

FREEWAY AIRPORT

INTRODUCTION

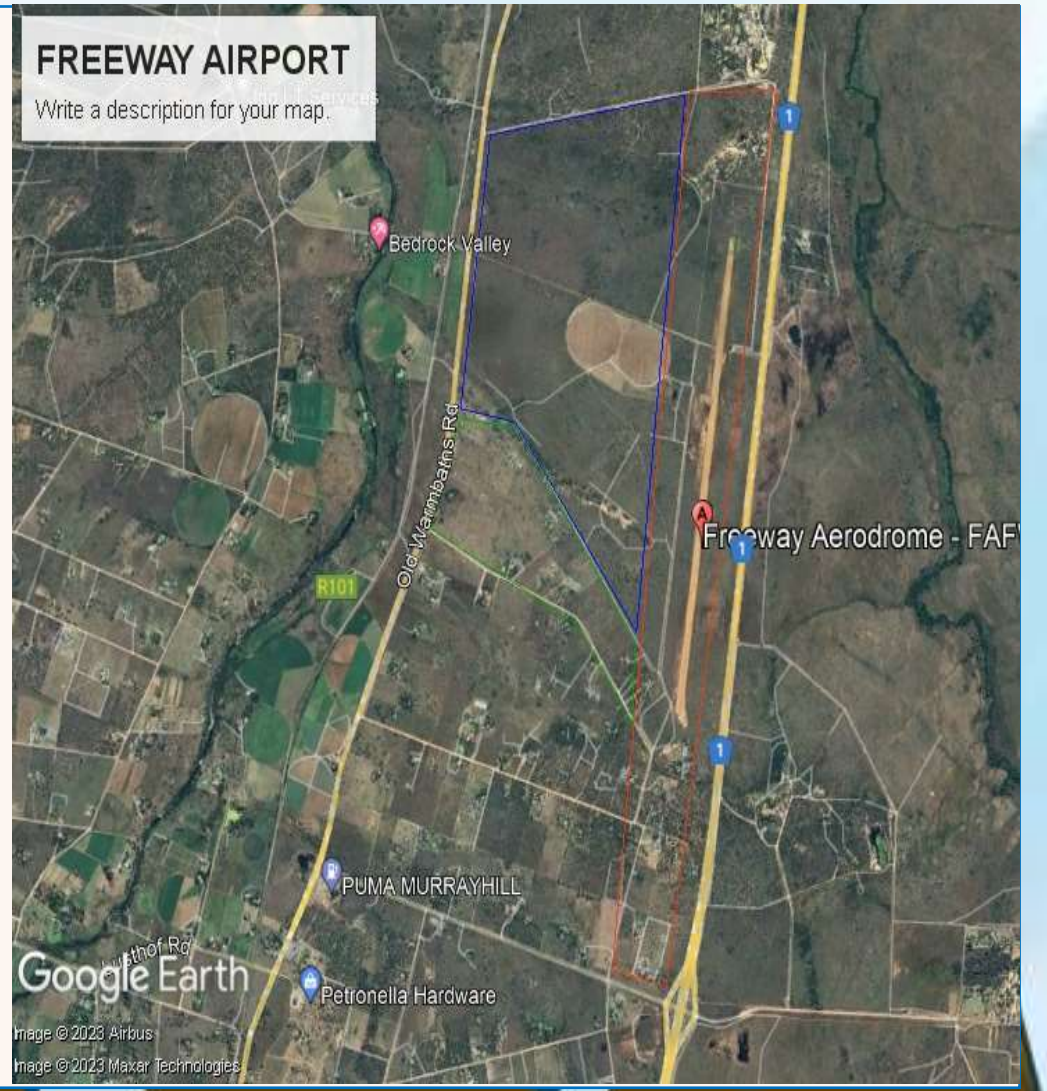
The Freeway Airport and Smart City Development is a new development that will be centred around the existing Freeway Aerodrome. The intention of the development is to Design, Plan and Construct an **International Airport**, serving both Passengers as well as a large cargo market together with all related Infrastructure and Technical, Industrial Manufacturing and Packaging Facilities, and a complimentary **Smart City Development** with approximately 6,300 residential accommodation, related social facilities, Commercial, Retail, Offices, Light Industrial and supporting infrastructure.

LOCATION

The Freeway Aerodrome is located North of Pretoria in the Gauteng Province of South Africa. The area is currently characterised by large scale urbanisation due to the influx of People into the area in search of Job Opportunities and Lifestyle changes.

The land is mostly undeveloped and consists of several land parcels that have been assembled for the development: The farm portions may be described as Remaining Portion of Portion 1 of the Farm Kromdraai 115 JR and Portion 58 and 59 of the Farm Kromdraai 115 JR and the land areas is approximately 6,800,000 m2. An additional 2,807,500 m2 of land adjoining the property have been identified for acquisition.

