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DRAFT BASIC ASSESSMENT REPORT FOR THE CONSTRUCTION OF A MAINTENANCE, REPAIRS AND OVERHAUL (MRO) HANGAR, A CARGO TERMINAL WAREHOUSE, AIRSIDE PLATFORM, AND STORMWATER INFRASTRUCTURE, ON A PORTION OF ERF 183 LANSERIA INTERNATIONAL AIRPORT EXTENSION 1, LANSERIA, GAUTENG

APPLICANT:
LANSERIA AIRPORT 1993 PTY LTD

GAUT REF NUMBER: TO BE RECEIVED

NOVEMBER 2025

Basic Assessment Report in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended, and the Environmental Impact Assessment Regulations, 2014 (2025 VERSION 1)

Kindly note that:

1. This **Basic Assessment Report** is the standard report required by the Gauteng Department of Environment in terms of the EIA Regulations, 2014.

2. This application form is current as of April 2025. It is the applicant's responsibility to check for any updated versions published by the competent authority.

3. A draft Basic Assessment Report must be submitted, for purposes of comments within a period of thirty (30) days, to all State Departments administering a law relating to a matter likely to be affected by the activity to be undertaken.

4. **A draft Basic Assessment Report must be submitted, for purposes of comments within thirty (30) days, to a Competent Authority (uploaded to the EIA online system) empowered in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended to consider and decide on the application. The EIA online system can be accessed at https://eia.gauteng.gov.za.**

5. **A copy (PDF) of the final report and attachments must be uploaded to the EIA online system. The EIA online system can bep accessed at https://eia.gauteng.gov.za.**

6. **Draft and final reports submitted in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) must be emailed to environmentsue@gauteng.gov.za.**

7. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.

8. Selected boxes must be indicated by a cross and, when the form is completed electronically, must also be highlighted.

9. An incomplete report may lead to an application for environmental authorisation, or a Waste Management License being refused.

10. Any report that does not contain a titled and dated full-colour large-scale layout plan of the proposed activities including a coherent legend, overlain with the sensitivities found on site may lead to an application for environmental authorisation or a Waste Management License being refused.

11. The use of “not applicable” in the report must be done with circumspection because if it is used for material information that is required by the competent authority for assessing the

application, it may result in the application for environmental authorisation or Waste Management License being refused.

12. The applicant must fill in all relevant sections of this form. Incomplete applications will not be processed. The applicant will be notified of the missing information in the acknowledgement letter that will be sent within 10 days of receipt of the application.

13. Unless protected by law, and indicated as such, all information filled in on this application will become public information on receipt by the competent authority. The applicant/EAP must provide any interested and affected party with the information contained in this application on request, during any stage of the application process.

14. Although pre-application meetings with the Competent Authority is optional, applicants are advised to have these meetings before submission of the application to seek guidance from the Competent Authority.

15. **Please note that your submission will be acknowledged within 10 days of receipt. If you do not receive an acknowledgement from the Department within this period, kindly follow up using our central email address: environmentenquiries@gauteng.gov.za**

DEPARTMENTAL DETAILS

Gauteng Department of Environment
Attention: Environmental Support Services of the Environmental Branch
P.O. Box 8769
Johannesburg
2000
Ground floor, Umnotho House, 56 Eloff Street, Johannesburg
Administrative Unit telephone number: (011) 240 3052
Department central telephone number: (011) 240 2500

(For official use only)

NEAS Reference Number:						
File Reference Number:						
Application Number:						
Date Received:						

If this BAR has not been submitted within 90 days of receipt of the application by the competent authority and permission was not requested to submit within 140 days, please indicate the reasons for not submitting within time frame.

N/A

Is a closure plan applicable for this application and has it been included in this report? If not, state reasons for not including the closure plan.

N/A

Has a draft report for this application been submitted to a competent authority and all State Departments administering a law relating to a matter likely to be affected as a result of this activity?

YES

Is a list of the State Departments referred to above attached to this report including their full contact details and contact person?

YES

If no, state reasons for not attaching the list.

Have State Departments including the competent authority commented?

If no, why?

This draft report has been submitted to the public and authorities for comment. Comments must be received by 21 January 2026. Comments received on the Draft BAR will be included in the Comments and Response Register in the draft BAR submitted to the approving authority, GDEnv.

SECTION A: ACTIVITY INFORMATION

1. PROPOSAL OR DEVELOPMENT DESCRIPTION

Project title (must be the same name as per application form):

DRAFT BASIC ASSESSMENT REPORT FOR THE CONSTRUCTION OF A MAINTENANCE, REPAIRS AND OVERHAUL (MRO) HANGAR, A CARGO TERMINAL WAREHOUSE, AIRSIDE PLATFORM, AND STORMWATER INFRASTRUCTURE, ON A PORTION OF ERF 183 LANSERIA INTERNATIONAL AIRPORT (LIA) EXTENSION 1, LANSERIA, GAUTENG

Figure 1: Project Locality of the study area: Portions of Erf 183, LIA Extension 1

Select the appropriate box

~~The application is for an upgrade of an existing development~~		**The application is for a new development**	**X**	**Other, specify**	

Does the activity also require any authorisation other than NEMA EIA authorisation?

YES	NO

If yes, describe the legislation and the Competent Authority administering such legislation

A Water Use License (WUL) in terms of Section 21 of the National Water Act, 1998 (Act No. 36

of 1998), will be submitted to the Department of Water and Sanitation (DWS) for the Lanseria International Airport Extension 1, a portion of Erf 183. The following water uses as contemplated in Section 21 of the NWA, are associated with the proposed new facilities: Section 21(c) and (i) Impeding or diverting the flow of water in a water course, Altering the beds, banks, course or characteristics of a water course and Disposing of waste in a manner which may detrimentally impact on a water resource. INDEX (Pty) Ltd have been appointed to conduct the WULA for this application.		
If yes, have you applied for the authorisation(s)?	**YES**	NO
If yes, have you received approval(s)?	YES	**NO. WUL Application is underway**

Project proposal and associated infrastructure

Lanseria International Airport (LIA) is a privately owned airport that accommodates both domestic and international flights and aircraft. The Lanseria Airport is situated within the City of Johannesburg, in an area that has been classified as an Industrial node, and Peri Urban in terms of the Nodal Review 2019/20 Policy document.

Erf 183, Lanseria Airport Extension 1, is currently zoned "Special" permitting land use for purposes necessary and in connection with airport, including aircraft hangers, aircraft maintenance, storage of goods, and accessories related to aircraft maintenance offices which are related to the use of the erf and buildings for the purposes of aircraft operations, including shops, retail and place of refreshment facilities subservient to the main use of the erf, aircraft runways, taxi aprons, air traffic control towers, repair and maintenance facilities, and such other associated land uses which the municipality may approve in writing.

The project area is located *within the Lanseria International Airport*, on the eastern and western sides of the existing LIA *Charlie taxiway*. See figure 1.

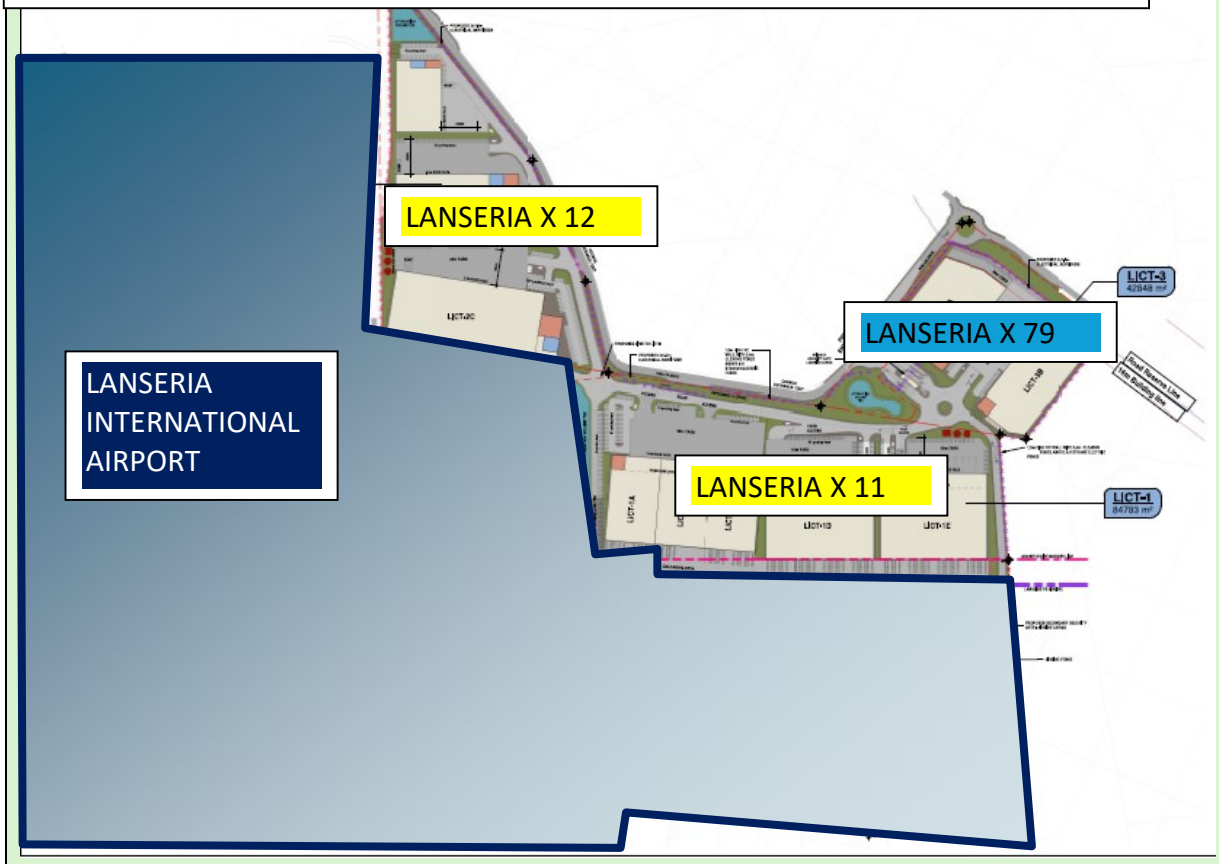
Lanseria Airport 1993 PTY LTD, as the **applicant**, proposes developing (i) a new Maintenance, Repair, and Overhaul hangar (MRO hangar 3) (for aircraft checks and servicing, fixing aircraft components and the disassembly and inspection of aircraft parts or systems), (ii) a new International Cargo Terminal (Cargo terminal 4)(a facility designed to handle, store, screen, and process international import and export cargo), (iii) a cargo aircraft stand, (iv) access roads, fencing and access control, and (v) stormwater and service infrastructure.

Several environmental authorisations for townships and development proposals in and adjacent to the Lanseria Airport have been received. See figure 2 below. The intention and purpose of these applications have been for the development of the **Lanseria International Cargo Terminal (LICT).** The LICT proposal establishes a world class Cargo Terminal on Lanseria Ext 11, Ext 12, and Ext 79 (Figure 2).

Project market research and market demand has been solely based on creating an international Cargo Terminal. The Netherlands Airport Consultants (NACO – a leading airport development

consultancy) designed the Lanseria Cargo Precinct development framework in 2020. The MRO buildings were included in the NACO LICT, as *potential* development in the future. The development of the MRO buildings was not considered until 2025, as the market for the future anticipated aviation facilities, did not exist till this time.

Figure 2: Project areas within the Lanseria Southern Precinct master layout framework



The Lanseria MRO 1 & 2 area required the execution of bulk earthworks to generate fill material needed for the construction of platforms in the adjacent Lanseria X 11 township. Lanseria X 11&12 have their own environmental authorisation, independent construction timelines, and committed contractual milestones. Lanseria X 79 is under application.

Geoid Geotechnical Engineers (GGE) have conducted a **detailed geotechnical investigation** for the Lanseria International Airport expansion project, of which a portion of Erf 183 LIA Extension 1, forms a part of. Based on Geotechnical field profiling, Geoid has characterised the application site by five geotechnical zones, Zones 1,2,3,5 and 6. See section 5 of this BA report and Appendix G for this specialist report. Given the complexity of the site, with single structures likely to straddle multiple zones, it is recommended that the Geotechnical Specialist be appointed to interact with the professional team to provide ongoing support for the duration of the project to further investigate, delineate transition zones, provide costings, undertake preliminary designs and procurement advice, finalise the designs, and inspect / monitor the ground improvement / foundation works for compliance with the project recommendations and specifications on all in ground works.

Periodic geotechnical inspection of the works during construction will provide for confirmation of the recommendations given in the geotechnical report, and for any significant changes from the anticipated conditions to be considered timeously, to avoid unnecessary expense due to construction errors. Additional design-level investigative work necessary to optimize foundation works / ground improvement / deep cuts with lateral support and high fills with retaining walls are have been provided in the report.

A **Terrestrial biodiversity Assessment** for the greater Lanseria Southern Precinct, of which the present study areas form part of, was conducted by EnviroGaurd Ecological Services CC in 2024. The present study areas are comprised of *degraded grassland vegetation, lawn grassland, artificial wetlands and Eucalyptus woodland* units. The conservation and biodiverse importance of the grassland and *Eucalyptus* woodland units are very low. The artificial wetland unit is medium. This is because the study area has been repeatedly used and cleared of vegetation over many years for many different purposes, including airport maintenance activities, man-made stormwater management, informal helipads, firefighting training, etc. This has resulted in pioneer and secondary successional species establishing together with a few alien invasive trees.

Galago Environmental CC was appointed in May 2025 to update the INDEX (PTY) LTD **Wetland Assessment** compiled by Dr Andries Gouws & Prof Lesley Brown in 2024, for the Lanseria Airport Southern Precinct, on portions of Erf 183 Lanseria international Airport, Extension 1. The artificial wetlands on site are the result of upstream stormwater, from the larger catchment, draining into the area. The stormwater from the Charlie Taxiway is also channelled into this area. This increase in surface water has over time created some wetland functionalities, with emphasis on *attenuation of flow*. The Present Ecological Status (PES) of the artificial wetlands was calculated by Galago Environmental CC, to category F, with the Ecological Importance and Sensitivity calculated to Low/Marginal. The wetland function is for the confluence and attenuation of stormwater. It is important to note that the habitat created by the artificial wetland/stormwater system, is not conducive to the safe operation of the airport, ie bird strikes in aircrafts.

The **stormwater designs** for the precinct will replace the artificial wetland function, in the new proposed and properly designed attenuation ponds. See section B5 of this report for stormwater management. This will allow for the engineered system to be utilized for the maintenance of the attenuation ponds, and to ensure their proper function.

There are no municipal **stormwater infrastructure** networks in the area. A natural watercourse is located to the northeast of the adjacent Lanseria Extension 11 township. The southern precinct of Lanseria Extension 1 drains via north-easterly overland flow into this watercourse. Additionally, the adjacent Lanseria Extension 75 includes a stormwater attenuation dam, which discharges overland into the southern precinct of Lanseria Extension 1, creating the artificial wetlands. From the western side of Charlie taxiway, the stormwater continues to drain eastwards toward the natural watercourse via swales and stormwater channels constructed by the LIA under taxiway Charlie.

EDS Engineers prepared a **stormwater management plan considering the greater Lanseria Airport Extension 1 Southern Precinct.** The Stormwater Management Plan (SWMP) proposed for the Lanseria X1 Southern Precinct will consist of onsite attenuation as well as an integrated network of underground stormwater systems, ultimately connecting to the Stormwater Connection Point at the

approved Lanseria X 11.

The **existing informal stormwater attenuation ponds** affecting the Lanseria Airport Southern Precinct, while unintentionally functioning as artificial wetland systems, **lack the design, control, and resilience necessary to sustainably manage stormwater in an expanding airport and logistics hub environment.** These informal features may pose environmental and operational risks over the long term, including uncontrolled flooding on the Charlie taxiway, aquaplaning, erosion, and degradation of water quality. The development of a formally engineered stormwater management system for the southern precinct is critical to ensuring that stormwater is managed in a way that is both environmentally responsible and functionally reliable. Engineered systems are designed to handle peak runoff volumes more effectively, reducing the risk of localized flooding and erosion across the Charlie taxiway. They incorporate on site attenuation features, infiltration elements, and discharge control structures to mimic natural hydrological processes more accurately than informal ponds. Engineered systems are more adaptable to future climate conditions and provide a robust, maintainable infrastructure to support sustainable airport operations.

While the current informal attenuation ponds have developed wetland-like characteristics, they **lack ecological planning and do not provide habitat connectivity.** The engineered stormwater management system will meet regulatory standards for stormwater management in terms of water and environmental legislation.

EDS Engineers have confirmed that since the new developments will be situated within the existing township of Lanseria Airport Extension 1, a new internal water reticulation system will be implemented for the development, which will connect to the **existing Lanseria Airport X1 infrastructure.** All new water reticulation pipelines and fire hydrants will be installed by the developer. With regards sewer services, the airport has its own approved **Wastewater Treatment Works (WWTW).** As a result of the gradient design constraints, the proposed development will be situated at a lower elevation than the existing LIA gravity sewer system that leads to the wastewater treatment plant (WWTP). The new MRO development will therefore include a central sewer pump station, which will collect effluent via a gravity-fed network and pump it to the nearest gravity sewer line leading to the LIA WWTP. See Appendix I of the EDS Engineers report in Appendix G of this BAR. The internal sewer reticulation system will comprise 110mm Ø gravity sewer pipes and a 63mm Ø pumped rising main, both to be installed by the developer. The existing 200mm Ø gravity sewer main will be rerouted accordingly. No external sewer infrastructure upgrades will be required as part of this development.

The existing Eskom MV network in the area will supply the MRO facilities.

Activity (s) Applied For:

An application may be made for more than one listed or specified activity that, together, make up one development proposal. All the listed activities that make up this application must be listed below:

Indicate the number of the relevant Government Notice	Activity No. (s) (relevant notice):	Describe each listed activity as per the wording in the listing notices:	Activity description
GNR 983: Listing Notice 1:	**12**	The **development of (i) dams** or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; or (ii) infrastructure or structures with a physical footprint of 100 square metres or more; where such development occurs **(a) within a watercourse**;	The stormwater design for the Lanseria precinct will replace the **artificial** wetlands function, in the new proposed and properly designed attenuation ponds.
	19	The **infilling or depositing of any material** of more than 10 cubic metres into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 cubic metres from (i) a watercourse.	
	27	The clearance of an area of 1 hectares or more, but less than 20 hectares of **indigenous vegetation**	The activities proposed as part of the LICT, will permanently transform approximately 10ha of degraded grassland, E*ucalyptus* woodland and artificial wetlands on site.
	61	The **expansion of airports** where the development footprint will be increased.	The township *boundary* of the LIA will not be increased, however the *development footprint* will. All works remain within the LIA X 1 township. Vacant pieces of land within the LIA are being developed in line with the LIA's plans to increase passenger and cargo traffic and promote regional economic development initiatives.

Indicate the number of the relevant Government Notice	Activity No. (s) (relevant notice):	Describe each listed activity as per the wording in the listing notices:	Activity description
GNR 985: Listing Notice 3:	**Activity 12 c (ii):**	The clearance of an area of 300 square metres or more of **indigenous vegetation** in Gauteng Within **Critical Biodiversity Areas** or Ecological Support Areas identified in the Gauteng Conservation Plan or bioregional plans.	According to the GDARD C-plan, portions of the study area are regarded as a CBA1, belonging to the Critically Endangered Egoli Granite Grassland.
	14 (ii)(c)(c)(iv)	The development of (ii) **infrastructure** or structures with a physical footprint of **10 square metres or more**; where such development occurs (c) if no development setback has been adopted, within **32 metres of a watercourse,** measured from the edge of a watercourse; iv. In sites identified as Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs) in the Gauteng Conservation Plan or in bioregional plans.	The footprint of the new facilities within the LIA will occur within the present *artificial* wetlands.

2. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations:

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996): Chapter 2 Section 24	Department of Forestry, Fisheries and the Environment (DFFE)	8 May 1996
National Environmental Management Act No. 107 of 1998 as amended	Department of Environment (GDE)	27 November 1998
NEMA Environmental Impact Assessment Regulations as amended, GNR 326	Department of Forestry, Fisheries and the Environment (DFFE)	7 April 2017

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
Assessment for Reporting on Identified Environmental Themes	Department of Forestry, Fisheries and the Environment (DFFE)	20 March 2020
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) • GN number 1002: National List of Ecosystems that are Threatened and Need Protection dated 9 December 2011, as it relates to the NEMBA; • GN number R.1020: Alien and Invasive Species Regulations, 2020, in Government Gazette 43735 dated September 2020 as it relates to the NEMBA; • GN number 1003: Alien and Invasive Species Lists, 2020, in Government Gazette 43726 dated 18 September 2020, as it relates to the NEMBA; and • GN number 30568: Threatened or Protected Species (TOPS) list dated 14 December 2007, as it relates to the NEMBA.	Department of Forestry, Fisheries and the Environment (DFFE) Gauteng Department of Environment (GDE)	2004
Government Gazette 45421 dated 10 May 2019 as it relates to the Department of Forestry, Fisheries, and the Environment (DFFE's) national environmental screening report required with an application for EA as identified in regulation 16(1)(v) of EIA Regulations: o For the Terrestrial Biodiversity Theme: GN 320 Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental Impacts on Terrestrial Biodiversity as published in Government Gazette 43110 dated 20 March 2020; and	Department of Environment, Forestry and Fisheries (DFFE) and Gauteng Department of Environment (GDE)	2019

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
• For Animal and Plant Species Themes: GN 1150 Protocol for the Specialist Assessment and Minimum Report Content Requirements for Environmental • Impacts on Terrestrial Plant and Animal Species as published in Government Gazette 43855 dated 30 October 2020		
Government Notice 598 Alien and Invasive Species Regulations (2014), including the Government Notice 864 Alien Invasive Species List as published in the Government Gazette 40166 of 2016, as it relates to the National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004)	Department of Environmental Affairs	2004 2017
National Environmental Management Waste Act GNR 921	Department of Environment, Forestry and Fisheries (DFFE) and Gauteng Department of Env (GDE)	29 November 2013
National Water Act, 1998, Act 36 of 1998	National Department of Water and Sanitation (DWS)	1998
Water Services Act, 1997, Act 108 of 1997		1997
Government Notice 509 as published in the Government Gazette 40229 of 2016 as it relates to the National Water Act, 1998 (Act No. 36 of 1998)		2016
National Environmental Management: Air Quality Act, Act 39 of 2004 and the Atmospheric Pollution Prevention Act, Act 45 of 1965	Department of Environment, Forestry and Fisheries (DFFE)	2004
National Heritage Resources, Act, 1999, Act 25 of 1999	South Africa Heritage Resources Agency (SAHRA)	1999
Gauteng Conservation-Plan 4	Provincial, Gauteng Department of Env (GDEnv)	2024
Conservation of Agricultural Resources	National Department of Agriculture	21 April 1983

Title of legislation, policy or guideline:	Administering authority:	Promulgation Date:
(Act 43 of 1983) National Department of Agriculture 21 April 1983		
Gauteng Environmental Management Framework Gauteng Province 2015	Gauteng Province	2015
Gauteng Spatial Development Framework, 2030	Gauteng Province	2016
Gauteng Urban Edge 2008 / 2009	Gauteng Province	2009
Johannesburg Spatial Development Framework, 2040	Johannesburg Metropolitan Municipality	
Nodal Review, 2020		2018
The Draft Greater Lanseria Master Plan (GLMP)		2021
Lanseria Airport and Logistics Hub		2021
Lanseria Regional Spatial Development Policy (LRSDF)		2017

DESCRIPTION OF COMPLIANCE WITH THE RELEVANT LEGISLATION, POLICY OR GUIDELINE:	
Legislation, policy of guideline	**Description of compliance**
National Environmental Management Act (Act 107 of 1998), as amended (NEMA)	The National Environmental Management Act (Act 107 of 1998) (NEMA), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment, and which require authorisation from the relevant authorities based on the findings of an environmental assessment. NEMA is a national act, which is enforced by the Department of Environmental Affairs (DEA). These powers are delegated in Gauteng, to the Department of Environment (GDE).
National Environmental Management Act (NEMA) Environmental Impact Assessment (EIA) Regulations 2014 (as amended)	In terms of Section 24(2) of NEMA, the Minister and or any MEC in concurrence with the Minister may identify activities which require authorisation as these activities may negatively affect the environment. The Act requires that in such cases the impacts must be considered, investigated and assessed prior to their implementation and reported to the organ of state charged by law with authorising, permitting, or otherwise allowing the implementation of an activity. The NEMA EIA Regulations guide the processes required for the assessment of impacts of Listed Activities. Three Listing Notices have been published under Government Gazette No 40772 on 07 April 2017; and are an amendment of the 2014 Regulations that were published under

	Government Gazette No. 38282 on 04 December 2014. The levels of environmental assessment required under each of these Listing Notices are as follows: ▪ Listing Notice 1 (GNR 983 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require a Basic Assessment. ▪ Listing Notice 2 (GNR 984 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require Scoping and Environmental Impact Assessment. ▪ Listing Notice 3 (GNR 985 in Government Gazette No 40772 of 07 April 2017): This Notice identifies listed activities that require Basic Assessment in specifically identified geographical areas An Environmental Authorisation must be obtained for any activity that is listed in any of the above notices. Such an authorisation may only be granted once the required assessment has been compiled by an independent environmental assessment practitioner, and submitted to the competent authority. See the activities applied for in Section 1A of this report.
Assessment for Reporting on Identified Environmental Themes	The Department of Forestry, Fisheries and the Environment (DFFE) has published requirements in terms of site sensitivity verification, GN 320 of 20 March 2020, Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes in terms of Section 24(5)(a) and (h) and 44 of the National Environmental Management Act, 1998, when applying for Environmental Authorisation. In terms of this notice, prior to commencing with a specialist assessment, the current use of the land and the environmental sensitivity of the site under consideration identified by the national web based environmental screening tool (screening tool), where determined, must be confirmed by undertaking a site sensitivity verification. In terms of this notice, the following is applicable: • The site sensitivity verification must be undertaken by an environmental practitioner or a specialist. • The site sensitivity verification must be undertaken using: A desktop analysis, using satellite imagery, A preliminary on-site inspection, and any other available and relevant information. The outcome of the site sensitivity verification must be recorded in the form of a report that confirms or disputes the current land and the environmental sensitivity as identified by the screening tool, such as

	new development or infrastructure, the change in vegetation cover or status etc., Contains motivation and evidence (e.g., photographs) of either the verified or different use of the land and environmental sensitivities, and is submitted together with the relevant assessment report prepared in accordance with the requirements of the EIA Regulations. See Appendix G for the Terrestrial biodiversity Assessment conducted by Enviroguard Ecological Services cc for the site. The present study areas are comprised of *degraded grassland vegetation, lawn grassland, artificial wetlands and Eucalyptus woodland* units. The conservation and biodiverse importance of the grassland and *Eucalyptus* woodland units are very low. The artificial wetland unit is medium.
National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)	The objectives of this act are (within the framework of NEMA) to provide for: • The management and conservation of biological diversity within the Republic of South Africa and of the components of such diversity; • The use of indigenous biological resources in a sustainable manner; • The fair and equitable sharing among stakeholders of the benefits arising from bio prospecting involving indigenous biological resources; • To give effect to ratify international agreements relating to biodiversity which are binding to the Republic; • To provide for cooperative governance in biodiversity management and conservation; and • To provide for a South African National Biodiversity Institute to assist in achieving the objectives of this Act. This act alludes to the fact that management of biodiversity must take place to ensure that the biodiversity of the surrounding areas is not negatively impacted upon, by any activity being undertaken, to ensure the fair and equitable sharing among stakeholders of the benefits arising from indigenous biological resources. Furthermore, a person may not carry out a restricted activity involving either: a) A specimen of a listed threatened or protected species; b) Specimens of an alien species; or c) A specimen of a listed invasive species without a permit. Chapter 7 of the NEMBA regulations govern the 'permit system for listed threatened or protected species. To remove or relocate any Threatened

