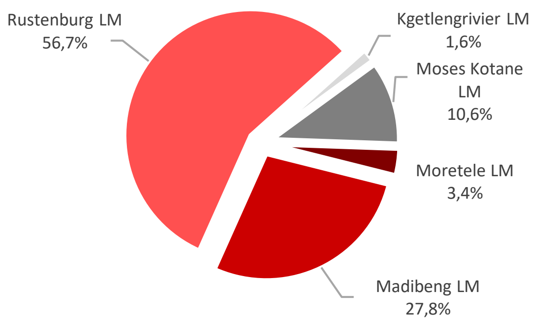


contribution to the Bojanala Platinum District Economy



contribution to the North West Provincial Economy

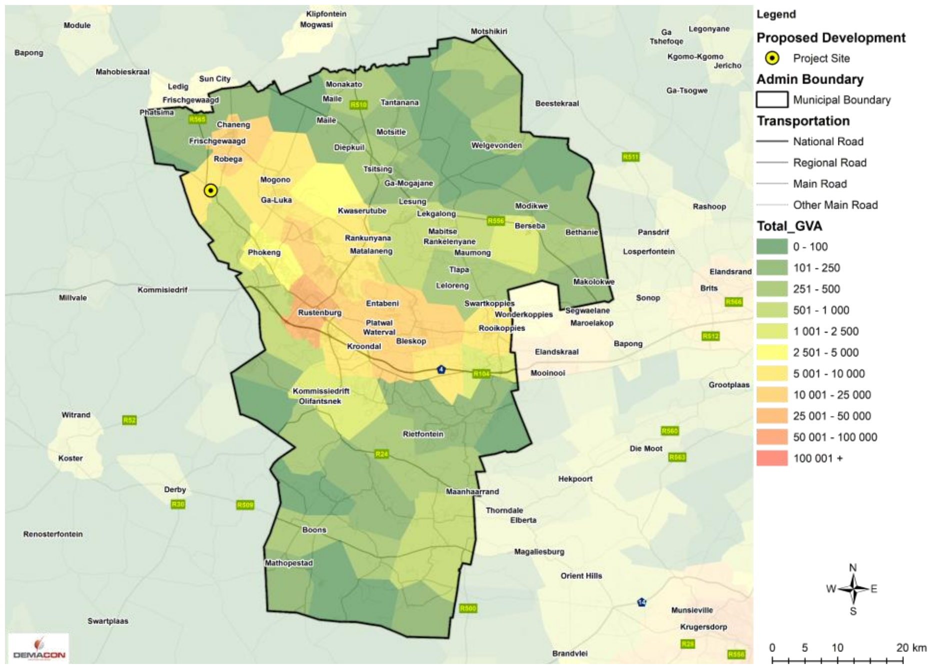
SPATIAL CONTRIBUTION TO TOTAL ECONOMIC OUTPUT



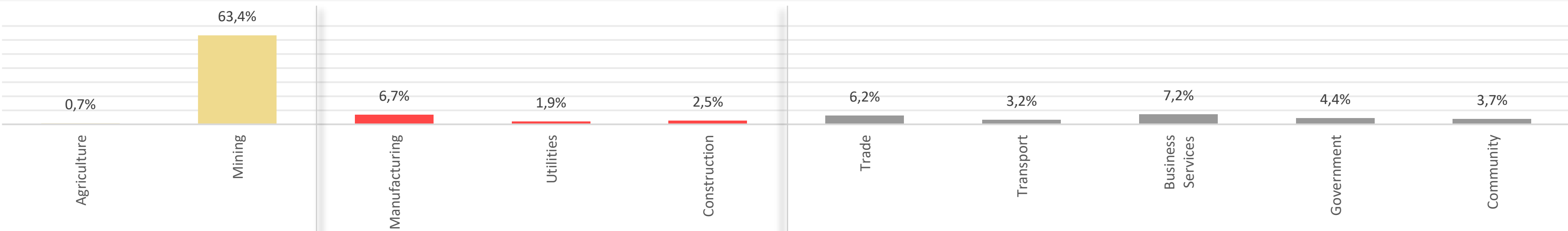
The local economy is the **LARGEST** contributor to the total economy of the district municipality

The local economy is characterized by **primary economy** activities

SPATIAL DISTRIUTION OF THE ECONOMY



ECONOMY STRUCTURE



Primary
64.2%

Secondary
11.2%

Tertiary
24.6%

2.4.3 ECONOMIC GROWTH AND HOUSEHOLD CONSUMPTION AND EXPENDITURE

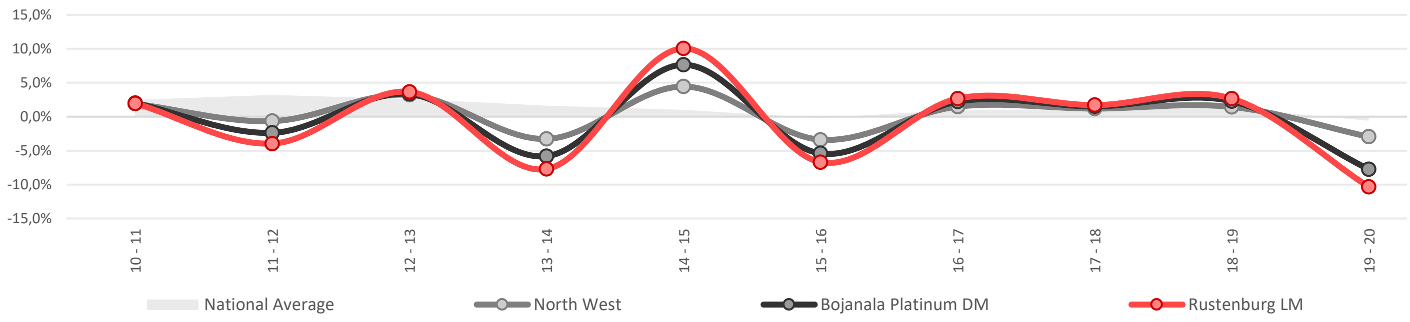
ECONOMY GROWTH

-0.8%
(2010 to 2020)

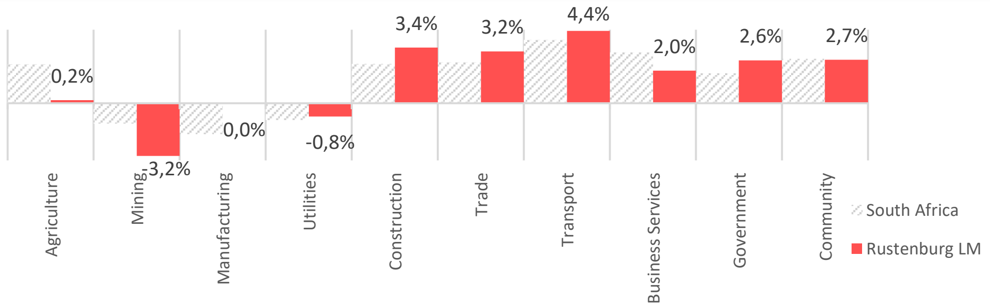
Average annual growth of the local economy over the previous **10 years**

-2.2%
(2015 to 2020)

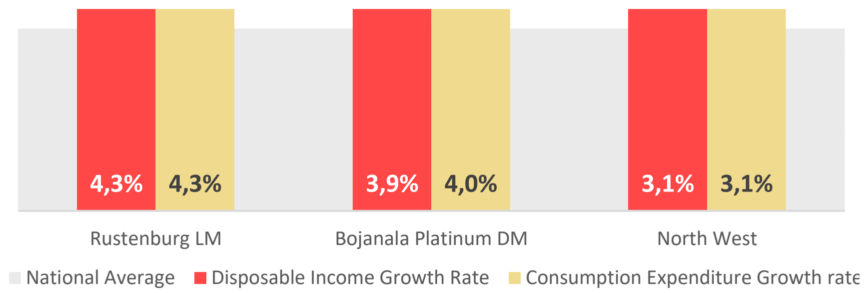
Average annual growth of the local economy over the previous **5 years**



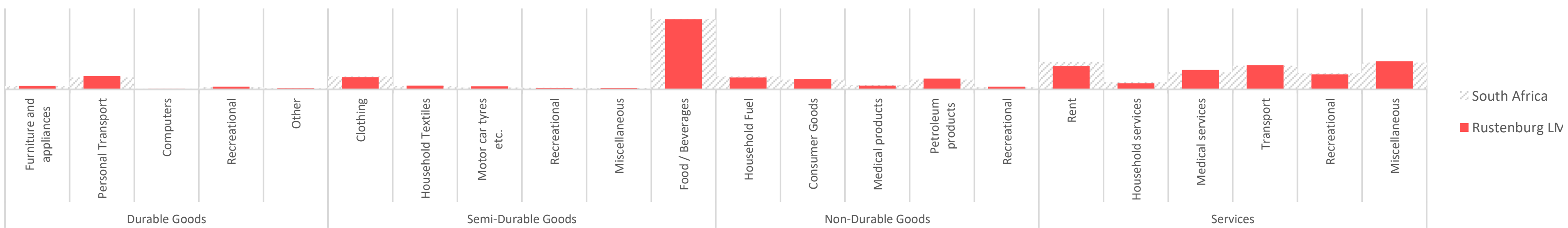
AVERAGE ANNUAL GROWTH PER ECONOMIC SECTOR



DISPOSABLE INCOME & CONSUMPTION EXPENDITURE GROWTH

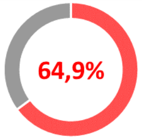


HOUSEHOLD EXPENDITURE PER CONSUMPTION ITEM

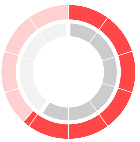


2.4.4 LABOUR FORCE PARTICIPATION

LABOUR FORCE PARTICIPATION

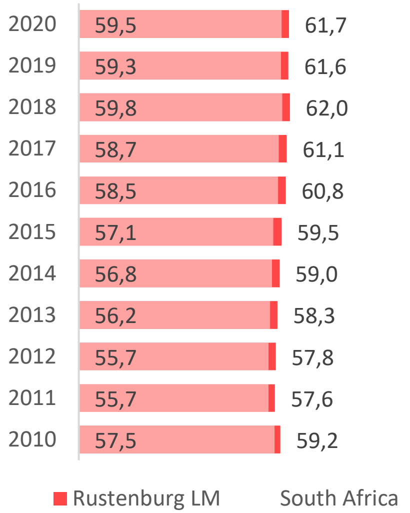


of the potential labour force participate in the local economy



59.5%
National average

Compared to the national average, the local economy maintains, on average, a marginally **higher** labour force participation rate



STRUCTURE OF EMPLOYMENT

81.5%
Formal employment

18.5%
Informal employment

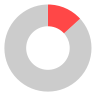
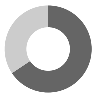
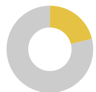
218 595 formal jobs in Rustenburg local economy

Skilled and **low-skilled**
employment have maintained steady annual growth between 2010 and 2020 in the local economy

The **Formal economy gained 11 080** jobs since 2010 at an average rate of **1 108 jobs** gained per year

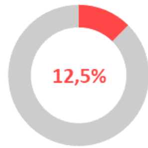
17 665
informal jobs exist in the local economy

The **Informal economy lost 5 425 jobs** since 2010 at an average rate of **543 jobs** lost per year

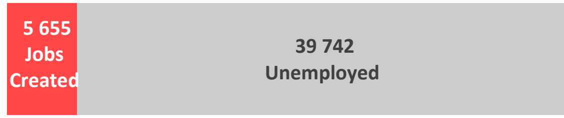
Skilled	Semi-Skilled	Low-Skilled
		
28 934 jobs	**143 499** jobs	**46 162** jobs
2 344 gain since 2010	**3 600** gain since 2010	**5 136** gain since 2010
234 average gain	**360** average gain	**514** average gain