The Co-Ordinates of Kromdraai are: 28 Degrees 17’21, 7002” LG, 25 Degrees 28’37, 9144 BG



The Eastern Boundary of the Freeway Aerodrome is situated along the N1 Highway that connects the Gauteng Province with the Limpopo Province in the North. The Eastern Boundary is situated along the R101 which connects Pretoria to the densely populated Hammanskraal to the North of the Development.

The Eastern Boundary also has the rail lines linking the Gauteng Province to the Limpopo Province in the North.

Access to the site will be both from the existing N1 Murrayhill Road Freeway Off Ramp and in two locations on the R101.

EXISTING FACILITIES

The current land area is 680 hectare and is Zoned for Airport Consent Use and undetermined which effectively means “As per Approved Site Development Plan”. The existing runway is a compacted gravel runway with a length of 3000 m and is 50 metre wide. The average altitude of the runway is 1160 metre above sea level.

The existing aerodrome licence expired on the 31st July 2010 and since then the facility has not been used.

Apart from a small refuelling equipment no other infrastructure exists. The current rights further allow for 30,500 m2 of buildings.

A new Land-Use Schedule will be submitted for Planning Approval in terms with the revised Business Plan.

An additional 300 hectares of land has been earmarked for strategic acquisition so that the Industrial and Cargo Facilities may be increased to accommodate the anticipated demand for the facility.

The Freeway Aerodrome is 27 Kilometre from the Wonderboom Light Aircraft Aerodrome, 76 Kilometre from OR Tambo International Airport and 62 Kilometre from Lanseria Airport.



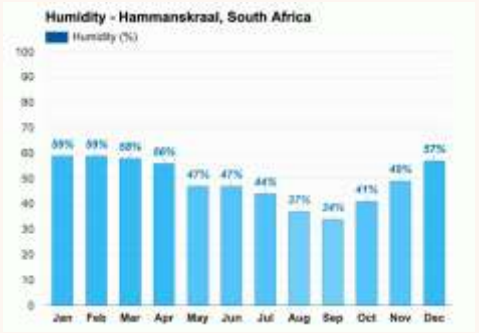


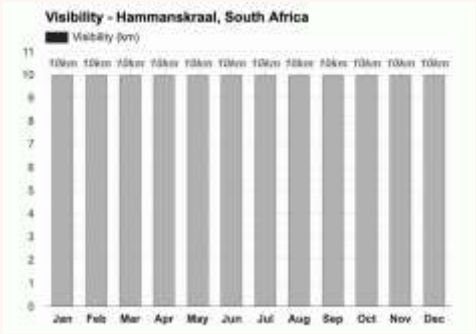
FREEWAY AIRPORT AND SMART CITY DEVELOPMENT

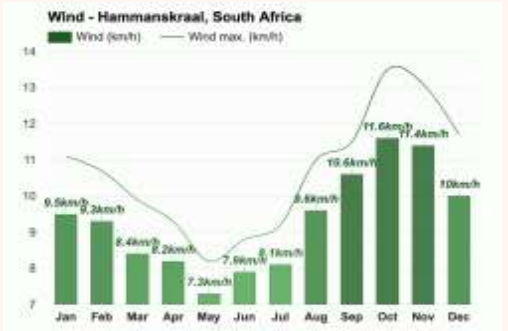
CLIMATIC CONDITIONS

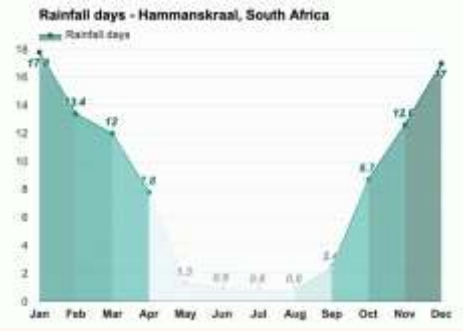
The annual average weather and climatic conditions are reflected in the graphs below:

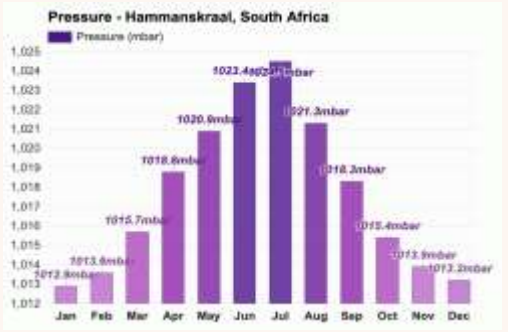
Humidity	Low in September	34 %
	High in January	59 %
Rainfall	Low in July	0 mm
	High in January	74 mm
Temperature	Average Low	7 – 19 Degrees Celsius
	Average High	20 – 30 Degrees Celsius
Pressure	Low in January	1012,9 mbar
	High in July	1024,5 mbar
Hours of Sunshine	Low in August	7,5 Hours
	High in October	11,8 Hours
Cloud Cover	Low in August	5 %
	High in January	25%