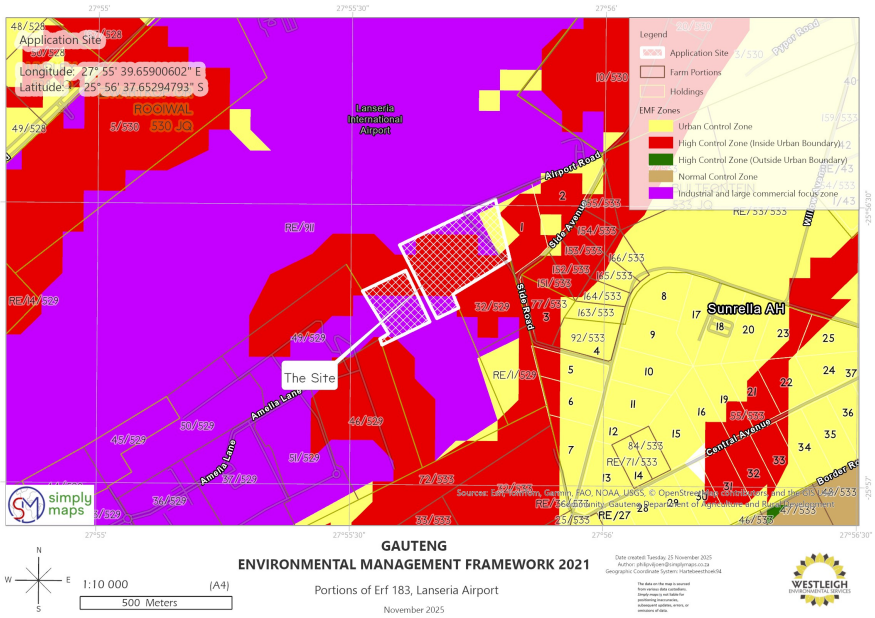
	or Protected Species (TOPS) should they be identified on the site and relevant permits must be applied for. According to the 2022 Red List Ecosystems (RLE) database, the study area is located within the remaining extent of the Critically Endangered (CR) Egoli Granite Grassland. From a provincial biodiversity management perspective, the Gauteng Conservation Plan (C-Plan) V 3.3 indicates that the majority of the study area is located within an area considered to be of biodiversity importance, most notably an Important Critical Biodiversity Area (CBA) (also referred to as CBA 2). Triggering features of the Important CBA include the presence of Red and Orange Listed (OL) plant species and primary vegetation. CBAs are areas of high biodiversity value and need to be maintained in a natural state. CBA Important Areas are areas considered important for the survival of threatened species and includes valuable ecosystems such as wetlands, untransformed vegetation, and ridges. A small section in the north of the study area is also located within an Ecological Support Area (ESA). Enviroguard Ecological Services cc was appointed to conduct a terrestrial biodiversity assessment as part of the Environmental Authorisation (EA) application process for the study area. See Section F and Appendix G of this report, for the detail of this specialist study. The specialist study is aligned to the requirements of this act. The application area is characterised by *degraded grassland vegetation, lawn grassland, artificial wetlands and Eucalyptus woodland* units. The conservation and biodiverse importance of the grassland and *Eucalyptus* woodland units are very low. The artificial wetland unit is medium.
Government Notice 598 Alien and Invasive Species Regulations (2014), including the Government Notice 864 Alien Invasive Species List as published in the Government Gazette 40166 of 2016, as it relates to the National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004)	NEMBA is administered by the Department of Environmental Affairs and aims to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA. In terms of alien and invasive species. This act in terms of alien and invasive species aims to: - Prevent the unauthorized introduction and spread of alien and invasive species to ecosystems and habitats where they do not naturally occur, - Manage and control alien and invasive species, to prevent or minimize harm to the environment and biodiversity; and - Eradicate alien species and invasive species from ecosystems and habitats where they may harm such ecosystems or habitats. Alien species are defined, in terms of the National Environmental Management: Biodiversity Act, 2004 (Act no 10 of 2004) as: (a) A species that is not an indigenous species; or (b) An indigenous species translocated or intended to be translocated to a place outside its natural distribution range in

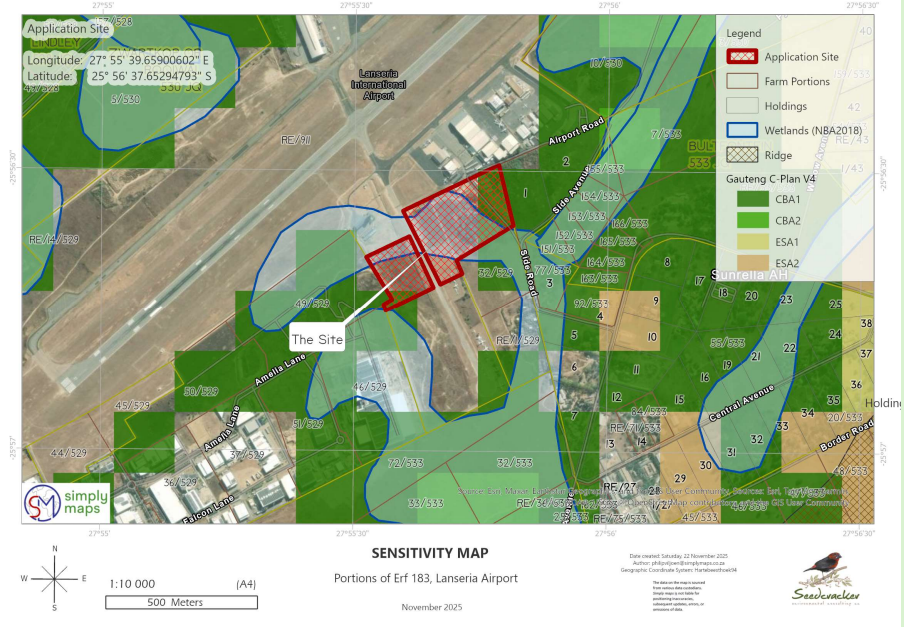
	nature, but not an indigenous species that has extended its natural distribution range by natural means of migration or dispersal without human intervention. Categories according to NEMBA (Alien and Invasive Species Regulations, 2017): - Category 1a: Invasive species that require compulsory control; - Category 1b: Invasive species that require control by means of an invasive species management programme; - Category 2: Commercially used plants that may be grown in demarcated areas, provided that there is a permit and that steps are taken to prevent their spread; and - Category 3: Ornamentally used plants that may no longer be planted. Alien plants present on site must be controlled as a high priority, since they pose a huge risk to ecosystems further away. All Category 1 Declared Weeds and other alien invaders must be removed from the site.
The National Water Act, 1998, Act 36	The National Water Act (Act 36 of 1998) "NWA" provides a framework to protect, develop, conserve, and manage the nation's water resources. Water use is defined broadly in terms of the NWA, and includes taking and storing water, activities which reduce stream flow, waste discharges and disposals, controlled activities (activities which impact detrimentally on a water resource), altering a watercourse, removing water found underground for certain purposes, and recreation. Galago Environmental CC conducted a **Wetland Assessment** for the Lanseria Airport Southern Precinct, on portions of Erf 183 Lanseria international Airport, Extension 1. Galago Environmental CC confirmed that the artificial wetlands on site are the result of upstream stormwater, from the larger catchment, draining into the area. The stormwater from the Charlie Taxiway is also channelled into this area. This increase in surface water has over time created some wetland functionalities, with emphasis on *attenuation of flow*. The **Present Ecological Status (PES) of the artificial wetlands was calculated by Galago Environmental CC, to category F, with the EIS calculated to Low/Marginal.** The wetland function is for the confluence and attenuation of stormwater. The stormwater designs for the precinct will replace the artificial wetland function, in the new proposed and properly designed attenuation ponds. This will allow for the engineered system to be utilized for the maintenance of the attenuation ponds, and to ensure their proper function. The NWA provides for pollution prevention measures, with particular emphasis on water resource pollution. In accordance, the licensee shall ensure that activities impacting upon water resources and effluent

	releases are monitored for compliance with the applicable Regulations. Emergency incidents involving water resources are included in the Act, requiring the polluter to remediate and mitigate the impacts of such an emergency incident. In terms of Section 19 of the NWA, "an owner of land, a person in control of land or a person who occupies or uses the land on which any activity or process is or was performed or undertaken; or any other situation exists, which causes, has caused or is likely to cause pollution of a water resource must take all reasonable measures to prevent any such pollution from occurring, continuing or recurring". A water use must be licensed (in terms of Section 21) unless it is listed in Schedule 1 as an existing lawful water use; is permissible under a general authorisation; or if a responsible authority waives the need for a licence. INDEX (Pty) Ltd has been appointed to compile a Water Use Authorisation Application (WUA) process for the proposed development, and the impact it may have on freshwater resources within a 500m radius of the site.
Government Notice 509 as published in the Government Gazette 40229 of 2016 as it relates to the National Water Act, 1998 (Act No. 36 of 1998)	In accordance with GN509 of 2016 as it relates to the National Water Act, 1998 (Act 36 of 1998), a regulated area of a watercourse in terms of water uses as listed in Section 21c and 21i is defined as: • the outer edge of the 1 in 100 year flood line and/or delineated riparian habitat, whichever is the greatest distance, measured from the middle of the watercourse of a river, spring, natural channel, lake or dam; • in the absence of a determined 1 in 100 year flood line or riparian area, the area within 100 m from the edge of a watercourse where the edge of the watercourse is the first identifiable annual bank fill flood bench; or • a 500m radius from the delineated boundary (extent) of any wetland or pan in terms of this regulation. Any development on the study site has the potential to impact the aquatic ecosystems and must be authorised in terms of Section 21 of the National Water Act (1998). INDEX (Pty) Ltd has been appointed to compile a Water Use Authorisation Application (WUA) process for the proposed development, and the impact it may have on freshwater resources within a 500m radius of the site.
National Environment Management Waste Act, 2008 (Act No. 59 of 2008)	The NEM: Waste Act (NEMWA) was accented to on 10 March 2009 and came into effect on 01 July 2009. This Act repeals the sections in the Environment Conservation Act, Act 73 of 1989 that previously dealt with the licensing of general and hazardous waste storage facilities. The Act was established to regulate waste management for the protection of human health and the environment.

	Section 19 of the NEMWA authorises the Minister to publish a list of waste management activities which would require an environmental assessment and waste management licence. On 3 July 2009 the Minister published a schedule of waste management activities in respect of which a waste management licence is required in accordance with section 20(b) of NEMWA (GN R718, GG 32368). Activities listed under Category A of GN R 718 for which a waste management licence is required, are equivalent to those that require a Basic Assessment process as stipulated in GN R 544 of June 2010. Category B activities are equivalent to those that require a full EIA process as stipulated GN R 545 of June 2010. None of the activities relating to the construction and operation of the proposed MRO hangar 3 and Cargo Terminal 4, will require a waste management license.
National Heritage Resource Act 25 of 1999	The National Heritage Resource Act 25 of 1999 introduce an integrated and interactive system for the management of the national heritage resources; promote good government at all levels, and empower civil society to nurture and conserve their heritage resources so that they may be bequeathed to future generations and Chapter 2 section 35 subsection 3 states that any person who discovers archaeological or paleontological objects or material or a meteorite in the course of development or agricultural activity must immediately report the find to the responsible heritage resources authority, or to the nearest local authority offices or museum, which must immediately notify such heritage resources and subsection 4 says that no person may, without a permit issued by the responsible heritage resources authority— a) destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or paleontological site or any meteorite; b) destroy, damage, excavate, remove from its original position, collect or own any archaeological or paleontological material or object or any meteorite; and section 36 subsection 3 states that no person may, without a permit issued by SAHRA or a provincial heritage resources authority— c) destroy, damage, alter, exhume or remove from its original position or otherwise disturb the grave of a victim of conflict, or any burial ground or part thereof which contains such graves; d) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority; or e) bring onto or to use at a burial ground or grave referred to in paragraph (a) or (b) any excavation equipment, or any equipment which assists in the detection or recovery of metals In accordance with Section 38 of the NHRA, an independent heritage

	consultant has been appointed to conduct a cultural heritage assessment of the site, to determine if the development activities will have an impact on any sites, features or objects of cultural heritage significance. This specialist report will be included in the draft BAR submitted to the approving authorities, GDEnv & COJ.
The Gauteng Provincial Environmental Management Framework, 2015	The Gauteng Provincial Environmental Management Framework is a legal instrument in terms of the Environmental Management Framework Regulations. The regulations are designed to assist environmental impact management including EIA processes, spatial planning and sustainable development. The objectives of the policy are: • To ensure efficient urban development (including associated service infrastructure) in defined selected areas with lower environmental concerns and high development demand in order to help facilitate the implementation of Gauteng Growth and Management Perspective, 2014. • To facilitate the optimal use of current industrial, mining land and other suitable derelict land for the development of non-polluting industrial and large commercial developments. • To protect Critical Biodiversity Areas (CBAs) within urban and rural environments. To ensure the proper integration Ecological Support Areas (ESAs) into rural land use change and development. • To use ESAs as defined in municipal bioregional plans in spatial planning of urban open space corridors and links within urban areas. • To focus on the sustainability of development through the implementation of initiatives such as Energy efficiency programmes, plans and designs, Waste minimisation, reuse and recycling, Green infrastructure in urban areas, and Sustainable Urban Drainage Systems (SUDS) According to the GDE Environmental Management Framework, the study and investigation areas fall within the following EMF Zones: EMF Zone 2: (High control area inside Zone 1): Linear bands associated with drainage in the study and investigation areas are classified as being in Zone 2. This zone is sensitive to development activities. Only conservation should be allowed in this zone. Related tourism and recreation activities must be accommodated in areas surrounding this zone. EMF Zone 5: Zone 5 is identified as the Industrial and Large Commercial Focus Zone. The primary objective of this zone is to facilitate non-polluting industrial and large-scale commercial developments. This approach aims to promote economic growth while ensuring environmental sustainability. The figure below shows the location of the site within the GPEMF 2021

	mapping: 
Gauteng C-Plan v4	The Gauteng Conservation Plan (Version 4) classified areas within the province based on its contribution to reach the conservation targets within the province. These areas are grouped as Critical Biodiversity Areas (CBAs) or Ecological Support Corridors (ESAs). The CBAs comprise 'Irreplaceable' areas that must be conserved and areas classified as 'Important' to reach the conservation targets of the Province. ESAs are areas that are not essential for meeting biodiversity representation targets/thresholds but which nevertheless play an important role in supporting the ecological functioning of CBAs and/or in delivering ecosystem services that support socio-economic development, such as water provision, flood mitigation or carbon sequestration to ensure sustainability in the long term. From a provincial biodiversity management perspective, according to GDARD's C-Plan 4, the study area is characterised by a CBA and wetland on portions of the application site.

	
Johannesburg Spatial Development Framework, 2040 **Nodal Review, 2020**	The application site falls within a Peri-Urban Zone and is further identified as an Industrial Node within the City of Johannesburg Nodal Review. The Lanseria International Airport expansion land use plans are in line with this earmarked zone.
The Draft Greater Lanseria Master Plan (GLMP) 2021	'The application site falls within the primary zone of the GLMP, which supports land uses like Business, Commercial and Industrial uses. The Lanseria Airport and Logistics Hub is a specialist node, forming the northern anchor of Malibongwe major arterial activity spine.
Lanseria Airport and Logistics Hub	The Lanseria Airport and Logistics Hub represents a strategic initiative to position the airport as a central node for aviation, business, and logistics in the region. The Lanseria Airport and Logistics Hub is part of a broader vision to transform the airport into a significant aviation and business center. This initiative forms part of the smart city around the airport.
Lanseria Regional Spatial Development Policy (LRSDF) 2017	The Lanseria Regional Spatial Development Policy (LRSDF), established in 2017, plays a pivotal role in shaping the future of the Greater Lanseria area in Gauteng Province, South Africa. The LRSDF aims to create a smart city within the Lanseria region, as envisioned by President Cyril Ramaphosa. This transformative initiative seeks to address the spatial legacy of apartheid by developing a modern, sustainable urban environment. The Greater Lanseria Master Plan (GLMP) serves as the first phase of this smart city development. Key stakeholders include: · Gauteng Growth and Development Agency (GGDA) · Department of Water and Sanitation · Gauteng Dept of Environment (GDE) · City of Johannesburg The smart city project initially aimed to accommodate 350,000 to 500,000 people by 2030. The focus was to be on building essential infrastructure,

	including Wastewater treatment facilities. The LRSDF represents a progressive step toward realizing a modern, interconnected, and forward-thinking urban landscape in the Lanseria area. The project site falls within an area identified for development in the LRSDF 2017.

3. ALTERNATIVES

Describe the proposal and alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. The no-go option must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. **Do not** include the no go option into the alternative table below.

Note: After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Please describe the process followed to reach (decide on) the list of alternatives below

One of the objectives of an EIA is to investigate alternatives to the proposed project. The IEM procedure stipulates that the environmental investigation needs to consider feasible alternatives for any proposed development. Therefore, possible proposals or alternatives for accomplishing the same objectives should be identified and investigated. To ensure that the proposed development enables sustainable development, *feasible* alternatives must be explored. The identification, description, evaluation, and comparison of alternatives are important for ensuring a sound environmental process. Alternatives should be considered as a *norm* within the Environmental Process.

Since the site is located within the Lanseria Airport X 1 township, and forms part of the Airports greater development plans, no alternative *land uses* have been considered.

The selection of the below alternatives for the proposed MRO hangar 3 and cargo terminal 4 buildings within the Lanseria Airport, followed a systematic and multidisciplinary process. This process ensured that the preferred layout is technically feasible, environmentally responsible, operationally efficient, and aligned with the strategic development objectives of the Airport. The compilation of baseline environmental and site sensitivity information including terrestrial and wetland specialist assessments, geotechnical conditions, existing bulk service availability (stormwater, sewer, water, access), airside operational constraints, taxiway geometry, and aviation safety buffers (ICAO standards), provided a clear understanding of constraints and opportunities informing possible layout alternatives.

The engineering and aviation planning teams evaluated the placement of the infrastructure and aircraft stands, stormwater attenuation and SUDS infrastructure against key functional criteria such as airside connectivity and manoeuvring safety, emergency access and firefighting requirements, terrain suitability and cut-and-fill optimisation, the location of artificial wetland areas, and avoiding stormwater pooling in non-functional areas.

The professional team has also considered alternative building technologies for the MRO hangar and cargo terminal.

The alternatives assessment has considered the anticipated environmental impacts, engineering feasibility, aviation safety compliance, stormwater functionality, long term planning and constructability, CAPEX requirements and integration with the long-term Southern Precinct vision.

The preferred layout represented the optimal balance between environmental responsibility, operational requirements, engineering practicality and market viability.

Provide a description of the alternatives considered.

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, operational or other(provide details of "other")	Description
1	**PREFERRED LAYOUT OPTION**	The preferred layout for the MRO 3 and LICT 4 facilities for the Lanseria International Cargo Terminal, has been expediently developed to accommodate the new market demand. The preferred layout supports the long-term operational efficiency, security requirements and spatial optimisation of the Airport and Logistics Hub. The preferred layout integrates a Maintenance, Repair and Overhaul (MRO3) facility, a Cargo Terminal (LICT 4), associated cargo apron infrastructure, internal road networks, utilities and stormwater services. The preferred configuration ensures that all components of the precinct function cohesively, while allowing the implementation of airport infrastructure in line with demand growth and ICAO-compliant operational requirements. The positioning of MRO 3 ensures efficient landside accessibility for maintenance staff, parts, equipment and specialised service vehicles, controlled and secure airside access, enabling aircraft to be moved safely between the Charlie Taxiway and the MRO apron, without compromising airside security protocols, operational separation between cargo handling and maintenance activities, reducing apron congestion and ensuring compliance with international aviation safety requirements and optimised

		elevations and platform levels, designed to meet ICAO Standards and Recommended Practices (SARPs), and to provide seamless integration with existing and planned taxiway gradients and pavement structures. The preferred layout includes the Lanseria International Cargo Terminal (LICT 4). The placement of LICT 4 has been selected to maximise available land for cargo processing, warehousing, secure transfer zones and provide direct, efficient linkage between landside logistics operations and the retained cargo aircraft stand, ensuring smooth and secure cargo flows between the building and the apron. The LICT 4 will support the cargo precinct, allowing screening, storage, customs processing and freight-forwarding to occur within a logically arranged and secure environment, and to maintain clear separation between cargo movements, maintenance operations and passenger activities, in accordance with ICAO security protocols and best international logistics practices. The associated Cargo Aircraft stand has been integrated into the layout with sufficient pavement strength, clearances and geometry to function in conjunction with the Charlie Taxiway system and the MRO access routes. The preferred layout incorporates a coordinated system of stormwater and civil services infrastructure including reconfigured drainage channels, attenuation structures and stormwater pipelines designed to accommodate the expanded impervious surfaces associated with the new apron and buildings. Water supply, firefighting water systems, sewerage, electrical services and fuel distribution lines essential for the operation of the MRO and cargo precinct will be connected to the existing township. This integration with existing airport utility networks will ensure reliable service continuity and capacity for future expansion phases. The preferred layout was selected as it maximises spatial efficiency, ensuring optimal use of the available airside development area, supports secure, controlled operations, maintaining effective landside–airside segregation, enables phased implementation, allowing the airport to sequence development according to operational demand and capital planning cycles, provides operational synergies between the MRO precinct, cargo terminal and taxiway system, ensures ICAO-compliant elevations, gradients and safety clearances, essential for safe aircraft movements and reflects a logical and integrated long-term plan for the greater Southern Precinct, balancing aviation functionality, safety and environmental considerations.

FIGURE 3: PREFERRED LAYOUT OPTION

2	**Alternative technologies**	Conventional methods of construction, energy provision, water management and waste management can be replaced with technology that, as an alternative to resource-intensive and wasteful industry, aims to utilize resources sparingly, with minimum damage to the environment, at affordable cost and with a possible degree of control over the processes. Alternative technologies are paving the way construction companies look at making new structures, whether that is a residential site, corporate or light industrial building. As trends have evolved, there is also a need to incorporate greener practices into building methods. Smart technology is also taking shape in construction practices. These trends will be shaping the future of the construction industry for years to come. As such, the applicant has looked at some of the most prevalent changes that are coming into effect for a more efficient and sustainable building process. When constructing a large warehouse building / hangar, there are several alternative technologies and innovative approaches that can be considered to enhance the efficiency, sustainability, and functionality of the structure.

		P*re-engineered Steel Buildings (PEBs)* Pre-engineered buildings use factory-manufactured steel components that are assembled on-site. The structural steel framework is often customized based on the specific needs of the warehouse. PEBs result in faster construction, high strength, durability, and flexibility in design. Steel is highly recyclable, which also contributes to sustainability. *Green or sustainable buildings* Constructing green buildings is high on the agenda for many firms, and the applicant is no exception. The warehouse structures will incorporate renewable energy sources. Green Building Technologies focuses on creating energy-efficient and environmentally friendly warehouses using sustainable materials, solar panels, rainwater harvesting systems, and geothermal heating and cooling. Solar roofing, energy-efficient HVAC systems, advanced insulation (e.g., spray foam), and natural daylighting systems (skylights, light tubes) are being considered by the applicant for the development. The implementation of these technologies results in reduced energy consumption, lower operating costs, and a smaller carbon footprint. This can also lead to certifications such as LEED (Leadership in Energy and Environmental Design). *Alternative sewer treatment systems* The proposed new development will connect to the existing LIA wastewater treatment works (WWTW). The LIA WWTW has the necessary capacity to accommodate the projected sewer load from the new development. These technologies, either individually or in combination, can drastically improve the efficiency, cost, and sustainability of large warehouse construction. Selecting the right approach depends on factors like location, budget, climate, and the specific needs of the warehouse. Conventional methods of construction, energy provision, water management and waste management are not in line with current day sustainable thinking. Alternative technologies must be employed for the new township wherever possible.

In the event that no alternative(s) has/have been provided, a motivation must be included in the table below.

NOTE: The numbering in the above table must be consistently applied throughout the application report and process

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the total physical size (footprint) of the proposal as well as alternatives. Footprints are to include all new infrastructure (roads, services etc), impermeable surfaces and landscaped areas:

	Size of the activity:
Proposed activity	10.2 hectares
Alternatives:	
Alternative 1 (if any)	10.2 hectares
Alternative 2 (if any)	
	Ha/ m^2

or, for linear activities:

	Length of the activity:
Proposed activity	
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	
	k/km

Indicate the size of the site(s) or servitudes (within which the above footprints will occur):

	Size of the site/servitude:
Proposed activity	
Alternatives:	
Alternative 1 (if any)	
Alternative 2 (if any)	

5. SITE ACCESS

Proposal

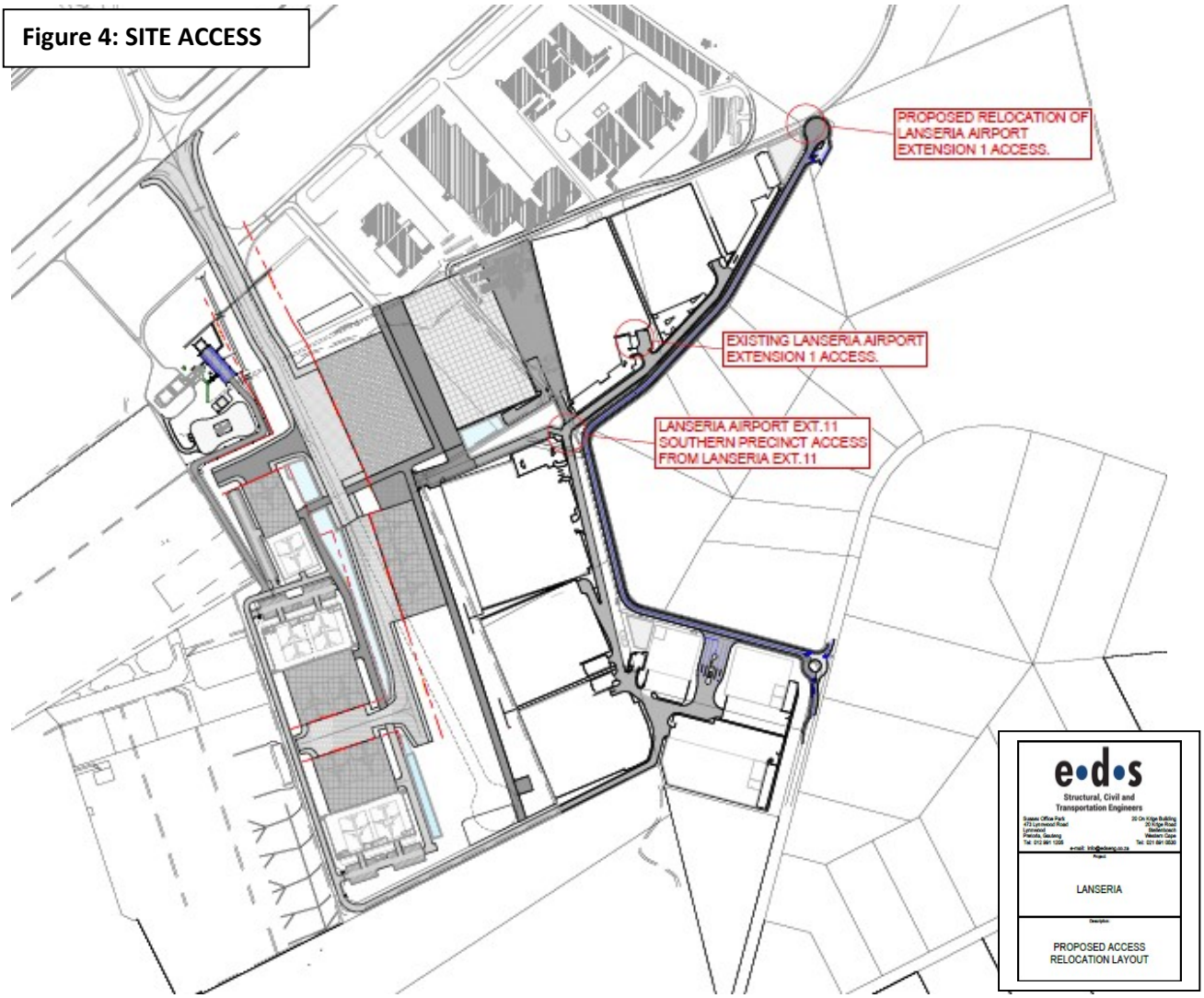
Does ready access to the site exist, or is access directly from an existing road?	YES	NO
	X	
If NO, what is the distance over which a new access road will be built		m

Describe the type of access road planned:

The proposed developments will be located within the existing township of Lanseria Airport Extension 1, which currently has established access. An additional access point to the southern precinct of Lanseria Airport Extension 1 will be provided through the approved Lanseria Extension 11 township.