DEMAND FOR EMPLOYMENT

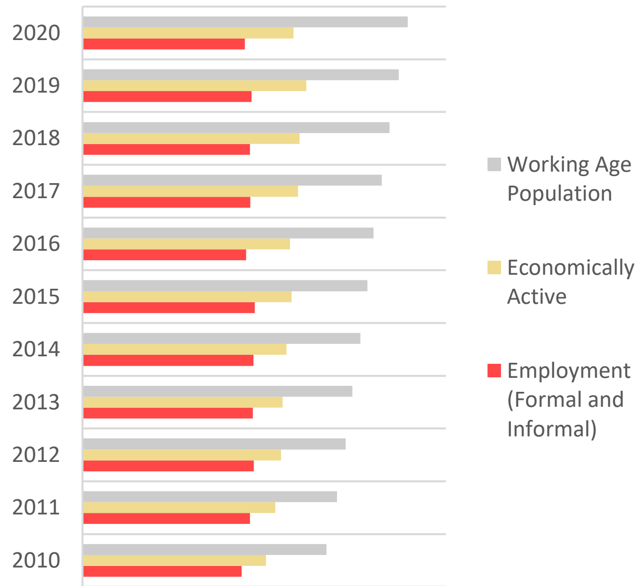
45 397
people became **economically active** since 2010



found **employment** since 2010



EMPLOYMENT DEMAND TREND



LEADERS IN ECONOMIC & REAL ESTATE MARKET INSIGHT
DEMACON

2.4.5 MINING OVERVIEW

The majority of mining activities in the region are situated within the Rustenburg municipality. The Rustenburg Municipal Area lies on the western edge of the **Bushveld Complex**. This part of the Bushveld Complex is one of the most heavily mineralized districts in the world and the platinum mines in this region are the largest producers of platinum in the world. The Merensky Reef and the UG2 chromitite layers are renowned for their Platinum Group Metal (PMG) content and together they form the world's largest depository of PGMs. Apart from chrome and platinum, other minerals mined in the region are tin, lead, marble, granite and slate. Underground mining predominates, although open cast mining exists.

The platinum-group metals (PGM) constitute a family of six chemically similar elements. They are divided according to their densities into a heavier category, comprising platinum, iridium and osmium, and a lighter group, consisting of palladium, rhodium and ruthenium. Their excellent catalytic qualities, resistance to corrosion, chemical inertness and high melting points render them most suitable for a number of specialist applications. Platinum is a precious metal and an industrial metal. The main use for platinum, however, is in autocatalysts, jewellery and for industrial purposes. Supply of platinum is dominated by South Africa, which supplies approximately 77% of world supply. Rustenburg Platinum Mines (RPM), which belongs to the Anglo American Platinum Corporation Limited (Anglo Platinum), is the largest single producer, and operates three geographically separate sections: Rustenburg, Union and Amandelbult Sections, all on the western limb. The other mines on the western limb are Impala Platinum Holdings Limited's Impala Platinum and Crocodile River (through Barplats Investments Limited) mines; Lonmin Platinum's Eastern Platinum, Western Platinum and Karee mines; Northam Platinum Limited's Northam Mine, and Aquarius Platinum's Kroondal and Marikana mines.

According to the municipal IDP (2009/10) the projected **lifespan of operations** along the **Merensky reef is 61 years and the UG2 reef 51 years**. Mining operations within the Rustenburg Municipal Area is dominated by three mining companies. These are Impala Platinum, largely operating on Bafokeng tribal land through concessions; Anglo Platinum, operating northeast of Rustenburg; and Lonmin Platinum, operating west of Thekwane. The mines that operate within the Rustenburg Municipal Area impact upon the spatial structure of the region and, in particular, the urban structure of the Municipal Area. This impact is both positive and negative. On the one hand, mining in the area has spawned urban development and has contributed significantly to the fact that Rustenburg is **one of the fastest growing municipalities in the country**. Many towns and settlements located within the Municipal Area are testament to this. Towns like Marikana and Wonderkoppies are associated with the development on the Lonmin mines, Mfidikwe, Thekwane and Photsaneng are associated with the development of the Anglo Platinum mines and Luka and Robega are associated with the development of the Impala Platinum mines.

<u>Impala Platinum</u>

Impala Platinum (Implats) has its primary operations concentrated on the Impala lease area near Rustenburg. The mine's smelting operations (Minpro) are also located on the lease area, while the refineries are located in Springs, east of Johannesburg. Mining at Impala focuses primarily on two reefs, the Merensky Reef and the UG2 chromitite layer. The majority of mining operations extend to a depth of around 1 000m below surface. Mining operations consist of 13 operational shafts. Impala currently mines around 15 million tons of ore annually, yielding 1.9 million ounces of PGMs, including over 1 million ounces of platinum. Impala is able to maintain production levels at a minimum of 1 million ounces of platinum for the next 30 years. Some 28 000 people are employed by Impala Platinum.

Impala holds mining leases covering more than 27 000 hectares. Mineral rights within the lease area are owned by the Royal Bafokeng Nation, to whom royalties are paid. An agreement, which secures Impala's access to these mineral rights for the next 40 years, was signed with the Royal Bafokeng Nation in 1999. In terms of the agreement, the Royal Bafokeng Nation received royalties for the mineral rights, but has also become a major shareholder (13.4%) in the company with board membership by a representative of the Royal Bafokeng Nation.

<u>Anglo Platinum</u>

The Rustenburg section of Anglo Platinum consists of three separate mining units: the West Mine comprising Frank, Townlands, and Paardekraal shafts; the East Mine comprising Turffontein, Bleskop, and Brakspruit shafts; and the Waterval Mine.

The geological source of Anglo Platinum's current production is the Bushveld Complex. Since mining first began in the 1920's, the uppermost of the two PMG bearing layers of the Bushveld Complex, the Merensky Reef, has been the most important PGM source for Anglo Platinum.

The second PGM-bearing layer, the UG2 chromitite layer, has become an important alternative source of PGMs in recent years. Mining of the Merensky Reef is steadily being replaced with the mining of the UG2 layer. This is mainly due to a decrease in available Merensky Reef reserves. Other base metals present in the UG2 are not significant but are recovered by Anglo Platinum.

Anglo Platinum holds mineral rights throughout the Bushveld Complex under various titles. These are being exploited on a fully operational basis at the Rustenburg, Amandelbult, and Union sections (latter 2 located north of Municipal Area), covering a total of 39 000ha. Anglo Platinum is developing a mine on the farm Boschkoppie 104JQ that covers a total area of 3 362ha.

<u>Lonmin Platinum</u>

Lonmin Platinum operates 3 mines located in the Marikana district to the east of Rustenburg. These are the Western Platinum Mine, Karee Mine and Eastern Platinum Mine. The Karee Mine is situated entirely within the Rustenburg Municipal Area on the farms Zwartkoppies 296JQ and Rooikoppies 297JQ. Only part of the Eastern Platinum Mine is located within the Rustenburg Municipal Area on the farm Wonderkoppies 400JQ. The remainder of Eastern Platinum Mine, as well as the Western Platinum Mine is located within the Municipal Area of Madibeng.

The Merensky and UG2 platinum-bearing reefs are mined simultaneously in the Lonmin lease area covering of some 27km at an average depth of 360m. Lonmin mines produce 11 million tons of ore a year, producing over 750,000 ounces of platinum. Nickel, copper and other PGMs are also recovered. Underground mining predominates, although open cast mining has been undertaken at all three mines. Base metals are produced at the on-site Base Metals Refinery (BMR) and precious metals are sent to Brakpan for refining.

Platinum prices and the cost of doing business

Platinum prices have plunged 35% since 2011. Power prices rose as much as 26% a year in this period, while workers gained a 20% annual increase in basic pay. While excessive stockpiles of platinum may continue to keep prices depressed for now, the supply-demand balance will shift again. A Bloomberg report predicts that the average price of platinum is expected to increase more than 25% by 2018. Global platinum demand is forecast to rise by just over 4% in 2015. This is offset by the fact that a weaker macroeconomic environment and a stronger dollar point to platinum prices remaining relatively flat throughout 2015.

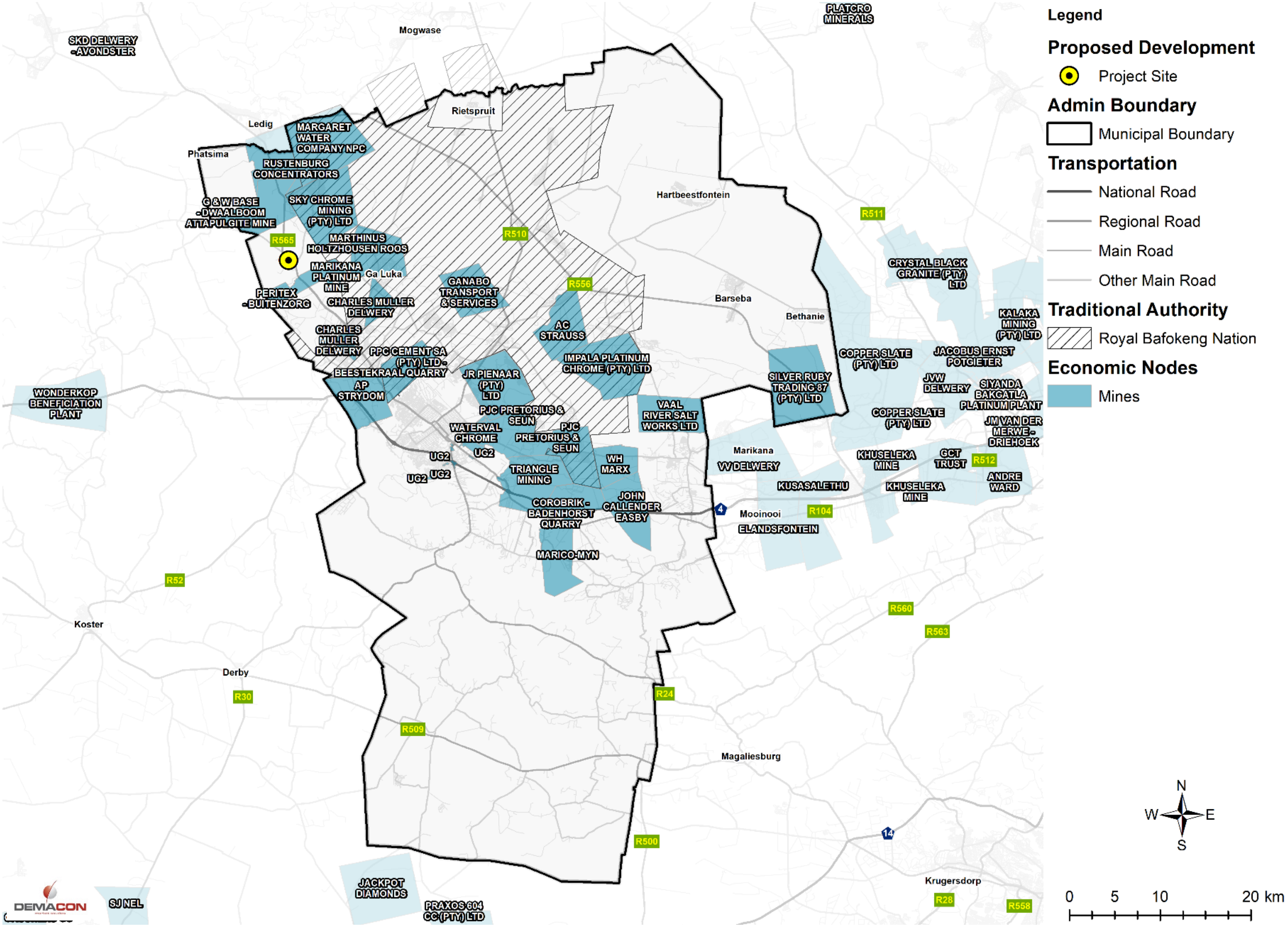
Imminent shaft closures and possible retrenchments

According to a May 2015 report Impala Platinum plans to reduce the number shafts at their Rustenburg complex from 14 to 9, even as they plan to raise the operation's output and open two new shafts. Impala has already started transferring some mining teams from older shafts to new working areas. Impala states that the old shafts (E/F, 4, 6, 7, 7A, 8 & 9) will be consolidated under one overhead structure to optimise costs and improve synergies. These shafts will be mined out and closed as quickly as possible, as they are amongst the lowest-cost operations at the lease area. Lonmin also plans to put a number of Generation 1 shafts under care and maintenance (W1, E1 and 1B shafts).