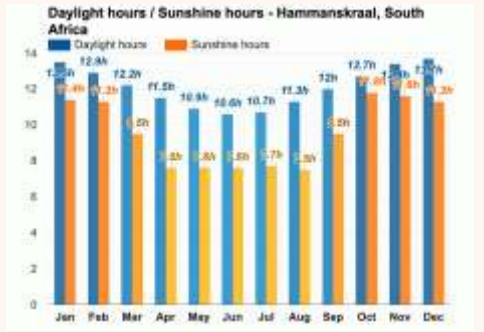


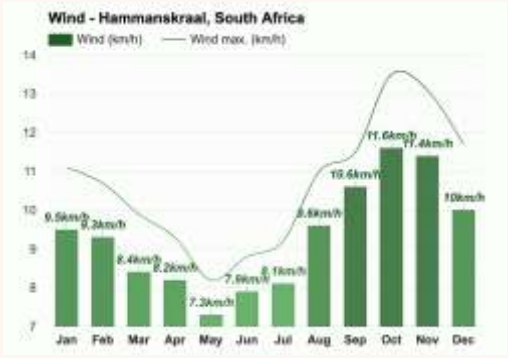


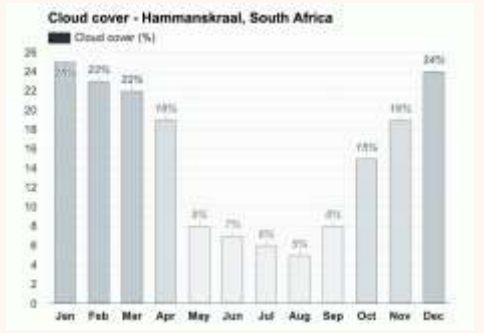












DEMAND PROFILE

The proposed development has already attracted interest from various groups in the hospitality sector as well as air carriers (passenger and freight), who recognize the opportunity for impact development which will follow once the airport is functional. Tourism and business in the region will flourish due to efficient accessibility.

Economic Fundamentals

According to the National Airports Development Plan (NADP), the following principles must be considered in the development of airports in South Africa:

- Demand for the service based on the airport catchment area and passenger volumes;
- Potential to boost economic impact of the area;
- Requirements of key stakeholders and airport users including both direct and indirect users, potentially including use of co-design methods;
- Compliance with relevant regulation requirements;
- Technology trends impacting on facility design, including layout, flow, and systems integration;
- Minimizing of negative environmental impacts;
- Integration with the existing (and planned) transport network in and around the airport precinct;
- Appropriate airport management techniques as well as the operational and funding models;
- Enhancement of both aeronautical and non-aeronautical revenues, including integration of the wider precinct;
- Minimizing ongoing facilities management and maintenance costs;
- Integrating requirements from financiers/ funding partners;









In addition to the above, the fundamental criteria which will be determined from the Project Preparation Support Phase will be to accurately determine all capital, operational and life-cycle costs as well as revenues associated with the airport.

In this process all parameters such as anticipated passenger numbers, design aircraft type, hours of operation will be incorporated into the set of bankable documents which will then accurately reflect all airport revenues, costs and profitability.

Passenger Services

The airport will service a total population from the Tshwane Metropolitan Council of approximately 3,800,000 people and whilst many will still utilise both the OR Tambo and Lanseria Airports, it is anticipated that a large number will utilise the Freeway Airport Facility due to its location and proposed connection to both the Gautrain and the High Speed Train networks to Musina. The anticipated passenger numbers are reflected in the adjacent table.

It is anticipated however that these numbers will grow exponentially once all rail and other transport facilities have been completed. Lanseria currently has an annual passenger volume of 2,500,000 people annum whilst OR Tambo has a passenger handling capacity of 28,000,000 people per annum.

The current runway configuration has been designed to cater for all of the above passenger volumes as well as the Cargo Flights indicated in this report.

PROJECTED PASSENGER NUMBES			2026/02/08	
YEAR	**INTERNATIONAL**	**DOMESTIC**	**TOTAL**	**FLIGHTS PER DAY**
			PAX	FLIGHTS
2029	540 000	125 000	665 000	12
2030	621 000	156 250	777 250	13
2031	714 150	195 313	909 463	14
2032	821 273	244 141	1 065 414	14
2033	944 464	305 176	1 249 640	16
2034	1 086 134	381 470	1 467 604	16
2035	1 249 054	476 838	1 725 892	18
2036	1 436 412	596 048	2 032 460	19
2037	1 651 874	745 060	2 396 934	21
2038	1 899 655	931 325	2 830 980	22
2039	2 184 603	1 164 156	3 348 759	24
2040	2 512 293	1 455 195	3 967 488	27
2041	2 889 137	1 818 994	4 708 131	28
2042	3 322 508	2 273 743	5 596 251	30
2043	3 820 884	2 842 179	6 663 063	33
2044	4 394 017	3 552 724	7 946 741	34
2045	5 053 120	4 440 905	9 494 025	32
2046	5 811 088	5 551 131	11 362 219	32
2047	6 682 751	6 938 914	13 621 665	37
2048	7 685 164	8 673 643	16 358 807	43
OVERALL TOTAL	**55 319 581**	**42 868 205**	**98 187 786**	**485**





Cargo Services

Whilst the Passenger Service is important to the development the primary goal of the airport is to handle cargo from the Agricultural Sector as well as any secondary manufacturing production and packaging from the facility.