Include the position of the access road on the site plan.

Figure 4: SITE ACCESS



Alternative 1

Does ready access to the site exist, or is access directly from an existing road?	YES	NO
	X	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Include the position of the access road on the site plan.

Alternative 2

Does ready access to the site exist, or is access directly from an existing road?	N/A
If NO, what is the distance over which a new access road will be built	

Describe the type of access road planned:

Include the position of the access road on the site plan.

PLEASE NOTE: Points 6 to 8 of Section A must be duplicated where relevant for alternatives

Section A 6-8 has been duplicated | **0** | Number of times

(only complete when applicable)

6. LAYOUT OR ROUTE PLAN

A detailed site or route (for linear activities) plan(s) must be prepared for each alternative site or alternative activity. It must be attached to this document. The site or route plans must indicate the following:

- the layout plan is printed in colour and is overlaid with a sensitivity map (if applicable);
- layout plan is of acceptable paper size and scale, e.g.
  - A4 size for activities with development footprint of 10sqm to 5 hectares;
  - A3 size for activities with development footprint of > 5 hectares to 20 hectares;
  - A2 size for activities with development footprint of >20 hectares to 50 hectares);
  - A1 size for activities with development footprint of >50 hectares);
- The following should serve as a guide for scale issues on the layout plan:
  - A0 = 1: 500
  - A1 = 1: 1000
  - A2 = 1: 2000
  - A3 = 1: 4000
  - A4 = 1: 8000 (±10 000)
- shapefiles of the activity must be included in the electronic submission on the CD's;
- the property boundaries and Surveyor General numbers of all the properties within 50m of the site;
- the exact position of each element of the activity as well as any other structures on the site;
- the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, sewage pipelines, septic tanks, storm water infrastructure;
- servitudes indicating the purpose of the servitude;
- sensitive environmental elements on and within 100m of the site or sites (including the relevant buffers as prescribed by the competent authority) including (but not limited thereto):
  - Rivers and wetlands;
  - the 1:100 and 1:50 year flood line;
  - ridges;
  - cultural and historical features;
  - areas with indigenous vegetation (even if it is degraded or infested with alien species);
- Where a watercourse is located on the site at least one cross section of the water course must be included (to allow the position of the relevant buffer from the bank to be clearly indicated)

FOR LOCALITY MAP (NOTE THIS IS ALSO INCLUDED IN THE APPLICATION FORM REQUIREMENTS)

- the scale of locality map must be at least 1:50 000. For linear activities of more than 25 kilometres, a smaller scale e.g. 1:250 000 can be used. The scale must be indicated on the map;
- the locality map and all other maps must be in colour;
- locality map must show property boundaries and numbers within 100m of the site, and for poultry and/or piggery, locality map must show properties within 500m and prevailing or predominant wind direction;
- for gentle slopes the 1m contour intervals must be indicated on the map and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the map;
- areas with indigenous vegetation (even if it is degraded or infested with alien species);
- locality map must show exact position of development site or sites;
- locality map showing and identifying (if possible) public and access roads; and

- the current land use as well as the land use zoning of each of the properties adjoining the site or sites.

See Appendix A

7. SITE PHOTOGRAPHS

Colour photographs from the center of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under the appropriate Appendix**.** It should be supplemented with additional photographs of relevant features on the site, where applicable.

See Appendix B

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity to be attached in the appropriate Appendix.

See Appendix C

SECTION B: DESCRIPTION OF RECEIVING ENVIRONMENT

Note: Complete Section B for the proposal and alternative(s) (if necessary)
Further:
Instructions for completion of Section B for linear activities

1) For linear activities (pipelines etc) it may be necessary to complete Section B for each section of the site that has a significantly different environment.
2) Indicate on a plan(s) the different environments identified
3) Complete Section B for each of the above areas identified
4) Attach to this form in a chronological order
5) Each copy of Section B must clearly indicate the corresponding sections of the route at the top of the next page.

Section B has been duplicated for sections of the route **0** times

Instructions for completion of Section B for location/route alternatives

1) For each location/route alternative identified the entire Section B needs to be completed
2) Each alterative location/route needs to be clearly indicated at the top of the next page
3) Attach the above documents in a chronological order

Section B has been duplicated for location/route alternatives **0** times (complete only when appropriate)

Instructions for completion of Section B when both location/route alternatives and linear activities are applicable for the application

Section B is to be completed and attachments order in the following way

- All significantly different environments identified for Alternative 1 is to be completed and attached in a chronological order; then

- All significantly different environments identified for Alternative 2 is to be completed and attached chronological order, etc.

Section B - Section of Route ☐ (complete only when appropriate for above)
Section B – Location/route Alternative No. ☐ (complete only when appropriate for above)

1. PROPERTY DESCRIPTION

Property description: (Farm name, portion etc.)	A PORTION OF ERF 183, LANSERIA INTERNATIONAL AIRPORT EXTENSION 1, LANSERIA, GAUTENG

2. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the **centre point of** the site for each alternative site. The co-ordinates should be in decimal degrees. The degrees should have at least six decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

Proposed, preferred Alternative:	**Latitude (S):**	**Longitude (E):**
MRO 3 Hangar	25 56 41.01	27 55 35.14
Cargo Terminal 4	25 56 35.80	27 55 41.68

In the case of linear activities:

Alternative:	**Latitude (S):**	**Longitude (E):**
• Starting point of the activity		
• Middle point of the activity		
• End point of the activity		

For route alternatives that are longer than 500m, please provide co-ordinates taken every 250 meters along the route and attached in the appropriate Appendix

Addendum of route alternatives attached ☐

The 21 digit Surveyor General code of each cadastral land parcel

T0JQ01180000018300000

3. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Flat	1:50 – 1:20	1:20 – 1:15	**1:15 – 1:10**	1:10 – 1:7,5	1:7,5 – 1:5	Steeper than 1:5

The site has a general slope from west to east, with a total elevation difference of about 14m across the site. The general slope is less than 2% towards the east.

4. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site.

Ridgeline	Plateau	Side slope of hill/ridge	Valley	Plain	**Undulating plain/low hills**	River front

5. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Geoid Geotechnical Engineers (GGE) has conducted a detailed **geotechnical investigation** for the proposed Southern Precinct of the Lanseria International Airport expansion project, of which a portion of Erf 183 LIA Extension 1, forms a part of. Based on the Geotechnical field profiling, Geoid has characterised the application site by five geotechnical zones, Zones 1,2,3,4 and 5.

Zone 1 is uncontrolled fill. The soil profile on this zone is characterised by highly compressible / potentially highly collapsible hillwash soils and localised loose fill deposits of variable thickness, blanketing compressible residual granite, which tend towards being slightly expansive near the diabase. Localised deposits of uncontrolled fill will be present which would negatively influence founding of structures and support of pavements if not appropriately mitigated.

Zone 2 comprises the inferred areal extent of the diabase intrusion, including the peripheral areas of highly altered residual granite which are degraded by the diabase - tends to be slightly to moderately expansive, but also blanketed by potentially highly collapsible hillwash soils of variable thickness. The extensive evidence of ferricrete in this zone will tend to mitigate the activity of the soils, rendering these more inert than would normally be the case. The diabasic soils also become progressively inert with depth.

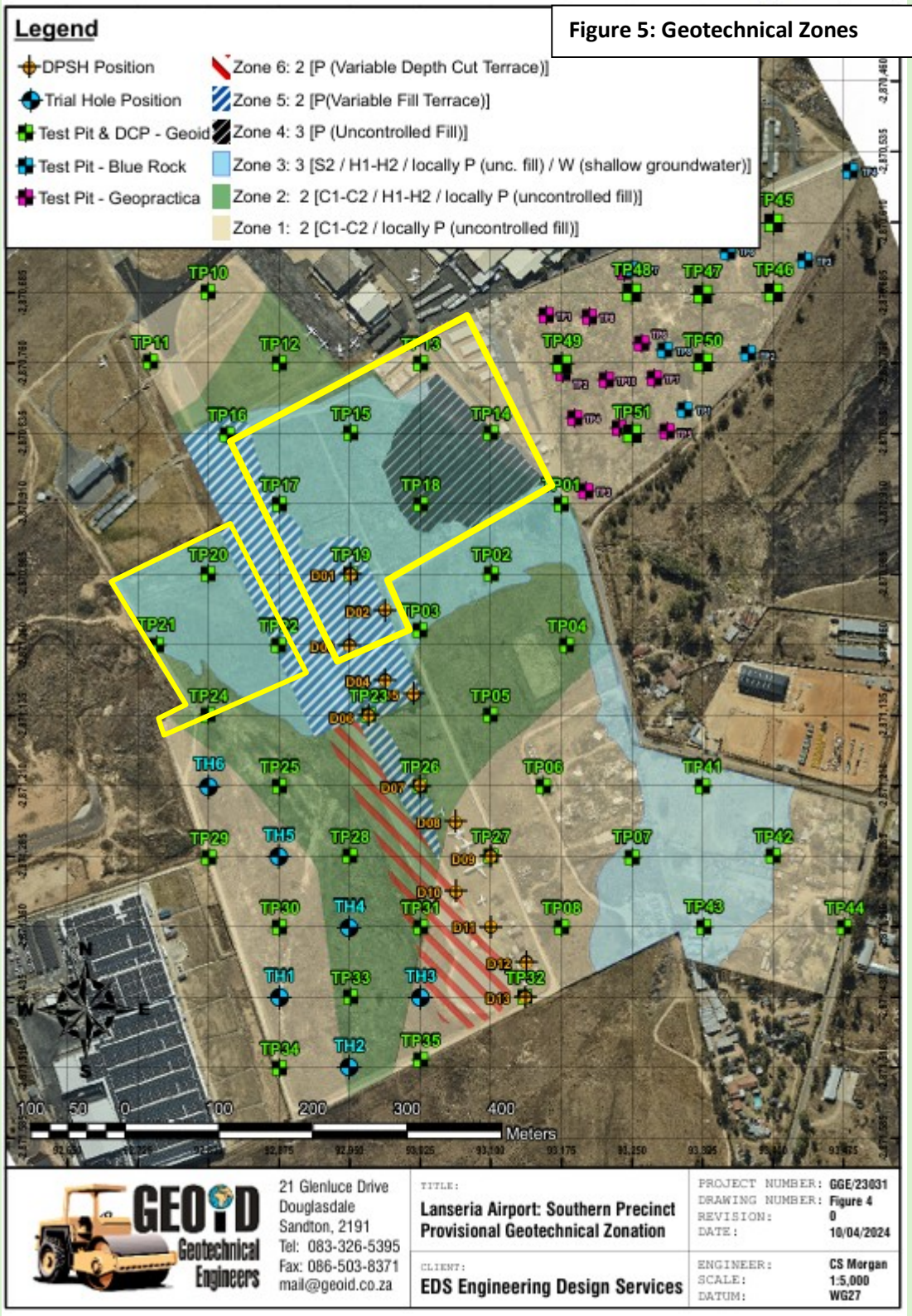
Zone 3 exhibits shallow groundwater. This zone is typically characterized by bands of gully wash which range from loose, compressible, cohesionless sands to moderately expansive clays. This zone largely appears to be underlain by residual diabase, which is similarly potentially moderately active in the reworked zone, although this is frequently capped by competent hardpan ferricrete which masks the nature of the residual soils. Appropriate geotechnical recommendations have been provided in the report.

This zone comprises a large berm of predominantly loose, gap-graded residual granite which has been dumped within the low-lying basin of Zone 3, and is now colonised by invasive trees with large roots. The zone is delineated using georeferenced satellite imagery dating back to 09/2010, at which time this material first became apparent. Although of a reasonable quality, these fill materials are presently in a loose and voided state, without any evidence of compaction, rendering this area *completely unsuitable to structural development until such time as the zone is improved,* either by conventional layerworks rehabilitation or in situ densification employing some form of deep dynamic compaction.

Zone 5 comprises a reasonable quality, selected (nominally G7) granular fill, primarily of residual granite origin. In situ profiling, supplemented with DCP and DPSH probing (see Appendix D of the Geotech report) shows this fill to be better compacted in the upper reaches near ground level, with a tendency for the stiffness to deteriorate with depth, particularly near the interface with the underlying gullywash soils, where little to no compaction is evident. A penetration resistance in the order of 30 blows per 300mm would be expected for a well-compacted fill terrace for settlements to be kept in a tolerable range. As this fill terrace generally falls even well below this benchmark, it is considered susceptible

to future consolidation and differential settlement under load. In situ densification of this zone is considered a necessary precursor to development. DPSH probing through the terrace shows this to be as much as 5m thick at DPSH2 but tapering in either direction beyond this possible low-point.

Figure 5: Geotechnical Zones



Is the site located on any of the following?

Shallow water table (less than 1.5m deep)	YES	NO
Dolomite, sinkhole or doline areas	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO
Any other unstable soil or geological feature	YES	NO
An area sensitive to erosion	YES	NO

(Information in respect of the above will often be available at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by Geological Survey may also be used).

b) are any **caves** located on the site(s)	YES	NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

c) are any **caves** located within a 300m radius of the site(s)	YES	NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

d) are any **sinkholes** located within a 300m radius of the site(s)	NO

If yes to above provide location details in terms of latitude and longitude and indicate location on site or route map(s)

Latitude (S):	**Longitude (E):**
°	°

If any of the answers to the above are "YES" or "unsure", specialist input may be requested by the Department

6. AGRICULTURE

Does the site have high potential agriculture as contemplated in the Gauteng Agricultural Potential Atlas (GAPA 3)?	YES	**NO**

7. GROUNDCOVER

To be noted that the location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Indicate the types of groundcover present on the site and include the estimated percentage found on site.

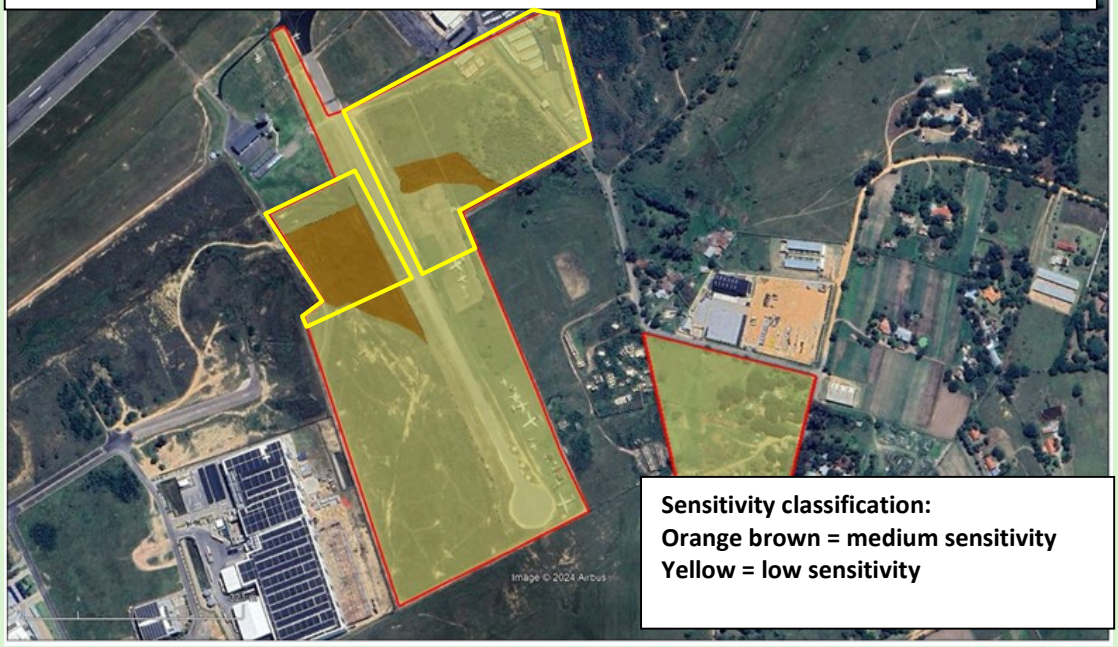
Natural veld - good condition % =	**Natural veld with scattered aliens**	**Natural veld with heavy alien infestation**	Veld dominated by alien species % =	Landscaped (vegetation) % =
Sport field % =	Cultivated land % =	**Paved surface (hard landscaping)**	**Building or other structure**	Bare soil % =

Please note: The Department may request specialist input/studies depending on the nature of the groundcover and potential impact(s) of the proposed activity/ies.

Are there any rare or endangered flora or fauna species (including red list species) present on the site	YES	NO
If YES, specify and explain:		
Are there any rare or endangered flora or fauna species (including red list species) present within a 200m (if within urban area as defined in the Regulations) or within 600m (if outside the urban area as defined in the Regulations) radius of the site.		NO
If YES, specify and explain:		
Are there any special or sensitive habitats or other natural features present **on** the site?	YES	**NO**
If YES, specify and explain:		
Was a specialist consulted to assist with completing this section	**YES**	NO

A **Terrestrial biodiversity Assessment** for the greater Lanseria Southern Precinct, of which the application site forms part of, has been conducted by EnviroGaurd Ecological Services CC. The application area is classified as a *degraded grassland vegetation* unit, which has a **low conservation and biodiverse importance.** This is because the area has been repeatedly used and cleared over many years for many different purposes, including airport maintenance, stormwater management, informal helipads, firefighting training, etc. This has resulted in pioneer and secondary successional species establishing together with a few alien invasive trees.

Figure 6: Terrestrial sensitivity map of the greater southern precinct, including present application area.

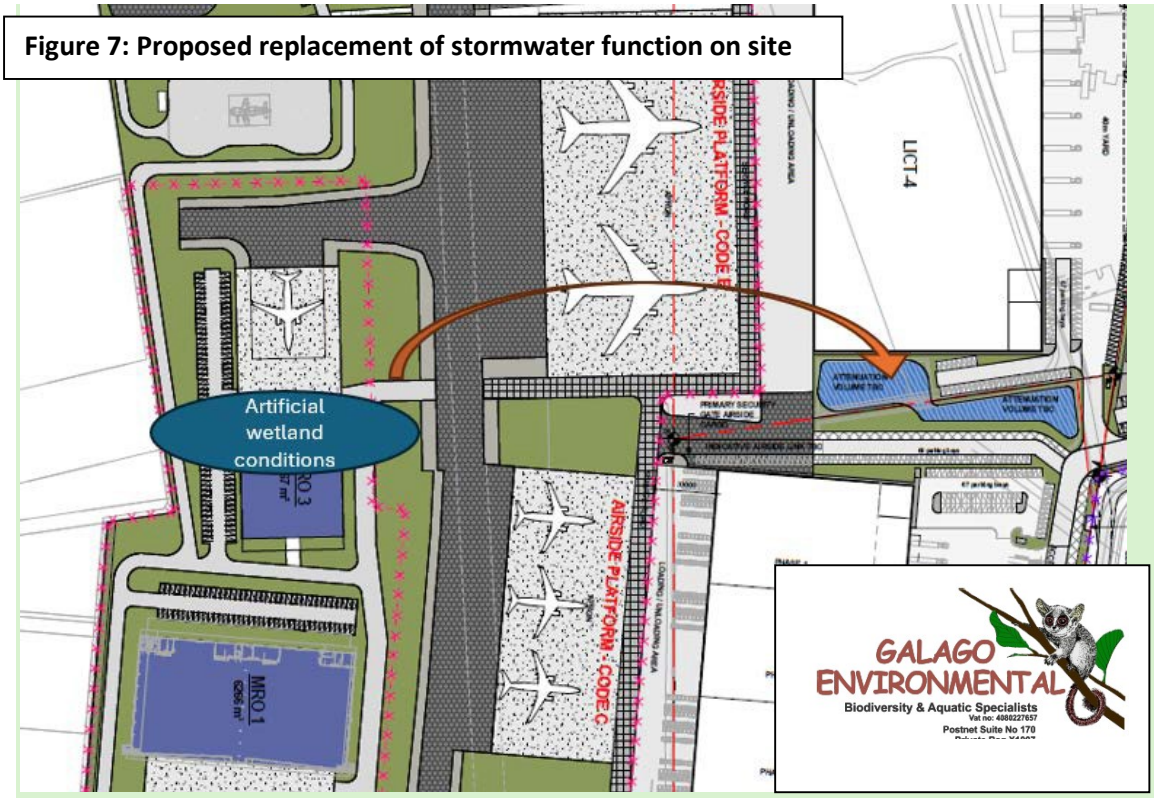


Galago Environmental CC, Nov 2025, confirmed that the **artificial wetlands** on site are the result of upstream stormwater, from the larger catchment, draining into the airport. The stormwater from the Charlie Taxiway is also channelled into this area. This increase in surface water has over time created some wetland functionalities, with emphasis on *attenuation of flow*. The Present Ecological Status (PES) of the artificial wetlands was calculated by Galago Environmental CC, to *category F,* with the Ecological Importance and Sensitivity calculated to Low/Marginal. The wetland function is for the confluence and attenuation of stormwater.

The **stormwater designs** for the precinct will replace the artificial wetland function, in the new proposed and properly designed attenuation ponds. See section B5 of this report for stormwater management. This will allow for the engineered system to be utilized for the maintenance of the attenuation ponds, and to ensure their proper function.

Furthermore, **an airport cannot have wetlands** due to serious aviation safety, infrastructure, and regulatory risks. While wetlands are valuable ecosystems, they conflict with the primary function of an airport, which is to ensure safe and efficient aircraft operations.

Figure 7: Proposed replacement of stormwater function on site



The International Civil Aviation Organization) and **civil aviation authorities prohibit land uses that attract birds within a radius of 8–13 km of an airport.** Wetlands can interfere with airport drainage systems requiring carefully engineered stormwater systems to prevent runway flooding and hydroplaning risks. Allowing wetlands to persist *inside* an airport can retain water in undesirable areas, undermining runway and taxiway structural integrity. Wetlands *inside* an airport conflict directly with aviation safety protocols and would be non-compliant with international and national aviation standards. Wetlands attract birds and wildlife, increase flooding risks, and interfere with aircraft operations and infrastructure, posing a clear and significant hazard to life and property.

If yes complete specialist details

Name of the specialist:	EnviroGuard Ecological Services CC		
Qualification(s) of the specialist:	Professor Leslie Brown • SACNASP registration: 400075/98 (Ecological Science & Botanical Science) • PhD Terrestrial plant ecology • MSc. Water ecology • BSc Hons (Botany) BSc (Ed) (Botany, Zoology, Education) Wetland and Riparian Delineation (DWAF Accredited Course)		
Postal address:	P O Box 703 Heidelberg		
Postal code:	1438		
Telephone:			082 464 1021
E-mail:	envguard@telkomsa.net		

	YES	NO
Are any further specialist studies recommended by the specialist?		

Signature of specialist: 

Date: June 2025

Name of the specialist:	Galago Environmental Bertus Fourie
Qualification(s) of the specialist:	B Tech. Nature Conservation, 2009 specialization in Environmental Education & Freshwater management. M.Sc. Aquatic Health at University of Johannesburg, 2014 Registered as Professional Natural scientist in the field of Ecology and Aquatic (SACNASP Pr.Sci.Nat. Reg. No: 008394)
Postal address:	N/A
Postal code:	
Telephone:	082 921 5445
E-mail:	bertusfourie@gmail.com

	YES	**NO**
Are any further specialist studies recommended by the specialist?		

Signature of specialist: 

Date: November 2025

If YES, specify:	

	YES	NO
If YES, is such a report(s) attached?		

Name of the specialist:	
Qualification(s) of the specialist:	
Postal address:	
Postal code:	
Telephone:	
E-mail:	

	YES	NO
Are any further specialist studies recommended by the specialist?		

If YES, specify:	

	YES	NO
If YES, is such a report(s) attached?		

If YES list the specialist reports attached below:

Please note; If more than one specialist was consulted to assist with the filling in of this section then this table must be appropriately duplicated.

8. LAND USE CHARACTER OF SURROUNDING AREA

Using the associated number of the relevant current land use or prominent feature from the table below, fill in the position of these land-uses in the vacant blocks below which represent a 500m radius around the site

1. Vacant land	2. River, stream, wetland	3. Nature conservation area	4. Public open space	5. Koppie or ridge
6. Dam or reservoir	7. Agriculture	8. Low density residential	9. Medium to high density residential	10. Informal residential
11. Old age home	12. Retail	13. Offices	14. Commercial & warehousing	15. Light industrial
16. Heavy industrial[AN]	17. Hospitality facility	18. Church	19. Education facilities	20. Sport facilities
21. Golf course/polo fields	22. Airport[N]	23. Train station or shunting yard[N]	24. Railway line[N]	25. Major road (4 lanes or more)[N]
26. Sewage treatment plant[A]	27. Landfill or waste treatment site[A]	28. Historical building	29. Graveyard	30. Archeological site
31. Open cast mine	32. Underground mine	33.Spoil heap or slimes dam[A]	34. Small Holdings	35. Road
Other land uses (describe):	36. Airport Runway			

NOTE: Each block represents an area of 250m X250m

NORTH

14. Commercial & warehousing	14. Commercial & warehousing	14. Commercial & warehousing	14. Commercial & warehousing	14. Commercial & warehousing
14. Commercial & warehousing	14. Commercial & warehousing	14. Commercial & warehousing	14. Commercial & warehousing	14. Commercial & warehousing
1. Vacant land	1. Vacant land		22. Airport[N]	22. Airport[N]
1. Vacant land	1. Vacant land	36. Airport Runway	36. Airport Runway	36. Airport Runway
1. Vacant land	1. Vacant land	14. Commercial & warehousing	14. Commercial & warehousing	14. Commercial & warehousing

WEST

EAST

SOUTH

Note: More than one (1) Land-use may be indicated in a block

Please note: The Department may request specialist input/studies depending on the nature of the land use character of the area and potential impact(s) of the proposed activity/ies. Specialist reports that look at health & air quality and noise impacts may be required for any feature above and in particular those features marked with an "[A]" and with an "[N]" respectively.

Have specialist reports been attached

YES	NO

If yes indicate the type of reports below

- Terrestrial Biodiversity Assessment
- Wetland Assessment and Aquatic Ecosystem Delineation
- Water, Sewer, Roads and Stormwater
- Traffic Impact Assessment
- Stormwater Management Plan
- Geotechnical Investigations
- Environmental Management Programme

9. SOCIO-ECONOMIC CONTEXT

Describe the existing social and economic characteristics of the area and the community condition as baseline information to assess the potential social, economic and community impacts.

Demographics of a study area are important to ensure that new developments will complement/fit into the existing land uses.

The social and economic environment of the Lanseria area is influenced by various factors, including its proximity to multiple municipal jurisdictions, the area's natural resources, planned and proposed infrastructure development, and local demographics. Lanseria is located close to Johannesburg, which provides opportunities for economic interactions, including commuting, trade, and access to services and employment opportunities in these urban centers. The economic environment of Lanseria includes a mix of sectors such as agriculture, light industry, tourism, and services. The presence of the Lanseria International Airport contributes to economic activities in the area, including aviation-related services and tourism.

The area provides employment opportunities across various sectors, including manufacturing, logistics, hospitality, and transportation. The development of industrial parks and warehouses in the study area will further contribute to job creation and economic growth. The social environment of Lanseria encompasses diverse communities with varying socio-economic backgrounds. These include rural communities engaged in agriculture, as well as urban residents and commuters working in nearby cities. The Lanseria area faces challenges such as unemployment, poverty, and infrastructure gaps, which directly impacts on economic development. However, there are also opportunities for investment, entrepreneurship, and community development initiatives to address these challenges and promote sustainable growth.

The social and economic environment of the Lanseria area is shaped by factors such as urbanization, infrastructure development, economic activities, and community dynamics. Developments which accommodate inclusive growth, infrastructure investment, and community development, can contribute to enhancing the social and economic environment of the Lanseria area.

The Lanseria Smart City is a development project aimed at creating a sustainable and technologically advanced urban centre in Lanseria, Johannesburg. A comprehensive planning process has earmarked specific areas in the Lanseria area for selected land uses. The development of the site with light industrial land uses is likely to positively impact directly on the socio-economic foundation in terms of job creation, during the construction phase and during the operational phase. In general, the development of the land will have a positive impact on the social and economic qualities of the surrounding communities and business activities.

Population
The area around Lanseria includes a mix of urban and semi-rural populations. It's not a densely populated urban area but has a growing residential and business community.

Age Distribution
The demographics include a range of age groups, from young professionals and families to retirees, reflecting the mixed-use nature of the area.