Lonmin declared its intent to close its Hossy and Newman shafts, and to idle three others in a statement made in July 2015. These shaft closures put a total of 6 000 jobs, including contractors, at risk. Union NUMSA is currently working closely with the mining house to try and mitigate the potential damage.

Anglo American is planning to divest itself of its Union platinum mine as well as its two joint ventures in the Rustenburg area. This comes amid the CEO's undertaking to dispose of the mining group's operation that don't return 15% on capital investment, by 2016. This coincides with the cutting of 6 000 jobs across the entire Anglo American company. It has been reported that the planned job cuts are not related to employees engaged in production.

Map 2.1: Mining activity in the Larger Region



Source: DEMACON GIS, 2021

2.4.6 MINING IN THE REGION

There are three main mining houses and joint ventures mining within the area. These are Platinum Group Metals (PGM) in joint venture with Wesizwe, Bafokeng Rasimone Platinum Mine (BRPM) in joint venture with Anglo American Platinum, and Impala Platinum. Glencore Xtrata, along with Merafe, also operate a smelting works within the trade area.

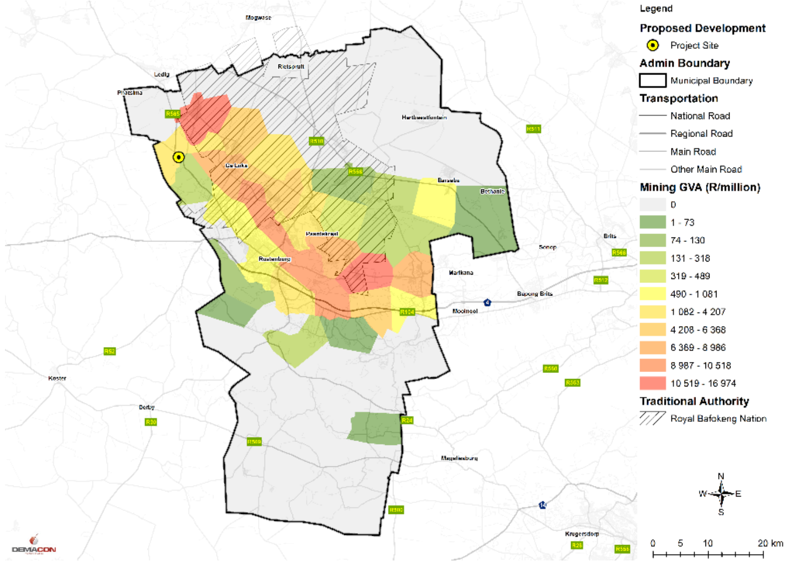
Table 2.1: Mining Activity within the Surrounding Region

Name	Operator	Status	Start-up	Life of operations
Bakubung	PGM, Wesizwe	Construction	2020	30 years
Styldrift	BRPM, Amplats	Construction	2016 (full production in 2018)	27 years
Western Bushveld JV1	PGM, Wesizwe	Construction	2015	20 years
Western Bushveld JV3	PGM, Wesizwe	Feasibility	-	-
Boschkoppie	BRPM, Amplats	Operating	1999	63 years
Boshoek Smelter	Glencore Xstrata, Merafe	Operating	2002	-
Impala (various shafts)	Impala Platinum	Operating	Shaft 6, 7, 8 : old Shaft 12N, 12S : mature Shaft 12 : new	35 years

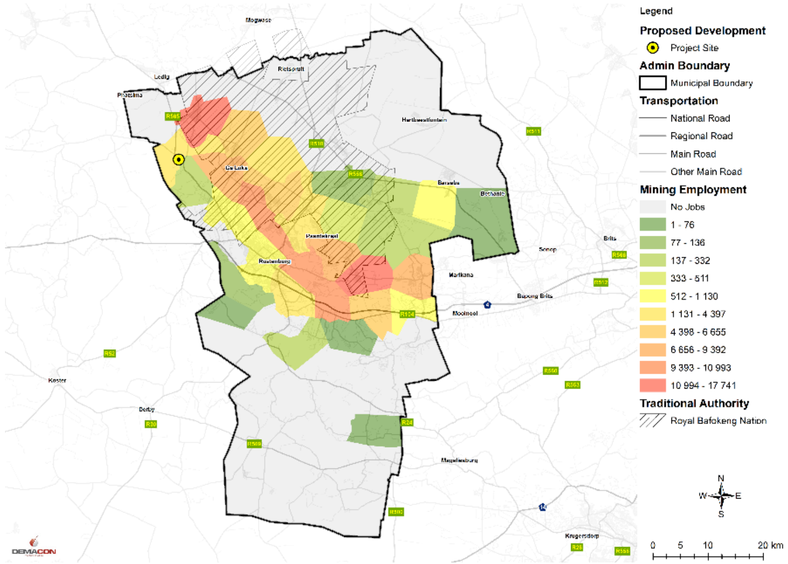
The majority of Impala Platinum's operations are **established and stable**, as are operations at BRPM's Boschkoppie Mine. PGM and Wesizwe's mines are all **new and expanding**. These mines are still in the early stages and will take years to reach optimum production capacity. Feasibility studies have begun on the Western Bushveld JV3 mine. Rising production costs and lower productivity at Impala Platinum's Shafts 6 and 8 have given cause to classify them as old and declining. This, however, does not mean that Impala's operations as a whole are declining. New shafts, such as shaft 20, are producing well and the company has plans to expand operations eastward and establish new shafts.

As far as could be established from housing supply and demand sources the housing demand to cater to the needs of the expanding mining activity in the northern regions of the Bafokeng area, is roughly estimated at **10 000 to 15 000 units** over the medium to longer term (i.e. 5-10 years+). In the context of the perceived levels of instability in the greater Rustenburg mining environment, investors will remain cautiously optimistic about residential and non-residential opportunities.

Map 2.2: Rustenburg LM Mining GVA



Map 2.3: Rustenburg LM Mining Employment



3

TRADE AREA DELINEATION & DEMOGRAPHIC PROFILE

3 TRADE AREA DELINEATION AND DEMOGRAPHIC PROFILE

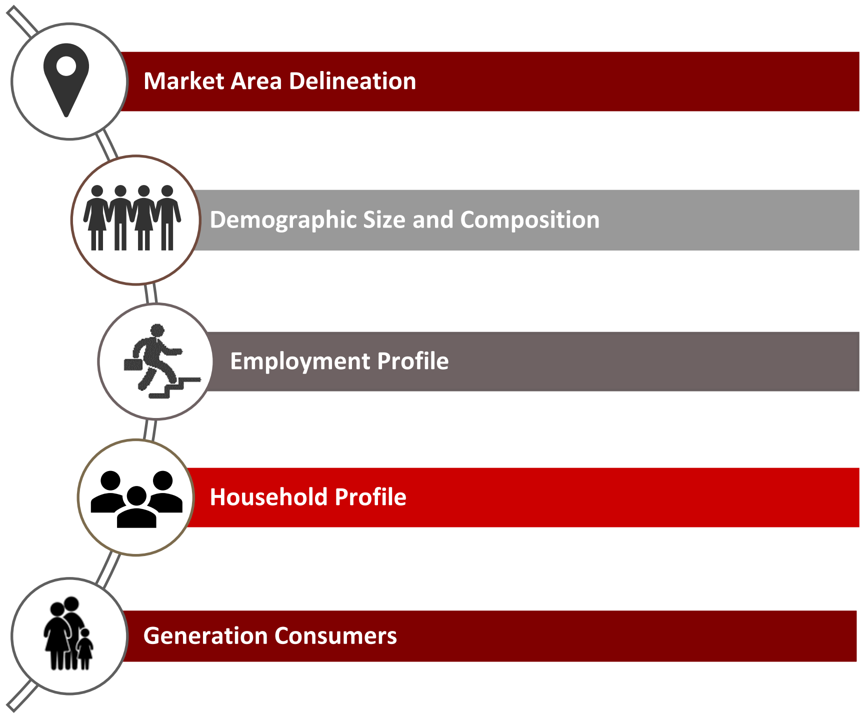
3.1 INTRODUCTION

The demand for economic/non-economic activities is, in part, based on demand generated by the demographic component of a specific market area or catchment. The current demographic composition in a market area coupled with past trends and future potential growth, impact on the current and future demand for economic activities.

The purpose of this chapter is to provide analysis of the demographic component of the resident market area that can be considered alongside Chapter 2 to complete a demographic and economic perspective of interactions between population and their local economic conditions.

The chapter sets out a delineated market area and reviews information about the population that reside in the market area, focusing on demographic and socio-economic characteristics of the resident market population influencing the proposed development location.

The consumer market profile is outlined in terms of the following headings:



3.2 MARKET AREA DELINEATION

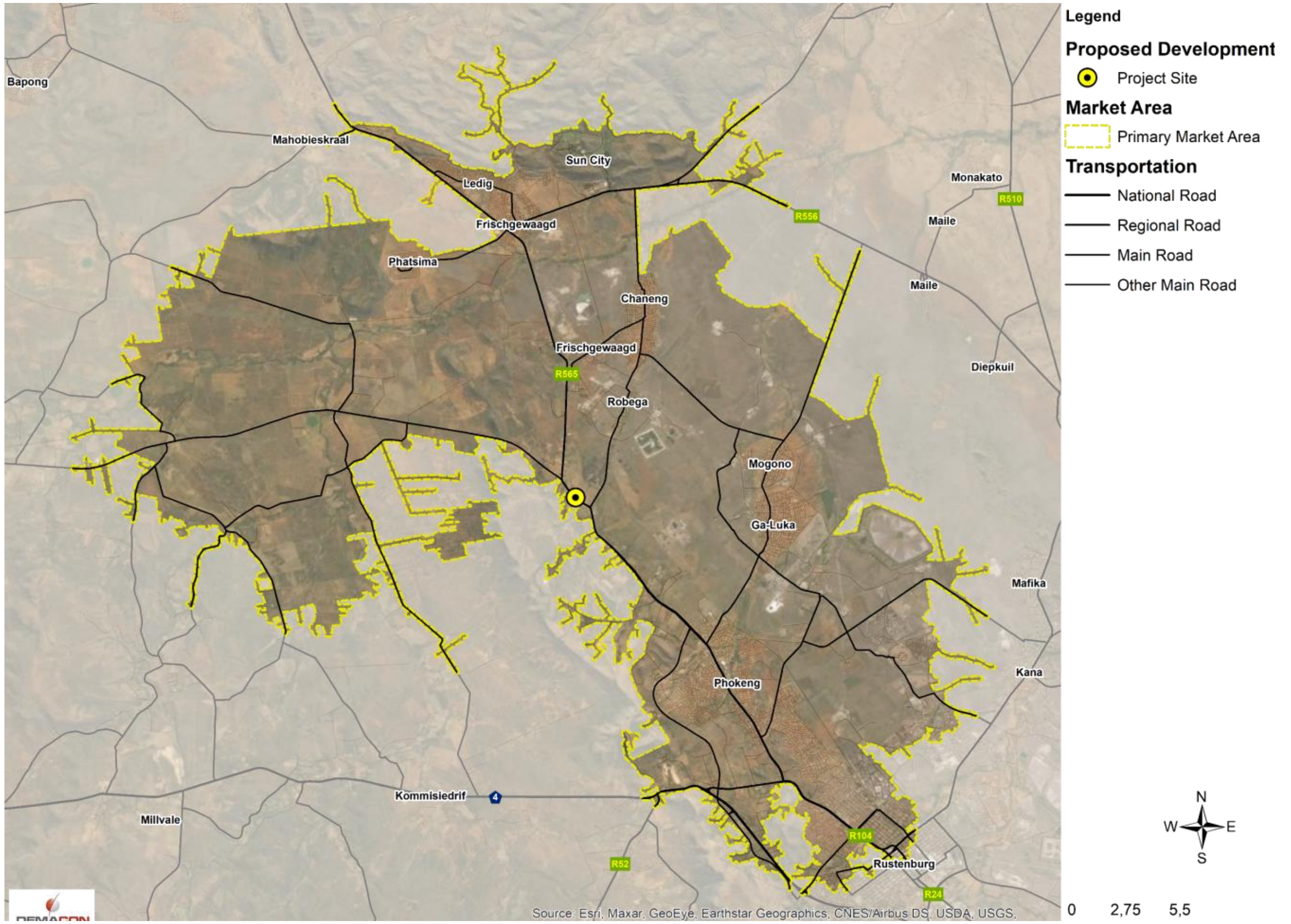
To gain insight into the socio-economic character of potential market participants to the proposed development, a market area is delineated.

A market area assists with determining the main socio-economic market characteristics affecting the proposed development. The primary market area for the project and subsequent key socio-economic indicators are informed by an approximate 25-kilometre travel distance (isodistance map) and general SACSC criteria, as well as the following:

- Consumer market behaviour and expenditure trends
- Regional and sub-regional levels of accessibility
- Geographic barriers
- General consumer mobility patterns and drive times
- Department of Energy's Guidelines to Applicants for New to Industry Site and Retail Licenses

The following sub-sections provide analyses of the demographic profile of the primary market area of the proposed development. The demographic profile considers the primary market area and the demographic component that is resident to the market area.

Map 3.1: Primary Market Area



3.3 DEMOGRAPHIC SIZE AND COMPOSITION

POPULATION SIZE

335 739
PEOPLE IN THE
PRIMARY
TRADE AREA

Population
Average Annual
Growth Rate

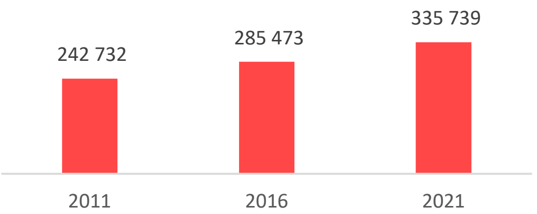
3.30%

158 237
HOUSEHOLDS

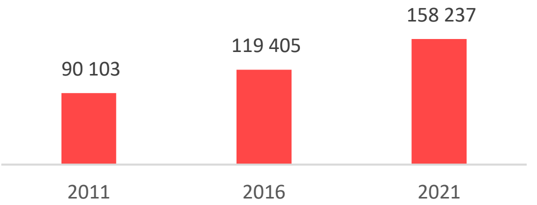
Household
Average Annual
Growth Rate

5.79%

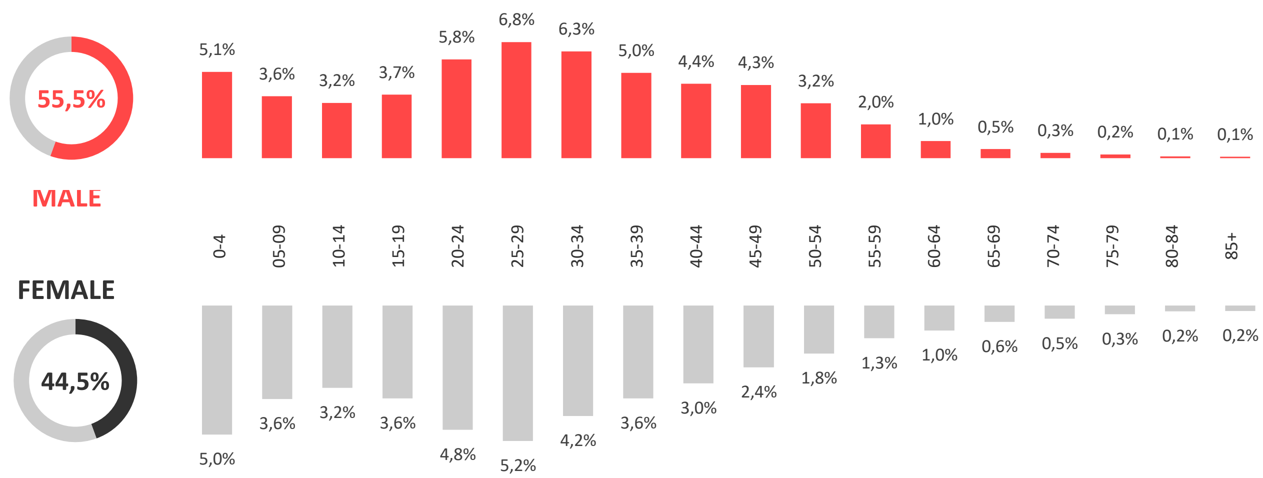
POPULATION GROWTH



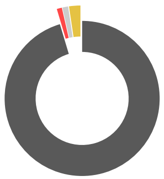
HOUSEHOLD GROWTH



AGE AND GENDER PROFILE

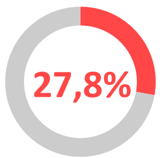


RACIAL PROFILE



Black African	**95.4%**
Coloured	**1.1%**
White	**1.2%**
Indian / Asian	**2.4%**

MIGRATION PROFILE



Data indicates that 27.8% of the Target Market migrated to the primary market area since 2001.

22.7%
are migrants from South Africa

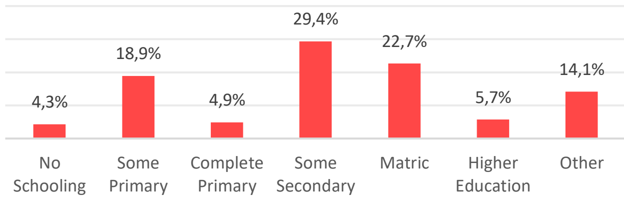
5.1%
are migrants from other countries

EDUCATION PROFILE

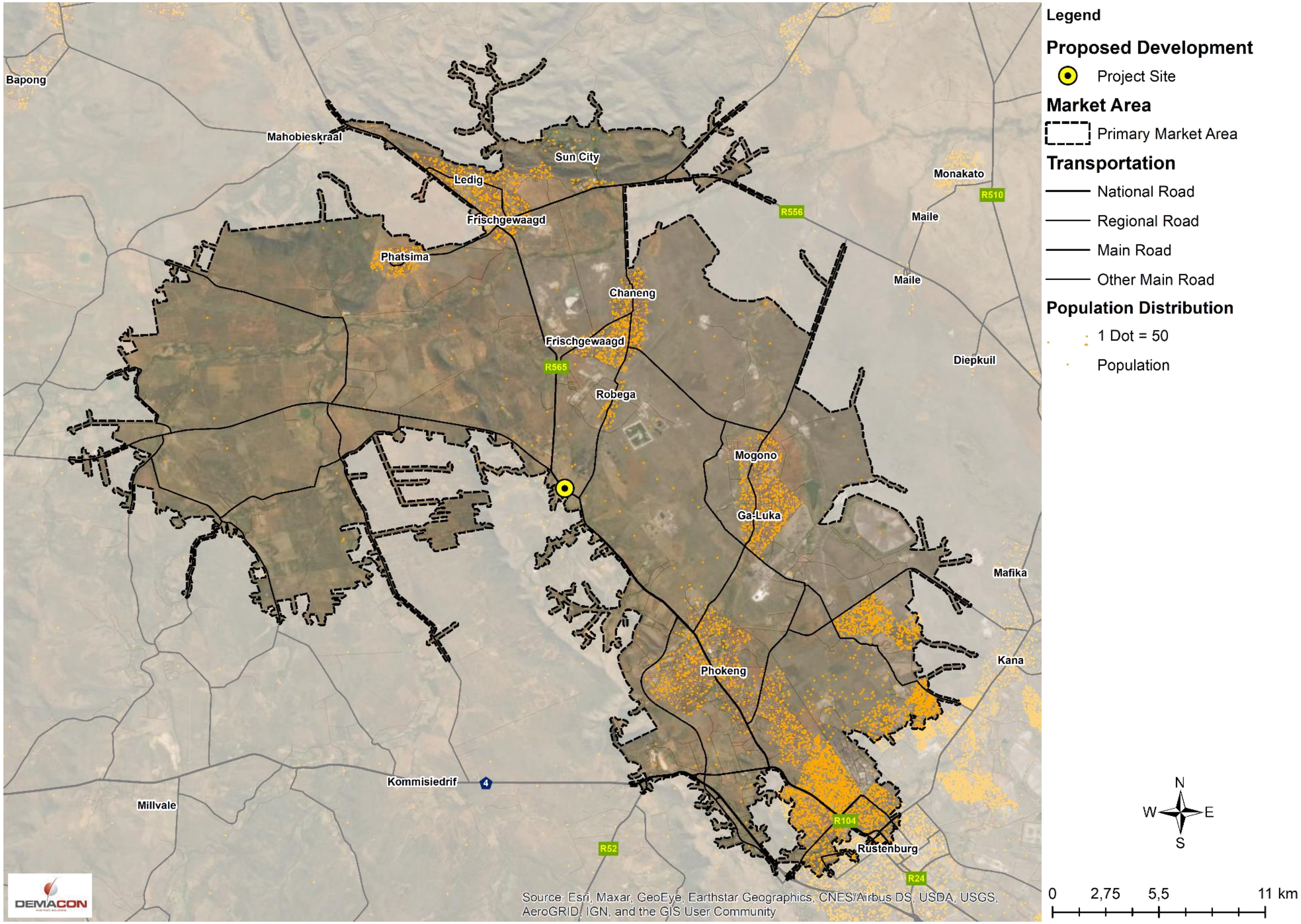
Educational Institution Attendance (20+ Years)

30.7%	**24.9%**	**18.1%**
attended an **UNIVERSITY**	attended a **FET COLLEGE**	attended an **ORDINARY SCHOOL**