In designing the facility, provision has been made for large scale storage, re-packaging, logistics, light industrial such as processing of fruit, etc. including cold storage facilities to service the large meat order that has been confirmed.

In addition to the above the Limpopo and Mpumalanga Provincial Agricultural sectors export large amounts of farming products through the facility.

Discussions are currently underway to accommodate a factory manufacturing parts for Large Aircraft.

Agricultural Exports

POTENTIAL ANNUAL AGRICULTURAL EXPORT VOLUMES				08-Feb-26
No.	Agricultural Exports	TOTAL EXPORTS (SA) Tons (2020 - 2021)	% of Market %	Anticipated Tonnage Tons
1	Citrus	1 400 000	30%	420 000
2	Mangoes	11 000	30%	3 300
3	Tomatoes	600 000	30%	180 000
4	Potatoes	210 000	30%	63 000
5	Maize	11 800 000	10%	1 180 000
6	Soya Bean	45 000	30%	13 500
7	Meat (Annual Order)	1 000 000	30%	300 000
	TOTAL ANNUAL TONNAGE		Tons	2 159 800
Note:	Excluding and Automotive and Dairy Products			

POTENTIAL ANNUAL AGRICULTURAL EXPORT VOLUMES 08-Feb-26

Agricultural Exports			March	April	May	June	July	August	September	October	November	December	TOTALS
	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
Citrus	-	30 000	60 000	60 000	60 000	60 000	60 000	60 000	30 000				**420 000**
Mangoes	660	660	660								660	660	**3 300**
Tomatoes	30 000							30 000	30 000	30 000	30 000	30 000	**180 000**
Potatoes						9 000	9 000	9 000	9 000	9 000	9 000	9 000	**63 000**
Maize	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	100 000	80 000	**1 180 000**
Soya Bean			4 500	4 500	4 500								**13 500**
Meat	21 333	25 333	25 333	25 333	25 333	25 333	25 333	25 333	25 333	25 333	25 333	25 337	**300 000**
TOTAL ANNUAL TONNAGE	151 993	155 993	190 493	189 833	189 833	194 333	194 333	224 333	194 333	164 333	164 993	144 997	**2 159 800**
FLIGHTS PER DAY	**49**	**50**	**61**	**61**	**61**	**63**	**63**	**72**	**63**	**53**	**53**	**47**	**697**



FREEWAY AIRPORT AND SMART CITY DEVELOPMENT







EQUIPMENT AND TECHNOLOGIES

The development of the airport will consider all current technologies available to ensure the safe and efficient operation of a modern airport catering for the planned peak number of passengers and freight operations. All equipment and infrastructure will be in terms with the South African Civil Aviation Authority rules and regulations as well as the American Aviation Authority specifications to ensure that a World Class Facility is designed and constructed.

The following list is not meant to be exhaustive but is intended to provide an indication of the type of equipment and technologies that may be utilized on the airport:

Communication Systems

- Radio & Broadband Communications Sets (handheld) – Two-Way communication solutions for air side operations and security;
- Voice Communication & Control System;
- VHF Ground-Air Radios;
- Voice/Data Recording & Replay System for ATC;
- Aeronautical Message Handling Systems (AMHS);

Terminal Navigation Aids

- Passenger Boarding Bridge;
- Ground Power Unit/s;
- Aircraft Refueling Equipment;
- Aircraft Tugs and Tractors;

Ground Support Equipment

Doppler Very High Frequency Omni-Directional Radio Range (DVOR);

Non-Directional Beacon (NDB);

Ground-Based Augmentation System (GBAS);

Instrument Landing system (ILS).





Surveillance

- ADS-B sensors;
- Multilateration Systems;
- Airfield Surveillance Radars;
- Surveillance Data Distribution and Processing Systems;
- Surveillance Displays for Air Traffic Management (ATM).

Airport Ground Lighting

- Runway Lighting;
- Taxiway Lighting;
- Apron Lighting;
- Precision Approach Path Indicator (PAPI) Lighting.