Economic Activity
Lanseria is home to various light industrial and commercial developments. The presence of the airport also contributes to local economic activity, including logistics, tourism, and business travel. There are residential neighbourhoods ranging from more affluent housing estates to more modest homes, reflecting a diverse socioeconomic landscape.

Infrastructure and Amenities
Lanseria is well-connected by road, with major highways linking it to Johannesburg and Pretoria. The airport serves as a significant transport hub, which influences the local economy and lifestyle. The area has access to essential services, including schools, healthcare facilities, and shopping centres. However, the extent and quality of these services can vary depending on proximity to major urban centres.

Community and Lifestyle
The lifestyle in Lanseria blends suburban and rural characteristics, with larger properties and open spaces compared to more densely built urban areas. The area benefits from natural surroundings and open spaces, which can be attractive for outdoor activities and recreational pursuits.

Development and Growth
Lanseria is experiencing growth and development, with increasing interest in both residential and commercial projects. This growth brings changes to the social profile, as new developments attract different demographics and business interests.

The Greater Lanseria Southern Precinct will serve as a pivotal economic and social asset within its region. Situated near Johannesburg's major business districts, including Sandton, Lanseria International Airport offers a convenient alternative to O.R. Tambo International Airport.

The Lanseria Airport and Logistics Hub is a cornerstone for regional economic development, with strategic investments and expansion plans poised to enhance its role as a gateway to Africa. Concurrently, its social initiatives and infrastructure projects are designed to foster community development and integration, contributing to a balanced and inclusive growth trajectory.

Lanseria represents a dynamic area where urban and rural characteristics intersect, influenced by its role as a transport hub and the ongoing development of light industrial and commercial properties.

10. CULTURAL/HISTORICAL FEATURES

Please be advised that if section 38 of the National Heritage Resources Act 25 of 1999 is applicable to your proposal or alternatives, then you are requested to furnish this Department with written comment from the South African Heritage Resource Agency (SAHRA) – Attach comment in appropriate annexure 38. *(1) Subject to the provisions of subsections (7), (8) and (9), any person who intends to undertake a development categorised as-(a) the construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length; (b) the construction of a bridge or similar structure exceeding 50m in length; (c) any development or other activity which will change the character of a site- (i) exceeding 5 000 m2 in extent; or (ii) involving three or more existing erven or subdivisions thereof; or (iii) involving three or more erven or divisions thereof which have been consolidated within the past five years; or (iv) the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority; (d) the re-zoning of a site exceeding 10 000 m2 in extent; or (e) any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority, must at the very earliest stages of initiating such a development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development.*

Are there any signs of culturally (aesthetic, social, spiritual, environmental) or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including archaeological or palaeontological sites, on or close (within 20m) to the site?	No
If YES, explain:	

If uncertain, the Department may request that specialist input be provided to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist if one was already appointed:

In accordance with Section 38 of the NHRA, Dr Johnny Van Schalkwyk has been appointed to conduct a cultural heritage assessment, to determine if the development activities will have an impact on any sites, features or objects of cultural heritage significance. *This assessment is presently underway*. The specialist report will be included in the Draft BAR to be submitted to the GDEnv.

Will any building or structure older than 60 years be affected in any way?	**No**
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	**No**

Name of the specialist:	Dr Johnny Van Schalkwyk
Qualification(s) of the specialist:	DLitt et Phil (Anthropology), University of South Africa MA (Anthropology), University of Pretoria BA (Hons), Anthropology, University of Pretoria Post Graduate Diploma in Museology, University of Pretoria BA (Hons), Archaeology, University of Pretoria BA University of Pretoria
Postal address:	62 Coetzer Avenue, Monument Park, 0181; Tel: E-mail:
Postal code:	0181
Telephone:	076 790 6777
E-mail:	jvschalkwyk@mweb.co.za

	YES	NO
Are any further specialist studies recommended by the specialist?		

If yes, please attached the comments from SAHRA in the appropriate Appendix

Signature of specialist:	Date:

SECTION C: PUBLIC PARTICIPATION

1. LOCAL AUTHORITY PARTICIPATION

Local authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least thirty (30) calendar days before the submission of the application to the competent authority.

Was the draft report submitted to the local authority for comment?	YES	**NO**
If yes, has any comments been received from the local authority?	YES	**NO**

If "YES", briefly describe the comment below (also attach any correspondence to and from the local authority to this application):

If "NO" briefly explain why no comments have been received

This Draft BAR will be submitted to the relevant local authorities after the public review period.

2. CONSULTATION WITH OTHER STAKEHOLDERS

Any stakeholder that has a direct interest in the activity, site or property, such as servitude holders and service providers, should be informed of the application at least **thirty (30) calendar days** before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?	YES	**NO**

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

If "NO" briefly explain why no comments have been received

This Draft BAR is presently publicly available. The public comment period is 1 December 2025 till the 21 January 2026. Comments received from interested and affected parties, will be included in the comments and response report, for submission to the GDEnv.

3. GENERAL PUBLIC PARTICIPATION REQUIREMENTS

The Environmental Assessment Practitioner must ensure that the public participation process is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees and ratepayers associations. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was flawed. The EAP must record all comments and respond to each comment of the public / interested and affected party before the application report is submitted. The comments and responses must be captured in a Comments and Responses Report as prescribed in the regulations and be attached to this application.

5. APPENDICES FOR PUBLIC PARTICIPATION

All public participation information is to be attached in the appropriate Appendix. The information in this Appendix is to be ordered as detailed below

Appendix 1 – Proof of site notice
Appendix 2 – Written notices issued as required in terms of the regulations
Appendix 3 – Proof of newspaper advertisements
Appendix 4 –Communications to and from interested and affected parties
Appendix 5 – Minutes of any public and/or stakeholder meetings
Appendix 6 - Comments and Responses Report
Appendix 7 –Comments from I&APs on Basic Assessment (BA) Report
Appendix 8 –Comments from I&APs on amendments to the BA Report
Appendix 9 – Copy of the register of I&Aps

SECTION D: RESOURCE USE AND PROCESS DETAILS

Note: Section D is to be completed for the proposal and alternative(s) (if necessary)
Instructions for completion of Section D for alternatives

1) For each alternative under investigation, where such alternatives will have different resource and process details (e.g. technology alternative), the entire Section D needs to be completed
4) Each alternative needs to be clearly indicated in the box below
5) Attach the above documents in a chronological order

Section D has been duplicated for alternatives (complete only when appropriate)	**0**	times
Section D Alternative No.	Preferred Alternative	(complete only when appropriate for above)

1. WASTE, EFFLUENT, AND EMISSION MANAGEMENT

Solid waste management

Will the activity produce solid construction waste during the construction/initiation phase?	**YES**	NO
If yes, what estimated quantity will be produced per month?	Undetermined	

How will the construction solid waste be disposed of (describe)?

Construction solid waste generated during the development of the Lanseria International Cargo Terminal, shall be managed through a structured waste management system that includes on-site separation where feasible, secure temporary storage, and routine removal to licensed waste disposal and recycling facilities. Hazardous waste will be contained, labelled and disposed of via accredited hazardous waste contractors in accordance with the National Environmental Management: Waste Act. All disposal activities will be recorded through waste manifests and verified by the ECO. No on-site burial, burning or illegal dumping will be permitted, and all waste handling areas will be managed to prevent stormwater contamination and environmental pollution. The solid waste produced during the construction phase, will be taken and collected from site by means of skip waste containers. This will be the responsibility of the applicant.

Where will the construction solid waste be disposed of (describe)?

The construction solid waste will be disposed of at a registered Municipal landfill site, of the COJ.

Will the activity produce solid waste during its operational phase?	**YES**	NO
If yes, what estimated quantity will be produced per month?	This cannot be determined at this stage	

How will the solid waste be disposed of (describe)?

The waste collections under contract by the COJ Municipality will collect the domestic waste on a weekly basis. Recycling will be encouraged, and separate bins for recycling should be provided to the residents. Domestic waste will be disposed of at a registered landfill site.

Has the municipality or relevant service provider confirmed that sufficient air space exists for treating/disposing of the solid waste to be generated by this activity?	YES	**NO**

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

To be disposed of at licensed landfill site.

Note: If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as **hazardous** in terms of the relevant legislation?	YES	**NO**

If yes, inform the competent authority and request a change to an application for scoping and EIA

Is the activity that is being applied for a solid waste handling or treatment facility?	YES	**NO**

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Describe the measures, if any, that will be taken to ensure the optimal reuse or recycling of materials:
To ensure optimal reuse and recycling during construction of the Lanseria International Cargo Terminal, the contractor will implement a structured waste minimisation programme that prioritises on-site material recovery, reuse of excavated materials and asphalt, separation of recyclable streams, reduction of packaging waste, and diversion of construction waste to accredited recycling facilities. Hazardous waste will be managed in accordance with legal requirements, and continuous training and monitoring will support improved recycling performance. The system will aim to reduce landfill dependency and promote sustainable construction practices consistent with the National Environmental Management: Waste Act and the project EMPr.

Liquid effluent (<u>other than domestic sewage</u>)

Will the activity produce effluent, *other than normal sewage*, that will be disposed of in a <u>municipal</u> sewage system?	YES	**NO**
If yes, what estimated quantity will be produced per month?		
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the liquid effluent to be generated by this activity(ies)?	YES	**NO**
Will the activity produce any effluent that will be treated and/or disposed of on site?	Yes	**NO**
If yes, what estimated quantity will be produced per month?		

If yes describe the nature of the effluent and how it will be disposed.

Note that if effluent is to be treated or disposed **on site** the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA

Will the activity produce effluent that will be treated and/or disposed of at another facility?	YES	**NO**

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

The Lanseria International Cargo Terminal, will generate wastewater from a variety of sources, including construction activities (concrete batching, brick cleaning, equipment washing, dewatering, and stormwater contamination) and operational activities (MRO wash bays, cargo handling, firefighting training centre, ablutions, and apron runoff). To reduce potable water demand, minimise pollution, and ensure efficient water use, the following measures will be implemented to maximise wastewater recycling and reuse on-site:

- Clean stormwater must be kept separate from contaminated wastewater through graded platforms, berms, and controlled drainage pathways. This minimises the volume of water requiring treatment and maximises recovery for reuse.
- Wastewater-producing activities (e.g., MRO wash bays, brick cleaning, firefighting simulations) must be located nn impervious, bunded surfaces, with separate drainage channels leading to treatment systems, away from natural drainage lines. Segregation ensures that only targeted wastewater streams are treated for reuse.
  - Construction wastewater (cement wash water, brick cleaning water, silt-laden runoff) must first enter settling sumps where solids can settle. Settled water can be reused for dust suppression, wheel washing, brick cleaning and Non-potable construction uses
  - For MRO, cargo aprons, and vehicle maintenance zones, Class 1 oil/water separators must be installed with <5 mg/L effluent capacity. Recovered water can be reused for equipment washing, Fire-fighting training, and irrigation of non-sensitive landscaped areas (if quality permits)
- Waste oil is collected for recycling via accredited waste oil recovery partners.
- Treated construction wastewater can be used for haul road wetting, dust control on gravel or unpaved surfaces, and compaction works. This significantly reduces potable water consumption.
- Recycled water from settling sumps can supply brick cleaning, Tool and plant washing, and Batch plant cleaning.
- Recover water from the Firefighting Training Centre simulation pit or training ground. Pump back to settling tanks and reuse for multiple training cycles. This Minimises high water losses typically associated with firefighting simulations.
- Treated effluent meeting basic quality standards can be used for landscaping irrigation.
  - Collect runoff from MRO hangars, cargo terminals, and warehouse roofs, store in large above-ground tanks or underground reservoirs and use jointly with recycled wastewater for Toilet flushing, Firefighting training makeup water, Equipment washing and Irrigation
- Operational wastewater (ablution, wash bays, canteen wastewater, and firefighting runoff) may be processed through Biological treatment (MBR, activated sludge, SBR). Treated effluent can be reused for Toilet flushing, Irrigation of airside landscaping, Makeup water for water features or attenuation ponds, Wash-down water for equipment.

Liquid effluent (<u>domestic sewage</u>) Will the activity produce domestic effluent that will be disposed of in a municipal sewage system?	YES	**NO**
If yes, what estimated quantity will be produced per month?	N/A	
If yes, has the municipality confirmed that sufficient capacity exist for treating / disposing of the domestic effluent to be generated by this activity(ies)?	YES	NO
Will the activity produce any effluent that will be treated and/or disposed of on site?	**YES**	NO

If yes describe how it will be treated and disposed of.

The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The proposed development, situated in the Lanseria southern precinct, will connect to these existing services. The LIA wastewater treatment works (WWTW) has the necessary capacity to accommodate the projected sewer load from the new development.

Emissions into the atmosphere

Will the activity release emissions into the atmosphere?	YES Dust	NO
If yes, is it controlled by any legislation of any sphere of government?	YES	NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

Limited dust will be generated during the construction phase of the project, due to the movement of construction vehicles and construction activities on site. The dust emissions will have a short term impact duration, and therefore a limited impact in terms of severity and extent. Appropriate dust suppression measures will be implemented to reduce the impacts as required, and will be monitored by the appointed Environmental Control Officer.

2. WATER USE

Indicate the source(s) of water that will be used for the activity

Municipal	Directly from water board	groundwater	river, stream, dam or lake	other	the activity will not use water

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:	N/A

If Yes, please attach proof of assurance of water supply, e.g. yield of borehole, in the appropriate Appendix

Does the activity require a water use permit from the Department of Water Affairs?	**YES**	NO

If yes, list the permits required

Department of Water and Sanitation (DWS) approval in terms of a General Authorisation for water uses under Section 21 (c) and Section 21 (i), issued in terms of Section 39 the National Water Act (Act 36 of 1998) for the following activities:

- Section 21(c) of the NWA: Impeding or diverting the flow of water in a water course
- Section 21(i) of the NWA: Altering the beds, banks, course or characteristics of a

water course
- Section 21(g) of the NWA: Disposing of waste in a manner which may detrimentally impact on a water resource.

If yes, have you applied for the water use permit(s)?	**YES**	NO

If yes, have you received approval(s)? (attached in appropriate appendix): **Not yet**

3. POWER SUPPLY

Please indicate the source of power supply eg. Municipality / Eskom / Renewable energy source

ESKOM

If power supply is not available, where will power be sourced from?

The existing Eskom MV network in the selected area does not have sufficient spare capacity to cater for the new development. A new Eskom MV feeder must be constructed from the existing 88/11KV Lanseria substation to the development site.

4. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

Designing an energy-efficient warehouse is essential to reduce operational costs and improve sustainability. Effective energy-efficient design measures for large warehouse buildings include the following strategies:

<u>Building Envelope and Insulation:</u>

- Thermal Insulation: Proper insulation of walls, roofs, and floors can minimize heat gain/loss and improve HVAC efficiency.
- Reflective Roofing: Use light-colored or reflective roofing materials to reduce heat absorption, decreasing cooling costs. Install roofing systems that reflect more sunlight and absorb less heat. This helps reduce the cooling load of the building, especially in hot climates.

<u>Natural Lighting</u>

- Skylights and Roof Windows: Incorporate skylights or daylighting systems to maximize natural light and reduce the need for artificial lighting during the day.
- Daylight Harvesting: Install sensors that adjust artificial lighting based on the amount of natural light entering the building.

<u>Energy-Efficient HVAC System</u>

- Zoning and Variable Air Volume (VAV) Systems: Use a zoning approach with VAV systems that allow heating and cooling only in the areas that need it.
- Smart Thermostats and Sensors: Implement smart thermostats and motion sensors to adjust heating and cooling based on occupancy.
- Seal Gaps and Leaks: Use high-quality seals around doors, windows, and other penetrations to prevent air leakage and maintain thermal comfort.

LED Lighting

- Energy-Efficient Lighting: Install LED fixtures with motion sensors to ensure lighting is only on when needed.
- Lighting Controls: Use occupancy sensors and programmable lighting controls to minimize energy consumption during non-working hours or in less frequently used areas.

Renewable Energy Integration

- Solar Panels: Install photovoltaic panels on the roof to generate electricity and offset the building's energy needs.
- Battery Storage: Pair renewable energy systems with battery storage to store excess energy generated during peak sunlight hours for use during off-peak times.

Landscaping

- Plant trees or shrubs around the building to reduce heat absorption and lower cooling needs.

Smart Logistics and Storage

- Design the warehouse layout for efficient space utilization, reducing the need for excessive heating, cooling, and lighting in unused areas.

Different energy saving strategies will be considered in the detail design phase of the project. The measures will include combinations of a variety of appropriate energy saving and alternative energy generation initiatives, including renewable energy, as relevant to a particular facility/development structure. Specific focus will be placed on the management of new buildings, to ensure that their design is energy efficient. Conformance with the Green Buildings Policy is important in this respect. Energy efficiency in new buildings will take account not only of the building's design, but also of life-cycle impacts associated with the upstream activities (e.g. the carbon footprint of the materials used for building construction) and the downstream activities (e.g. waste and excess soil produced by construction).

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

Where possible, the use of alternative energy supply will be promoted and used. This will include:

- Solar lighting.
- Solar water heating.
- Rainwater harvesting
- LED Lighting
- Smart Landscaping

5. STORMWATER MANAGEMENT

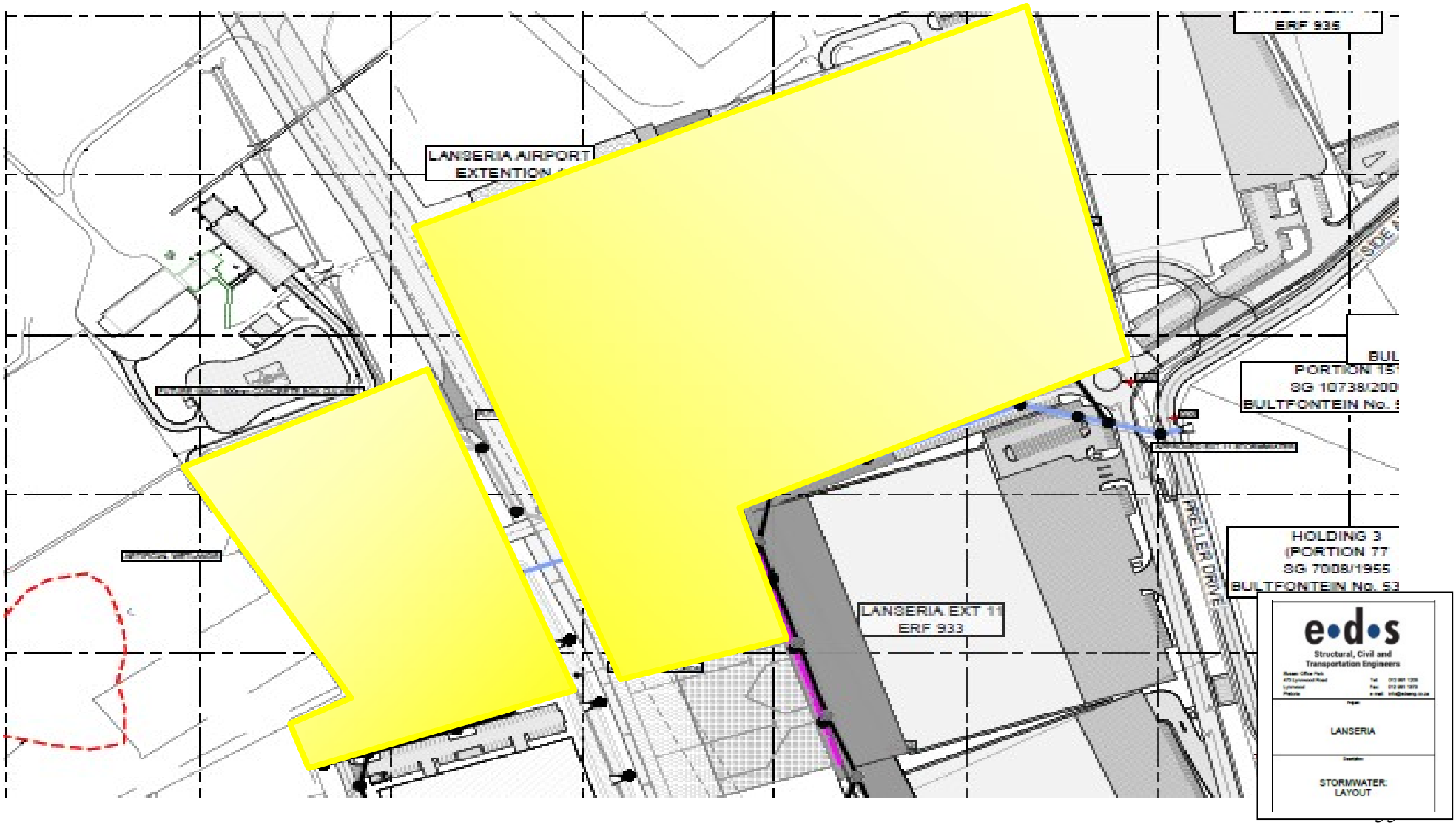
EDS Engineering Design Services (Pty) Ltd (EDS Engineers) has compiled the Stormwater Management Report for the township application on a portion of Erf 183 Lanseria X 1. See Appendix G for this report.

The stormwater runoff will increase due to the proposed development. The new Stormwater Management Plan (SWMP) for the greater Lanseria X1 Southern Precinct will consist of an integrated network of onsite attenuation ponds, underground stormwater systems, ultimately connecting to the Stormwater Connection Point at the approved Lanseria X 11. On-site stormwater attenuation facilities will be implemented to ensure that post-development runoff rates are reduced to match pre-development runoff rates. The proposed attenuation facilities will have a concrete-lined channel directing stormwater to the controlled outlet structure to prevent standing water. The main stormwater culvert system will convey both the upstream runoff from Lanseria X75, and the stormwater generated within Lanseria X1 Southern Precinct to this connection point. Lanseria X1 Southern Precinct will feature an underground piped stormwater system, designed to convey stormwater into the proposed attenuation facilities. These facilities will control outflow to the main culvert system, which leads to the Stormwater Connection Point X11.

It is important to note that attenuation facilities are generally not recommended at airports, as they attract birdlife, posing a risk to aviation safety. As a mitigation measure, the proposed attenuation facilities will incorporate a concrete-lined channel to direct stormwater efficiently to a controlled outlet structure, thereby preventing standing water and reducing the likelihood of bird attraction.

The runoff associated with the development is to be attenuated such that the predevelopment flow for the 5- to 25-year storm events is not exceeded. The quantity and rate of stormwater runoff from the site will be buffered and controlled as per the requirements of the Johannesburg Roads Agency by means of attenuation facilities. The post-development stormwater will be managed and discharged in accordance with pre-development conditions through the attenuation pond outlet structure. This system will effectively control flood events with return periods of 1 in 5 years, and 1 in 25 years and a pond overflow weir structure will accommodate the 1 in 100 years storm event. The site is not affected by a floodline.

Figure 8: Proposed stormwater plan. See Appendix G, page 59, of the stormwater management report for this image.



6. TRAFFIC AND ROADS UPGRADE AND MANAGEMENT

The new development will be located within the existing township of Lanseria Airport Extension 1, which currently has established access. An additional access point to the southern precinct of Lanseria Airport Extension 1 will be provided through the approved Lanseria Extension 11 township. All necessary servitudes for access and services will be registered in accordance with the provisions set out in the Service Level Agreement. See section D5 for the EDS access diagram.

SECTION E: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts as well as the impacts of not implementing the activity (Section 24(4)(b)(i).

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

Summarise the issues raised by interested and affected parties.

This Draft BAR is presently out for public review. Comments received from IAP's will be included in the Comments and response report to be submitted to the approving authorities.

Summary of response from the practitioner to the issues raised by the interested and affected parties (including the manner in which the public comments are incorporated or why they were not included)

(A full response must be provided in the Comments and Response Report (CRR) that must be attached to this report):

2. IMPACTS THAT MAY RESULT FROM THE CONSTRUCTION AND OPERATIONAL PHASE

Briefly describe the methodology utilized in the rating of significance of impacts

The impact assessment process follows a structured evaluation framework to:

- Identify potential environmental impacts arising during the construction and operational phases.
- Predict the nature, extent, duration, intensity, probability and significance of each impact.
- Assess impacts before and after mitigation.
- Recommend appropriate mitigation, monitoring, and management actions.

This process ensures that decision-making is transparent, replicable, and aligned with the NEMA Section 2 principles, particularly the duty of care, precautionary principle, and avoidance hierarchy.

Potential impacts are identified through a review of project components and activities, specialist inputs, site visits and baseline assessments, consideration of legal requirements and environmental sensitivities and Stakeholder and authority input. Following receipt of public and authority comments, identified impacts will be further refined.

Impacts are assessed for both the construction and operational phases and include direct, indirect and cumulative impacts.

In this draft Basic Assessment Report, the potential impacts are broadly identified and outlined. An assessment of the potential impacts is provided, identifying the impacts that are potentially significant and recommending management and mitigation measures to reduce the impacts. In general, it is recognised that every development has the potential to pose various risks to the environment as well as to the residents or businesses in the surrounding area. Therefore, it is important that these possible risks are considered during the planning phase of the development. Risks and key issues were identified and addressed through an internal process based on similar developments, environmental and technical evaluations.
Previous experience has shown the rating and ranking of impacts is often a controversial aspect because of the subjectivity involved in attaching values to impacts. Please refer to tables below, for a detailed description on the assessment methodology used. Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale and therefore indicates the level of mitigation required.

SIGNIFICANCE DESCRIPTION METHODOLOGY

The identification and assessment of environmental impacts is a multi-faceted process, which combines quantitative and qualitative descriptions and evaluations. It involves the application of scientific measurements and professional judgment to determine the significance of environmental impacts associated with the proposed project. The process involves consideration of *inter alia*: the purpose and need for the project; views and concerns of interested and affected parties, general public interest; and environmental legislation and guidelines.

The potential environmental impacts associated with the project have been evaluated according to the nature, extent, duration, intensity, probability, and significance rating of the impacts as explained below.

Significance of Impact

The significance of the impact has been determined through the following criteria:

(a) **Nature of Impact***:* This includes a brief description of how the proposed activity will impact on the environment. The nature of the impact is *described* as follows:

Positive: Impacts affect the environment in a positive manner, such that natural, cultural and/or social functions and processes are not affected or enhanced

Negative: Impacts affect the environment in a negative manner, such that natural, cultural and/or social functions and processes are altered, destroyed, lost, etc.

(b) **Extent***: The* physical and spatial size of the impact, which is classified as:

- Local: The impacted area extends only as far as the activity, e.g. a footprint of proposed activity.
- Site: The impact could affect the whole, or a measurable portion of the above mentioned property.
- Regional: The impact could affect the area including the neighbouring properties, the transport routes and the adjoining towns.

(c) **Duration***:* The lifetime of the impact; this is measured in the context of the life-time of the proposed project.

- Short term (0-5 years):
  The impact will either disappear with mitigation or will be mitigated through natural process in a span shorter than any proposed phases.
- Medium term (5-15 years):
  The impact will last up to the end of the phases, where after it will be entirely negated.
- Long term (duration of operation):
  The impact will continue or last for the entire operational life of the development, but will be mitigated by direct human action or by natural processes thereafter.
- Permanent:
  The only class of impact, which is considered non transitory. Mitigation, either by man or natural process, will not occur in such a way or in such a time span that the impact can be considered transient.

(d) **Probability**

This describes the likelihood of the impacts actually occurring. The impact may occur for any length of time during the life cycle of the activity, and not at any given time. The classes are rated as follows:

- Improbable: The possibility of the impact occurring is very low, due to the circumstances, design or experience. Probable: There is a possibility that the impact will occur to the extent that provisions must be made to mitigate the impacts.
- Highly probable: It is most likely that the impacts will occur at some or other stage of the development. Plans must be drawn up before the undertaking of the activity.
- Definite: The impact will take place regardless of any prevention plans, and thus mitigatory actions or contingency plans must be relied on to contain the effect.

(e) **Intensity**

This will be a relative evaluation within the context of all the activities and the other impacts within the framework of the project. Does it destroy the impacted environment, alter its functioning, or render it slightly altered? These are rated as:

- None: No known impacts
- Low: The impact alters the affected environment in such a

way that the natural processes or functions are not affected.

- Medium: The affected environment is altered, but function and process continue, albeit in a modified way.
- High: Function or process of the affected environment is disturbed to the extent that it temporarily or permanently ceases.