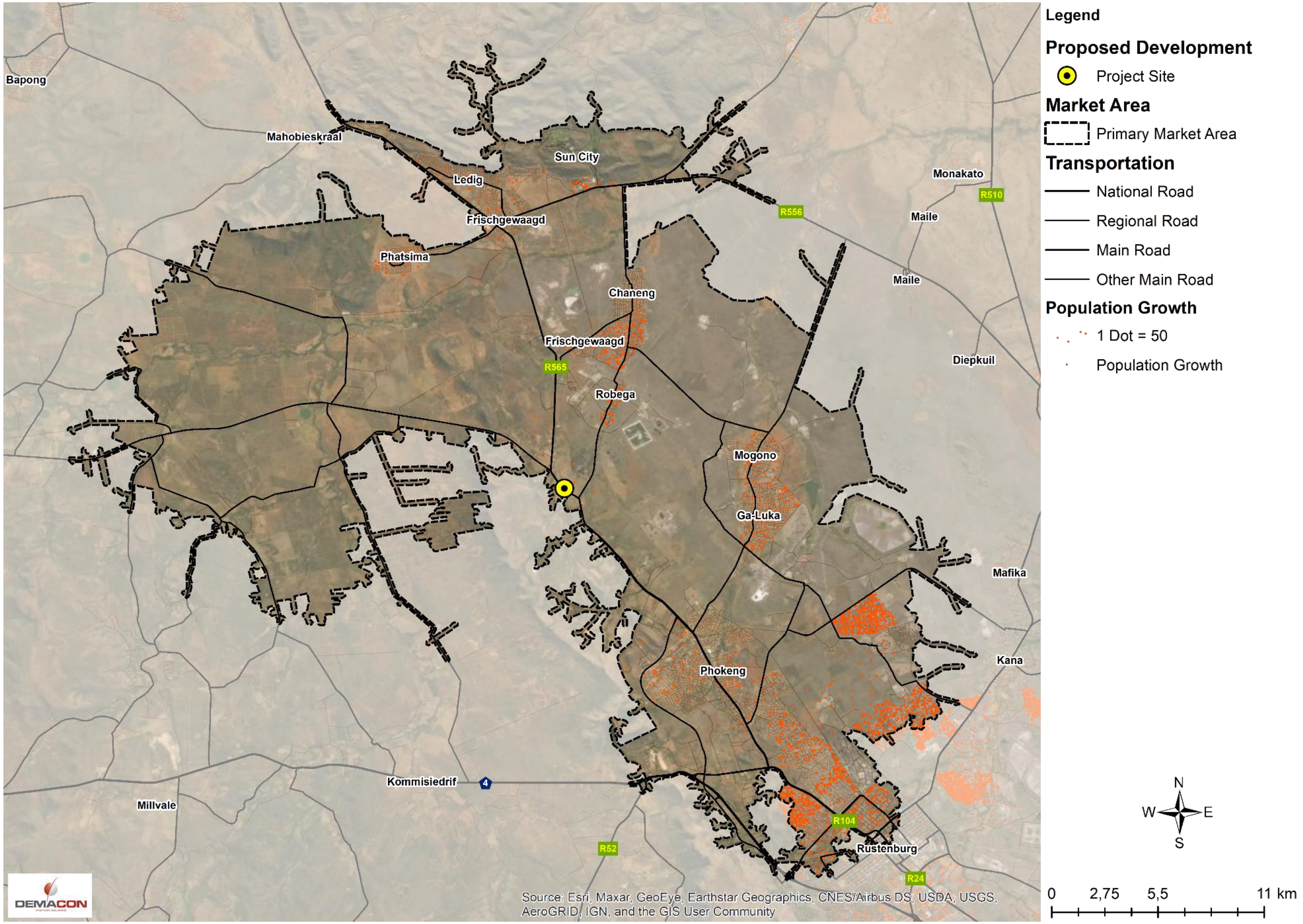
Educational Institution Attendance (20+ Years)



Map 3.2: Population Density



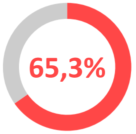
Map 3.3: Population Growth



3.4 EMPLOYMENT PROFILE

ECONOMICALLY ACTIVE SEGMENT

ECONOMICALLY
ACTIVE
Population

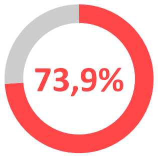


34.7% Not Economically Active

Economically active population refers to a person of working age 15 to 65 who are either employed or unemployed.

Not economically active population refers to ages 0 to 14 and 65 and older, persons unable to work or persons engaged in educational activities or are home-makers.

EMPLOYMENT PROFILE



Employed
Economically Active

26.1% Unemployed Economically Active

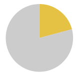
Employed and unemployed persons are considered to be economically active and thus is a segment of the economically active percentage.

OCCUPATION PROFILE

Skilled Occupations
14.4%
with a minimum average monthly income of R13 500

Semi-Skilled Occupatic
62.9%
with a minimum average monthly income of R 4 000

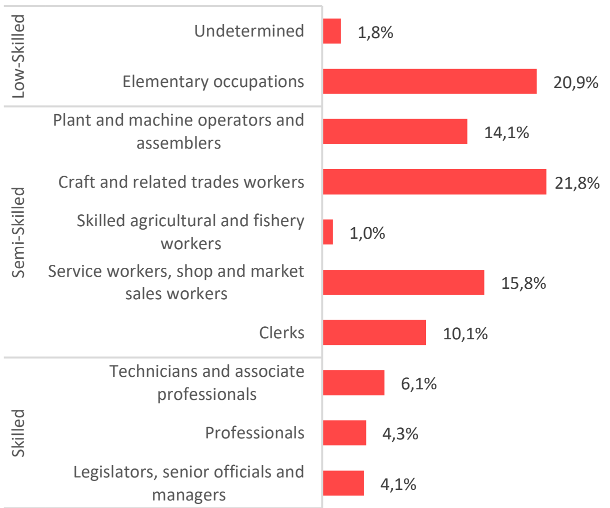
Low-Skilled Occupatio
20.9%
with a minimum average monthly income of R 2 500



CRAFT AND RELATED TRADES WORKERS
ARE MOST POPULAR
22.9%

ELEMENTARY OCCUPATIONS
ARE THE SECOND MOST POPULAR
19.3%

SERVICE WORKERS, SHOP AND MARKET SALES WORKERS ARE THE THIRD MOST POPULAR
15.3%



EMPLOYMENT PER INDUSTRY

41.1%
Employed in the **Primary Sector**

13.8%
Employed in the Secondary Sector

37.0%
Employed in the Tertiary Sector

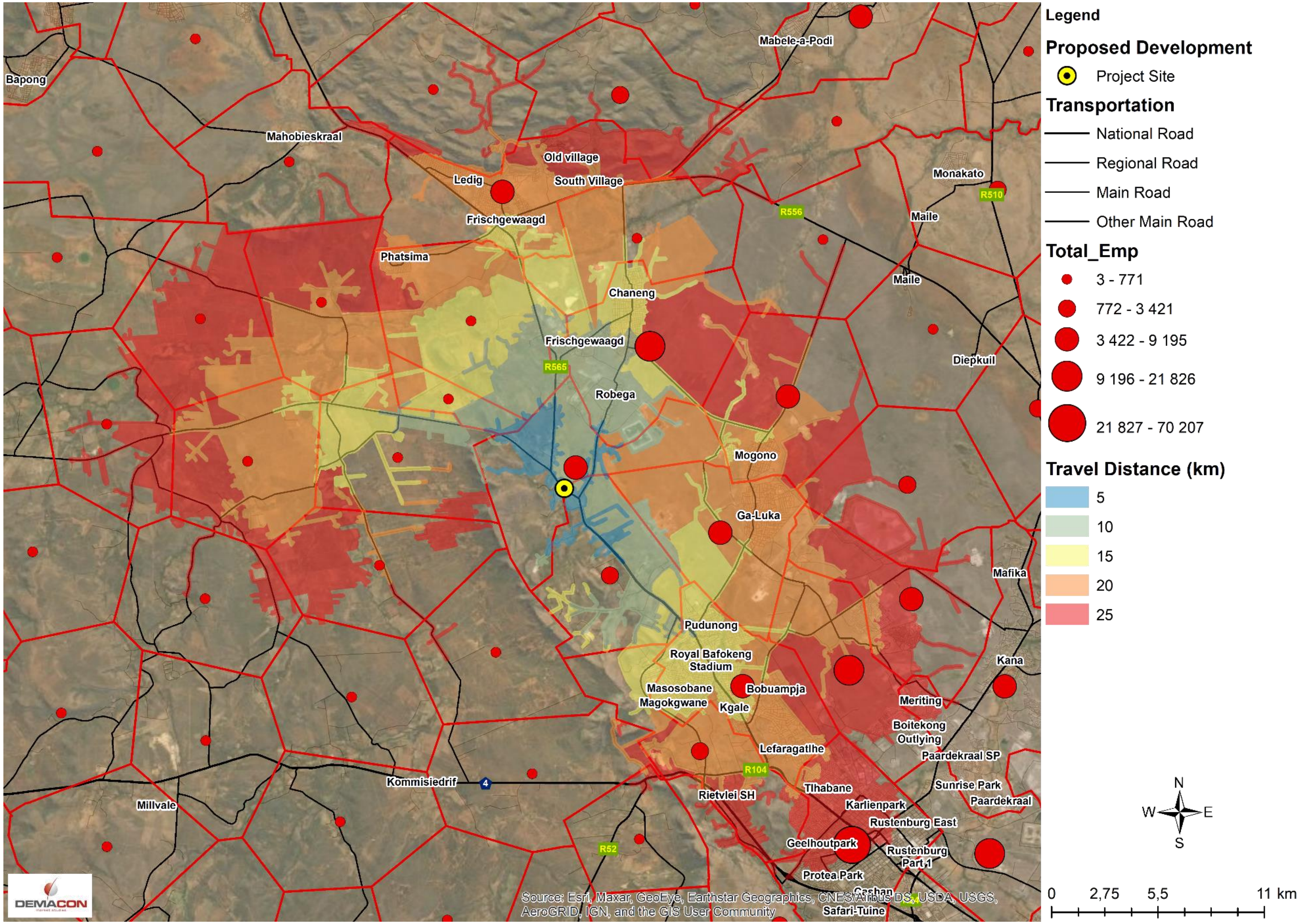
Biggest Employing Economic Sectors in the Primary Trade Area

37.3% Mining and Quarrying

13.5% Wholesale and retail trade

13.5% Community, Social and Personal Services

Map 3.4: Employment Profile



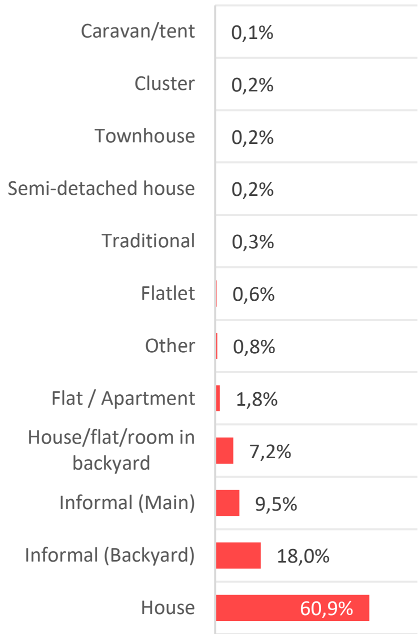
3.5 HOUSEHOLD PROFILE

DWELLING TYPOLOGY

Majority of Households Reside in an **Formal Dwelling** **71.9%**

27.8% of households reside in a **informal dwelling**

0.3% of households reside in a **traditional dwelling**



TENURE STATUS

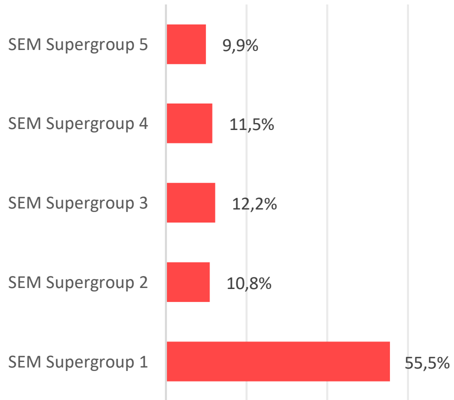
20.0% of households **own** and have **paid** for the property where they reside