Ground Support Equipment

- Passenger Boarding Bridge;
- Ground Power Unit/s;
- Aircraft Refueling Equipment;
- Aircraft Tugs and Tractors;

Aviation Weather Solutions

- Automated Weather Observation System;

Baggage Handling & Trolleys

- Airport Trolley Tug;
- Passenger Baggage Trolleys;
- Baggage Handling Container/Transporter;
- Aircraft Baggage Loading (Belt Loader)
- Baggage Carousels

Airport Rescue & Fire Fighting Equipment

- Fire Fighting Vehicles;
- Fire Fighting Apparatus;
- Personal protection Equipment;

Passenger Handling Solutions

- Check- In and Boarding Solutions;
- Passenger Wheelchairs;

Airport Security

- Total airport security solution – perimeter fencing, lighting, airport CCTV, monitoring;
- Passenger and baggage screening solutions, liquid scanning, explosive detection;
- Access control solutions;

FREEWAY AIRPORT AND SMART CITY DEVELOPMENT

AIRPORT PRECINCT ACCOMMODATION SCHEDULE

To house all the facilities and create Income Generation for the Project, provision has been made for the following facilities:

▪ Terminal Buildings, etc.	29,000 m2
▪ Retail Component	12,000 m2
▪ Offices	8,000 m2
▪ Hotel	20,900 m2
▪ Petro Port & Related Facilities	3,000 m2
▪ Hangers & Industrial Buildings	1,140,000 m2
▪ Covered Parking (8000 Bays)	276,100 m2
TOTAL BUILDING AREA	**1,500,000 m3**

In addition to the above provision has been made for drop off zones and 1500 open parking bays.

Adequate provision has been made for Runways, Taxiways, Aprons, Aircraft Parking, Service Roads and Landscaping.

Provision has further been made for a rail station and rail infrastructure that will connect to the local rail network as well as the high speed train networks.

In addition to the above facilities will be provided for the South African Police Services, Custom and Excise, South African Defence Force, the City of Tshwane Metropolitan Municipality, Civil Aviation Authorities, Gautrain and Department of Transport for the High Speed Rail Linkages.