Determination of significance

The significance of an impact is calculated using a **weighted scoring system** that combines the criteria above. Significance is determined through a synthesis of impact characteristics. Significance is an indication of the importance of the impact in terms of both physical extent and time scale and therefore indicates the level of mitigation required. The classes are rated as follows:

- No significance: The impact is not substantial and does not require any mitigatory action.
- Low : The impact is of minimal importance, but may require limited mitigation.
- Medium: The impact is of importance and therefore considered to have a negative impact. Mitigation is required to reduce the negative impacts to acceptable levels.
- High: The impact is of great importance. Failure to mitigate, with the objective reducing the impact to acceptable levels, could render the entire development option or entire project proposal unacceptable. Mitigation is therefore essential.

Status

Taking all the criteria into account, the status of the impact will either be classified as a positive or negative impact.

- **Reversibility Rating**
- **Irreversible** (the activity will lead to an impact that is permanent)
- **Partially reversible** (The impact is reversible to a degree e.g.
- acceptable revegetation measures can be implemented but the pre-impact species composition and/or diversity may never be attained. Impacts may be partially reversible within a short (during construction), medium (during operation) or long term (following decommissioning) timeframe
- **Fully reversible** (The impact is fully reversible, within a short, medium or long-term timeframe).

Management Actions:

- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative
- impacts. Where no mitigatory measures are possible this will be stated.
- Where positive impacts are identified, augmentation measures will be identified to potentially enhance these.
- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set.

- This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.

Mitigation:

- The objective of mitigation is to firstly avoid and minimise impacts where possible and where these cannot be completely avoided, to compensate for the negative impacts of the development on the receiving environment and to maximise re-vegetation and rehabilitation of disturbed areas. For each impact identified, appropriate mitigation measures to reduce or otherwise avoid the potentially negative impacts are suggested.

- All impacts are assessed without mitigation and with the mitigation measures as suggested.

Professional Judgement and Specialist Input

While the numerical scoring system ensures consistency, significance ratings are also informed by:

- Professional judgement
- Specialist studies (e.g., wetlands, heritage, traffic, fauna, air quality)
- Regulatory thresholds (e.g., GN 704, GN 509, SANS standards)

Where uncertainty exists, a precautionary approach is applied in line with the NEMA principles (Section 2).

Assumptions and Limitations

Assumptions include:

- Availability and accuracy of baseline data
- Reasonable predictability of construction and operational activities
- Normal variability in environmental conditions

Limitations include unforeseen changes in design, timing, or site conditions. A precautionary approach is applied where uncertainty exists.

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
PRE-CONSTRUCTION PHASE				
General mitigation to be incorporated into the design and planning phase of the development, include the following: **Stormwater Management and Artificial Wetland Replacement** • Design the stormwater system to replicate the hydrological attenuation function currently provided by the artificial wetland, ensuring equal or improved peak-flow reduction and stormwater storage capacity. • Attenuation ponds must be engineered in accordance with municipal and national stormwater standards (GN 704 where applicable, urban drainage best practice, and SANS codes). • Pre-treatment features (such as silt traps, oil-grit separators and stilling chambers) must be incorporated to prevent sediment accumulation and contamination within the pond system. • Include engineered inflow structures to manage catchment runoff volumes entering the new pond system. • Design outflow structures to ensure gradual release, preventing downstream erosion and reducing peak discharge rates. • Install maintenance access points to allow periodic clearing of debris, sediment and vegetation. • Confirm subsurface infiltration characteristics to determine suitable lining requirements (e.g., clay liners, geomembranes) to avoid unwanted seepage. • Ensure stormwater attenuation capacity aligns with the post-development hydrological modelling and accommodates climate-change-adjusted rainfall intensities. • Reduce wetland-like habitat features within the airport precinct to comply with aviation safety requirements. • The attenuation ponds must be designed not to attract waterfowl or other large birds, including steep or rip-rap embankments instead of gentle wetland-style				

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
slopes, limited emergent vegetation, deeper water or fluctuating levels that discourage nesting and avoidance of shallow areas • The design must ensure that the current unintended wetland system (created through impounding of stormwater) does not reform. • Prevent prolonged ponding in unintended areas through careful earth shaping, stormwater channel design and cut-off drains. • Plan earthworks to ensure that wetland transition areas are stabilised rapidly, avoiding erosion or uncontrolled water accumulation during construction. • Maintain temporary sediment controls (silt fences, sediment traps) until the engineered system is fully operational. • Incorporate erosion-control stabilisation measures into the design (e.g., geotextiles, gabions, reno mattresses) particularly along temporary diversions or compacted construction access routes. • Include a construction staging plan to prevent exposure of large bare areas during the wet season. • Ensure that the new attenuation system provides the same or improved hydrological functionality as the current artificial wetland—specifically: ○ peak flow attenuation ○ sediment trapping ○ water-quality protection ○ controlled release to downstream systems • All attenuation ponds and related stormwater infrastructure must incorporate permanent access routes for maintenance vehicles. • Provide stable working areas for desilting, vegetation removal and inspection activities. • Access must remain functional year-round, including during wet weather. • Include monitoring points (staff gauges, sediment depth markers, inlet/outlet inspection chambers) to support long-term functionality checks. • Ensure adaptive management provisions for future modifications if aviation safety requirements change.				

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
• Conduct pre-clearing inspections to ensure no protected species occur on site. • Strip and store topsoil separately from subsoil, in low-compaction berms under 2m high. • Identify and designate haulage and delivery routes in advance to avoid random vehicle movement. • Use geotextile mats or crushed stone for temporary access to reduce soil compaction. • Install stormwater diversion berms to direct runoff away from sensitive areas. • Secure perimeter fencing, lighting, and signage must be installed before works begin. • If contamination is found, implement a remediation plan before construction begins. • Develop a phased construction plan in consultation with the airport. • Ensure aviation safety buffers and airspace restrictions are always respected. • Ensure all licenses and authorizations (e.g., environmental authorisation, water use licence if applicable) are granted and conditions integrated into the final Environmental Management Program (EMPr).				
CONSTRUCTION PHASE				
Impacts associated with Geotechnical Suitability	Negative	See Section 11 of the Geoid Geotechnical Engineers PTY LTD report (GGE/23021/2) for the Component Assessment and Recommendations for the site.	Medium	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
Nature of Impact: Soil erosion, modification or original soil conditions, compaction of soil caused by construction vehicles and workers.		Given the complexity of the site, with structures likely to straddle multiple zones, it is recommended that the Geotechnical Specialist be appointed to interact with the professional team to provide ongoing support for the duration of this project to further investigate, delineate transition zones, provide costings, undertake preliminary designs and procurement advice, finalise the designs, and inspect / monitor the ground improvement / foundation works for compliance with the project recommendations and specifications on all inground works. Periodic inspection of the works during construction will provide for confirmation of the recommendations given in this report, and for any significant changes from the anticipated conditions to be taken into account timeously, so as to avoid unnecessary expense due to construction errors. Additional design-level investigative work necessary to optimize foundation works / ground improvement / deep cuts with lateral support and high fills with retaining walls are expected.		
Impacts to the artificial Wetlands	N/A	Allowing wetlands within airport operational boundaries conflicts directly with aviation safety protocols and would be non-compliant with international and national aviation standards. Wetlands attract birds and wildlife, increase flooding risks, and		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		interfere with aircraft operations and infrastructure, posing a clear and significant hazard to life and property. During construction activities for the MRO activities, the following mitigation measures can be implemented: • Install temporary berms, silt socks, sandbags, and geotextile barriers to keep clean upslope water away from construction footprints. • Divert dirty water from excavations to temporary sediment traps or settling sumps to avoid uncontrolled release. • Provide a temporary bypass channel for stormwater so that heavy rainfall does not re-form standing water in the old wetland footprint or flood construction works. • No contaminated water (cement wash water, hydrocarbon-polluted water, dirty runoff) may enter the artificial wetland area. • Use portable concrete washout containers and closed-loop wash stations. • Install perimeter silt fences or hay bales around the wetland footprint before excavation begins.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• Use geotextiles, mulch, hydroseed, or temporary cover material to stabilise exposed wet soil between work phases. • If the artificial wetland contains standing water, pump and dewater into a temporary settling basin before allowing release. • Dewatering must occur slowly to avoid large sediment pulses downstream. • All stormwater inlets downstream of the construction area must be fitted with inlet protection (geotextile covers, gravel bags, or silt socks). • If temporary stormwater must be released, route it through a lined channel (rip-rap, reno mattress, geo-cell) to prevent erosion. • Shape earthworks to prevent new depressions from forming temporary puddles. • Refuelling must occur in designated, bunded areas away from the artificial wetland footprint. • Maintain spill kits at all high-risk locations and train workers on emergency response. • Any hydrocarbon-impacted soils must be excavated, stored in sealed containers, and removed to a licensed hazardous waste facility. • No contaminated soil may enter the artificial wetland area.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• Maintain vehicular access around the artificial wetland footprint so that safety personnel can respond if animals or birds congregate. • Plan major earthworks outside peak rainfall periods to reduce sedimentation risk. • Monitor sediment control integrity, erosion, runoff pathways, and standing water. • Maintain photo records before, during, and after construction. • Maintain pre-development flow volumes and durations as part of Sustainable Drainage System (SuDS) designs.		
Bulk Earthworks: Removal of vegetation causing soil erosion **With the removal of vegetation during construction, soils will be exposed to wind and rain and**	Negative	• Clearing of vegetation to only be undertaken immediately preceding commencement of construction; • Care must be taken to ensure that runoff is well dispersed to limit erosion; • The careful position of soil piles, and runoff control, during all phases of development, and planting of some vegetative cover after completion (indigenous groundcover, grasses etc.) will limit the extent of erosion occurring on the site.	Medium	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
topsoil may be lost. This may result in erosion and sedimentation, following rainfall and subsequent sheet wash. In addition, the soils will be traversed by a number of vehicles during the construction phase which is likely to result in soil compaction. This may result in the degradation of the soil over time.		• Appropriate erosion control measures must be implemented to ensure that no erosion is taking place. At the first sign of erosion the necessary remedial action must be taken; • Temporary stabilisation measures (e.g., silt traps) should be implemented at the first signs of any erosion; and • Any additional impacted areas must be rehabilitated with indigenous vegetation should construction affect areas outside of the approved footprint • All soils compacted because of construction activities falling outside of development footprint areas should be ripped and profiled. Special attention should be paid to alien and invasive control within these areas. • Once earthworks are complete, disturbed areas are to be stabilised with mulch, straw or other methods approved by the ECO this purpose.		
Bulk Earthworks: Site Clearance and Removal of vegetation ▪ **Vegetation**	Negative	▪ Any faunal species encountered during the construction phase should be allowed to move freely away from the construction areas or alternatively re-located by a suitably qualified person (especially pertinent to any snakes). • All temporary stockpile areas, litter and dumped material and rubble must be	Medium	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
clearance/habitat destruction ▪ **Spread and establishment of alien invasive plant species** ▪ **Loss of biodiversity**		removed and disposed of at a licensed land fill facility. Proof of safe disposal must be obtained and kept on record for monitoring purposes. ▪ Undeveloped areas that were degraded due to human activities must be rehabilitated using indigenous to the area vegetation. ▪ Hazardous chemicals must be stored on an impervious surface accompanied by Safety Data Sheets (SDS) and protected from the elements. These chemicals must be strictly controlled, and records kept of when it was used and by whom. ▪ Limit human activity in the no-development areas to the minimum required for ongoing operation. ▪ Any alien plant observed should be reported to the environmental manager and should be removed as soon as possible. ▪ Regular monitoring (monthly) for damage to the environment as well as establishment of alien plant species must be conducted. ▪ Care must be taken to avoid the introduction of alien plant species to the site and surrounding areas. (Particular attention must be paid to imported material). ▪ Only indigenous plant species, preferably species that are indigenous to the		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		natural vegetation of the area, should be used for landscaping in communal areas. As far as possible, plants naturally growing on the development site, but would otherwise be destroyed during clearing for development purposes, should be incorporated into landscaped areas. ▪ Where soil disturbance is required for the laying of service infrastructure, the topsoil should be put aside and replaced after the infrastructure has been installed.		
<u>Invasion of alien vegetation:</u> *Clearing for the construction phase of the project, as well as for maintenance during the operation phase, will result in soil disturbance and reduced cover of indigenous vegetation, greatly increasing the chance of the establishment of alien*	Negative	• On-going removal and disposal of alien vegetation species. • Alien plant regrowth must be monitored, and any such species must be removed at regular intervals throughout the construction phase; • Only local topsoil maybe used and if any is imported, this should be certified alien plant free; and • Where soils are slow to revegetate, these areas should be grubbed and planted with species suited to the region.	Medium	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
invasive plants. However, if mitigation measures are implemented, there will be less alien vegetation, and less change of spread of alien vegetation				
<u>Top Structure construction (brick work, steel work, cement mixing, plastering, thatching, paving etc.) – Hydrocarbon spills and leaks from machinery</u> **Impacted environment: Soil, ie. <u>Soil pollution</u>** ▪ **Pollution Incidents** ▪ **Storage of**	Negative	• All construction materials, including fuels and oil, must be stored in demarcated areas that are contained within berms / bunds to avoid spread of any contamination into storm water systems. Washing and cleaning of equipment should also be done in berms or bunds, in order to trap any cement and prevent excessive soil erosion. These sites must be re-vegetated after construction has been completed. • The Contractor must ensure that all liquid fuels and oils are stored in tanks with lids, which are kept firmly shut and under lock and key at all times. The capacity of the tank must be clearly displayed and the product contained within the tank clearly identified using the emergency information system detailed in SABS 0232 part 1. Fuel storage tanks must have a capacity not	Med	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
hydrocarbons		exceeding 80 000 liters, and must be kept on site only for as long as fuel is needed for construction activities, on completion of which they shall be removed. • In the event of a hydrocarbon spill, the source of the spillage must be isolated and the spillage contained. The area must be cordoned off and secured. The Contractor must ensure that there is always a supply of absorbent material readily available to absorb/ breakdown or where possible, be designed to encapsulate minor hydrocarbon spillages. The quantities of such materials must be able to handle a minimum of 200 ℓ of hydrocarbon liquid spill.		
<u>Hydrological Impacts:</u> **Pollution of surface water resources –Spills and leaks from any plant during the construction phase of the development could potentially impact the downstream water quality**	Negative	• Chemicals used for construction must be stored safely on site and surrounded by bunds. Chemical storage containers must be regularly inspected so that any leaks are detected early; • No re-fuelling of construction vehicles or maintenance activities to occur outside of the site boundaries. • All fuel storage areas, wash bays and vehicle servicing areas must be located within bunded areas with a separate dirty water handling system and oil/grease trap. General sediment traps should also be included where suitable;	Med	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
via chemical pollution.		• Toilets must be emptied regularly and before any extended site shutdown or builder's break; • Domestic waste bins/skips to be made weather proof; • Littering and contamination of water sources during construction must be prevented by effective on-site management; • Stockpiles to be located on the eastern side of the property; • All stockpiles must be protected from erosion, stored on flat areas where run-off will be minimised, and be surrounded by bunds; and • Once construction has been completed the disturbed areas must be grubbed and levelled, i.e., no raised areas should occur that would divert or impound any surface water flows • Spill kits to be made available at areas of possible spillages of hazardous substances; • Remediation of spillages must be conducted on a continual basis; • Drip trays will be placed underneath vehicles and machinery waiting for maintenance, repair or standing for long periods of time; • No waste water or hazardous substances will be disposed of into the		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		surrounding environment; • Sediment depositions should be regularly removed from the swale, to prevent pollution of the runoff from contaminants contained therein. • Cover any wastes that are likely to wash away or contaminate storm water.		
<u>Hydrological Impacts: Ground Water Quality</u> **Accidental spillages of diesel, oil or other hazardous substances could contaminate soil, leach into the groundwater or reach downstream water bodies through run-off.**	Negative	▪ Spill kits to be made available at areas of possible spillages of hazardous substances; ▪ Remediation of spillages must be conducted on a continual basis and within 24h of spillage; ▪ Maintenance of vehicles may not be conducted on site; ▪ Drip trays will be placed underneath vehicles and machinery waiting for maintenance, repair or standing for long periods of time; ▪ No waste (hazardous or general) will be disposed of in excavated trenches; ▪ No waste water or hazardous substances may be disposed of into the surrounding environment; ▪ Hazardous substances will be stored in bunded areas with a capacity of 110 % of the contents volume ▪ The stormwater management plan compiled for the development must be	Med	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		correctly implemented		
<u>Solid Waste Pollution</u> **The construction phase of the activity will produce construction waste in the form of discarded construction material (e.g., packaging material etc.), excess soil/spoil (from levelling) and a large volume of cleared bush vegetation (alien vegetation). The incorrect management of these wastes may result in pollution of the surrounding**	Negative	• Construction material must be reused or recycled where possible (e.g. mulching of cleared vegetation); • Vegetation that is cleared from the site (and is not replanted or relocated as per the recommendations of the specialist) must be removed to a registered garden refuse site; • Staff must be trained to implement waste control and to identify hazardous waste; • Other waste to be removed to a licenced landfill site; • General good house-keeping must be implemented. No litter to remain on site; • Spills must be avoided during transportation of material; • Disposal certificates must be obtained for all waste disposals; and • Sufficient and appropriate weather- and scavenger-proof bins must be made available on-site during construction and removed/emptied on a daily basis • Provision of adequate numbers of litter bins throughout the development; and	Med	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
natural areas.		• Promoting the recycling of waste, with specialist service providers appointed to remove the waste from site. • Records of all waste taken off site and disposed of must be kept as evidence. • Burning of waste material will not be permitted.		
<u>Impact Resulting from Material Stockpiling</u> **During the construction phase, stockpiling of construction materials on a property could result in erosion and mobilisation of the materials towards the downstream freshwater resource, resulting in sedimentation and other impacts. Furthermore, the**	Negative	• The Contractor must implement a suitable plan for stockpile management as storage outside of the property boundaries will not be permitted; • Where possible, any excavated material must be reused in construction and/or an investigation into a third party who could use the material beneficially must be undertaken to minimise waste to landfill. All unused/excess fill material must be removed from the site to a registered waste disposal site.	Low	Low

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POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
incorrect stockpiling of material outside of the approved development area will result in further loss of indigenous vegetation and negatively impact on the open space areas adjacent to the site				
<u>Increased Noise and Disturbance</u> **It can be expected that there will be an increase in noise levels during the site preparation and construction phase of the development. The increase in noise will be associated with the operation**	Negative	• Construction vehicles to be in sound working order and fitted with mufflers if necessary; • The Contractor must adhere to the relevant noise regulations and limit noise to within standard working hours; • As construction workers operate in a noisy environment, it must be ensured that their working conditions comply with the requirements of the Occupational Health and Safety Act (Act No 85 of 1993). Where necessary, ear protection gear must be worn; • Should the vehicles or equipment not be in good working order, the Contractor may be instructed to remove the offending vehicle or machinery;	Med	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
of construction equipment, labourers and vehicles, especially the bulldozer used to clear vegetation, build platforms, dig trenches, etc.		• Limit construction to daylight hours; and • Restrict unnecessary noise (e.g., portable radios, vehicle radios, whistles etc.).		
<u>Visual Impacts</u> **Construction activities will result in the commissioning of bulk earthwork machinery and vehicles. Unkept site due to littering and illegal dumping on site and surrounding areas. Unsightly construction waste pile may be visually intrusive.**	Negative Subjectively perceived	• Good house-keeping to be implemented on site; • No visually intrusive practices are allowed on site or in the surrounding areas; • Any reflective construction material must be stored and placed in such a manner that it does not reflect sunlight towards the surrounding properties; • Construction materials to be stored neatly and waste to be collected on a regular basis; • Erosion, waste vegetation and dust to be mitigated as per the abovementioned mitigation measures; and • All disturbed areas surrounding the proposed development must be rehabilitated and all alien vegetation and weeds removed from these areas. ▪ Light pollution should be minimised. Lighting is to be sufficient for safety and security purposes, but shall not be intrusive to neighbouring residents.	Medium	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
<u>Employee Safety and Security</u>*:* **A construction site can be a dangerous place and thus could result in harm to people and property and by their nature act as a magnet to the unemployed, resulting in people gathering at the site.**	Negative	• A fence must be constructed around the site prior to commencement of construction • Signs should be erected on all entrance gates indicating that no temporary jobs are available, thereby limiting opportunistic labourers and crime. • The site and crew are to be managed in strict accordance with the Occupational Health and Safety Act (Act No. 85 of 1993) and the National Building Regulations • All structures that are vulnerable to high winds must be secured (including toilets). • Potentially hazardous areas such as trenches are to be cordoned off and clearly marked at all times. • The Contractor is to ensure traffic safety at all times, and shall implement road safety precautions for this purpose when works are undertaken on or near public roads. • Necessary Personal Protective Equipment (PPE) and safety gear appropriate to the task being undertaken is to be provided to all site personnel (e.g. hard hats, safety boots, masks etc.).	Medium	Low

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POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• All vehicles and equipment used on site must be operated by appropriately trained and / or licensed individuals in compliance with all safety measures as laid out in the Occupational Health and Safety Act (Act No. 85 of 1993) (OHSA). • An environmental awareness training programme for all staff members shall be put in place by the Contractor. Before commencing with any work, all staff members shall be appropriately briefed about the EMPr and relevant occupational health and safety issues. • All construction workers must be issued with ID badges and clearly identifiable uniforms. • Access to fuel and other equipment stores is to be strictly controlled. • Emergency procedures must be produced and communicated to all the employees on site. This will ensure that accidents are responded to appropriately and the impacts thereof are minimised. This will also ensure that potential liabilities and damage to life and the environment are avoided. • Adequate emergency facilities must be provided for the treatment of any emergency on the site.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• The nearest emergency service provider must be identified during all phases of the project as well as its capacity and the magnitude of accidents it will be able to handle. Emergency contact numbers are to be displayed conspicuously at prominent locations around the construction site and the construction crew camps at all times. • The Contractor must have a basic spill control kit available at each construction crew camp and around the construction site. The spill control kits must include absorptive material that can handle all forms of hydrocarbon as well as floating blankets / pillows that can be placed on water courses. • The Contractor shall make available safe drinking water fit for human consumption at the site offices and all other working areas. • Washing and toilet facilities shall be provided on site and in the Contractors camp. • Adequate numbers of chemical toilets must be maintained in the Contractors camp to service the staff using this area. At least 1 toilet must be available per 10 workers using the camp. Toilet paper must be provided.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• The chemical toilets servicing the camp must be maintained in a good state, and any spills or overflows must be attended to immediately. • The chemical toilets must be emptied on a regular basis. • No loitering around the site for people seeking temporary employment is to be allowed.		
Impact on Archaeological and/or Paleontological Resources	Negative	• A Heritage Assessment has been conducted by Dr J Van Schalkwyk Heritage Consultant. No sites or artefacts of heritage importance occur on site. • Although highly unlikely, it is possible that the discovery or exposure of archaeological artefacts may occur during the construction phase. Should this be the case, it is also possible that these heritage resources will be damaged or lost during the construction phase.	Low	
Impacts on Air Quality: Dust Creation **The construction activities**	Negative	• Ensure that exposed areas are dampened with non-potable water following vegetation clearance; • Construction work to be halted during periods of strong wind; • The loading of materials must be done with the lowest drop height and those	Medium	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
will increase the potential for dust especially from the clearing of vegetation. During the construction phase of the activity, materials will be moved to and from the project site and this could result in dust pollution not only from the materials, but also from the construction vehicles which will be operating on site. The effects of dust will be exacerbated during high wind conditions.		vehicles carrying dusty materials must be securely and properly covered before they leave the site; • Any complaints or claims emanating from the lack of dust control must be attended to immediately by the Contractor; and • Maintain vegetation as a windbreak in the area facing the prevailing wind direction until the completion of construction.		
<u>Impacts on Health, Safety and Fire Risk</u> **The use of construction**	Negative	• All relevant Health and Safety legislation as required in South Africa should be strictly adhered to, including but not limited to the Occupational Health and Safety Act, 1993 (No. 85 of 1993); • Smoking should be restricted to a designated smoking area;	Medium	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
machinery during the construction phase poses a potential risk to the health and safety of people working at the construction site. The movement of construction vehicles also increases the risk of accidents along provincial roads. The risk of accidents, fires and potential injuries must be mitigated effectively.		• Ensure availability of fire extinguishers; and • All employees must be aware of emergency/ contingency plans to ensure an understanding of the hazards and procedures required during an emergency situation		
<u>Construction Traffic and Road Impacts</u> **During construction, there will be an increase in the**	Negative	• All drivers to have the necessary driving permits to operate the plant/vehicles; • All traffic laws must be obeyed at all times; • Avoid transportation of construction material during peak hours; • Any abnormal loads must be approved with the traffic authorities and must	Medium	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
number of vehicles using the nearby roads, including heavy construction vehicles. This may result in damage to the roads. The construction vehicles could also impede other road users at certain sections of the roads to the site if not adequately managed and controlled.		comply with any conditions imposed by the authorities; • Avoid transportation of construction material during peak hours; • The Contractor must employ flag staff in order to prevent on-site accidents; • Speed must be limited to 30 km/h on site; • Suitable temporary signage be erected, warning motorists of the presence of heavy construction vehicles; • Overloading of vehicles must not occur; and • Any damage to existing access roads as a result of the construction activities must be immediately repaired • The movement of construction vehicles during the construction period is to be carried out in such a manner so as not to interfere unnecessarily or improperly with the public convenience. Traffic signage acknowledging the presence of a construction site must be provided. • Proper and adequate lanes to allow for ingress/egress to be provided. • Access to the construction area must be predetermined and used during constructions. • The working area and all exposed trenches must be fenced off with barrier		

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POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		netting, danger tape & droppers. • Excavated earth material should not be dumped/ stockpiled in the road in any way that will obstruct traffic flow.		
<u>Infrastructure and Services</u> **Additional pressure placed on existing infrastructure to accommodate the new phase of devellopment**	Negative	• Integrity of existing services to be ensured. • Any damages to existing services infrastructure must be repaired immediately. • It must be ensured that existing services infrastructure within the road reserve are not damaged. • Any damages to existing services infrastructure must be repaired immediately.	Low	Low
<u>Employment Creation and Local Business Development</u> **The construction phase of the proposed development will**	Positive	• The project will create a number of job opportunities for the local population. Any available jobs will provide an immediate positive impact on the employment and income situation within the study area. This phase of the development will provide the most benefits in terms of sustained employment for the duration of the project and increase in income. Initially,		

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POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
create temporary jobs for locals within the area. Where possible, materials must be sourced from local businesses and this will result in a boost of the local economy of the immediate vicinity and surrounding areas.		the site preparation phase will employ large construction vehicles and equipment for landscaping, grading and levelling, the cutting of access roads for these vehicles and laborers to access the site. This means that many skilled workers will be necessary to operate front-end loaders, excavators, bulldozers and backhoes and other vehicles. In addition to this, unskilled labourers will still be necessary for other tasks. This phase of the development will therefore have a short-term major positive impact on the employment and income at the local level. • Employ local people wherever possible; • Purchase materials from local businesses wherever possible; and • Equal opportunities must be given to women where possible.		
OPERATIONAL PHASE				
<u>Loss of artificial wetlands in the LIA</u>	Positive	An airport cannot have wetlands within its operational boundaries due to serious aviation safety, infrastructure, and regulatory risks. Wetlands conflict with the primary function of an airport, which is to ensure safe and efficient aircraft operations.	Low	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
<u>Potential Pollution</u> **Poor maintenance of the sewage infrastructure, poor waste disposal practices and/or any significant vehicle/machinery breakdown in or around the development could result in pollution of the downstream water course.**	Negative	• Appropriate waste management, as described herein and the EMPr, must be implemented for the operation of the development; • Sewage infrastructure must be regularly serviced and maintained; • Any pollution from leaks or spills must be immediately cleaned and removed from the warehouse development.	Low	Low
<u>Utilisation of Water Resources</u> **The proposed development will rely entirely on water from the municipal supply to meet the daily consumption**	Negative	• Excessive use of water to be avoided wherever possible; • Ensure that all water reticulation infrastructure is maintained regularly to avoid leaks; • Rainwater harvesting must be implemented to collect rainwater from the warehouse drains and gutters; • Make use of water saving products such as water saving toilets with a dual-flush valve, water saving taps with spray cartridges, water-saver shower	Medium	Medium