9.0% of households **own** but have **not finished paying** for the property where they reside

51.2% of households **rent** the property where they reside

19.8% of households **occupy** the property where they reside **rent free**

SEM PROFILE



HOUSEHOLD INCOME PROFILE

Average annual household income for all SEM groups (2020)

R106 610

Average annual household income for SEM Groups 2+ (2020)

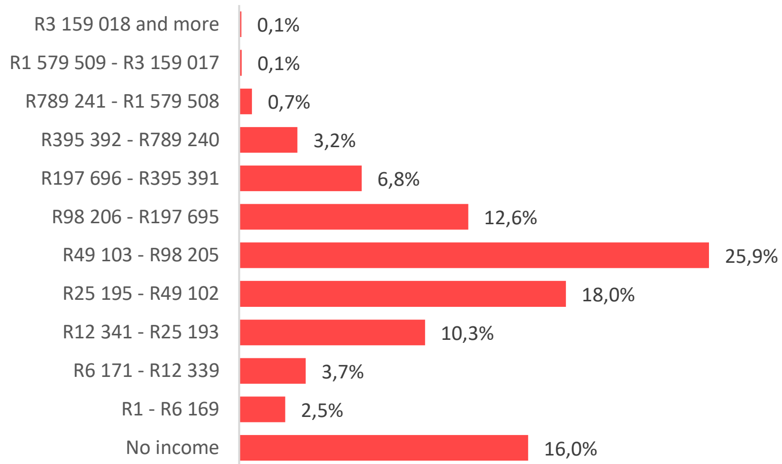
R196 177

Average monthly household income for all SEM groups (2020)

R8 884

Average monthly household income for SEM Groups 2+ (2020)

R16 348



DEMACON

3.5.1 LSM TO SEM

The discontinuation of the All Media Products Survey (by the South African Audience Research Foundation (SAARF)), on which the Living Standard Measure (LSM) classifications were based, gave way to a new measurement system called The Socio-Economic Measure model (SEM). The newly released SEM model is a more accurate reflection of South African society in terms of how people live and is not dependent solely on durables, as the historical LSMs have been. The new SEM offers marketers a statistical and technical solution that depicts how our citizens are living, not only what they have in their homes.

LSM VS **SEM**

LSM

LATEST VARIABLES:

- Hot running water
- Fridge/freezer
- Flush toilet in house/on plot
- VCR in household
- Vacuum cleaner/floor polisher
- Have a washing machine
- Have a computer at home
- Have an electric stove
- Have TV set(s)
- Have a tumble dryer
- Have a Telkom telephone
- Hi-Fi or music centre
- Built-in kitchen sink
- Home security service
- Have a deep freeze
- Water in home/on stand
- Have M-Net and/or DSTV
- Have a dishwasher
- Metropolitan dweller
- Have a sewing machine
- DVD player
- House/cluster/townhouse
- 1/more motor vehicles
- No domestic worker
- No cellphone in household
- 1 cellphone in household
- None or only one radio
- Living in a non-urban area

SEM

FINAL VARIABLES:

- Post office nearby
- Police office nearby
- Built-in kitchen sink
- Home security service
- Motor car
- Deep freezer which is free standing
- Microwave oven
- Floor polisher or vacuum cleaner
- Washing machine
- Floor material
- Water source
- Type of toilet
- Roof material
- Number of sleeping rooms

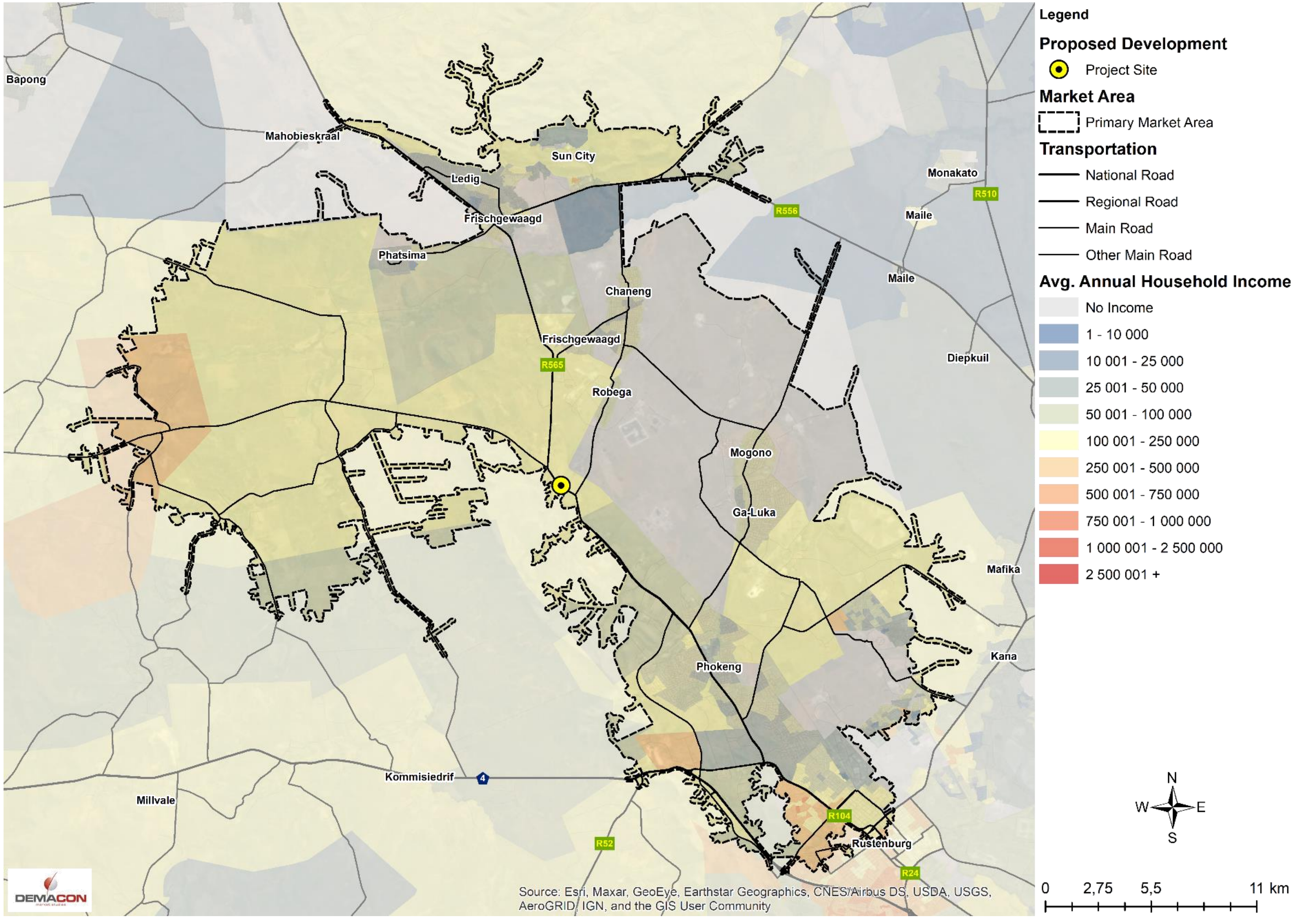
LIMITATIONS OF LSM

- LSM is not related to any specific brand or category
- LSM cannot accurately determine spending power
- Consumers have changed, LSM hasn't

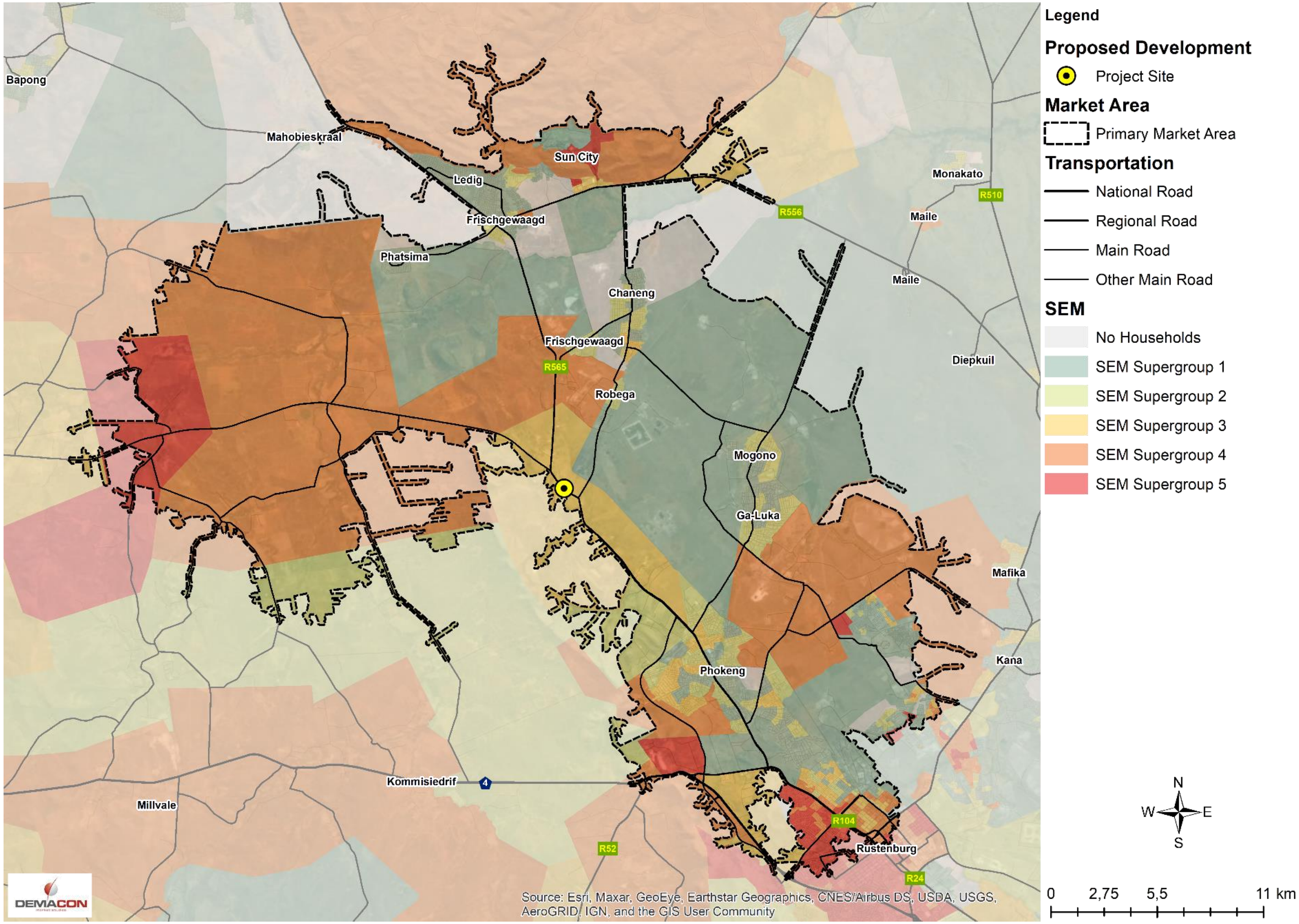
ADVANTAGES OF SEM

- Focus on structural items
- Low reliance on durables
- No reliance on technology items
- Short and easy to use

Map 3.5: Average Annual Household Income (2021)