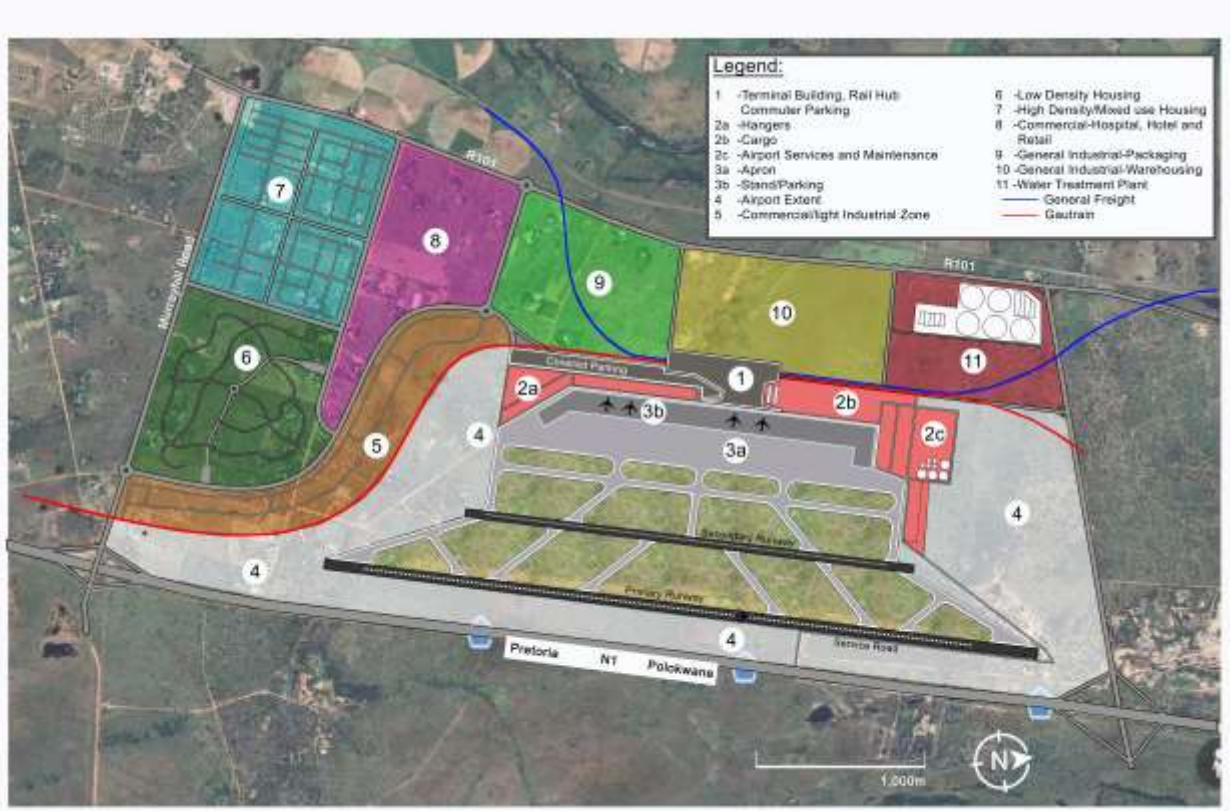






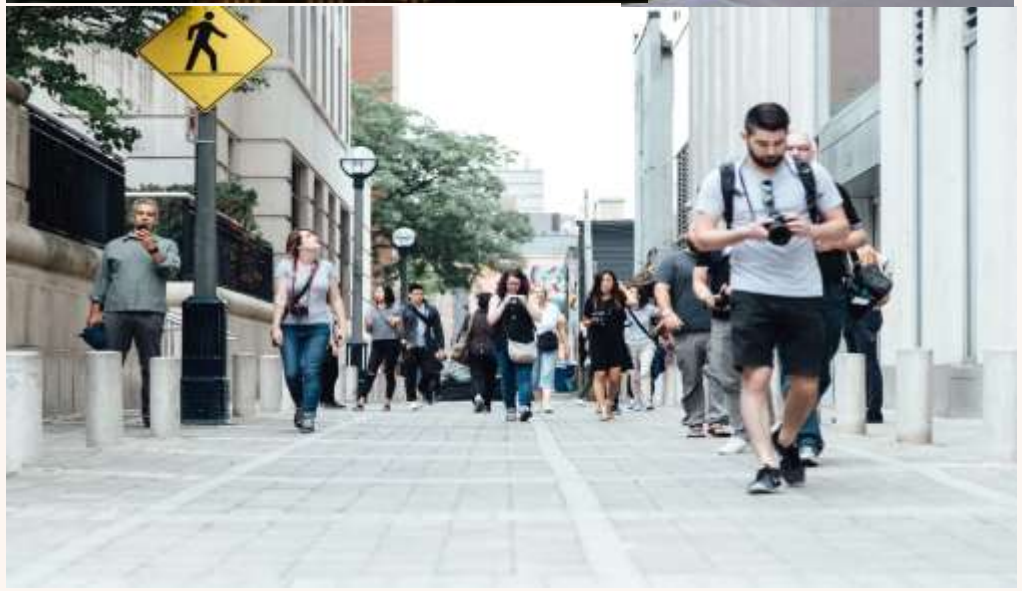






Freeway Airport Schematic





FREEWAY AIRPORT AND SMART CITY DEVELOPMENT

SMART CITY DEVELOPMENT

Complementary to the Airport Development, a Smart City has been designed to cater for overall demand in the surrounding areas as well as any additional facilities that the airport may require.

In terms with its developmental philosophy, Freeway Airport Investments have designed and planned a Smart City within the larger Kromdraai Property that will provide a long-term sustainable township development that provides a balance between Economic, Social and Environmental Factors.

ECONOMIC FACTORS

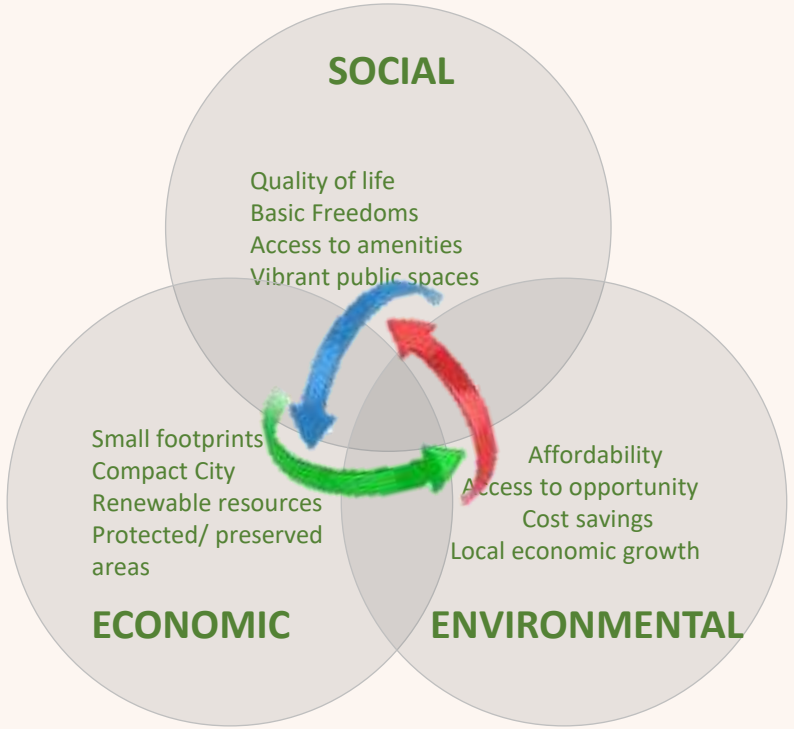
Urban areas provide people opportunities to network, to contract by contact, to share ideas and grab at opportunities.