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
demands as estimated by the applicant. This will place additional pressure on the water resources for the area.		heads and timed turn-off taps; and • Monitor water consumption to ensure water is utilised within the volumes made available by any relevant municipal drought regulations.		
<u>Electricity Usage</u> **The proposed development will result in increased electricity usage.**	Negative	• Install solar PV systems, energy-efficient lighting and HVAC, and energy management systems.; • LED lighting must be implemented to reduce electricity consumption; and	Medium	Medium
<u>Impact on Service Availability</u> **The proposed development will add to the pressure on the LIA X 1 service availability by increasing the amount of water use, effluent discharge and solid waste generation.**	Negative	• Ensure adequate stormwater capacity in the design, including retention ponds, sediment traps, and oil-water separators. • The development should use non-potable recycled water for washing and irrigation, install low-flow systems, and consider onsite water harvesting or reuse systems. • Implement traffic flow planning, dedicated service lanes, and consider electric ground support vehicles to reduce emissions.	Low	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
This will put additional pressure on existing municipal infrastructure such as water supply pipelines, sewage infrastructure (piping and treatment works) and contribute to filling of landfill sites.				
<u>Traffic Impacts</u> **The traffic associated with the operational development will impact on road users of the surrounding roads.**	Negative	• Access to the site will be gained from the approved Lanseria X 11 township and the LIA. The required road upgrades have been approved in the X 11 TIA. Access within the LIA is included in the preferred layout plan of the MRO facility. • The increased volume of heavy and light vehicle traffic on access roads such as Pelindaba Road (R512), Malibongwe Drive, Elandsdrift Road and internal airport service routes, including daily movements of delivery trucks, service vehicles, staff and visitors may cause slower travel times, congestion at peak hours, safety concerns for mixed-use roadways (especially where public and	Medium	Low

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POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		industrial traffic mix). • Entry and exit to the Lanseria Southern Precinct will share existing airport gates and service entrances, possibly not designed for high-frequency, heavy-duty use. • Impact causing bottlenecks at control points or security gates, may lead to road user frustration, delays, and potential safety risks due to turning movements, queuing at gates, or lack of acceleration/deceleration lanes. • Repeated movement of heavy-duty trucks, fuel tankers, and equipment transporters may accelerate pavement wear and tear, especially on secondary or unpaved feeder roads causing potholes, dust, increased vehicle maintenance costs, and risk of accidents especially in wet conditions.		
<u>Solid Waste Pollution</u> **During the operational phase, the proposed development will produce solid waste. The incorrect management of**	Negative	• Waste recycling must be integral to the implementation and occupation of the hangars. • All waste must be disposed of at licensed landfill site. • General good house-keeping should be practiced on site; • Recycling and reusing of plastic and cardboard must be promoted to reduce the amount of waste being disposed of at the municipal transfer station.	Low	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
waste will have a negative impact on the surrounding environment as it can cause unnecessary pollution.		• Generation of Hazardous Industrial Waste from used oils and lubricants, oil and fuel filters, solvent-soaked rags, empty chemical containers, paints and sealants, if not properly stored and disposed of, can contaminate soil and water, and pose a risk of fire hazards and air pollution from volatile materials. • Establish clearly marked hazardous waste zones, • Use bunded storage for containers, • Implement a waste manifest system for traceability. • Non-Hazardous Industrial Waste from scrap metal (panels, wires, fasteners), packaging materials (cardboard, foam, plastics), worn-out tools and PPE, general waste from offices and staff areas may accumulate on site if collection services are not frequent or properly separated. Waste segregation stations must be established onsite, • A contract with recyclers for scrap and packaging must be established for the MRO facility that schedules frequent waste pickups aligned with the MRO operational demand. • Storing waste in uncovered areas or without containment can result in leachate runoff, odour issues, and vermin attraction (which is a serious aviation safety		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
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		risk). • Improper handling of oily rags or flammable wastes can cause spontaneous combustion. • Use covered, ventilated, and labelled containers, • Store flammables in fire-rated lockers, • Train staff on hazardous waste handling procedures. • Potential for illegal dumping, spills during transport, or reliance on unlicensed waste contractors must be mitigated through appointing licensed waste transporters and disposal facilities, and maintaining records of all disposal activities and weighbridge slips. • During peak maintenance seasons, hangars may generate surges in waste, leading to overfilled containers, delays in removal, or unsafe stockpiling. Waste generation trends must be monitored during these seasons. Waste service agreements must be scalable and contingency protocols for peak periods must be implemented. • Install waste containment netting and sediment traps, • Conduct regular wetland edge inspections.		

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POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• The Lanseria Smart City context encourages green building practices and circular economy principles, meaning waste minimization and recycling targets should be embedded in the operational strategy. • Onsite waste management practices must align with the airport's overall Environmental Management System (EMS) and Civil Aviation Authority safety standards.		
<u>Surface Water Pollution</u>	Negative	• The operational development of Maintenance, Repair, and Overhaul (MRO) facilities at the Lanseria International Airport (LIA) presents risks of surface water pollution, particularly due to the airport's extensive impervious surfaces. • Leaks/spills from aircraft fuel systems, hydraulic fluids, and ground service vehicles and improper handling of used oils or oily rags during aircraft maintenance entering stormwater channels leading to downstream water resources may cause water pollution, and disruption of natural biodegradation processes. Hydrocarbon interceptors in stormwater drains must be installed.	Medium	Low

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POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• Use bunded and roofed areas for all fuel and oil storage at the MRO hangar. • Implement spill response protocols and ensure staff training. • Bioaccumulation of Aircraft component washing and stripping operations (e.g., chromium, lead, cadmium) causing metal filings and particles from hangar floor cleaning or machining may cause toxicity in downstream freshwater resources and aquatic sediment. • Enforce closed-loop washdown systems or install wastewater pre-treatment prior to discharge. • Regularly clean and vacuum hangar floors to prevent runoff transport. • Aircraft exterior cleaning and degreasing operations improperly disposed cleaning fluids or discharge into storm drains, can introduce phosphates, surfactants, and volatile organic compounds (VOCs) into stormwater. Biodegradable, aviation-approved cleaning agents must be used in the hangars. • Prohibit direct washing of aircraft on open surfaces—use designated wash bays with wastewater capture. • Enforce covered bins and regular waste removal.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• Conduct weekly site clean-ups around drains and perimeters. • Integrate Sustainable Urban Drainage Systems (SuDS) like Swales, attenuation ponds, permeable paving, and buffer vegetation zones to maintain natural flow paths where possible. • Cumulative loading of nutrients, hydrocarbons, and metals into downstream water bodies (e.g., Crocodile River system) may require an Operational Water Quality Monitoring Plan where water sampling at key outfalls (pH, TSS, hydrocarbons, COD, metals) is recorded every 4 months. • The stormwater management plan compiled by EDS civil Engineers PTY LTD (Appendix G) has ensured that the pre-development runoff does not exceed post-development runoff with specific mention of peak discharge and runoff volumes. • Stormwater structures will be equipped with dissipating structures which will remove silt and litter before stormwater entry into the downstream freshwater resource. • The onsite attenuation pond outlet will include an erosion and energy dissipation structure as approved by the JRA and designed in accordance with		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		the NTC Road drainage Manual. • The use of Sustainable Drainage Systems (SuDS) to manage stormwater is considered important for the proposed development as there will be an increase in hardened surfaces within close proximity to the system. SuDS will assist in preventing significant impacts on the hydrological functioning of the system, reduce the risk of flooding during high flow periods and reduce the risk of increased erosion.		
<u>Visual Impacts</u>	Negative	• Industrial Bulk and Massing from large hangars, maintenance bays, and associated infrastructure with high roofs and wide façades will dominate the visual skyline of the Lanseria area, which requires architectural articulation (façade detailing, colour variation, roof breaks). • Use directional, downward-facing LED lighting with timers or motion sensors. • Comply with ICAO and airport-specific aviation lighting standards to reduce offsite glare. • Provide screened utility yards with visual shielding (walls, hedges, or fencing with greenery).	Low	Low

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		• Align signage design with precinct signage guidelines or local signage bylaws. • Use uniform materials and palettes, and integrate signage into architectural elements where possible. • Preserve view corridors by aligning building orientation with natural topography. • Use stepping in height, green roofs, or vertical greening systems to soften large surfaces. • Visual quality directly affects property values, investor confidence, and airport user experience.		
<u>Employment Creation and Local Business Development</u>	Positive	*Alternative 1: The construction of MRO hangar 3 and the Lanseria Cargo Terminal 4:* The development of the international cargo terminal within the Lanseria International Airport (LIA) is expected to have significant positive socio-economic impacts, particularly in the areas of employment creation and local business development. Estimated job creation during the construction phase will be 100–300 temporary jobs, and 50–150 permanent jobs.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		Jobs will be created in civil engineering, construction trades, equipment supply, and site services. There will also be opportunity for short-term employment of local labourers, particularly from nearby communities like Cosmo City, Diepsloot, and Zandspruit. The *Lanseria Cargo Terminals and MRO hangars,* will require a range of goods and services such as catering, cleaning, waste removal, security, equipment supply, uniforms, parts, and materials, ICT services, administration support, and facility management. These inputs will boost demand for local SMMEs, particularly those in the Lanseria Smart City support zones and surrounding townships and will act as a catalyst for logistics and warehousing development, especially for local suppliers to the aviation sector. *Alternative 2: Alternative building technologies* often require new or specialized skills, such as training in sustainable materials, energy-efficient design, or green building practices. This demand for skilled labor can: i. Create job training programs to teach local workers how to build using		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		alternative methods like straw bale construction, earth bag building, or prefabricated modular homes. ii. Provide construction jobs for laborers, carpenters, masons, and electricians who need to adapt their skills to new materials and methods. iii. Foster apprenticeships and certification programs that allow local workers to gain credentials in sustainable construction practices, helping them enter the green construction sector. Material Sourcing and Production: Alternative building often involves locally sourced materials such as bamboo, recycled materials, or reclaimed wood. This can: i. Create local supply chains for materials, stimulating the economy by sourcing raw materials, processing them, and manufacturing building components locally. ii. Provide jobs in material extraction, processing, and distribution, reducing the reliance on imported building supplies and boosting local industries. iii. Encourage innovation in local material development, leading to new local		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		businesses focused on producing sustainable building materials. Alternative building methods emphasize energy efficiency, requiring local workers for tasks such as: i. Installing renewable energy systems (solar panels, wind turbines, geothermal systems) or energy-efficient appliances and insulation techniques, which will create jobs for installers and technicians. ii. Energy auditors who assess energy use and make recommendations for efficiency upgrades. iii. Sustainable landscaping and site preparation to support green construction projects, providing additional employment in gardening, irrigation, and landscape design.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
No Go Alternative **The no development / construction alternative must be considered in keeping with the legal requirements (Section 24 (4) of NEMA). This implies that the site be left *as is* and that no development or alteration be done to the site. If this alternative is pursued, the existing conditions on the site will be retained.**				
Existing conditions and habitat on the site will be retained	Positive and negative	Under the No-Go Alternative, the proposed Lanseria International Cargo Terminal would not be developed and the affected portion of the airport township would remain in its current state. While this option would avoid the construction-related impacts associated with the development, it is not considered feasible, reasonable or desirable for several environmental, operational, safety and socio-economic reasons. **1.** The site forms part of the already approved and serviced Lanseria Airport township, earmarked specifically for aviation-related land uses, including cargo handling, logistics, and airside-support facilities. Not proceeding with the development would prevent the airport from implementing important aviation infrastructure, resulting in underutilised land within a strategic aviation node, and compromise the long-term		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		spatial planning vision endorsed by authorities. 2. The Galago Environmental Wetland specialist assessment confirms that the wetlands on site are Artificial (created unintentionally by stormwater impounding), Low in ecological sensitivity, not primary habitat for species of conservation concern, and performing only hydrological attenuation functions, not biodiversity functions. Their continued presence is therefore not ecologically advantageous, especially when their hydrological role can be fully and more reliably replicated by properly engineered attenuation systems. 3. International airport design guidelines (including Steele & Weston, 2021) strongly emphasise that wetland-like features pose a significant bird-strike risk by attracting waterfowl, waders, raptors, and other large birds. Failure to remove such features within an airport operational area increases aviation safety risks, contradicts wildlife-hazard mitigation principles, undermines compliance with ICAO recommended practices, and creates ongoing management burdens. Therefore, retaining the artificial wetlands under the No-Go option would be contrary to airport safety imperatives.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		4. The artificial wetlands currently attenuate runoff in a poorly controlled, unpredictable manner that limits maintenance access, traps sediment irregularly, provides inconsistent detention time, and creates uncontrolled pooling. The proposed engineered attenuation system offers: designed storage capacity, predictable flow management, water-quality treatment, climate-resilient peak-flow attenuation, and long-term maintainability. Thus, the No-Go option fails to achieve optimal stormwater functionality. 5. The Cargo Terminal is a key economic driver for the airport precinct. Not proceeding would mean loss of projected investment in aviation infrastructure, loss of job creation during construction and operation, reduced cargo-handling capacity for Gauteng's growing logistics sector, loss of downstream economic activity (logistics, transport, warehousing), and fewer opportunities for regional development within the emerging Lanseria Smart City corridor. Under NEMA, socio-economic considerations also form part of the needs and desirability assessment, and the No-Go scenario delivers no benefit in this regard.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		6. Leaving the artificial wetland in place prevents proper platform preparation for future aviation-support uses. These ongoing management pressures are **avoided** by implementing the engineered system. **7.** The No-Go Alternative does not align with Sustainable Development Principles. NEMA Section 2 principles require: • efficient use of already-transformed land, • avoidance of high-risk features (bird attractants), • promotion of socio-economic development where environmental risk is low, • alignment with approved spatial planning. The No-Go alternative: • fails to use already-disturbed land efficiently, • perpetuates avoidable aviation safety risks, and • blocks a development with both low environmental impact and strong economic benefit.		

Potential impacts, their significance rating, proposed mitigation, and significance rating after mitigation that are likely to occur because of the construction phase of the final phase of the Greater Lanseria Southern Precinct				
POTENTIAL IMPACTS:	**Significance rating of impacts (positive or negative):**	**PROPOSED MITIGATION:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
		Therefore, the no-Go alternative does not represent the most sustainable outcome.		

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

1. Terrestrial Biodiversity Assessment
2. Wetland Assessment and Aquatic Ecosystem Delineation
3. Water, Sewer, Roads and Stormwater; Electrical Engineering Reports
4. Traffic Impact Assessment
5. Stormwater Management Plan
6. Geotechnical Investigations
7. Environmental Management Programme

Describe any gaps in knowledge or assumptions made in the assessment of the environment and the impacts associated with the proposed development.

Identifying potential gaps in knowledge and assumptions made in the EIA report and appendices, is a key part of transparent environmental reporting. These gaps help frame the limitations of the Environmental Impact Assessment (EIA) or EMPr, and signal areas that may require further monitoring, specialist input, or adaptive management.

This report has been compiled on the strength of the information available to Seedcracker Environmental Consulting (SEC) at the time of report preparation. The overall aim of ecologically sound urban development is to minimize the negative impact of development on the environment. The environmental issues listed in this report have been determined through relevant legislation; the professional understanding of the environmental assessment practitioner, Ecological and engineering specialist consultants.

The Basic Assessment report serves to predict and determine the impact of the proposed development on the environment, and the likelihood (probability) of the impacts manifesting themselves. In undertaking this investigation and compiling the Basic Assessment Report, the following has been *assumed*:

- The proposed stormwater treatment infrastructure will be sufficient to prevent hydrocarbons, solvents, or detergents from contaminating nearby and downstream water resources.
- Standard aviation fuel and chemical storage protocols will fully mitigate risks.
- Existing airport operations already dominate local air/noise emissions, so the cargo terminal and MRO hangars contribution is an accepted practise.
- Coordination with Lanseria Airport's master framework is essential to ensure cumulative environmental impacts are tracked.
- The information provided by the applicant and professional team is an unbiased and accurate reflection of the characteristics of the site and the development proposal;
- It is assumed that the applicant will comply with all legislation pertaining to the activities of this proposed project and that all permits and licenses that may be required will be identified and applied for *prior to commencement of construction*

activities (ie, WULA);

- SEC assumes that the applicant will implement the measures contained in the EMPr, and will adhere to any monitoring procedures. The appointed ECO must adopt a process of continual improvement when managing and mitigating negative environmental impacts arising from the project. The EMPr will be used as the basis of environmental management and will regularly be improved and refined where applicable.
- Should the project be authorised, the applicant will effect any recommendations and mitigation measures outlined in the authorization, into the detailed design and construction contract specifications of the project.

3. IMPACTS THAT MAY RESULT FROM THE DECOMISSIONING AND CLOSURE PHASE

Briefly describe and compare the potential impacts (as appropriate), significance rating of impacts, proposed mitigation and significance rating of impacts after mitigation that are likely to occur as a result of the decommissioning and closure phase for the various alternatives of the proposed development. This must include an assessment of the significance of all impacts.

Proposal: Alternative 1

Potential impacts:	**Significance rating of impacts(positive or negative):**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
N/A				

Alternative 2

Potential impacts:	**Significance rating of impacts(positive or negative):**	**Proposed mitigation:**	**Significance rating of impacts after mitigation:**	**Risk of the impact and mitigation not being implemented**
N/A				

List any specialist reports that were used to fill in the above tables. Such reports are to be attached in the appropriate Appendix.

Not applicable.

Where applicable indicate the detailed financial provisions for rehabilitation, closure and ongoing post decommissioning management for the negative environmental impacts.

Not applicable. Decommissioning of the project is not envisaged, therefore, no provision for rehabilitation, closure or post decommissioning management has been made.

4. CUMULATIVE IMPACTS

Describe potential impacts that, on their own may not be significant, but is significant when added to the impact of other activities or existing impacts in the environment. Substantiate response:

The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The development of new phases of the airport township may contribute to cumulative impacts that may still be significant due to scale, and compounding effects of the surrounding new townships that will comprise the start of the smart city node. The development of the Lanseria Airport Southern Precinct, combined with the approved Lanseria x 11 and x 12 townships, and the pending Lanseria X 79 township, will have a marked impact on the Lanseria Airport area, in terms of land reclamation, site preparation for new infrastructure such as roads, water supply, sewage package systems, electrical network, and the construction of new mass warehouse buildings. The new developments will alter drainage systems and create impervious surfaces that will affect water flow patterns. The developments will transform the visual appearance of the Lanseria Airport area, bringing modern architecture, and improved streetscapes. This can dramatically change the identity of the neighborhood. With the development of new buildings and infrastructure, property values in the area typically rise. A major change associated with construction and development, is the improvement or creation of transportation networks for the area. New roads or public transit facilities will be introduced, improving connectivity and making the site more accessible to people from other areas.

The Lanseria Southern Precinct is the creation of a *one-of-a-kind* cargo service for the Lanseria Airport. The Lanseria Southern Precinct development has benefits in terms of the provision of job and work opportunities on both the formal and informal sector, as well as providing light industrial and warehousing erven for business to operate from. While the Lanseria Southern Precinct comprises multiple independently approved township developments, the co-ordinated vision for the area presents the opportunity to implement integrated and sustainable infrastructure at precinct scale. The use of decentralised sewer package plants engineered artificial wetlands, and stormwater attenuation systems across the precinct can, if well designed and maintained, significantly improve the quality of discharged water, regulate flow, and contribute to functional ecological services within a rapidly urbanising landscape. By replacing severely degraded wetland remnants with purpose-built, ecologically-informed attenuation systems, there is potential for achieving a net environmental gain, particularly in areas where wetland functionality has historically been compromised.

The supportive ancillary aviation uses to the Lanseria International Airport, as proposed by the Lanseria X 11, X 12,X 79, MRO Phases 1&2, and this present application, will significantly enhance the region's socio-economic conditions by creating jobs, improving infrastructure, increasing trade, attracting investment, and boosting local businesses. These changes will not only benefit the immediate area around the airport but also contribute to the broader economic growth of Johannesburg and its neighboring regions. From a socio-economic perspective, these are high positive benefits

Table 1 lists and addresses the potential cumulative impacts of the new Lanseria Airport Southern Precinct development activities.

Table 1: Potential cumulative impacts of the Lanseria Southern Precinct activities to the surrounding area

IMPACT	CUMULATIVE EFFECT	CAUSES	WHY IT MATTERS
Loss of Biodiversity	Gradual, permanent loss of remaining ecological value in the Lanseria area (e.g. grassland species)	Clearing of remaining vegetation across multiple townships	Loss of connectivity, pollinators, ecosystem services, and urban ecological balance
Cumulative Wetland and Hydrological Stress	Increased stormwater volumes, velocity, and pollutant load from impervious surfaces. The potential for the decline in water quality and wetland ecological function can also exist. Roads, runways, warehouses all contribute to impervious surface expansion	Development near wetlands, artificial or natural	Impact on the catchment flow regimes in downstream systems (e.g. Diepsloot River, Jukskei River, Crocodile River)
Stormwater and Flooding Risks	Cumulative runoff increase, especially in degraded catchments. Increased and accelerated runoff volumes	Increased impervious surfaces, large areas of compacted soils contributing to the loss of absorption zones, poor stormwater management	Overloads stormwater networks, causes flash floods, downstream erosion, erosion
Water Quality Decline	Runoff contaminated from hydrocarbons, leaks and spills affecting artificial and natural wetlands	Multiple developments discharging into shared drainage systems	Affects downstream wetland function and aquatic habitat
Infrastructure and Service Pressure	Load strain on bulk infrastructure even if services are technically available	Cumulative infill across several townships	Increased incidence of water & electricity interruptions, poor waste collection, sewage overflows
Landscape & Visual Homogenization	Loss of scenic, cultural, or rural elements in the urban fringe	Mass warehouse buildings across the node	Loss of the regions present un-developed scenic value
Traffic Congestion & Road Degradation	Cumulative increase in localised and regional vehicle trips	Areas around access roads, construction routes, and logistic	Increases commute times, safety risk, noise, air pollution, and maintenance burden

IMPACT	CUMULATIVE EFFECT	CAUSES	WHY IT MATTERS
		nodes. Increased workforce movement and freight-related traffic	
Socio-Economic and Land Use Pressures	Stratification between high-end smart infrastructure and surrounding underserved areas. Encroachment on peri-urban livelihoods (grazing, harvesting, informal enterprise) presently in the Lanseria area. Change in property values, land speculation, and displacement of vulnerable communities. Increased demand for public transport, housing, and social amenities.	Multiple developments shifts the broader land use dynamic of the Lanseria area. Urban sprawl may bypass or displace peri-urban communities.	Deepens socio-spatial inequality; may cause land use conflict or resistance.

5. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that sums up the impact that the proposal and its alternatives may have on the environment **after** the management and mitigation of impacts have been taken into account with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Proposal / Preferred Alternative / Alternative 1: Industrial 3 Township, Lanseria X 79

This Basic Assessment Report for the establishment of MRO hangar 3 and Cargo Terminal 4, within the Lanseria X 1 township, has been undertaken in accordance with the EIA Regulations published in GNR 982 of 4 December 2014 of the NEMA, and amended in 2017. This process includes the required Stakeholder Engagement Process as stipulated in GNR 982, which is presently underway. This study provides an assessment of the possible positive and negative impacts that may arise from the identified activities associated with the construction and operation of the different alternatives for the development. The information contained in this report and the documentation attached hereto, is supportive for the approving authority to decide in respect of the activities applied for. Where potential biophysical or social impacts have been identified, mitigation and management measures have been proposed to control and monitor the magnitude of impacts associated with the various aspects of the activity.

This application has investigated the establishment of MRO hangar 3 and Cargo Terminal 4, within the Lanseria X 1 township. The MRO hangar 3 and Cargo Terminal 4 form part of the Lanseria Airport and Logistics Hub, which is part of a broader vision to transform the airport into a significant aviation and business centre.

Specialist terrestrial and wetland assessments have confirmed the suitability of the development within the identified land portions of the Lanseria Airport. The application area is classified as a *degraded grassland vegetation* unit, which has a low conservation and biodiverse importance. The artificial wetlands on site are the result of upstream stormwater, from the larger catchment, draining into the airport. This increase in surface water has over time created some wetland functionalities, with emphasis on *attenuation of flow*. The Present Ecological Status (PES) of the artificial wetlands was calculated by Galago Environmental CC, to *category F,* with the Ecological Importance and Sensitivity calculated to Low/Marginal. The wetland function is for the confluence and attenuation of stormwater. The International Civil Aviation Organization) and civil aviation authorities prohibit land uses that attract birds within a radius of 8–13 km of an airport. Wetlands can interfere with airport drainage systems requiring carefully engineered stormwater systems to prevent runway flooding and hydroplaning risks. Allowing wetlands to persist *inside* an airport can retain water in undesirable areas, undermining runway and taxiway structural integrity. Wetlands *inside* an airport conflict directly with aviation safety protocols and would be non-compliant with international and national aviation standards. Wetlands attract birds and wildlife, increase flooding risks, and interfere with aircraft operations and infrastructure, posing a clear and significant hazard to life and property.

The stormwater designs for the precinct will replace the artificial wetland function, in the new proposed and properly designed attenuation ponds. This will allow for the engineered system to be utilized for the maintenance of the attenuation ponds, and to ensure their proper function.

Appropriate geotechnical foundation recommendations have been included in the Geotechnical report to support the new airport activities.

Once the biophysical ground truth suitability of the site was determined and approved for development, the planning process of the proposed project was further guided by the following specialist studies: water and sewer Engineering Services Investigations, access, and the greater precinct stormwater management plan. The results of these studies have been used to assist with determining the technical suitability of the property and identifying the engineering solutions to support the application. The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The proposed development, situated in the airports southern precinct, will connect to these existing services. An adequate on-site connection to the domestic water network is available for the development, and the existing water infrastructure has sufficient capacity to meet the anticipated water demand. Furthermore, the wastewater treatment works (WWTW) has the necessary capacity to accommodate the projected sewer load from the new development.

While the current informal attenuation ponds / artificial wetlands on the site, have developed wetland-like characteristics, they lack ecological planning and do not provide habitat connectivity. Allowing wetlands within airport operational boundaries conflicts directly with aviation safety protocols and would be non-compliant with international and national aviation standards. Wetlands attract birds and wildlife, increase flooding risks, and interfere with aircraft operations and infrastructure, posing a clear and significant hazard to life and property. The formally engineered stormwater management system will meet regulatory standards for stormwater management in terms of water and environmental legislation. The NEMA and water use activity authorisations will be obtained in a separate Basic Assessment application.

An assessment of all potential environmental impacts associated with the construction and operational phases of the proposed development, indicates that, with the implementation of the recommended mitigation and management measures, all residual impacts are of Low significance. The impacts are predominantly localised, occurring only within the footprint of the approved Lanseria Airport township. No regional or long-term irreversible effects are anticipated. Most impacts are expected to be short-term, confined to the construction period, with operational impacts being ongoing but very limited in scale and effectively managed through routine environmental controls. The likelihood of impacts occurring after mitigation ranges from improbable to possible, with no impacts rated as probable or definite once controls are applied. The engineered stormwater system will effectively replace the limited attenuation function of the existing artificial wetlands, and no loss of sensitive or high-value ecological features will occur. Impacts on soil, water, air quality and noise remain low in intensity, with established best-practice measures ensuring compliance with environmental standards.

From a socio-economic perspective, the project generates positive impacts on employment and supports strategic airport expansion objectives, with no significant adverse effects on surrounding communities. Traffic, access and service-related impacts are well understood and can be adequately managed within existing municipal and airport planning frameworks.

Overall, the assessment concludes that the proposed development can proceed without causing significant environmental degradation, that all identified impacts are low and manageable after mitigation, and that the project aligns with the principles of sustainable development as set out in the National Environmental

Management Act.