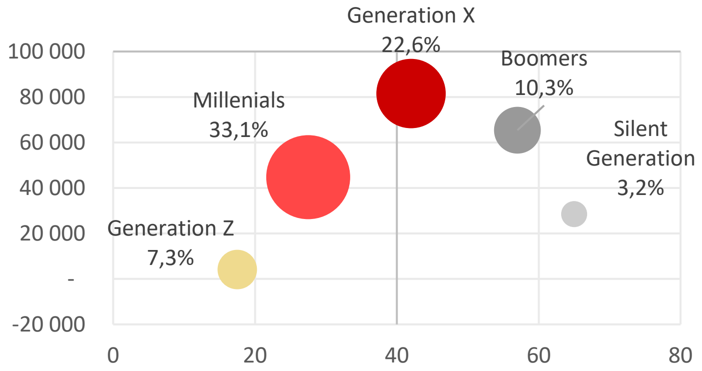
Map 3.6: SEM Profile



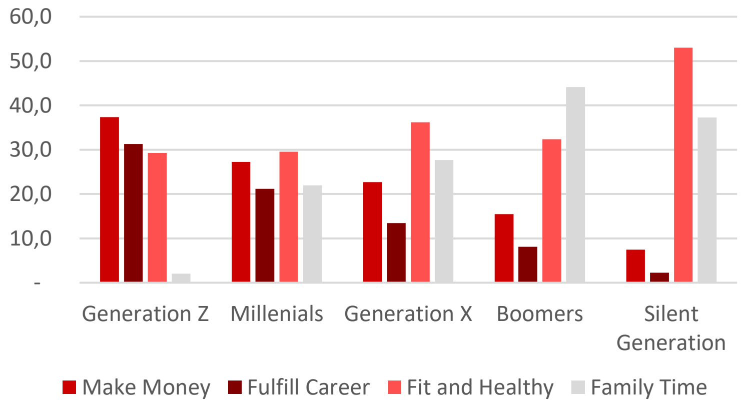
3.6 DEMOGRAPHIC PROFILE AND GENERATION CONSUMERS

CONSUMER MARKET SEGMENTS

Changes have been taking place within shopping centres, largely due to changes in their market segment's lifestyles. Increased emphasis is being placed on the creation of spaces and atmospheres within malls where people feel comfortable and are encouraged to linger longer. Focus is turned towards the experience and convenience of centres, offering consumers the opportunity to relax and interact with friends and family.



MAIN ASPIRATIONS OF CONSUMER SEGMENTS



AGE AND GENDER PROFILE

GENERATION Z

7.3%

Aged 15 To 20

The labels being attached to this generation include 'realistic', 'highly connected' and 'digital natives'. Generation Z s are seen to be wary with their money, having seen their parents lose jobs and their older siblings move back home because housing is so expensive. Via expert use of social media and the internet, they have already become demanding purchasers. They research diligently, are marketing savvy and are much less likely to make impulse purchases. They will find the best deals and will expect to test out products physically or virtually before they commit to buy. Generation Z will, apparently, want brands to show their long-term value.

MILLENIALS

33.1%

Aged 21 To 34 Years

The majority of this generation has never known a world without mobile phones, laptops and cable television. This cohort is the one that tends to cop most criticism at the moment, with labels such as 'used to instant everything', 'believe they can separate effort from reward', 'do not live to work but work to live'. This segment is the most formally educated and most sophisticated of all the generations before it. Detailed research has shown that they are looking for brands that resonate with their peers. They are very image driven and so value, for example, electronic toys, piercings and tattoos. Other research shows that they pay less attention to quality than other generations.

GENERATION X

22.6%

Aged 35 To 49 Years

A bridging generation, which joined the workforce generally during periods of economic prosperity (the mid to late 1980s onwards). Generation X's are highly educated but more questioning of convention than the Baby Boomers. They are also generally more interested in balancing family, life and work, and much less inclined to sacrifice time, energy and relationships for career advancement like the Baby Boomers did.

BOOMERS

10.3%

Aged 50 & 64

Now aged between 50 and 64 years. Influenced in their upbringing by strong economic growth and generally full employment, they are generally considered to be adaptive and flexible. Baby Boomers are regarded as having defined themselves largely by their careers, with a high proportion considered to be workaholics. They are increasingly moving into the retirement phase of their life, but many plan to continue working..

SILENT GENERATION

3.2%

Aged 65 & older

Shaped by major influences including the Great Depression and two world wars. Not surprisingly, this cohort values savings, morals and ethics, and tends to be very patriotic. Family togetherness and conformity are also very important attributes for them.

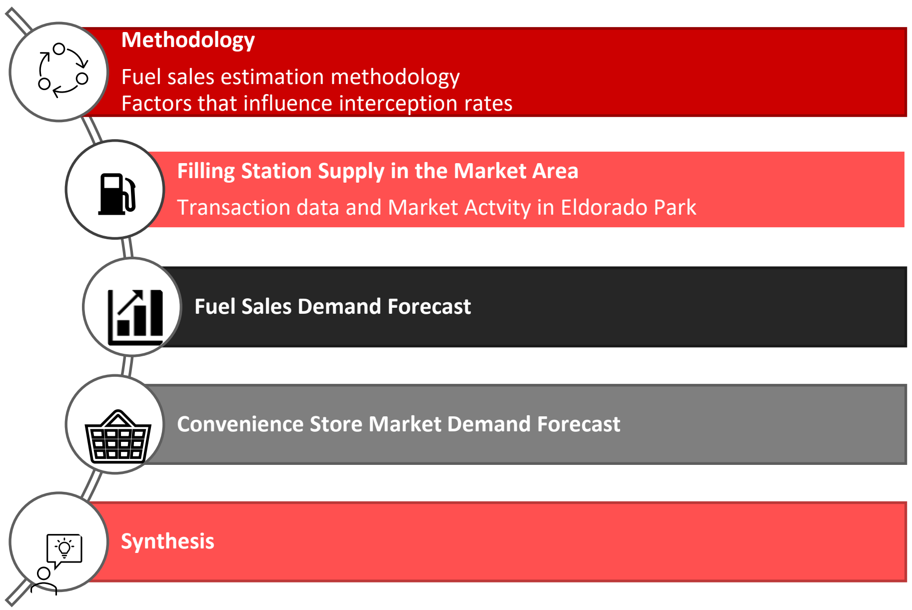
FILLING STATION DEMAND ANALYSIS

4

4 FILLING STATION DEMAND ANALYSIS

4.1 INTRODUCTION

This section of the report focuses on the market linked to filling stations, with the objective of estimating the potential fuel sales and subsequent convenience store format and development potential within the designated area. In order to reach this objective, the supply and demand for the filling station development within the market area should be identified and assessed in light of current trends.



4.2 METHODOLOGY

The following methodology was applied to estimate the fuel sales for the proposed Boshoek filling station:

- Baseline traffic counts, done by Trafftrans (Pty) Ltd (March 2021)
- Impact of growth on the R565 passing the site
- Local economic growth
- Population and household growth

Factors that influence interception rates:

Filling station interception rates depend on a variety of consumer market and associated economic and local aspects. These variable include, *inter alia*:

$$\mathbf{IR = f\,\{B_r;\ C_f;\ V;\ T_a;\ C_o;\ S_o;\ A;\ L_o;\ S_e;\ L_a;\ V_i\}}$$

Where:

B_r = Filling Station Brand
C_f = Convenience
V = Visibility
T_a = Amount of passer-by traffic
C_o = Competing filling stations (number, brand, age, offering, target market segment)
S_o = Service offering (car wash, convenience store, ATM, quality of service, etc.)
A = Easy Access (including lane configuration and travelling speed of the access road)
L_o = Location and Position/Juxtaposition
S_e = Setting (surrounding land uses and buildings)
L_a = Site layout (sufficient and convenient parking, building configuration)
V_i = Visual appeal (modern design, appearance, etc.)

Consumer choice and ultimate interception rate is a function of complex interplay between all of the above variables. Market research confirms that road user access is not the sole determinant of fuel sales.

Average Fuel Demand per Consumer:

Light Motor Vehicles (LMV)	
Lower income areas	10 – 15 litres
Middle to Higher income areas	20 – 25 litres
Long distance travel (i.e. freeway sites)	40 – 45 litres
Heavy Motor Vehicles (HMV)	
Metropolitan routes	100 – 115 litres
Inter-regional routes (long-distance)	120 – 130 litres
Inter-provincial routes (long-distance)	230 – 250 litres

** Compiled based on weighted average fills observed in various areas/routes including Nelspruit, Rockysdrift, Pretoria North, Sabie, Secunda, Acornhoek and the N4 highway.*

4.3 FILLING STATION SUPPLY IN THE MARKET AREA

As can be seen in Map 4.1 (overleaf), there are various filling stations within the 25kilometer travel distance catchment area – although the majority of these are situated in functional centres (such as Phokeng and Rustenburg). It is assumed that the filling stations towards Phokeng and Rustenburg serves the local market within those areas, while the filling stations along the R565 serves transient traffic. Table 4.1 indicates the filling stations within the 25-kilometre travel distance catchment area.

The proposed Boshoek filling station is unlikely to have a notable impact on the filling stations located in Phokeng, Rustenburg or Ledig. These filling stations share limited market and limited traffic streams. In each of these areas are functional markets that are served by localised facilities. Boshoek filling station will target transient traffic trade along the R 565. A Competitor Analysis is subsequently performed for the three filling stations located within 5 kilometres from the proposed site. These three filling stations share market and traffic streams.

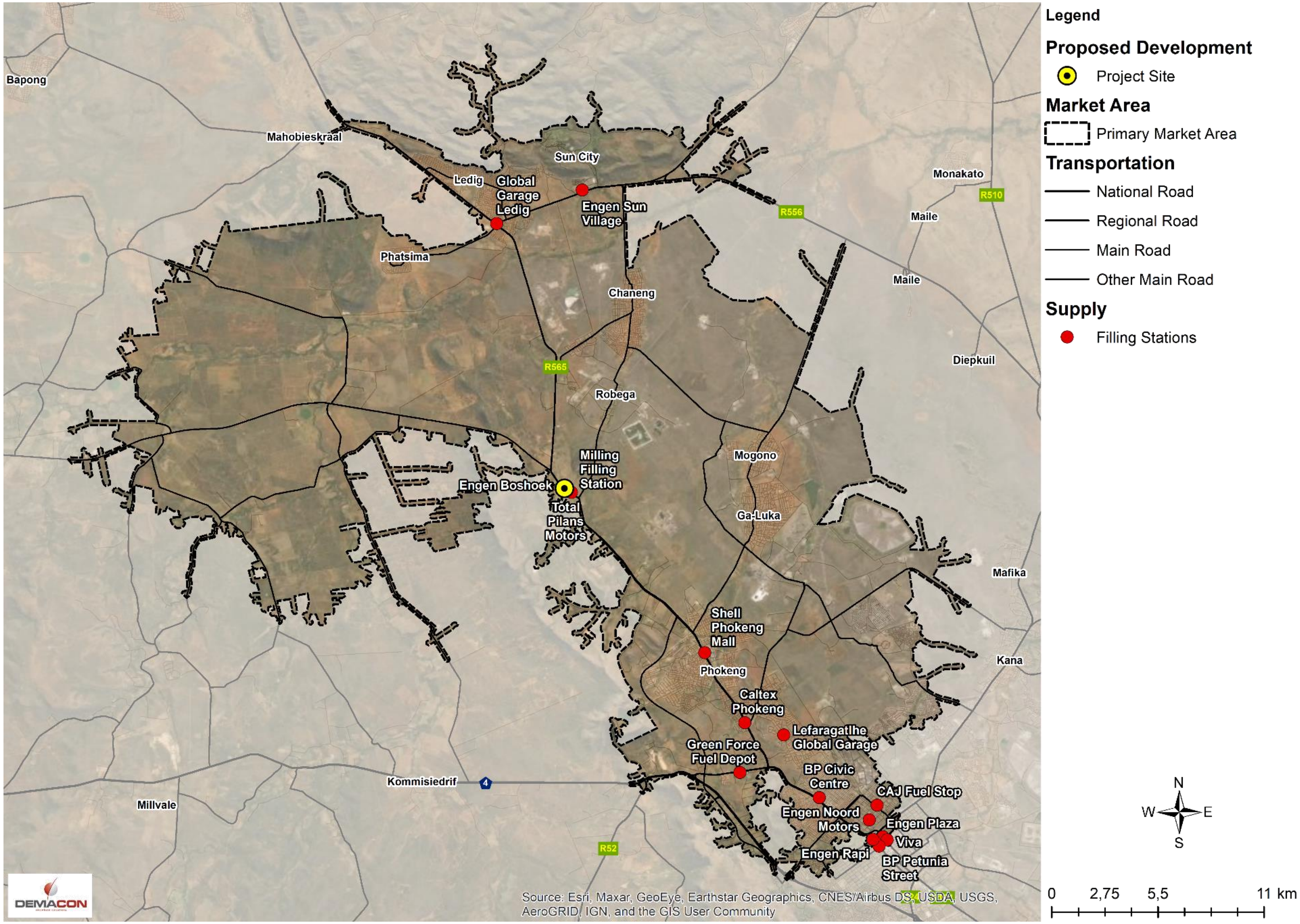
A key finding from the competitor analyses is that famous brands and other prominent Quick Service Restaurant (QSR) operators are absent from the existing filling stations, creating an opportunity for the proposed filling station.