AFFORDABILITY

The key to economic sustainability is affordability, especially in low to middle income areas.

Affordable housing cannot work in a setting that does not sustain an affordable lifestyle.

"**Lifestyle**" is not to be associated with wealth – design has a direct effect on how people's **quality** of life, for example **transportation** costs – people spend most of their income on taxis or private cars that travel over 20kms to get them to work only because planners did not provide local job opportunities or public transport. Also, our dependence on non- renewable **resources** places further burden on our limited **disposable incomes and especially our planet**. Food security in the form of **agriculture production further** helps to lower the burden on the planet and greatly enhancing the value of local communities.



ordability uses design to improve the **efficiency** of the town, grows **local** economies, allows people to benefit from portunities without having to depend on private transport or excessive funding.

COMPACT CITY

achieve Affordability, the design of the town must be **compact and dense** to improve efficiency; so that the highest mber of people can benefit from less, but quality infrastructure and amenities.

e say that within **10 minutes walk**, you should have **access** to Job opportunities, services, recreational uses and enities within a vibrant mixed-use neighbourhood.

OCIAL – LIFESTYLE VALUES

estyle is for everyone; it is the start of our basic freedoms, and it is as applicable to all cultures and all income groups.

OBILITY FOR ALL

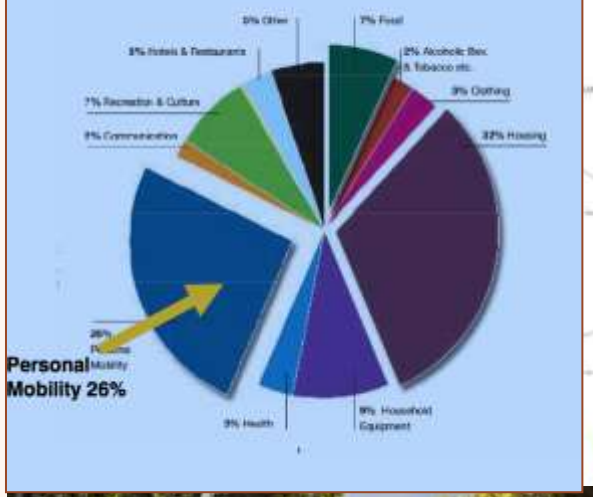
eating safe pedestrian, cycling and vehicular environments so that people can get to amenities close to home, nveniently. This effects the design and placement of amenities.

MENITIES

ch neighbourhood should have a diverse range of facilities for the full spectrum of life within walking distance; schools, orts, taxis and busses, trains, police stations, council areas, clinics, recreation, shopping, places of worship, jobs, parks d basic community services.

UPPORTIVE VALUE SYSTEMS

ESCO Biosphere
enda 21
e Planet living
stainable human settlements Cradle to Cradle
R (or local equivalent) schedule for standards and guidelines for social facilities, public institutions and public open ace – 2007









BASIC FREEDOMS – SAFETY, PRIVACY AND EXPRESSION

A healthy balance between the utmost privacy of home and the rich public environment of the community can be achieved through design as well. While the placement of units can promote safety and privacy, attention to the design of public space and enrich communal life. Public spaces can be made better by looking at pavements, street lighting, places for public gathering, benches, dustbins etc.

HIGHER DENSITY LIVING

While some people perceive density to mean that there is a loss in privacy, the reverse is true with the added benefit of more quality public spaces. While solitude can be achieved in the home, in parks or in places of worship, access to better space can be achieved in more densely inhabited areas. Place-making in more dense areas allows people to take ownership of common space which means that they will look after it and it will become a place, they are proud of.

ENVIRONMENTAL SUSTAINABILTY

Environmental sustainability depends on the following items:

- Affordability
- Less dependence on non-renewable resources
- A compact city/ small footprint
- Emphasis on local materials and local context
- Urban agriculture
- Mobility for all
- A rich mix of amenities
- Basic freedoms – safety, privacy and expression
- Higher density living
- Efficient and robust design layouts and planning
- Protection of natural features
- Our green spaces will be successfully engaged with and enhanced.











Green spaces and the environment are the softest of public space and there is no reason why there cannot be a symbiotic and respectful relationship between humans and nature.