CONTRUCTION PHASE		
IMPACT	**ALTERNATIVE**	**SIGNIFICANCE AFTER MITIGATION**
Geotechnical suitability	1	Low
Impacts to the artificial Wetlands on site	1	Low
Soil erosion	1	Low
Loss of vegetation	1	Low
Invasion of alien vegetation	1	Low
Soil pollution	1	Low
Surface water quality	1	Low
Ground water quality	1	Low
Waste Management	1	Low
Material Stockpiling	1	Low
Noise and disturbance	1	Low
Visual impact	1	Low
Employment, safety and security	1	Low
Impact on Archaeological and/or Paleontological Resources	1	Low
Air quality	1	Low
Impacts on Health, Safety and Fire Risk	1	Low
Traffic Impact	1	Low
Infrastructure and services	1	Low
Employment Creation and Local Business Development	1	High positive
OPERATIONAL PHASE		
IMPACT	**ALTERNATIVE**	**SIGNIFICANCE AFTER MITIGATION**
Impact on Subsurface Water flow Patterns	1	Low
Potential Pollution of down stream freshwater resources	1	Low
Utilisation of Water Resources	1	Low
Electricity Usage	1	Low
Impact on Service Availability	1	Low
Traffic Impacts	1	Low
Solid Waste Pollution	1	Low
Surface Water Pollution	1	Low
Visual impact	1	Low
Employment Creation and Local Business Development	1	High positive

The anticipated negative impacts resulting from the construction and operation of the proposed development can be mitigated to acceptable levels such that there is no environmental degradation on the site, or the downstream water receptors.

The proposed development of the Lanseria Airport and Logistics Hub is expected to yield significant and long-term socio-economic benefits at local, regional, and national scales. The project is aligned with the Gauteng Spatial Development Framework and supports national development priorities including job creation, infrastructure investment, and spatial transformation. As a catalytic infrastructure anchor, the Logistics Hub will enhance regional trade competitiveness and enable efficient goods movement, particularly through integration with the upgraded Lanseria International Airport, planned public transport corridors, and surrounding industrial townships.

The Lanseria Airport and Logistics Hub will generate substantial positive socio-economic outcomes by creating both direct and indirect employment opportunities during construction and operations. Additionally, the project will stimulate local business development through procurement linkages, skills transfer, and the creation of a supportive ecosystem for aviation-aligned services. These outcomes are aligned with the Lanseria Smart City's strategic goals for inclusive economic growth, local empowerment, and sustainable urban-industrial development.

Key socio-economic benefits include direct and indirect employment generation during construction and operation, including skilled, semi-skilled, and unskilled opportunities in transport, warehousing, logistics, security, maintenance, and retail sectors., local SMME empowerment and enterprise development, particularly for service providers in construction, catering, cleaning, and transport, skills development and training opportunities through partnerships with TVET colleges, local institutions, and on-site programs aligned with logistics, aviation, and smart infrastructure technologies, improved regional accessibility and investment attractiveness, encouraging further private-sector development and supporting the long-term viability of the Lanseria Smart City and increased municipal revenue base through property rates, service charges, and long-term urban densification, enabling improved service delivery in the broader region.

The socio-economic benefits are substantial and can be appropriately balanced with careful environmental management and engineering, to ensure that ecological integrity and social equity are safeguarded.

Development can therefore be authorised on site, provided the mitigation measures as presented in the present and final specialist reports, this BAR and the EMPr are implemented.

Alternative 2: Alternative building technologies

The adoption of Alternative Building Technologies (ABTs) in the design and construction of the Lanseria Airport and Logistics Hub, represents a strategic and environmentally responsible approach aligned with the sustainability goals of the Lanseria Smart City and the Gauteng Green Infrastructure Plan. ABTs including modular systems, lightweight steel frames, compressed stabilized earth blocks, precast panels, and insulated panel systems, offer significant benefits in terms of resource efficiency, waste reduction, and emissions control, when compared to conventional construction methods.

Environmental and socio-economic advantages of ABTs include:

i. Reduced carbon footprint due to lower embodied energy in materials, optimized logistics, and faster construction timelines.
ii. Minimized construction waste through prefabrication, material reuse, and more precise on-site

assembly.

iii. Lower water usage in construction processes, supporting resilience in a water-stressed region.

iv. Enhanced energy efficiency of built structures through superior thermal insulation, contributing to reduced operational energy demand.

v. Promotion of green job creation and local innovation, particularly through the use of locally sourced materials and the potential to upskill labor in emerging building techniques.

vi. Improved site stewardship, as many ABTs require less intrusive foundation work and reduce disturbance to surrounding soils and vegetation.

The implementation of ABTs supports the project's alignment with the Lanseria Smart City's low-carbon, climate-resilient development objectives, and enhances the long-term sustainability and replicability of logistics and transport-related infrastructure in the region.

No-go (compulsory)

Under the No-Go Alternative, the proposed Lanseria International Cargo Terminal would not be developed and the affected portion of the airport township would remain in its current state. While this option would avoid the construction-related impacts associated with the development, it is not considered feasible, reasonable or desirable for several environmental, operational, safety and socio-economic reasons.

1. The site forms part of the already approved and serviced Lanseria Airport township, earmarked specifically for aviation-related land uses, including cargo handling, logistics, and airside-support facilities. Not proceeding with the development would prevent the airport from implementing important aviation infrastructure, resulting in underutilised land within a strategic aviation node, and compromise the long-term spatial planning vision endorsed by authorities.

2. The Galago Environmental Wetland specialist assessment confirms that the wetlands on site are Artificial (created unintentionally by stormwater impounding), Low in ecological sensitivity, not primary habitat for species of conservation concern, and performing only hydrological attenuation functions, not biodiversity functions. Their continued presence is therefore not ecologically advantageous, especially when their hydrological role can be fully and more reliably replicated by properly engineered attenuation systems.

3. International airport design guidelines (including Steele & Weston, 2021) strongly emphasise that wetland-like features pose a significant bird-strike risk by attracting waterfowl, waders, raptors, and other large birds. Failure to remove such features within an airport operational area increases aviation safety risks, contradicts wildlife-hazard mitigation principles, undermines compliance with ICAO recommended practices, and creates ongoing management burdens.
   Therefore, retaining the artificial wetlands under the No-Go option would be contrary to airport safety imperatives.
4. The artificial wetlands currently attenuate runoff in a poorly controlled, unpredictable manner that limits maintenance access, traps sediment irregularly, provides inconsistent detention time, and creates uncontrolled pooling. The proposed engineered attenuation system offers: designed storage capacity, predictable flow management, water-quality treatment, climate-resilient peak-flow attenuation, and long-term maintainability. Thus, the No-Go option fails to achieve optimal

stormwater functionality.

5. The Cargo Terminal is a key economic driver for the airport precinct. Not proceeding would mean loss of projected investment in aviation infrastructure, loss of job creation during construction and operation, reduced cargo-handling capacity for Gauteng's growing logistics sector, loss of downstream economic activity (logistics, transport, warehousing), and fewer opportunities for regional development within the emerging Lanseria Smart City corridor. Under NEMA, socio-economic considerations also form part of the needs and desirability assessment, and the No-Go scenario delivers no benefit in this regard.

6. Leaving the artificial wetland in place prevents proper platform preparation for future aviation-support uses. These ongoing management pressures are avoided by implementing the engineered system.

7. The No-Go Alternative does not align with Sustainable Development Principles. NEMA Section 2 principles require:

- efficient use of already-transformed land,
- avoidance of high-risk features (bird attractants),
- promotion of socio-economic development where environmental risk is low,
- alignment with approved spatial planning.

The No-Go alternative:

- fails to use already-disturbed land efficiently,
- perpetuates avoidable aviation safety risks, and
- blocks a development with both low environmental impact and strong economic benefit.

Therefore, the no-Go alternative does not represent the most sustainable outcome.

6. IMPACT SUMMARY OF THE PROPOSAL OR PREFERRED ALTERNATIVE

For proposal:

Following a comprehensive assessment of the project proposal, and after the integration of all relevant mitigation and management measures, the potential environmental impacts associated with the project are anticipated to be *low* across all construction-phase activities. These include site clearance, earthworks, infrastructure installation, and building development. Standard construction-related risks such as dust generation, sedimentation, stormwater runoff, and disturbance to ecological features, which will all be effectively managed through best-practice environmental controls, including site demarcation, erosion protection, phased clearing, and the implementation of a construction environmental management programme (CEMPr).

The Lanseria Cargo Terminal / Logistics hub, will serve the aviation sector, providing essential maintenance services for aircraft, and augmenting regional and international aviation cargo needs. The study area has been historically transformed and disturbed and is zoned for industrial and aviation-related activities. Developing the proposed new facilities within the LIA township, maximizes the effective use of previously disturbed land rather than encroaching on undisturbed or sensitive areas, which aligns with sustainable

land-use principles.

Construction-related impacts such as dust, noise, soil erosion, pollution, and increased traffic movement in the area, will be mitigated by the implementation and enforcement of the Environmental Management Program (EMPr), which will include appropriate mitigation measures. This will minimize disturbance to both the environment and surrounding communities.

An appropriately engineered stormwater management plan (SWMP) has been developed for the Lanseria Southern precinct. The SWMP will be implemented to prevent any increased runoff or flooding. The engineered stormwater system will effectively replace the limited attenuation function of the existing artificial wetlands, and no loss of sensitive or high-value ecological features will occur. The design of the Lanseria Cargo Terminal will incorporate sustainable drainage solutions (SuDS), including permeable surfaces where practical, and retention ponds, which will help in managing stormwater, improving water quality, and reducing the risk of erosion.

The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The proposed development will connect to these existing services. The LIA wastewater treatment works (WWTW) has the necessary capacity to accommodate the projected sewer load from the new development.

During both the construction and operational phases, waste segregation and recycling practices will be implemented to minimize waste to landfill. Specific protocols for handling hazardous materials associated with aircraft maintenance (e.g., oils, solvents, and lubricants) will be integrated into the operational design, ensuring that no contamination of surrounding land or water systems occurs.

With proper planning, monitoring, and implementation of mitigation measures, the Lanseria Cargo Terminal facility is designed to ensure that no long-term negative environmental impacts occur. The integration of green technologies in the facility's design (e.g., energy-efficient systems, renewable energy use) and operations will ensure minimal environmental degradation.

The construction related impacts identified and addressed in this report can be adequately managed, if the mitigation measures presented in this Basic Assessment report, the specialist reports, and the EMPr, are properly implemented, monitored, and enforced on site. The success of these measures also depends on the commitment to the best environmental practices by the applicant and appointed contractor.

Best Practices included in this basic environmental assessment process are:

- Conducting regular environmental audits and site inspections.
- Involving environmental specialists and consultants in project planning.
- Engaging with local communities and stakeholders in decision-making.

Challenges that may reduce the effectiveness of the mitigation measures include:

- Poor implementation or non-compliance with environmental conditions.
- Lack of monitoring and enforcement by authorities.
- Insufficient budget or resources for proper mitigation measures.
- Unexpected environmental conditions (e.g., extreme weather events, unforeseen site

contamination).

The Lanseria Cargo Terminal will promote social cohesion by offering direct employment and opportunities for local businesses to provide services during both construction and operation phases. This will contribute to broader community development and social stability within the Lanseria area. The development will bolster Lanseria's position as an important aviation and logistics hub, fostering regional competitiveness and attracting further investment. By serving the growing needs of the aviation sector, the MRO facility will contribute to increased trade, regional connectivity, and economic diversification.

The MRO 3 hangar and LICT 4 within the Lanseria Airport Township is a well-planned development that offers a range of positive economic and infrastructural benefits, while ensuring that environmental impacts are managed and mitigated to prevent any long-term degradation. The project has been designed to maximize land use efficiency on a previously transformed site, integrating sustainable technologies and best practices for waste, water, and energy management. Through the application of a comprehensive Environmental Management Program (EMPr), construction and operational impacts can be fully mitigated, ensuring that the facility does not result in any significant, long-term negative environmental outcomes.

The proposed development is part of the Lanseria Airport and Logistics Hub and is expected to yield significant and long-term socio-economic benefits at local, regional, and national scales. The project is aligned with the Gauteng Spatial Development Framework and supports national development priorities including job creation, infrastructure investment, and spatial transformation. As a catalytic infrastructure anchor, the Logistics Hub will enhance regional trade competitiveness and enable efficient goods movement, particularly through integration with the upgraded Lanseria International Airport, planned public transport corridors, and surrounding industrial townships.

The socio-economic benefits are substantial and can be appropriately balanced with careful environmental management to ensure that ecological integrity and social equity are safeguarded.

With the implementation of the mitigation measures provided in this report and the EMPr, Seedcracker Environmental Consulting (SEC) is confident that the sum of the construction impacts to the environment will be of a Low negative significance in the short-term. The impacts will be limited to the *study area* which has a low environmental sensitive status, and the adjacent land portions which already have, or are about to receive, environmental approvals.

For alternatives:

Alternative construction methods generally have lower environmental impacts compared to traditional methods. However, the actual impact depends on material sourcing, energy use, and waste management. Sustainable practices, such as using renewable materials (engineered laminated wood, bamboo, Straw Bales, Adobe Bricks, Recycled Plastic Bricks, reclaimed Wood and Recycled Metal, green roofs (Living Roofs, covered with vegetation to improve insulation and biodiversity), energy-efficient designs (Optimal Site Orientation, Green Roofs, Energy-Efficient Lighting, Natural Ventilation, Solar Panels, Battery Storage Systems, Permeable Pavements) and closed-loop recycling, can mitigate negative effects.

Having assessed the significance of impacts of the proposal and alternative(s), please provide an overall summary and reasons for selecting the proposal or preferred alternative.

The assessment of environmental impacts for the proposed new MRO 3 hangar and cargo terminal within the Lanseria International Airport (LIA) precinct, has demonstrated that with the implementation of industry standard and project specific mitigation measures, all identified impacts are of Low significance. The proposed precinct layout therefore represents an environmentally acceptable and operationally efficient option for the continued development of the airport's Greater Southern Precinct.

The preferred alternative is supported for the following reasons:

1. Compatibility With Existing and Approved Airport Planning

The proposed MRO (Hangar 3) and cargo terminal (LICT 4) align with the approved spatial planning and functional intent of the Lanseria Airport township. The precinct was expressly designated for aviation-related development and associated support services. The preferred layout therefore ensures the efficient use of already disturbed and appropriately zoned land, avoiding unnecessary expansion into new areas.

2. Low Environmental Sensitivity of the Affected Area

The development footprint comprises land that is previously disturbed, with low ecological functionality, including artificial wetland areas formed unintentionally by stormwater impoundment. These wetlands provide limited hydrological functions but do not support sensitive biodiversity. Their functional role is easily and safely replaced by a properly engineered stormwater attenuation system, which supports both environmental management and aviation safety objectives.

3. Operational Efficiency and Aviation Safety

The preferred precinct arrangement optimises airside access, ensures safe aircraft manoeuvring, and meets International Civil Aviation Organization (ICAO) -aligned engineering and safety requirements. Replacing artificial wetlands with engineered attenuation ponds reduces bird-strike risk and complies with recognised airport wildlife-hazard guidelines (e.g., Steele & Weston, 2021). This makes the preferred alternative the safest operational option for the airport.

4. Infrastructure Integration and Engineering Feasibility

The preferred layout consolidates cargo, maintenance, and associated airside functions within a coherent, integrated platform that enables phased development, cost-effective servicing, and predictable stormwater management. The layout allows stormwater systems, internal access routes, and utilities to be delivered logically and efficiently.

5. Socio-Economic Benefit and Market Alignment

The new MRO and cargo terminal phases respond directly to new market demand, operational requirements, and new investor interest. The preferred layout option maximises employment opportunities, strengthens the airport's logistics capacity, and enhances regional economic

development potential within the Lanseria Smart City corridor. The positive socio-economic gains outweigh the low, and mitigable environmental impacts.

6. Environmental Impacts Are Well Understood and Easily Managed
The Environmental Impact Assessment confirms that potential impacts related to soil disturbance, erosion, hydrology, waste, air quality, noise, traffic and services can be effectively mitigated using standard construction-phase controls and operational management measures. The project does not trigger high-intensity impacts, irreversible degradation, or impacts on high-value ecological systems.

7. SPATIAL DEVELOPMENT TOOLS

Indicate the application of any spatial development tool protocols on the proposed development and the outcome thereof.

The following spatial planning tools were consulted:

- National Screening tool
- GDARD C-Plan V4
- Gauteng Provincial Environmental Management Framework

Spatial data was used to determine the agricultural potential, presence of rivers, wetlands and Ecological status of the study site. Together with the Gauteng Conservation Plan (V4) data, the presence of artificial wetlands was identified and further investigated.

Gauteng Environmental Management Zones, GPEMF 2015
According to the Gauteng Environmental Management Framework (EMF) (2021), the study area falls within EMF Zone 2 and EMF Zone 5.

Gauteng C-Plan 4
According to the Gauteng Conservation Plan Version 4, the study areas are characterised by a wetland system and CBA1 areas.

SACNASP registered, specialist terrestrial and wetland studies, dispute the C-plan zoning of the site**.**
The development proposal is supported by the municipal planning policies as discussed in Section 2 of this report.

8. RECOMMENDATION OF THE PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the Environmental Assessment Practitioner as bound by professional ethical standards and the code of conduct of EAPASA).	YES ■

If “NO”, indicate the aspects that require further assessment before a decision can be made (list the aspects that require further assessment):

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

The following conditions ensure that the new MRO and cargo terminal development proceeds in an environmentally responsible manner, that risks to stormwater, biodiversity, aviation safety and surrounding receptors are minimised, and that compliance is achieved throughout construction and operation. Implementing these conditions will maintain all residual environmental impacts at Low significance:

- The development must be undertaken strictly in accordance with the final approved layout, engineering designs, and the mitigation measures specified in the EIR, EMPr, and any supplementary specialist recommendations.
- Any deviations from the approved footprint or design that may increase environmental risk must be submitted to the Competent Authority for approval prior to implementation. The EMPr must be treated as a binding, enforceable document, and all mitigation measures contained therein must be implemented in full.
- The EMPr must be updated if site conditions, engineering design, or airport operational requirements change.
- An independent, suitably qualified ECO must be appointed for the duration of the construction phase.
- The ECO must conduct monthly audits, pre-construction baseline inspections, close-out inspections and reporting.
- ECO reports must be submitted to the Competent Authority upon request and must always be available on site.
- The engineered stormwater system must be constructed in accordance with the approved stormwater plans and must fully replace the hydrological attenuation functions of the artificial wetland.
- No stormwater may be discharged into natural watercourses without appropriate treatment, pre-settling, or energy dissipation measures.
- Temporary clean/dirty water separation must be implemented during construction using berms, silt socks, silt fences, or similar devices.
- The attenuation pond(s) must be designed and maintained to avoid creating wetland-like habitat, in line with ICAO wildlife aviation safety guidelines.
- All exposed surfaces must be stabilised (with geotextiles, mulch, hydroseeding, or similar) immediately following earthworks.
- Silt fences, sediment traps and temporary containment measures must be installed around disturbed areas.
- Erosion control must be maintained until vegetation or permanent surfaces are established.
- Fuel storage areas must be fully bunded and comply with SANS, GDEnv and municipal regulations.

  All cement washing must occur in sealed, lined washout containers—no discharge into soil or stormwater.

  Any contaminated soil must be removed to a licensed hazardous waste disposal facility, with manifests stored in the environmental file.

- Drip trays must be used beneath all stationary machinery or vehicles that may leak oils or fuels.
- All waste must be handled, stored, transported and disposed of in accordance with the Waste Act.
  Waste manifests and disposal certificates must be kept in an up-to-date site environmental file.
  The contractor must implement a recycling separation system for paper, plastic, metals and other appropriate recyclable streams.
- No waste may be burned or buried on site.
- Stockpiles must be located outside stormwater flow paths and must not exceed prescribed height limits.
- Construction vehicles must adhere to designated access routes and speed limits. Traffic management measures must prevent interference with airport security perimeters and landside operations.

9. THE NEEDS AND DESIRABILITY OF THE PROPOSED DEVELOPMENT (as per notice 792 of 2012, or the updated version of this guideline)

The proposed new MRO hangar and cargo terminal form part of the strategic expansion of the Lanseria International Airport (LIA) Southern Precinct, and respond directly to the airport's evolving operational, economic and safety requirements. The development is both necessary and desirable in terms of national and provincial policy priorities, aviation sector growth, and responsible land-use planning.

Lanseria International Airport is a key aviation node within Gauteng's northwest corridor, and an anchor for the emerging Lanseria Smart City and regional logistics platform. The increased demand for maintenance, repair and overhaul (MRO) services and cargo-handling capacity—driven by *current* market uptake, tenant commitments and growing aircraft movements—has created a requirement for additional aviation support facilities which could not be anticipated before June/July 2025.

The new MRO hangar and cargo terminal will provide additional maintenance and cargo capabilities at the Lanseria international airport. It will improve operational efficiency, airside functionality and service availability, and strengthen Gauteng's regional logistics competitiveness.

The aviation market shifts and airport operational requirements could not reasonably have been anticipated at an earlier stage to cater for the new facilities, as they emerged only after tenant engagements and updated feasibility assessments undertaken in 2025.

Although the Greater Southern Precinct is guided by an overarching spatial framework, the implementation of its components is dynamic and market-responsive. The facilities proposed for the LIA precinct depends completely on confirmed tenant interest, availability of capital expenditure (CAPEX), specialised engineering and safety design requirements, airside operational capacity, fluctuating aviation market conditions, and independent land-ownership dynamics.

The current MRO and cargo proposals stem from new demand and opportunities that materialised during the June/July 2025 period. The current MRO and cargo proposal is an independent, emergent phase, not foreseeable with sufficient detail at an earlier stage.

The affected site contains artificial wetlands that formed unintentionally as a result of stormwater impoundment and altered drainage patterns from existing developments. The specialist freshwater assessment confirms that these features have low ecological sensitivity, perform limited hydrological attenuation only, and do not support species of conservation concern or intact ecological processes. Retaining these wetlands would not contribute meaningfully to ecological functioning. In contrast, the proposed engineered stormwater and attenuation systems will replicate and improve the site's hydrological storage and flow-attenuation capacity, ensure predictable, maintainable stormwater management, reduce sedimentation and uncontrolled pooling, and provide robust climate-resilient drainage infrastructure aligned with municipal and airport standards. The engineered system therefore enhances environmental performance compared to the artificial wetland and ensures long-term serviceability.

International Civil Aviation Organization (ICAO) guidelines and airport wildlife - hazard research (e.g., Steele & Weston, 2021) emphasise the need to minimise habitat features that attract birds, especially waterfowl, within airport operational areas. Artificial wetlands near taxiways, aircraft stands or MRO facilities significantly increase bird - strike risk. Replacing the artificial wetlands with engineered attenuation ponds designed not to create ecological habitat will support the airport's long-term safety compliance obligations. This makes the proposed development the safest and most responsible option.

The proposal aligns strongly with NEMA principles by using land that has historically been disturbed and transformed, improving stormwater management and reducing pollution risk, and supporting economic development and job creation.

Given that all environmental impacts have been assessed as Low significance after mitigation, the development represents a balanced, sustainable and well-managed land-use option.

10. THE PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED *(CONSIDER WHEN THE ACITIVTY IS EXPECTED TO BE CONCLUDED)*

The authorisation should cater for the commencement of construction within 5 years from the date of authorization and concluded within 10 years. Construction activities on site must be accompanied by an Environmental Control Officer.

Compliance Monitoring
The Applicant and Contractor(s) will be responsible for monitoring all construction activities on a day-to-day basis to ensure compliance with the EA (if granted) and EMPr throughout the all phase of the proposed activities. ECO Monitoring (i.e., site inspections) should be undertaken once a month, until such time that all construction activities are completed on site. When deemed necessary and at the ECO's discretion, the frequency of the monitoring can be revised, in agreement with the competent authority if necessary.

Environmental Audits
In terms of Regulations 34 of the EIA Regulations, 2014 (as amended) the holder of the EA (if granted) must for the period during which the EA (if granted) and EMPr remain valid, conduct Environmental Audits. The Audit Report must be prepared by an independent person and must contain all the information required in Appendix 7 of the EIA Regulations, 2014 (as amended). It is recommended that an Environmental Audit be undertaken within one months after the completion of all construction on site.

11. ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr) (must include post construction monitoring requirements and when these will be concluded.)
If the EAP answers "Yes" to Point 7 above then an EMP is to be attached to this report as an Appendix

EMPr attached	YES

SECTION F: APPENDICES

The following appendixes must be attached as appropriate (this list is inclusive, but not exhaustive). It is required that if more than one item is enclosed that a table of contents is included in the appendix.

Appendix A1: Locality plan(s)

Appendix A2: Preferred Layout Plan

Appendix A3: GDARD C-Plan of the site

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Route position information

Appendix E: Public participation information

Appendix F: Water use license(s) authorisation, SAHRA information, service letters from municipalities, water supply information

Appendix G: **Specialist reports**

- Terrestrial Biodiversity Assessment
- Wetland Assessment and Aquatic Ecosystem Delineation
- Water, Sewer, Roads and Stormwater; Electrical Engineering Reports
- Traffic Impact Assessment
- Stormwater Management Plan
- Geotechnical Investigations

  Environmental Management Programme

Appendix H: EMPr: *Environmental Management Programme*

Appendix I: Other information

- List of Departments informed of application
- CV of the EAP
- Screening Report

CHECKLIST

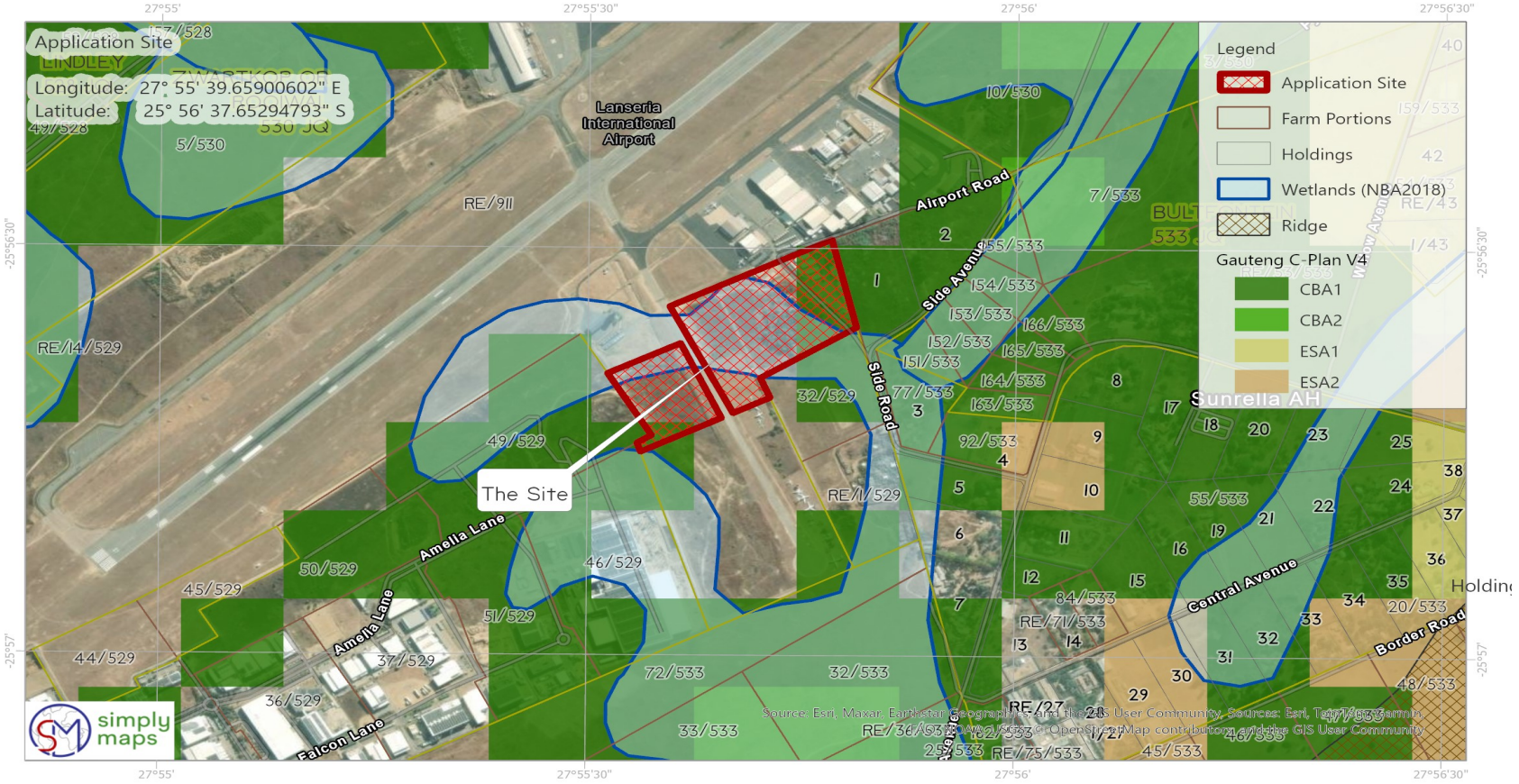
To ensure that all information that the Department needs to be able to process this application, please check that:

- Where requested, supporting documentation has been attached;
- All relevant sections of the form have been completed.