Table 4.1: Approximate Distance and Travel Time to Nearby Facilities

Competing Facility	Approximate Travelling Distance (km)	Approximate Travel Time (minutes)	Directional Flow	Shared Market	Shared Traffic Streams
Total Pilansberg Motors	0.062 km	1 min	R565 in both directions	High	High
Engen Boshoek	0.076 km	1 min	R565 in both directions	High	High
Milling Filling Station	0.404 km	1 min	R565 in both directions	High	High
Shell Phokeng Mall	11.0 km	10 min	Direct access for southbound traffic from R565. Northbound traffic access from Phokeng Mall entrance.	Limited	Limited
Global Garage (Ledig)	14.6 km	11 min	Cnr R565 and R556. Entrance from R565 in both directions.	Some	Some
Caltex Phokeng	15.2 km	16 min	Direct access for northbound traffic from R565.	Limited	Limited
Lefaragatlhe Global Garage	17.0 km	19 min	Moremedi Road in both directions	Limited	Limited
Engen Sun Village	17.8 km	17 min	R556 in both directions	Some	Some
Greenforce Fuel Depot	18.4 km	17 min	R104 in both directions	Limited	Limited
BP Civic Centre	20.6 km	20 min	Access from Monareng Street	Limited	Limited
Engen Noord Motors	23.3 km	32 min	Access from Napoleon Street	Limited	Limited
CAJ Fuelstop	23.5 km	41 min	Access from Petunia Street	Limited	Limited
Engen Plaza	24.5 km	25 min	Access from Oliver Tambo Drive	Limited	Limited
Viva	24.7 km	25 min	Access from President Mbeki Drive	Limited	Limited
Engen Rapi Service Station	25.0 km	27 min	Cnr Nelson Mandela Str and Bethlehem Drive	Limited	Limited
BP Petunia Street	25.0 km	27 min	Access from Petunia Street	Limited	Limited

Source: DEMACON GIS ex Google Earth, 2021

Map 4.1: Filling Station supply within the trade area



Source: DEMACON GIS, 2021

Table 4.2: Competitor Analysis – Competitor 1

Site Name	Total Pilansberg Motors
License Numbers	Unknown
Size m^2	Unknown. Estimated 4 100m^2 – i.e. medium-sized mainly targeting traffic along the R565
Types of Products	Petrol and Diesel
Complimentary services	Kwik Stop Shop and a Hot Chick'ns Fastfood Take-away
Staff compliment	Unknown
Distance	Approximately 63 meters from the proposed filling station
Positioning	Direct positive traffic flow
Number of islands	3
Contact details	072 514 7444

Potential impact by proposed filling station	Medium to High
Site Observation	Modern offering with the Hot Chick'ns Take-away attracting a constant flow of customers
Verified volumes	Unknown
Contributing factors	No physical barriers along the length of the R565
Road infrastructure	Tarred

Table 4.3: Competitor Analysis – Competitor 2

Site Name	Engen Boshoek Garage
License Numbers	Unknown
Size m^2	Unknown. Estimated 11 900m^2 – i.e. large (includes retail offering) mainly targeting traffic along the R565
Types of Products	Petrol and Diesel
Complimentary services	Quick Stop Shop, Platinum Express Liquor, Fish & Chips Co, Chesa Nyama, Choppies
Staff compliment	Unknown
Distance	Approximately 66 meters from the proposed filling station
Positioning	Direct positive traffic flow
Number of islands	4
Contact details	014 573 3556

Potential impact by proposed filling station	Medium to High
Site Observation	Modern offering with the retail offering and take-aways attracting a constant flow of customers
Verified volumes	Unknown
Contributing factors	No physical barriers along the length of the R565
Road infrastructure	Tarred

Table 4.4: Competitor Analysis – Competitor 3

Site Name	Milling Filling Station
License Numbers	Unknown
Size m^2	Unknown. Estimated 4 000m^2 – i.e. medium-sized mainly targeting traffic along the R565
Types of Products	Petrol and Diesel
Complimentary services	Kiosk
Staff compliment	Unknown
Distance	Approximately 900 meters from the proposed filling station
Positioning	Direct positive traffic flow
Number of islands	3
Contact details	082 957 0457
	
Potential Impact by proposed filling station	Medium
Site Observation	Functionally dated offering – attracts mainly visitors to the Milling and Agricultural Corporation
Verified volumes	Unknown
Contributing factors	No physical barriers along the length of the R565
Road infrastructure	Tarred

4.4 FUEL SALES DEMAND FORECAST

Based on the most recent traffic counts by Trafftrans (March 2021), there were, at that stage, on average **14 345** traffic movements on the R565 past the site. These traffic counts are higher than, for instance, traffic volumes on the N4 passing the Starstop North Machado (Milly's).

Considering local population and local economic growth rates, traffic growth on the R565 is expected to be in the order of **3.8% per annum** over the medium to longer term.

Differentiated interception rates were applied for, respectively light (92.3% of total vehicles) and heavy vehicles (7.7%) making up the 2021 base count. Differentiated average fills were also applied for both light (20 litres) and heavy motor vehicles (120 litres). Further to the above, differentiated interception rates were similarly applied to each apportionment. Table 4.5 indicates the interception rates assumed for each apportionment of traffic.

Future growth is expected on the R565 in correlation with short and long-term economic, income and population growth in the area. An annual growth rate of 3.8% is therefore assumed. New developments in areas from which the transient trade originate as well as continuous mining prospecting and development will contribute to growth along the R565. It is our considered opinion that the 3.8% growth rate is therefore a fair assumption. Monthly fuel sales based on the 2021 base traffic count for the baseline scenario amount to **403 459 litres** in 2021 – refer to Table 4.5 column H.

It may take up to 36 months for fuel sales of the proposed Boshoek filling station to reach maturity. On account of this principle, year one sales are expected to amount to 80% of this total (i.e. 361 031 litres per month), and year two sales of 90% (i.e. 406 159 litres per month) – refer to Table 4.6.

Table 4.5: Estimated fuel sales (2021)

A - Traffic generator	B - Traffic apportionment		C - 2021 Traffic Counts ADT	D – Interception Rate (%)	E - Total vehicles	F - Average fill (Litres)	G - Total Daily fill (litres) 2021	H - Total Monthly Fill (Litres) 2021
2021 Traffic Counts	Northbound	LMV	6 818	2,0	136	20	2 727	83 175
	Northbound	HMV	500	5,0	25	120	3 000	75 000
	Southbound	LMV	6 427	3,5	225	20	4 499	137 212
	Southbound	HMV	600	6,0	36	120	4 323	108 072
Total			**14 345**		**422**		**14 549**	**403 456**

Source: DEMACON Demand Modelling, 2021

Table 4.6: Fuel sales maturity indicator

Year	Probable percentage of mature sales achieved	Fuel sales based on base count traffic
1	80%	361 031
2	90%	406 159
3	100%	451 288

Source: DEMACON Demand Modelling, 2021

4.5 CONVENIENCE STORE MARKET DEMAND FORECAST

The following section elaborates on the demand estimations for a convenience store and/or restaurant offering at the Boshoek filling station.

Three options exist for the retail offering:

- ✓ Option 1: C Store/Grab&Go only
- ✓ Option 2: C Store/Grab & Go with a Semi-service/QSR Restaurant
- ✓ Option 3: C Store/Grab & Go with a Full-service/Sit-down Restaurant

Dependent on the offering being provided, the filling station will attract a combination of different types of customers/consumers:

1. The average 7-minute dwell time customer - the customer that only visits the filling station to refuel. This customer and or a passenger may or will typically leave their car on the forecourt while quickly entering the Grab&Go to buy convenience drinks/food or to visit the restrooms.
2. The average 15 to 25-minute dwell time customer – the customer that will refuel but will then park in a conveniently located parking bay to visit the Grab&Go, perhaps buy a coffee and get something made-to-order in a Semi-service or QSR (quick serve restaurant) for take-away alternatively which customer may avail himself of seating where available.
3. The average 40+ minute dwell time customer – the customer that park in the parking area and will have a sit-down meal at a restaurant.

❖ GAP ANALYSIS

Based on the location of the site, estimated fuel sales, the market profile and potential support towards convenience store options, the following gaps analysis indicates the best fit for the Boshoek filling station.

Development Type	Effective Market Gap	Development Prospects
Grab & Go	Yes	High
Semi-service	Yes	High
Full service	No	Moderate

❖ STORE SIZE AND RECOMMENDATIONS

In the context of the above, it is recommended that the proposed filling station offer a C-store/Grab&Go offering with a semi-service or QSR restaurant. The recommended floor space apportionment (product offering) is reflected in Table 4.7.

Table 4.7: Potential Expenditure & Floor Space Apportionment

Product Category	Spend per Category (Rand value)	Percentage of forecast sales	Recommended Floor apportionment
Bread/milk	R 75 897,66	9,9%	5%-10%
Reading material	R 75 897,66	11,9%	±5%
Sweets	R 43 008,68	6,7%	5%-10%
Chocolates	R 75 897,66	11,9%	5%-10%
Chips	R 30 359,07	4,7%	5%-10%
Airtime	R 73 367,74	11,5%	0%*
Tobacco	R 75 897,66	11,9%	±5%
Cold drinks	R 50 598,44	7,9%	30%-35%
Other	R 37 948,83	5,9%	5%-10%
Semi-service/QSR	R 227 692,99	17,8%	15%-20%
Total per month	**R 766 566,40**		
Total per annum	**R 9 198 796,40**		

- ✓ The estimated fuel sales for the Boshoek filling station are **403 456 litres per month**.
- ✓ Forecast convenience store retail sales can potentially amount to **R 766 566 per month,** and **R9.1 million annually.**
- ✓ In the context of the location on a major movement route, the provision of a **Semi-service** (±62m² GLA, of which ±45m² for sales area) is recommended.

4.6 SYNTHESIS

Based on differentiated average fills and interception rates, it has been determined that the proposed Boshoek Filling Station could commence from 361 000 litres in Year 1.