•Alternative Technologies need to be explored that enhance our engagement with our natural environment:

- •Waste Recycling
- •Water & Wastewater Purification
- •Clean Energy Production
- •Alternative Building Technologies
- •Smart & Interactive Infra Structure Monitoring and Optimization of Utilities

The smart city development will thus have the following facilities:

Infrastructure

- Roads and Stormwater
- Water and Sewer Reticulation
- Water and Sewer Purification
- Train and High-Speed Rail Network
- Landscaping

Commercial and Retail Facilities

Industrial Facilities

Schools, Clinics, Sport & Recreational Facilities

Housing

FREEWAY AIRPORT AND SMART CITY DEVELOPMENT








AIRPORT – ACCOMMODATION SCHEDULE

To meet the future demand for facilities in the Smart City Development, provision has been made for the following

FEASIBILITY STUDY - ACCOMMODATION SCHEDULE 2026/02/08

NO.	ITEM	UNITS	AIRPORT PHASE	2ND RUNWAY	SMART CITY	TOTALS
1.	Terminal Buildings	m2	25 000	4 000	-	29 000
2.	Terminal Retail, etc.	m2	8 000	4 000	35 000	47 000
3.	Petro Ports	m2	3 000	3 000	6 000	12 000
4.	Hotel	m2	20 900	-	17 100	38 000
5.	Covered Parking	m2	124 250	14 000	126 000	264 250
6.	Open Parking	m2	52 500	21 000	21 700	95 200
7.	Retail Accommodation	m2		Incl. Above	57 600	57 600
8.	Office Accommodation	m2	12 000	2 000	18 000	32 000
9.	Schools (4 No.)	m2			39 200	39 200
10.	Medical Clinic	m2			12 500	12 500
11.	Sports Facilities, etc.	m2			5 000	5 000
12.	Industrial, Warehousing, Hangars	m2	1 040 000	100 000	-	1 140 000
13.	Transport Hubs		4 000	500	1 000	5 500
14.	Residential Accommodation (6300 Homes)	m2			421 050	421 050
	TOTAL BUILDING AREAS		**1 289 650**	**148 500**	**760 150**	**2 198 300**

AESTETIC and CULTURAL CONSIDERATIONS

To promote tourism and to showcase South Africa's rich cultural heritage, considerations have been given to incorporating elements of our diverse cultural heritage in the designs of the Airport Precinct.



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ACCESSIBILITY & TRANSPORT

In addition to the access from the Air, the Development may be accessed by road and rail:

Road

- N1 FREEWAY – MURRAY HILL OFF RAMP (Southern Boundary)
- N1 – FREEWAY SUBWAY – Mid Runway
- R101 – Pretoria to Hammanskraal Access Road (Eastern Boundary)
- Taxi and Shuttle Services will run to the Tshwane Metro Area





Rail

The development will also be connected to the Gautrain network that will be expanded to the Total Energies Panorama Petro Port 12.6 Km to the south of the Airport on the N1 Freeway.

In addition to the Gautrain plans are currently underway on linking Polokwane in the North to the Total Energies Panorama Petro Port Gautrain Station via High-Speed Passenger Train.

Provision has been made to couple up with these two high speed passenger rail services to ensure easy access to the Freeway Airport to both Polokwane in the north and the Tshwane Metropolitan City Council to the south.

On the eastern boundary a rail siding will connect both Transnet as well as Prasa Rial services from the existing rail network.















FREEWAY AIRPORT AND SMART CITY DEVELOPMENT

IMPLEMENTATION, OPERATIONAL & MAINTENANCE

Freeway Airport Investments (Pty) Ltd. have an Operational & Maintenance Division that manages the Companies Acquisitions and Mergers of Companies and the various Assets that are created.

IMPLEMENTATION

The projects will be implemented in phases over an anticipated construction period of 5 years.

POVISION & MANAGEMENT OF UTILITY SERVICES

Freeway Airport Investments (Pty) Ltd will provide the following Utility Services:

- Utility Management System providing real time monitoring.
- Design and Supply of Electrical Power Grid on a Pre-Paid Metering System including the provision of Bulk Power.
- Provision of Clean Water for personal consumption on a Pre-Paid Metering system.
- Ability to Optimise and Manage consumption.
- Carry out Planned Maintenance on Utilities.
- Maintenance of all Emergency Repairs to Utilities triggered by the system.
- Establishment of Homeowners Associations and Body Corporates to interact with the Management Committees.
- Establishment of Community Forums.
- Management of All Fixed and Moveable Assets.

JOB CREATION & SMALL BUSINESS DEVELOPMENT

The procurement policies of the Development Consortium have been aligned with those of the Local Municipality with emphasis on the employment of the youth and women.

Through its Incubator Program, the Development Consortium strives to create as many small business enterprises, local suppliers and previously disadvantaged business as possible.

As part of the sustainability of the project a job creation programme, where people are drawn from the local community, IS implemented.

Report Compiled by Rudi Bunger B.Sc.Q.S. Pr.Q.S. P.M.A.Q.S

For FREEWAY AIRPORT INVESTMENTS (PTY) LTD.. DEVELOPMENTR CONSORTIUM

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Kladstudio Architects

Rosnovanu & Associates Civil & Structural Engineers

KKA Electrical & Mechanical Engineers

Bunger Quantity Surveying (Pty) Ltd.

Bravio Solutions (Pty) Ltd. - Aviation Specialists

FKJ Consultants (ty) Ltd.

Counterspace – Architecture Studio



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