APPENDIX A1: LOCALITY MAP

APPENDIX A2: PREFERRED SITE PLAN OF PROPOSED DEVELOPMENT

APPENDIX A3: SENSITIVITY MAPS OF THE SITE



N W E S

1:10 000 (A4)

500 Meters

SENSITIVITY MAP

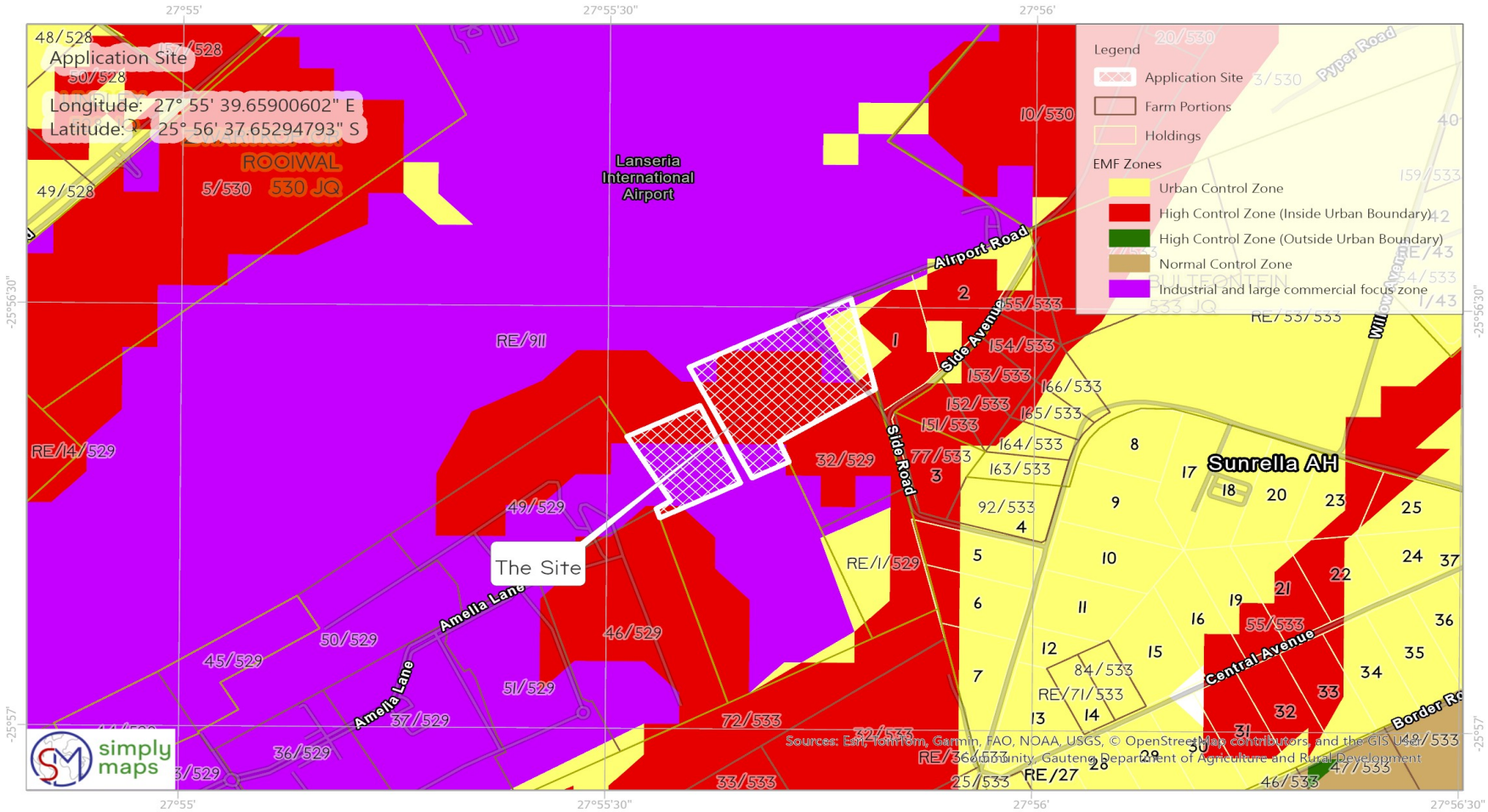
A portion of Erf 183, Lanseria Airport

November 2025

Date created: Saturday, 22 November 2025
Author: philpvljoen@simplymaps.co.za
Geographic Coordinate System: Hartebeesthoek94

The data on the map is sourced from various data custodians. *Simply maps* is not liable for positioning inaccuracies, subsequent updates, errors, or omissions of data.

Seedcracker environmental consulting cc



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500 Meters

GAUTENG
ENVIRONMENTAL MANAGEMENT FRAMEWORK 2021

Portions of Erf 183, Lanseria Airport

November 2025

Date created: Tuesday, 25 November 2025
Author: philipviljoen@simplymaps.co.za
Geographic Coordinate System: Hartebeesthoek94

The data on the map is sourced from various data custodians. *Simply maps* is not liable for positioning inaccuracies, subsequent updates, errors, or omissions of data.

WESTLEIGH ENVIRONMENTAL SERVICES

Seedcracker environmental consulting cc

APPENDIX A4: ARTIFICIAL WETLANDS AFFECTING THE SITES

APPENDIX B: SITE PHOTOGRAPHS

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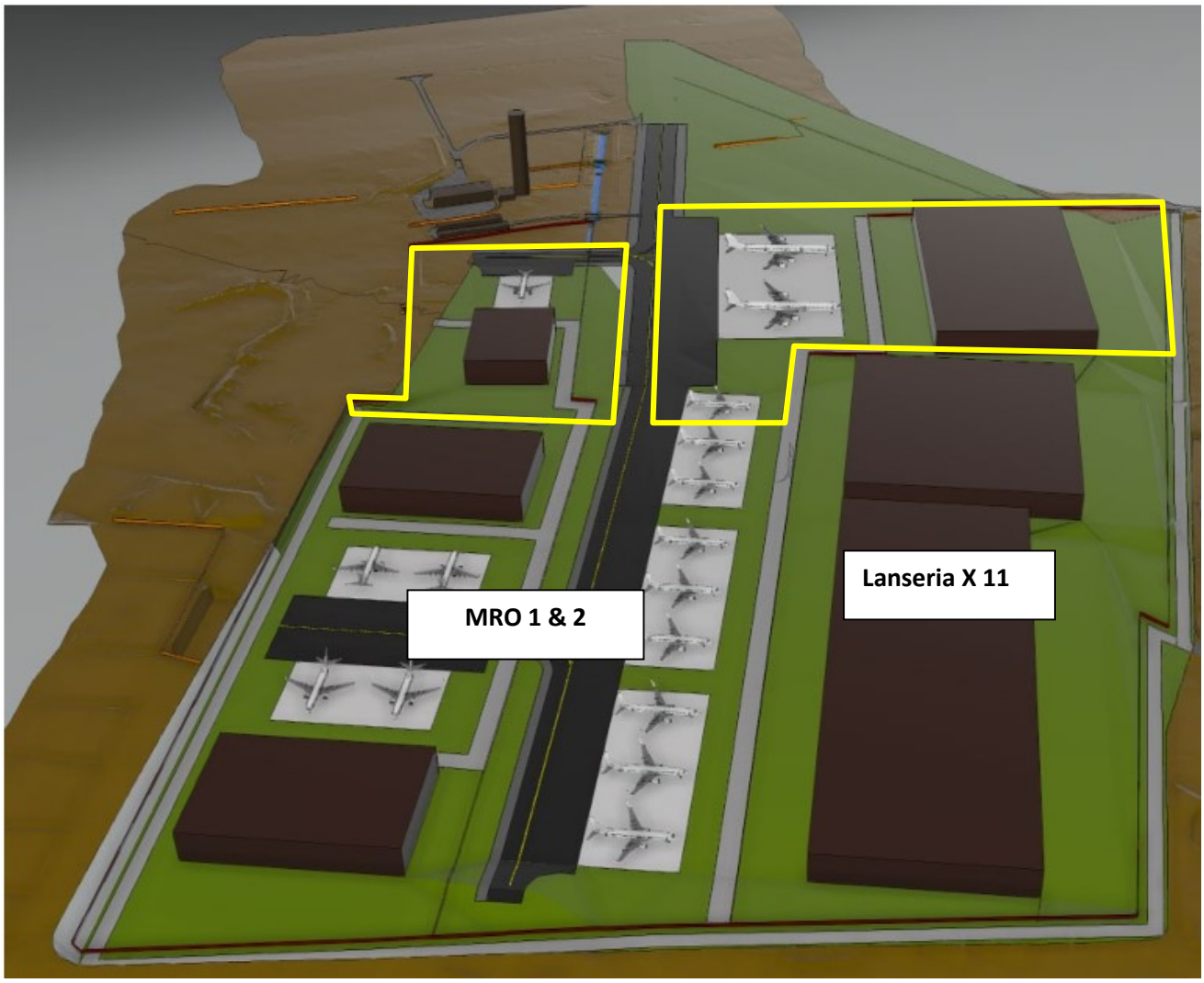
APPENDIX C: FACILITY ILLUSTRATIONS



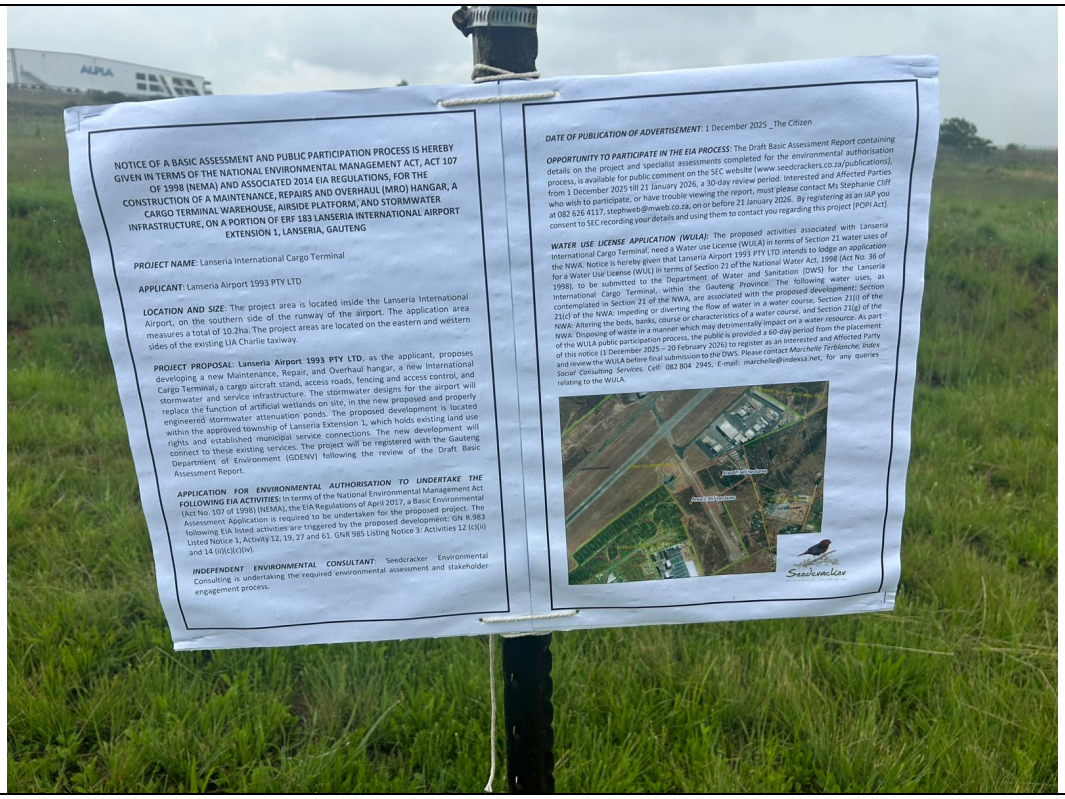
APPENDIX D: ROUTE POSITION INFORMATION

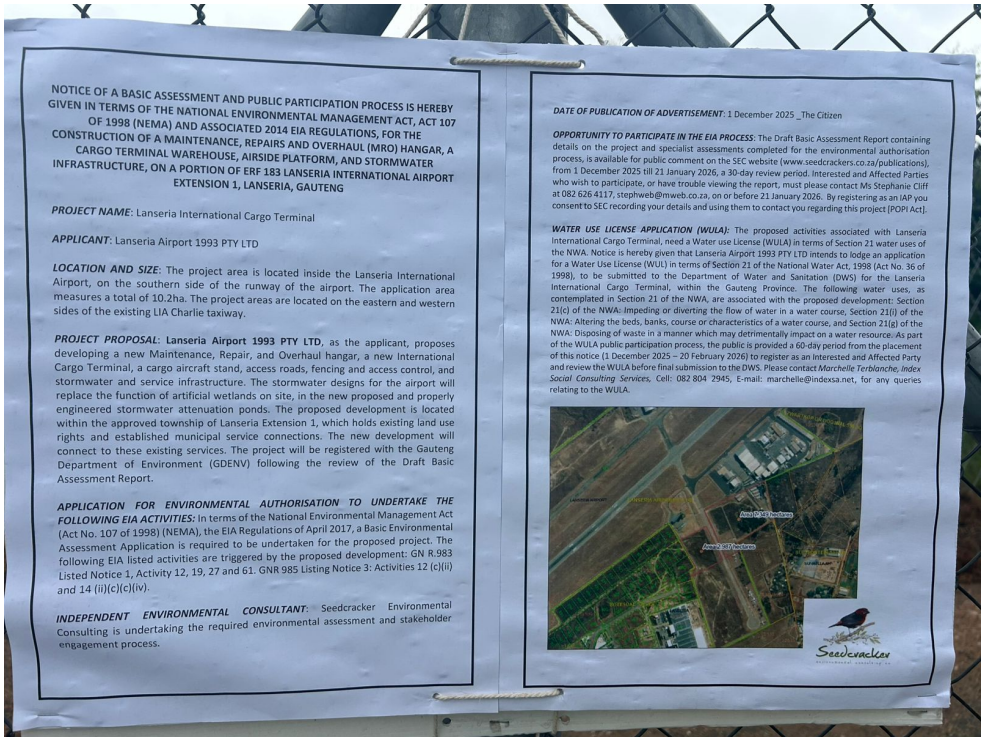
NOT APPLICABLE

APPENDIX E: PUBLIC PARTICIPATION INFORMATION

E1: Proof of Site Notices
E2: Written Notices Issued
E3: Proof of Newspaper Advert
E4: Communication with I&APs
E5: Minutes of Meetings – N/A
E6: Comments and Issues Report – None required
E7: Comments from I&APs on BAR
E8: Comments from I&APs on amended BAR
E9: Copy of Register of I&APs

Appendix E1 - Proof of site notices





NOTICE OF A BASIC ASSESSMENT AND PUBLIC PARTICIPATION PROCESS IS HEREBY GIVEN IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, ACT 107 OF 1998 (NEMA) AND ASSOCIATED 2014 EIA REGULATIONS, FOR THE CONSTRUCTION OF A MAINTENANCE, REPAIRS AND OVERHAUL (MRO) HANGAR, A CARGO TERMINAL WAREHOUSE, AIRSIDE PLATFORM, AND STORMWATER INFRASTRUCTURE, ON A PORTION OF ERF 183 LANSERIA INTERNATIONAL AIRPORT EXTENSION 1, LANSERIA, GAUTENG

PROJECT NAME: Lanseria International Cargo Terminal

APPLICANT: Lanseria Airport 1993 PTY LTD

LOCATION AND SIZE: The project area is located inside the Lanseria International Airport, on the southern side of the runway of the airport. The application area measures a total of 10.2ha. The project areas are located on the eastern and western sides of the existing LIA Charlie taxiway.

PROJECT PROPOSAL: **Lanseria Airport 1993 PTY LTD**, as the applicant, proposes developing a new Maintenance, Repair, and Overhaul hangar, a new International Cargo Terminal, a cargo aircraft stand, access roads, fencing and access control, and stormwater and service infrastructure. The stormwater designs for the airport will replace the function of artificial wetlands on site, in the new proposed and properly engineered stormwater attenuation ponds. The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The new development will connect to these existing services. The project will be registered with the Gauteng Department of Environment (GDENV) following the review of the Draft Basic Assessment Report.

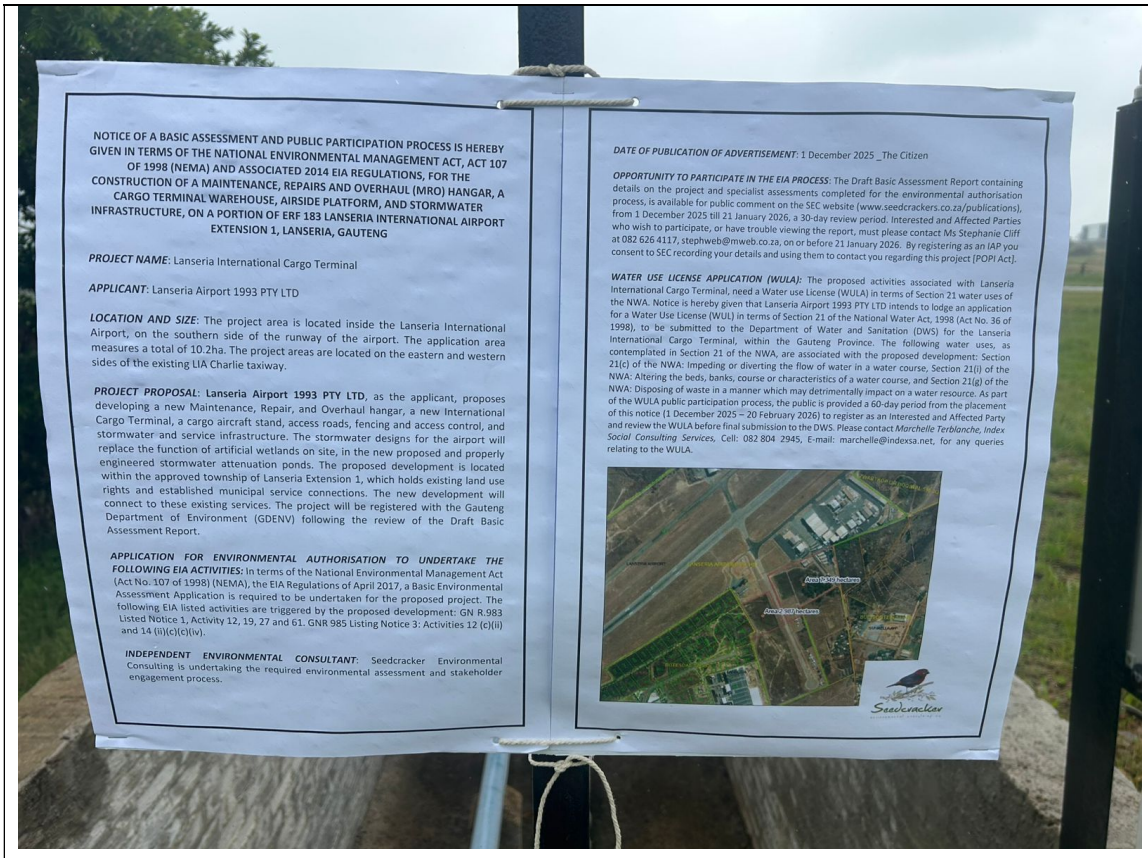
APPLICATION FOR ENVIRONMENTAL AUTHORISATION TO UNDERTAKE THE FOLLOWING EIA ACTIVITIES: In terms of the National Environmental Management Act (Act No. 107 of 1998) (NEMA), the EIA Regulations of April 2017, a Basic Environmental Assessment Application is required to be undertaken for the proposed project. The following EIA listed activities are triggered by the proposed development: GN R.983 Listed Notice 1, Activity 12, 19, 27 and 61. GNR 985 Listing Notice 3: Activities 12 (c)(ii) and 14 (ii)(c)(c)(iv).

INDEPENDENT ENVIRONMENTAL CONSULTANT: Seedcracker Environmental Consulting is undertaking the required environmental assessment and stakeholder engagement process.

DATE OF PUBLICATION OF ADVERTISEMENT: 1 December 2025 _The Citizen

OPPORTUNITY TO PARTICIPATE IN THE EIA PROCESS: The Draft Basic Assessment Report containing details on the project and specialist assessments completed for the environmental authorisation process, is available for public comment on the SEC website (www.seedcrackers.co.za/publications), from 1 December 2025 till 21 January 2026, a 30-day review period. Interested and Affected Parties who wish to participate, or have trouble viewing the report, must please contact Ms Stephanie Cliff at 082 626 4117, stephweb@mweb.co.za, on or before 21 January 2026. By registering as an IAP you consent to SEC recording your details and using them to contact you regarding this project [POPI Act].

WATER USE LICENSE APPLICATION (WULA): The proposed activities associated with Lanseria International Cargo Terminal, need a Water use License (WULA) in terms of Section 21 water uses of the NWA. Notice is hereby given that Lanseria Airport 1993 PTY LTD intends to lodge an application for a Water Use License (WUL) in terms of Section 21 of the National Water Act, 1998 (Act No. 36 of 1998), to be submitted to the Department of Water and Sanitation (DWS) for the Lanseria International Cargo Terminal, within the Gauteng Province. The following water uses, as contemplated in Section 21 of the NWA, are associated with the proposed development: Section 21(c) of the NWA: Impeding or diverting the flow of water in a water course, Section 21(i) of the NWA: Altering the beds, banks, course or characteristics of a water course, and Section 21(g) of the NWA: Disposing of waste in a manner which may detrimentally impact on a water resource. As part of the WULA public participation process, the public is provided a 60-day period from the placement of this notice (1 December 2025 – 20 February 2026) to register as an Interested and Affected Party and review the WULA before final submission to the DWS. Please contact *Marchelle Terblanche, Index Social Consulting Services*, Cell: 082 804 2945, E-mail: marchelle@indexsa.net, for any queries relating to the WULA.



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PROJECT NAME: Lanseria International Cargo Terminal

APPLICANT: Lanseria Airport 1993 PTY LTD

LOCATION AND SIZE: The project area is located inside the Lanseria International Airport, on the southern side of the runway of the airport. The application area measures a total of 10.2ha. The project areas are located on the eastern and western sides of the existing LIA Charlie taxiway.

PROJECT PROPOSAL: **Lanseria Airport 1993 PTY LTD**, as the applicant, proposes developing a new Maintenance, Repair, and Overhaul hangar, a new International Cargo Terminal, a cargo aircraft stand, access roads, fencing and access control, and stormwater and service infrastructure. The stormwater designs for the airport will replace the function of artificial wetlands on site, in the new proposed and properly engineered stormwater attenuation ponds. The proposed development is located within the approved township of Lanseria Extension 1, which holds existing land use rights and established municipal service connections. The new development will connect to these existing services. The project will be registered with the Gauteng Department of Environment (GDENV) following the review of the Draft Basic Assessment Report.

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INDEPENDENT ENVIRONMENTAL CONSULTANT: Seedcracker Environmental Consulting is undertaking the required environmental assessment and stakeholder engagement process.

DATE OF PUBLICATION OF ADVERTISEMENT: 1 December 2025 _The Citizen

OPPORTUNITY TO PARTICIPATE IN THE EIA PROCESS: The Draft Basic Assessment Report containing details on the project and specialist assessments completed for the environmental authorisation process, is available for public comment on the SEC website (www.seedcrackers.co.za/publications), from 1 December 2025 till 21 January 2026, a 30-day review period. Interested and Affected Parties who wish to participate, or have trouble viewing the report, must please contact Ms Stephanie Cliff at 082 626 4117, stephweb@mweb.co.za, on or before 21 January 2026. By registering as an IAP you consent to SEC recording your details and using them to contact you regarding this project *[POPI Act]*.

WATER USE LICENSE APPLICATION (WULA): The proposed activities associated with Lanseria International Cargo Terminal, need a Water use License (WULA) in terms of Section 21 water uses of the NWA. Notice is hereby given that Lanseria Airport 1993 PTY LTD intends to lodge an application for a Water Use License (WUL) in terms of Section 21 of the National Water Act, 1998 (Act No. 36 of 1998), to be submitted to the Department of Water and Sanitation (DWS) for the Lanseria International Cargo Terminal, within the Gauteng Province. The following water uses, as contemplated in Section 21 of the NWA, are associated with the proposed development: Section 21(c) of the NWA: Impeding or diverting the flow of water in a water course, Section 21(i) of the NWA: Altering the beds, banks, course or characteristics of a water course, and Section 21(g) of the NWA: Disposing of waste in a manner which may detrimentally impact on a water resource. As part of the WULA public participation process, the public is provided a 60-day period from the placement of this notice (1 December 2025 – 20 February 2026) to register as an Interested and Affected Party and review the WULA before final submission to the DWS. Please contact *Marchelle Terblanche, Index Social Consulting Services*, Cell: 082 804 2945, E-mail: marchelle@indexsa.net, for any queries relating to the WULA.

Appendix E2 – Written notices issued to IAP'S, BID

Appendix E3 – Proof of newspaper advertisements

COPY OF NEWSPAPER ADVERT TEARSHEET WILL BE INCLUDED IN THE DBAR AFTER THE PUBLIC REVIEW PERIOD

Appendix E4 –Communications to and from IAPS

BID E-MAILED TO IAP DATABASE

Appendix E5 – Minutes of meetings

NONE

Appendix E6 - Comments and Responses Report

Appendix E7 –Comments from I&APs on Basic Assessment (BA) Report

WILL BE RECEIVED FOLLOWING THE PUBLIC REVIEW PERIOD

Appendix E8 –Comments from I&APs on *amendments* to the BA report

NOT APPLICABLE

Appendix E9 – Copy of the register of I&APs

Table 1: Commenting Authorities

No:	Surname	Initials	Company/ Farm/ Community	Position	Contact No:
1	Tshimange	Tshilidzi	City of Johannesburg Environment, Infrastructure & Services Department	Reviewing Official	011 802 7945 071 485 5309 TshilidziT@joburg.org.za
3	Siwelane	Lilian	Dept Water and Sanitation	Control Environmental Officer	SiwelaneL@dws.gov.za 012 392 1367 078 421 9386
4	Khoza	Doris	Civil Aviation Authority	Inspector: Obstacles Aerodrome Infrastructure	Tel: +27 11 545 1071 Cell: 083 451 2643 Email:Khozad@caa.co.za
5	Mthembu	Sbusiso	Ward 96 DA Councillor		T) 011 464 5111 C) 071 295 8290 sbusiso1025@gmail.com
8	Mr. Manana	Banele	Gauteng Roads and Transport	Directorate: Transport Infrastructure Planning	Banele.Manana@gauteng.gov.za; 011-3557255 066 472 6403

Table 2: Land Owners notified via Email and <u>Community Forum Whatsapp Group</u>

No:	Name	Land Owner Portion	Contact No:
1	[redacted]	Lanseria International Airport	[redacted]
2	[redacted]	P 72/ Bultfontein 533 JQ	[redacted]
3	[redacted]	P 32/ Bultfontein 533 JQ	[redacted]
4	[redacted]	Portions 10, 11 &12 Bultfontein 533 JQ	[redacted]
5	[redacted]	Lanseria Corporate Estate	[redacted]
6	[redacted]	Portion 92 Bultfontein 533 JQ	[redacted]
7	[redacted]	Portion 7 / 533 JQ	[redacted]

Appendix E10 – Comments from I&APs on the application

TO BE RECEIVED FOLLOWING THE REVIEW OF THE PUBLIC REVIEW PERIOD

APPENDIX G: SPECIALIST STUDIES

TERRESTRIAL BIODIVERSITY ASSESSMENT

WETLAND ASSESSMENT

WATER, SEWER, ROADS AND STORMWATER; ENGINEERING REPORTS

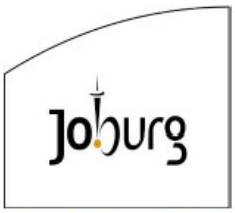
GEOTECHNICAL INVESTIGATION

APPENDIX H: DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME

APPENDIX I:

DRAFT REPORT SUBMITTED TO THE FOLLOWING AUTHORITIES FOR COMMENT:

COJ ENVIRONMENT



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UNIT: IMPACT MANAGEMENT & COMPLIANCE MONITORING

EAP CV

DFFE SCREENING REPORT